A HISTORY OF MEDICAL PRACTICES IN THE CASE OF AUTISM:
A FOUCALDIAN ANALYSIS USING ARCHAEOLOGY AND GENEALOGY

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ABSTRACT

Psychiatric medicine constructs mental disorders from bodily conditions. Being able to medicalize disorders in this way, psychiatric medicine operates as an institution of social control through its power to label individuals as deviant and to establish particular bodily states as medical problems. In this dissertation, I apply Foucauldian concepts, theory, and methods to examine how the history of medical discourse on a particular bodily condition has produced truth about what distinguishes the normal from the pathological. Focusing on the case of autism – a modern-day disorder that now permeates the socio-medical landscape – I show how the relationship between psychiatric medicine and autism might be re-envisioned to provide an alternative perspective on how medical knowledge expands to construct a medical problem.

Tracing the history of medical practices used on autistic children, I examine medical documents from the time that autism was constructed as a disorder in 1943 to 1987, when a treatment for autism was produced by behavioral psychology. Using Foucault’s concepts of the clinical gaze, discipline, and power/knowledge, I show how two quite different discourses about autism within medicine emerged at different points in time. Moreover, through the application of Foucault’s methods of archaeology and genealogy, I demonstrate how these disciplines determined what could and could not be stated about autism and how power influenced the production of these statements. Key among my findings are how similar disciplinary techniques gain and lose truth value.
depending on the context of their deployment and how disciplinary methods and outcomes privilege power/knowledge over individual and social bodies rather than seeking to understand and benefit the lived, bodily experiences of particular human beings. I conclude by suggesting that the history of medical discourse on autism has led to the development of practices that misrecognize, if not ignore, the actual bodily experiences of autistic individuals, and that a new discourse of acceptance and admiration needs to replace the discourse of normalization.
DEDICATION

For my amazing son Jacob, who is the inspiration for this dissertation. And for Joshua and Aaron, his wonderful brothers. All my love.
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CHAPTER I
INTRODUCTION

During the course of the half century after its production by psychiatric medicine in 1943, autism was an obscure, rare syndrome experienced by very young children. Few individuals, even those within medicine, were aware of the condition. Only a handful of cases could be documented even up through the 1960s. As late as 1980, the disorder of autism was thought to be a very exceptional occurrence, about two to four cases per 10,000 (American Psychiatric Association 1980).

Over the last two decades, however, awareness of autism among the American public has steadily increased. From 1988’s film Rain Man about an “autistic savant” to today’s debate about the belief that vaccines could cause the disorder, autism has become part of the national conversation. Radio and television talk shows, Facebook pages, public service announcements, newspaper and magazine articles, advocacy groups, and the blogosphere, have all helped to make autism a well-known disorder within contemporary American society. Even Hollywood celebrities have chimed in by writing personal stories of their own experiences with having an autistic child in their family (see for example, McCarthy 2007).

In fact, an increasing amount of families are being affected by autism. In recent years, numerous families have been facing the challenge of raising autistic children (Cowley 2000; Gross 2004a; Nash 2002). Many parents are searching for therapies,
many of which can be quite expensive (Carey 2004; Gross 2004b). One website (Healing Thresholds 2011) disclosed that there are over 100 therapies that parents of autistic children are presently using. Further, another website revealed that at present, there are 877 medical and non-medical therapies available to parents of autistic children (Research Autism 2011). Still other parents focus on advocating for their child (Autism Education Network 2006).

The mainstream media has picked up on the story of autism in today’s society, filing numerous reports on the topic. Widely read and respected periodicals such as *The New York Times* and *Time* Magazine have published many more articles on the topic of autism over the first decade of the twenty-first century than over the previous 20 years. For instance, *The New York Times* published an annual average of 16.6 articles on autism from 1981 to 1999, but published an average of 104 articles per year on the topic from 2000 to 2009. In addition, *Time* published only 14 autism-related articles from 1981 to 1999, but published 157 such articles from 2000 to 2009. This represents a six- to 13-fold increase in autism-related articles during the past decade.

Not only has autism become a familiar subject of popular discourse in everyday life, autism has affected everyday life as well. The public schools, for example, are having difficulty dealing with the large influx of autistic children because of these children’s special learning styles and needs (Abramson 2007; Smith 2008; Wallis 2006). On another topic, as the debate about the vaccine-autism connection continues within the medical community (Baker 2008; Kirby 2005; Rose 2010; Wakefield, et al 1998), public health continues to be placed at risk as many new parents choose to not have their children vaccinated because of a believed link between vaccines and autism (Rock 2004).
In sum, an increase in awareness of autism, the explosion of therapies in autism, increased advocacy in autism, familial stress related to raising an autistic child, increasing popular and mainstream media coverage of autism, and public health risks due to the fear of autism have contributed to making autism a societal phenomenon. At the same time as autism was becoming a modern societal phenomenon, medicine was taking autism seriously as a medical condition.

Within the medical establishment, the number of articles in medical journals on the topic of autism has substantially increased. For example, a recent count on PubMed revealed that of the 10,080 articles written on the subject of autistic disorders, 5,850 were published between 2000 and 2009, while 4,230 articles were published over the preceding half-century. In addition, funding from the National Institutes of Health for autism research is also at an all-time high. According to NIH estimates, this agency doubled their funding for autism research from $51.5 million in fiscal year 2000 to $101.6 million in fiscal year 2005. Similarly, the Center for Disease Control increased its funding of medical research on autism eight-fold over the same time period (United States Government Accountability Office 2006). This increase in medical concern about—and medical funding for—autism research parallels the increasing rates of incidence of autism in children.

The Epidemiology of Autism

The incidence of autism is a world-wide concern. A review of 23 epidemiological surveys of autism in the following countries was performed: the United States, Canada, the United Kingdom, Ireland, Denmark, Sweden, Norway, Iceland, Germany, France, Japan, and Indonesia (Fombonne 1999). These surveys were published between 1966
and 1998. It showed that for the 12 surveys conducted between 1966 and 1988 the median rate of autism was 4.3 in 10,000. The 11 surveys conducted between 1989 and 1998 show that the rate of autism was 7.2 in 10,000 (Fombonne 1999).

In the U.S. rates of the incidence of autism have risen dramatically since the early 1990s, as is shown in the figure below (A Photon in the Darkness 2009). This graph (Figure 1.1) shows that the prevalence of autism was just fewer than five per 10,000 in the student population in 1993. But by 2007, the prevalence was 50 per 10,000, a 1,000 percent increase in the incidence of autism in the span of only 14 years.

Figure 1.1. The Prevalence of Autism, 1993-2007. The United States Department of Education.

I present this graph to show that the incidence of cases of autism, as science measures it, is real. In this dissertation, however, I do not set out to explain the
increasing rates of autism among children. Instead, I am interested in how autism became a medical problem, and hence a social concern. While it is tempting to think that medicine is responding to a social crisis, I suggest that the situation is just the opposite. Medicine, in fact, created a social crisis. My thesis is that medicine, in its observations, judgments, examinations, and treatments of particular children—its very practice on these children—has not eradicated autism; it has actually produced autism. In a more profound sense, medicine has produced a truth of autism.

My thesis implies the need for a rigorous sociological investigation of the social phenomenon of autism and the medical practices associated with it. I thus begin this dissertation with the conviction that revealing, and then understanding, the interplay between autism and medical practice lies squarely within the realm of sociological analysis. The key concept in understanding this interplay, in my view, is the concept of power. But I understand power not as something certain social groups possess. I understand power as something social groups use. This is how the French philosopher and social theorist Michel Foucault viewed power. In my dissertation, I do not just employ Foucault’s concept of power in terms of the history of medical practices in autism. I go further to use his general theoretical perspective and his methodologies to demonstrate how scientific discourse produces a truth of particular humans and humanity in contemporary society.

Foucault’s Theoretical Perspective

Foucault is often categorized as a social theorist in the postmodern tradition. But he is also a critical theorist as well. In this section, I show how Foucault is part of both traditions, especially in regard to medical power and its use in society.
Postmodernism. According to the postmodern perspective on the power of present-day medicine, the structure of professional medicine’s power is grounded in medical discourse and the medical gaze (Riska 2001). Power is fragmented as opposed to unbroken; non-hierarchical as opposed to hierarchical; and as interwoven throughout society rather than imposed upon people from an isolated social structure. Moreover, whereas many in the sociology of medicine who study power view power as a dominant top-down, repressive mechanism that seeks to constrain patients (Freidson 1970; Navarro 1988), the postmodern perspective holds that medical power is used to both constrain and enable all human beings. This perspective on medical power is consistent with what has been termed a postmodern sociology of medicine (Riska 2001).

Foucault (1980; 1990; 1995) believed that power is organized and deployed through institutional practices resulting in a discourse. These practices and its resulting discourse transform individual human beings into objects for scientific examination. Hence, if social scientists seek to understand the constitution and implementation of power, examining institutional discourse and practice is, by definition, a study of the use of power. In the current study, I examine the practices and discourses in institutionalized medicine as a way of understanding medicine’s use of power in the case of autism. But this dissertation is not merely an attempt at understanding of power in the case of autism; it is a critique of a medical discourse that transforms the autistic child from an object of medical examination and normalizing judgment to a subject of coercive, disciplinary power.

Critical Theory. Power has been seen by most critical theorists as something a particular social group possesses. Marx believed that the bourgeoisie possessed power to
dominate and exploit the proletariat. In the example of medicine, Marxists might see medicine as an institution that keeps the bourgeoisie in power and that prevents the proletariat from gaining access to power by (Navarro 1988). For Weber, power was something individuals had by virtue of being part of a powerful political organization, or by those who were part of a bureaucracy that controlled the behavior of others (Gerth and Mills 1946). For example, Weber may have seen the institution of medicine becoming more and more bureaucratized and rational, thereby serving its own needs rather than the needs of the patient. Later critical theorists believed that power could be found in an ideology produced by elites in the economic and political systems (Mills 1956).

Ultimately, though, critical theorists were in agreement on one thing. They agreed that power kept individuals and society from being truly liberated. Foucault was in that tradition.

For Foucault (1980), however, the reason humans were not free was not because they didn’t possess power. Instead, humans were not free because of the manner in which power was deployed on to their bodies, and hence on to their psyches. He saw power as being deployed not directly by modern economic and political systems onto human beings, but being deployed by scientific practices and scientific discourse to construct individuals who would be useful to political and economic systems.

Thus Foucault’s theory of power suggests that power is everywhere; but for humans to be free, they must understand how power is used. Once knowledge of how power is used in modern society, human beings can apply power itself into the act of a deconstruction of scientific discourse. The very act of this deconstruction is a refusal of prior scientific discourses that sought to produce economically and politically useful
subjects. In addition to refusing acceptance of these scientific discourses, deconstruction is a dangerous act in that it opens a space for a new discourse that challenges the old ones. In my dissertation, I help to open a space for new discourses in autism that would challenge the present-day scientific discourses in autism. The deconstruction of scientific discourse, however, requires specific methods. The specific methods that I employ in my work here are the methods that Foucault employed in his work.

Foucault’s Methodologies

In this dissertation, I explore the operation of medical discourse and medical power (i.e., medical practices) as they relate to autism. To this end, I use two interrelated methods. One method, borrowed from Foucault (but not necessarily the first method I use in this dissertation), is called archaeology. Archaeology is expressly concerned with describing discourse, or more precisely, discursive practice. Archaeology, as the name implies, is an excavation. It is an unearthing and examination of cultural artifacts to understand what society was like in the past. But in Foucault’s case, it is an unearthing of historical documents to examine text to show what a particular discourse was like. This examination of text then informs the researcher as to not only what societal and cultural life was like in the past, but the scientific discourse that took place at that time. In the case of the interplay between medicine and the patient, this examination informs the researcher as to the particular medical discourse that existed at the time texts were written. The task for archaeology in my case, then, is to describe the medical discourse in autism at certain points in time.

To describe the discourse, the archaeologist must first provide a description of how particular human beings emerge as objects of scientific study. Second, the
archaeologist must show which statements about the object are being made, and which are not. Third, the archaeologist must describe how particular concepts about the object emerge such that these concepts produce a truth about the object under study. Finally, the archaeologist must describe the emergence of theories about the object; that is, how are some theories built up and how are others torn down. I use the archaeological method as one way of describing the history of medical discursive practices in the case of autism.

A second method that I borrow from Foucault is called genealogy. This method, rather than providing an approach to a description of discursive practice, seeks to analyze the power that provides the means by which a discourse could emerge. The power that provides a means for a discourse to emerge is called nondiscursive practice. Genealogy, therefore, examines the uses of power—nondiscursive practices—with regard to the object of examination that science created. The aim of genealogy is not merely to describe the deployment of power on to the object, but to analyze how this utilization of power helps to construct a discourse, and how then the discourse subjects the object to a way of knowing about what it is to be human.

Genealogy, according to Foucault, has five tasks: to locate power at its most extreme; to analyze how power is applied for producing real effects in the individual object; to point to how power is used within a network; to document procedures used in the investigation of the object; and to show how exercises of power are useful to political and economic systems. In my current project, I use the genealogical method to analyze the use of scientific power on to the object of the autistic child. In addition, I use the genealogical method to show how the present discourse in autism emerged through the
use of this power. Finally, I use this method to show that individuals and society are subject to this discourse in autism.

My Procedure in Writing

Although Foucault (1988, 1990, 1994a, 1994b, 1995) was concerned with social practices of institutions, he was mainly interested in how these particular institutional practices were able to appear in contemporary society. That is, he wanted to understand the history behind these practices. Foucault believed that it was important for researchers to examine discourse over time to understand how power is practiced in the present day. Thus, his goal was to understand not just the history of past practices, but the “history of the present” (Foucault 1995:31). By this he meant that to better understand how power manifests itself through social practice in the present, researchers had to examine social practices, both discursive and nondiscursive, that were specific to different historical epochs.

I was able, in fact, to discern two specific epochs in the history of medical practices in the case of autism in the course of writing this history. The first era in autism emerged from the moment the autistic child was produced by psychiatric medicine as an object for medical examination; the second era emerged at the moment when behavioral psychology believed it could subject autistic children to particular treatments to normalize their behaviors. I was able to discern these two eras through the use of both archaeology and genealogy.

To write a history of medical practices in autism, I begin where power is used at its most forceful and at its most transparent. Therefore, I first map back to the moment when science was able to vigorously and with few restraints, deploy power on to the
bodies of particular autistic children for the purpose of a real effect: controlling the body to discipline the mind for the purpose of normalization in the service of the social system. Second, I unearth and then examine particular historical documents that were produced before this application of power took place. This examination of historical documents will help me understand how the first application of power onto autistic children’s bodies was possible. Third, I examine and analyze documents that showed how power was to be deployed on to autistic children after the initial use of power. This examination will help me understand not only how the medical surveillance of the bodies of autistic children increased, but how the surveillance of the social body—the population—increased as well. My thesis is that it was not only the increase in the surveillance of the individual body of the autistic child that produced a medical problem, but it was also increased surveillance of the population that produced a medical problem, and thus a social concern.

My Purpose in Writing This Dissertation

I set out to accomplish two goals in the writing of this dissertation. The first goal is to expose, describe, and analyze how medical knowledge and medical power is practiced on bodies of particular cases of children and on populations in contemporary society through the deconstruction of medical texts. In carrying out this deconstruction, I aim to show there is more than one possibility of how autism can be understood. My goal is also to demonstrate that there is more than one possibility of how autism can be understood by presenting narratives of individuals who actually have the condition. I aim to show that their interpretation of their condition is qualitatively different from medicine’s interpretation of the condition known as autism.
My second goal in the writing of this dissertation is to add to theoretical perspectives on medical power, medicalization of society, and the social construction of medical knowledge and illness. I do this not by adding Foucault’s theory to these issues, because medical sociologists have already acknowledged Foucault’s perspective and its usefulness in the sociology of medicine. Instead, I add to, and perhaps challenge, modernist perspectives on these theoretical issues by applying Foucault’s methods to a modern medical problem: autism in children. The methods of archaeology and genealogy are underutilized by sociologists of medicine. It is my hope that in understanding the relationship between modern medical practice and these unique children by using these methods, sociologists can sharpen their critique of medicine. By taking a Foucauldian perspective on this relationship, I hope to add to present sociological theory and method concerning the institution of medicine.

Most importantly, the results of my research have policy implications. Autism affects individuals, families, the educational system, and the economy. The manner in which medicine treats autism is therefore an important issue for individuals and societal institutions. My goal in writing this dissertation is to produce a critical analysis of medical knowledge and medical treatment regarding autism. But reaching this goal is not enough. By critiquing medical knowledge and treatment, I also hope to open a space where a new knowledge of autism can be made possible, a knowledge that emerges not from scientific discourse, but from the bodily experience of autistic individuals themselves. In this way, resources to improve the lives of autistic individuals will be more in line with their needs and experiences.
Families of autistic children face the struggle of sorting out which therapies are best for their child. Medically approved treatments and therapies can be expensive and perhaps not even effective. By providing families with an understanding that medicine’s perspective on (and treatment of) autism is merely one way to approach this condition, they can be better informed when choosing strategies to help their children. Further, in opening a space for autistics to speak about their own condition, parents and families will be in a better position to understand the needs of their autistic child. Having a clearer understanding of their own child’s needs could help families avoid costly therapies that run counter to the real problems that autistic children experience.

By making way for a knowledge of autism based on bodily experience, teachers and other school officials can be better prepared to instruct autistic children and adolescents. In prioritizing the needs of the autistic person rather than following prescribed one-size-fits-all medical therapies, teachers and schools can be more effective in their instruction to this special population of children.

The economy is adversely affected by autism because it is difficult to train autistic individuals to perform complex tasks that could help businesses. A great deal of time and energy is put into training these individuals so that they can fit into certain work positions and occupations. But this does not have to be the case. The bodily experience of autistic individuals can inform employers of the special needs and special abilities that autistic people possess so that they can fit into particular roles at the workplace and at the same time allow autistics to shape their own particular work roles.

Presently, millions of dollars are being spent in medical research in attempts to understand, fix, treat, and ultimately cure the autistic individual, rather than listening to
the autistic individual. In researching the history of medical practice in the case of autism, I expose particular medical practices as only one way of knowing about autism. In so doing, it is my hope that another way of knowing about autism – through the sensory and bodily experiences of autistics themselves – will be paid attention to by the general public as well as by medicine itself.

An Outline of the Dissertation

This section serves as a roadmap for the readers of my dissertation that traces the progression of my project, chapter by chapter. In Chapter II, I document the experiences of individuals with the condition now known as autism. I examine the narratives of several of these individuals to determine the common sensory experiences that autistic people have. This chapter provides the reader with the experience of what it is like to be autistic so that the reader is in a position to judge whether particular medical practices are of any use to people with the condition.

Chapter III is a sociological analysis of the history of American scientific medicine. I provide this analysis because scientific medicine in the U.S. played an important role in the production of autism. In the chapter, I examine not only the history of scientific medicine, I examine its emergence as an institution of cultural authority, its relationship with the state, and the medical scientific model of disease which became the authoritative way in which to view all bodily conditions, including, as I later suggest, autism.

In Chapter IV, I review the traditional or “modernist” sociological critiques of scientific medicine and psychiatric medicine. I show that these modernist critiques describe how illness and medical knowledge are constructed, and how medical power is
used to control and “medicalize” (Conrad 1992) those individuals in modern society who display deviant behaviors. These critiques show how illness is constructed. The presentation of these critiques sets in relief the postmodern critique of science and scientific medicine that I am using in my project. I show that by using Foucault’s postmodern theoretical concepts, readers can come away with a perspective on how the condition of autism was constructed and produced by science; a perspective that is fundamentally different from a modernist perspective.

In Chapter V, I define and explain these Foucauldian concepts as they are applied to the human sciences and the human psyche. I explore Foucault’s perspective on the human sciences because as I show in my dissertation, the human sciences of psychiatric medicine and behavioral psychology constructed autism as we know it today—that is, they produced a truth about autism that those with the condition are challenging now in contemporary society. In using Foucault’s concepts, I show how the truth of autism was produced by science. These concepts are used to deconstructed discourse and power in autism to play a role in the opening up of a space for a new discourse in autism—a discourse grounded in the bodily condition of autistic people themselves.

Chapter VI, then, is a description of the methods that Foucault introduces to deconstruct power, knowledge, and discourses about human beings. These methods, archaeology and genealogy, are the methods that I use to deconstruct medical text and medical practices in autism. In this chapter, I show how Foucault’s historical methods are different from modernist historical analysis. The result of these methods reveals a new understanding of how autism was constructed and produced by science, relative to the insights that would be gained using a modernist analysis.
In Chapter VII, I list my three research questions that will help in understanding the history of medical practices in autism. In this chapter, I present my questions, along with the specific methods that I used in answering these three research questions. I provide the detailed, step-by-step process that I used in my historical analysis in an effort to be as transparent as possible in how I gathered the historical data that I used in my examination of the medical practices in autism from the mid-20th century to the beginning of the 21st century.

As historical documents were being gathered as data for my project, I began writing a history of medical practices in autism. As I show, genealogy requires that I first show when present day medical practices surfaced in society. In Chapter VIII, I show the moment when the preferred medical practices in autism—Applied Behavioral Analysis (ABA)—emerged on to the scene. I analyze the images and text in a specific well-liked magazine to confirm this moment when the therapeutic practice of ABA became known. This moment begins my postmodern historical examination of medical practices in autism. But in order to understand this moment in a more profound sense, a description of medical discourse and medical practices, I find, is in order. The combination of Chapters IX, X, XI, XII, XIII, and XIV is a description and examination of text that reveal these practices.

Chapter IX is a description of the history of the domain of child psychiatry and the general concern for children in the early decades of the 20th century in the U.S. Because Foucault’s theory emphasizes that practices take place within particular domains, I searched for the domain where medical practices were first used in autism. During the course of my research, I found that the first medical practices in autism were
performed by a child psychiatrist. Therefore, I traced the particular concerns within the
domain of child psychiatry from the turn of the 20th century to about the middle of the
century. I wanted to understand the discourse within this domain to better understand
what would be and what could not be stated about autistic children—once these children
were identified by child psychiatry.

In Chapter X, I present the specific text that identifies the first autistic children.
Archaeology requires me to reveal and then describe the text that transforms individuals
into an object that medical science can examine to produce knowledge and eventually a
discourse about that object. Before statements, concepts, and theories can be produced
about the object, the individual has to be objectified. In this chapter, I provide an
examination of how the autistic child was first described by child psychiatry. I also
examine its statements, concepts, and theories about the autistic child in order to
understand what child psychiatry believed to be true about the autistic child at the first
moment that the child was transformed into an object. These beliefs were to provide a
basis for a psychiatric discourse within medicine about the autistic child in some years to
follow.

In Chapter XI, I examine the psychiatric discourse in autism from 1943 when the
object of the autistic child emerged from the psychiatric gaze onto particular children, to
about 1960, when a new discipline would construct a discourse counter to that of child
psychiatry. In this chapter, I show how child psychiatry portrayed both autistic children
and parents of autistic children, and the psychiatric therapies that emerged along with the
production of the autistic child. I also show that psychiatry dominated what could be and
what could not be stated about autism during this era through a quantitative description of the medical archive.

In Chapter XII, I trace the history of psychology’s discourse in autism. I show that psychology as a discipline produced a different discourse around autism based around the time that the term *autism* was introduced in 1911. I also show how later, psychology became increasingly concerned with autistic reasoning and autistic thinking. I show that the discipline of psychology was well-positioned to produce a new knowledge of autism. This new knowledge would involve the application of power onto bodies of autistic children—a power that behavioral psychology would deploy.

In Chapter XIII, I provide a history of the applications of power by behavioral psychology onto autistic children from 1961, when this power was first deployed, through the 1960s. I show that this power changed what could and could not be stated about autistic children and autism as a syndrome. In fact, I demonstrate that psychological power led to a new discourse in autism and was a fundamental break—in fact a reversal—of the psychiatric discourse in autism.

But genealogy requires me to identify, describe, and analyze the precise text that allows for the emergence of present-day practices. In my case, I examine the particular document that allowed for present-day medical practices in autism to emerge, and I perform this genealogical examination in Chapter XIV. Here, I show that it was empirical science—behaviorism—with all its measures of intelligence, behavior, and educational placement in a *normal* educational setting, that showed that autistic children could improve. I show that these improvements were constructed and measured by psychology in order to produce a child that could be called human in a psychological
sense. But as I demonstrate, these were outcomes that were only important to psychology, and not necessarily the autistic child.

Finally, in Chapter XV, I present a case that the production of scientific evidence that autistic children could be treated and rehabilitated was all that was needed to produce autism as a widespread medical problem and thus a social concern. I show through the examination of particular documents in psychiatry and government that there was a sudden need for surveillance of children in order to determine whether they were autistic. This, as I show, resulted in technologies whereby psychiatry and families could closely examine children in order to determine not only whether they were autistic, but the severity of their autism. I show that technologies (i.e., therapies) were developed to transform the psyches of children to adhere to particular ways of thinking and being in the world that were not always in accord with their condition.
CHAPTER II
THE LIVED EXPERIENCE OF AUTISTIC INDIVIDUALS

My dissertation is a critique of how certain medical definitions emerge and become accepted and how others fade and become rejected over time. To use only what medicine can state about autism is using only one truth about autism. But there is, at the very least, one other truth, the truth of the lived experience of those diagnosed with autism. Thus, in this chapter, I describe the condition of what is referred to as autism through narratives of particular autistic individuals. My objective in doing so is to provide an orientation to the autistic condition as it is experienced, not as it is examined or treated by medicine.

In what follows, I use autobiographies of individuals with an autistic condition to present narratives of their lived bodily experiences. I use the term autistic condition rather than autism or what is currently known as Autism Spectrum Disorder because the latter two imply a disorder constructed by medicine. I present these narratives not for the purpose of analyzing and reconstructing individuals with autism, but for the purpose of describing the condition itself. Specifically, I select narratives that tell the lived, bodily experience\(^1\) of what it is like for some individuals who have an autistic condition. The objective of this chapter is for readers to have an understanding of this condition vis-à-vis the narratives of individuals with this condition, unencumbered by medical and scientific

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\(^1\) In this dissertation, bodily experience is the experience of the whole body, including the psyche.
descriptions of autism. This is important to my argument because a critique of medical science’s discursive construction of the autistic condition should endeavor to bring in the voices of autistics themselves; voices of individuals that have been left out of the construction of their own bodily condition.

Presenting a narrative of bodily experiences of individuals with an autistic condition is important to consider for three more reasons. First, readers should be given the opportunity to understand this condition from those who live it. What we generally understand about “autism” emanates from what is stated within the medical domain about this condition. This chapter will add to what is already known—that is to say it will add a new truth about this condition—because it originates from personal experiences. Second, by providing narratives of the bodily experience of those with an autistic condition, I give readers the opportunity to compare the lived experiences of these individuals with the medical practices surrounding autism. (I will show what these medical practices are in the Results section of my dissertation). In so doing, readers will obtain a more informed position from which to judge whether a sociological critique of these practices is warranted, justified, important, and useful. Third, because Foucault (the social theorist who guides my perspective in this research) understood bodies and pleasure to be a “rallying point for the counterattack against the deployment of sexuality” (1990:157), I suggest that autistic bodies can be a rallying point for the counterattack against the deployment of medical power, especially when this power disallows the emergence of new discourses from autistics themselves. Therefore, these narratives are presented for the purpose of adding to an already emerging discourse by autistics (Bagatell 2007) in the struggle to gain control over their own bodies.
Everyday World of the Autistic Individual

In the investigation of the everyday world of autistic individuals, I found that they experienced pain and discomfort, fear and anxiety, disorientation, confusion when it came to relationships with other people, and a unique inner world.

Pain and discomfort. The texts from these autobiographies suggest that autistic individuals experience the external world with various degrees of discomfort and pain. The sources of these bodily difficulties can usually be found in the environment rather than in some chronic discomfort experienced from within. One source of discomfort for these individuals was other human beings; eye contact being an especially painful experience. As children, some tried to make eye contact with others, but the pain was too great. As Temple Grandin, who is now a college professor, recalled, “As a child I remember Mother asking me time and again. ‘Temple, are you listening to me? Look at me.’ Sometimes I wanted to, but couldn’t” (Grandin and Scariano 1986:18). John Robison, the former “roadie” for KISS, wrote, “When I did interact with other kids, the interactions were usually awkward. I seldom met anyone’s gaze” (Robison 2007:4). In fact, eye contact was considered a cruel assault on the autistic individual’s body.

It was physically painful for me to make eye contact—why did people look at each other so casually? It seemed like such a callous invasion. The same was true of human touch—it all seemed so maudlin and overdone (Crocus 2002:54).

Looking back through photos of myself taken over the years, I recognized three ways I had avoided looking at people. One was to look straight through what was in front of me. Another was to look away at something else. The third was to stare blankly ahead with one eye and turn the other one inwards. This had the effect of blurring whatever view I had in front of me (Williams 1992:192).

(My third-grade teacher) would scream at me in class and I would disassociate, totally leave my body, and I was literally unable to see my surroundings. She would force me to look at her by clutching my face with both hands. The memory still makes me feel sick (Prince-Hughes 2002:111).
Our bodies cry out for human contact but when contact is made, we withdraw in pain and confusion. It wasn’t until I was in my mid-twenties that I could shake hands or look directly at someone (Grandin and Scariano 1986:29).

Both eye contact and human touch were painful for Crocus and Temple. Human touch and physical contact were other sources of pain for people with this condition. Being hugged by others, even in a loving, caring way was a painful experience for autistic individuals. As Donna Williams recalled in her autobiography:

I never hugged either of (my parents); neither was I hugged. I didn’t like anyone coming too close to me, let alone touching me. I felt that all touching was pain, and I was frightened (Williams 1992:8).

Autistic individuals also wrote in their autobiographies that the physical environment was also a cause of bodily pain. Specifically, light, noise, and food texture were sources of bodily discomfort. Sensitivity to light was one particular problem, as these individuals wrote:

My vision has problems, too. The color yellow is blinding. Looking at anything is like looking directly into the sun, even if it is nowhere near as bright…Bright lights are not a good thing. There have been times where I have stepped outside into the sun and (quite literally) gotten sick. Flashing and strobe lights have the same effect, only it is much worse (McKean 1994:66).

The light sensitivity is a problem in an environment where there are a lot of computer screens and fluorescent lighting about. I need a special screen so I can’t use the computers at the computer lab, or if I have to, I end up having a royal headache”(Darius 2002:36).

Light sensitivity had sickening effects on some of these individuals. Many others experienced the sickening and painful effects of noise. One possible reason for this is that it was difficult to differentiate between sounds. As Temple Grandin wrote, “My ears are like microphones picking up all sounds with equal intensity” (Grandin 1995:68).

In my first attempt at college, I withdrew after less than a semester. I was unable to deal with the environment. Fluorescent lights, noisy equipment—noisy by my
standards. Does anyone have any idea how painful it can be to listen to a microphone (when the professor doesn’t operate it properly) doppler ing in volume, let alone how impossible it is to process information presented in such a manner? (Jim 2002:74).

These individuals also described the pain that went along with both moderate sounds and high pitched sounds:

But when I was in the world of people, I was extremely sensitive to noises. Every summer we went to the family vacation place at Nantucket. This involved a forty-five minute trip on the ferry. I hated this part of the trip. What was exciting and adventurous to Mother and my younger sisters and brother was a nightmare of sound to me, violating my ears and very soul...the pain that racked my head when the fog horn sounded was excruciating. Even with my hands over my ears the hurtful sound assaulted them to the point that I’d throw myself down on the deck and scream (Grandin and Scariano 1986:19).

My hearing is actually very sensitive. I hear the telephone when no one else does and I can hear the hum of electrical apparatus. This oversensitive hearing is often a problem because sounds that other people don’t even notice are disturbing and even painful to me. I have huge problems filtering out what I want to hear (Darius 2002:12).

Certain noises and the pitch of some sounds cause me a lot of discomfort. The buzzer on the microwave oven, children’s voices, car horns, the bus bell people activate to tell the driver they want to get off, a kettle whistling...these are just some of the sounds I find unbearable (Lawson 1998:4).

When I was little, loud noises were also a problem, often feeling like a dentist’s drill hitting a nerve. They actually caused pain. I was scared to death of balloons popping, because the sound was like an explosion in my ear. Minor noises that most people can tune out drove me to distraction. When I was in college, my roommate’s hair dryer sounded like a jet plane taking off (Grandin 1995:67).

A final source of pain and discomfort for these autistic individuals was a special sensitivity to food texture. They reported that they would become ill if the food they ate was not of a specific consistency:

Growing up, mashed potato or banana were my favorite foods—the soft texture did not hurt my mouth...I found cooked vegetables unpleasant on my tongue and the roof of my mouth—sometimes I felt like the food was choking me (Lawson 1998:5).
My teeth were very sensitive, and inside my mouth the consistency of some foods could be unpleasant, giving me a horrible feeling all over…The chewing surface of my teeth was occasionally incredibly sensitive to touch—almost electric—and seemed to be connected to a sensitive place at the back of my neck (Gerland 1996:14-15).

I was supersensitive to the texture of food, and I had to touch everything with my fingers to see how it felt before I could put it in my mouth. I really hated it when food had things mixed with it, like noodles with vegetables or bread with fillings to make sandwiches. I could never, never put any of it in my mouth. I knew if I did I would get violently sick (Barron and Barron 1992:96).

Fear and anxiety. Another theme within these autobiographical texts was that autistics experienced a great amount of fear. As Donna Williams wrote, “The more I became aware of the world around me, the more I became afraid” (Williams 1992:5). Much of this fear was directly related to the intensity of incoming stimuli. For Gunilla Gerland, noise was a major source of anxiety and fear. She wrote that, “The noise the children made was torment to me, and I couldn’t shut it out. I heard what everyone said and saw what everyone was doing. It frightened me and wore me out.” (Gerland 1996:71).

Certain sounds frightened me—dogs barking, mopeds, tractors and cars, engines of various kinds. They would explode inside me and make me lose all sense of the way my body related to my surroundings…Sometimes I screamed and covered my ears, and my mother was embarrassed when I behaved oddly (Gerland 1996:28).

Commonplace occurrences would also cause these individuals to be frightened. Wendy Lawson wrote that, “For reasons I do not understand, everyday decisions can be very traumatic. As a child, everyday occurrences could be very frightening” (Lawson 1998:101).

To help with these decisions, I had favorite clothes to wear, favorite eating utensils and a habitual, structured routine. Of course, there were times when this structure came apart at the seams and bedlam occurred. When this happened, I
experienced a feeling of terror and insecurity. Distress and emotional chaos followed thus (Lawson 1998:102).

For these individuals, the unpredictability of everyday life was a concern that drove them to an anxious state. For Wendy Lawson, “the terror of change and separation is all-consuming” (Lawson 1998:106). The text of these autobiographies revealed that the inherent chaos of a typical school day caused much anxiety. Wendy Lawson wrote, “To make a decision about what to eat for lunch (at school) was too difficult and I was afraid of attempting new tastes that looked, smelt and were different” (Lawson 1998:56).

The sudden changes and randomness of life was a source of fear for these individuals. For some, fear and anxiety were constants in their life. As Thomas McKean wrote,

I felt confused, frustrated, and scared to death. And that is all I felt. It was really just that simple. I was confused because I had no idea what was wrong with me and why I had the problems I did, and I was frustrated because I did not know what to do about them or how to fix them. And I was scared because, well, because I was always scared (McKean 1994:70).

For Thomas, this fear was so great that it inhibited his ability to communicate:

Speech is hard for me…There are, on occasion, still times when I want to talk, but I can’t. I can try and try and try, but I can’t talk. There is fear holding me back. I do not know what it is I am afraid of, I only know that it is a feeling of fear unlike any other feeling of fear that I have ever known” (McKean 1994:39).

In fact, a fear of speech was a common theme woven through these texts. Angie, a college student, wrote of her frustrations and fears around speaking:

I am frightened to be put into a situation where I have to explain anything to anyone (unless of course I can write it down, go off and stew about it on my own time), any situation where someone is closely monitoring my behaviors and anything that requires me to speak competently…I also have great frustrations with not properly recalling right words when I do try to talk and often feel like an idiot (Angie 2002:77).
Small changes in the physical world could bring about anxiety for these individuals. Dawn Prince-Hughes tried to make sure that the things in her own room hadn’t been moved:

I felt intense attachments to my own things: my tinker toys, my rock and bone collection, my stuffed animals, all would be meticulously arranged and guarded. Woe to anyone who moved any part of an arrangement. I felt terrible anxiety when things were moved or changed (Prince-Hughes 2002:109).

An emotional consequence of sudden unexpected changes, for Dawn, was anxiety.

These autobiographies showed that fear was often an all-consuming state for autistic individuals. These fears were exacerbated when forced to speak, when the environment changed rapidly, when sensory stimuli was too intense, and when confronted with just the randomness of everyday life. Besides fear and anxiety, a third theme regarding the everyday world of autistic individuals was disorientation.

*Disorientation.* Phenomenologically speaking, many of these autistic individuals wrote about their perception of the external world and how it disoriented and confused them. Gunilla Gerland summed up her experiences in her autobiography:

Occasionally, I lost all sense of perspective. Something would seem monstrously large if coming towards me at speed, or if I was unprepared. Someone suddenly leaning over me could frighten me enormously. I felt something was falling on to me and that I’d be crushed underneath it. I didn’t run away or throw myself to one side. The panic was all inside. Help! I’ll be squashed. Where am I? Where is my body? What’s up and what’s down? (Gerland 1996:28).

Outside my body, I experienced feeling more diffusely. Only vague information reached my mind when something or other happened; I needed to look at my body in order to know where I felt something. The further away from my head, the less the feeling (Gerland 1996:15).

Having to attend to more than two things at once was a source of disorientation for autistic individuals. This was an especially difficult problem for Darius, a college student:
Someone who tries to explain something to me in a new environment should take his time, because I can’t filter out the relevant from the non-relevant sensory stimuli when there is too much new visual stuff going on...When I am doing something and another person starts talking to me it simply doesn’t register. I may hear every word he says but it doesn’t sink in. Consequently, I might not react to anything that is being said (Darius 2002:34).

…when there are different telephones in a room and they are all in different places, I cannot hear which of them is ringing (unless they have different ringing sounds). To me they all sound the same, because I cannot hear whether the sound is coming from the right or from the left, whether it is behind me or in front of me (Darius 2002:34-35).

A part of the everyday life of autistic people was disorientation.

Confusion in affect and in the world of people. Confusion in interactions with people was another theme in these narratives. First, there was confusion with regard to emotions. As Wendy Lawson wrote, “I find emotions interchangeable and confusing. Growing up, I was not able to distinguish between anger, fear, anxiety, frustration or disappointment” (Lawson 1998:8).

I could tell the difference between a comfortable feeling and an uncomfortable one, but I didn’t know what to do with it. I often felt so disconnected from the world and I was completely unaware of expected or appropriate ways of responding (Lawson 1998:8).

Jim, a college student when he wrote his about his experiences as an autistic child, noted that he associated emotions not with the mere words that described them, but with pictures and objects:

As a child, I didn’t understand the terms used to describe emotions. For the first seven years of my life, ‘happy’ meant my blue toy truck. ‘Afraid’ meant the Wizard of Oz poster on the wall of my bedroom that I was unable to ask to have removed; ‘sad’ meant rainy weather. I didn’t generalize that the emotion I felt when I was playing with my blue truck was the same as when my father came home (Jim 2002:67).

In fact, recognizing or picking up on other people’s emotions was confusing for these individuals. They didn’t always seem to understand emotions in the same way as
neurotypicals. Much of the time, they struggled with understanding not only their emotions, but the emotions of others as well. As Wendy Lawson noted in her memoir, “Intimacy and genuine care frightened me because I could not understand what they meant” (Lawson 1998:56).

On reflection, I think my family tried to include me in things that were happening, but kindness and affection were emotions I did not understand. I so often felt suspicious and frustrated—Why is this person talking to me? I would think…I responded with withdrawal or anger (Lawson 1998:15).

These texts revealed that there was a general sense of confusion in recognizing autistics’ own and others’ emotional states.

I don’t share the general neurotypicals population’s innate receptive and expressive communication skills; it doesn’t mean I am unable to have feelings and emotions or am unable to share those emotions with others (Jim 2002:67).

Another automatic feeling that is lacking in me—and this is something I find harder to live with—is my inability to sense what people want of me. I am unable to perceive whether people wish me well or ill” (Gerland 1996:244).

I didn’t even understand that there was such a feeling, even less that I could arouse it in others. The basic emotional states, sorrow and joy, did of course exist for me, but I didn’t take them out into the world and glue them on to other people. So I couldn’t recognize those complex emotions shown by others (Gerland 1996:112).

In fact, for many autistics, people in general were confusing. Sean Barron related his own view on people:

People bothered me. I didn’t know what they were for or what they would do to me. They were not always the same and I had no security with them at all. Even a person who was always nice to me might be different sometimes. Things didn’t fit together to me with people. Even when I saw them a lot, they were still in pieces, and I couldn’t connect them to anything (Barron and Barron 1992:20-21).

People, and the general social rules that guide people’s actions, were simply lost on these individuals. As Garry, a college student wrote, “I had no insight into social conventions which regular people take for granted” (Garry 2002:3). Wendy Lawson was
perplexed by the fact that it was socially acceptable and encouraged to seek out the company of others. “One thing that did disturb me was how other people seemed to enjoy each other’s company and actively sought friendships and relationships” (Lawson 1998:57). Darius wrote about how he thought relationships between “normal” people were different than the relationships he had:

’Normal’ people build up their relationships with people based on the experiences they have with them. The nature of the relationship changes for better or for worse with every new experience. In my case, this only starts to happen after a longer period. While the other person is building up a behavioral image of me in his mind, my experiences of him are scattered over several ‘different’ people and are therefore not integrated into one experience of one particular person (Darius 2002:29).

Internal world of the autistic individual. These autistic individuals had an unembellished way of looking at words and objects. That is, their world was a tangible, solid, physical world where there was room only for a literal interpretation. As Gunilla Gerland explained:

There was no flash of magical thinking in all of this. On the contrary, it was all immensely concrete—what I saw was what happened, neither more nor less. On these occasions when my theory was sabotaged by things not turning out as I’d anticipated, I had to start on a new one. There had to be some way of understanding the world (Gerland 1996:27).

She further explained that,

The world looked like a photograph, and this had a variety of consequences. I didn’t realize that the houses I saw along our street had anything inside them. I saw everything as if it was scenery (Gerland 1996:66).

For other autistic individuals, the meaning of words and statements had only one literal meaning. They interpreted them in only one particular way. Wendy Lawson’s and Dawn Prince-Hughes’s stories illustrate this point:

’These are mobile homes,’ said Brenda. ‘Come on, I’ll show you where we are sleeping.’ My body followed her into the caravan, but my mind was trying to
understand what she meant by ‘mobile homes.’ The thought of our ‘home’ moving while we slept did not impress me and I had a growing sense of uneasiness (Lawson 1998:17).

When my mother told me that a road sign declared ‘Pass with Care,’ I believed we were breaking the law because we didn’t have a nurse in the car with us (Prince-Hughes 2002:108).

This literal mindedness meant that autistic individuals understood statements and language in a very one-dimensional way where one meaning and one meaning only could be applied. Christopher wrote that anything that wasn’t the literal meaning of what was being said was inherently false and therefore sickening.

I think it (metaphors) should be called a lie because a pig is not like a day and people do not have skeletons in their cupboards. And when I try and make a picture of the phrase in my head it just confuses me because imagining an apple in someone’s eye doesn’t have anything to do with liking someone a lot and it makes you forget what the person was talking about (Haddon 2003:15).

I do not tell lies. Mother used to say that this was because I was a good person. But it is not because I am a good person. It is because I can’t tell lies…This is another reason why I don’t like proper novels, because they are lies about things which didn’t happen and they make me feel shaky and scared (Haddon 2003:19-20).

These autistic individuals were intensely focused on the world as it was. They neither attached more than one meaning to the physical reality as they saw it, nor did they search for deeper meaning in words. They did not read between the lines but accepted only one meaning to statements and words.

Visual thinking. In addition to a literal-mindedness about the physical world and the symbolic world of language, these individuals also saw the world through visualization. A recurrent theme throughout the text of the autobiographical material revealed that these autistic individuals were better at thinking in pictures than thinking in words and statements. For example, even during their youth, some autistic individuals
were keenly aware of a physical reality and copied it meticulously through pictures.

Gunilla Gerland’s experience illustrates this point:

Very early on, I learnt to turn my observations into pictures, and I could be very creative in my solitude. My first human figure had eyes, nose and mouth, arms and legs. I was just two when I drew it. I noticed details, and my drawing quickly developed. I wanted to reproduce what I saw and thought it important to get everything in, absolutely everything: nostrils, eyebrows and the correct number of fingers and toes (Gerland 1996:21).

Donna Williams felt that she, in fact had to express herself using pictures, even when an assignment in school required her to use words:

I’d write in such a way that it almost needed to be decoded to be understood, and I would always finish my work off with a lightly penciled sketch drawn over the writing, covering the length of the page, which, I felt, would more adequately capture what I was trying to express (Williams 1992:56).

Themes of visual imagery and thinking in pictures emerged from the text of these autobiographies. Temple Grandin wrote of her cognitive skills:

I think in pictures. Words are like a second language to me. I translate both spoken and written words into full-color movies, complete with sound, which run like a VCR tape in my head. When somebody speaks to me, his words are instantly translated into pictures (Grandin 1995:19).

When I design equipment, it takes time to form the visual image. The image gradually emerges while I draw. When the entire image is formed, I can place cattle and people in it and imagine how they will behave under different situations. I can rotate the image and make it move in my mind like a movie. I can’t imagine what non-visual thinking would be like (Grandin and Scariano 1986:132).

When I think about abstract concepts such as human relationships, I use visual similes—for example, relationships between people are like a sliding glass door that must be opened gently or it may shatter (Grandin and Scariano 1986:121).

For Temple Grandin, visual thinking was the way she interpreted the world of language and people. It was entirely part of her being, and she was able to use those skills in her profession and in understanding human relationships.
Other autistic individuals described their learning process using their visualization skills and visual imagery. Daniel Tammet wrote about how he was able to handle mathematical problems:

I never write anything down when I’m calculating, because I’ve always been able to do sums in my head, and it’s much easier for me to visualize the answer using my synthetic shapes than to try to follow the ‘carry the one’ techniques taught in the textbooks we are given at school (Tammet 2006:4).

John Robison described how he studied equations and electronic circuitry. He wrote about how he learned and then applied his knowledge of electronic circuitry:

The college engineering textbooks used equations to describe how things worked, but I didn’t understand the math. I could visualize the equations in my head, but the ones in my head seemed to have nothing in common with those on the page. It was as though I thought in an entirely different language. When I saw a wave in a book, it was printed next to an equation with symbols I didn’t understand. When I saw a wave in my mind, I associated it with a particular sound. If I concentrated hard, I could almost hear the waves (Robison 2007:62-3).

By studying the circuits, I figured out how to make little battery-powered special-effect boxes. I worked hard to imagine the results of my designs, and I refined my thought processes as a visualized circuit, then built it for real, and compared my imagined results with the real results. Gradually, I became able to visualize the results of my designs with a fair degree of accuracy (Robison 2007:64).

I somehow figured out how to visualize the complex calculus functions that describe the behavior of electronic circuits in time. For example, I saw the pure tones of a guitar going into the circuit, and I saw the modified waves—immensely more complex—coming out (Robison 2007:65).

Many autistic individuals used their ability to visualize abstract concepts in their professional lives. Susan was able to apply her visualization skills when analyzing texts. “I excelled in areas of linguistics that emphasized visual input, such as syntax, which represented sentence structure in tree diagrams, and textual analysis” (Susan 2002:99). This ability to visualize abstractions often carried over to being able to see letters, numbers, and words as nothing more than real objects that had fascinating qualities of
their own. As Donna Williams noted, “I loved letters and learned them quickly.
Fascinated by the way they fitted together into words, I learned these too” (Williams
1992:25). Visualization skill enabled many autistic individuals to become better writers
and better spellers. As Gunilla Gerland wrote:

On paper, on the other hand, words poured out of me. I liked writing and was
very good at spelling—in fact I simply couldn’t make spelling mistakes. I was
almost a dictionary. Having once seen a word in writing, the spelling was stored
inside me and I plucked it out whenever I needed it (Gerland 1996:93).

In addition to being able to see words and recall them in the exact form that they were
first perceived, many autistic individuals wrote that they can see the aesthetic and unique
qualities of numbers and letters. The following experiences illustrate:

I had long been fascinated by written language. My mother tells me that my
favorite ‘toy’ at age 3 was the dictionary, and I would spend hours each day
pouring through its pages. One of the first things that attracted me was the shape
of the letters. There were straight lines and curves, bulges, and dots. There was
repetition of the same letters over and over again in a text. But the most attractive
feature of written language is the intense color. I experience synesthesia, which is
a form of cross-sensory perception, enabling me to perceive music in color and
certain shapes (like numbers and alphabet letters) in color. This adds immensely
to my enjoyment of music and reading (Susan 2002:93).

Numbers are my friends, and they are always around me. Each one is unique and
has its own personality. The number 11 is friendly and 5 is loud, whereas 4 is
both shy and quiet—it’s my favorite number, perhaps because it reminds me of
myself. Some are big—23, 667, 1,179—while others are small: 6, 13, 581. Some
are beautiful, like 333, and some are ugly, like 289. To me, every number is
special (Tammet 2006:2).

My favorite colors are bright colors such as green, red, and blue, while I find
yellows, oranges, browns, purple, and black to be quite irritating. With varying
shades, my green letters are g, h, l, p, w, my red letters are b, k, and m, and my
blue letters are n and s. These letters are very pretty to me. I also like the freshly
green number 2, the aquamarine blue 5, and the bloody red 8. The more dull
letters are the yellow c, f, y, and u, the orangish q, light brown d and the reddish
brown t. I very much dislike the purple v, the black j, e, r, z, and the strange
polka-dotted x. As far as numbers are concerned, most are drab or ugly like the
dark brown 4, the sickly orange 6, the black 7, and the plain yellow 9. But I
would rather experience these dull and ugly letters than not see any colors at all (Susan 2002:93-94).

Numbers and letters not only had aesthetic or ugly qualities, but for some autistics, words had amusing qualities. Temple Grandin recalled her experiences with a childhood friend who shared the same orientation around words:

My original ideas, good or naughty, were what made Crystal Swift like me. We’d spin around on swings and play word association games. Our laughter over the word ‘jello’ followed by ‘lime,’ and then ‘gravy’ was endless. No one else thought it was funny. She could understand my speech with its rounded syllables when others couldn’t (Grandin and Scariano 1986:35-36).

When I was six, I learned to say ‘prosecution.’ I had absolutely no idea what it meant, but it sounded nice when I said it, so I used it as an exclamation every time my kite hit the ground (Grandin 1995:32).

Autistic individuals wrote of their particular cognitive abilities as they tried to make sense of their world. They understood the world as a two-dimensional entity that left little room for nuanced meanings of three-dimensional objects (e.g., houses), people, or words. They remarked on their visualization abilities and how they put them to work in their professions. Numbers, letters, and words could have aesthetic, and even humorous, qualities for these particular individuals.

Classifying. Finally, these autistic individuals developed a classification system that made sense to them as they attempted to comprehend the world around them. Their classification systems were different in particular ways that were unique to each person. Temple Grandin described her early experiences (and frustrations) when she classified objects in an unacceptable manner in elementary school:

After drilling us in the different sounds of letters, Mrs. Clark gave each of us workbooks with pictures. On one page there was a box, a suitcase, a bird bath, a chair, a telephone and a bicycle. Mrs. Clark said, ‘Mark the pictures that began with ‘b.’”
I marked the suitcase because I thought it was a box. I skipped the picture of the bird and bird bath. They were in the middle of the garden and I thought ‘g’ was the key sound for them. But I couldn’t speak well enough to explain to Mrs. Clark why I had or had not marked certain pictures. I understood the concept of the ‘b’ sound, and I had a logical reason for every mark I made. Frustation raged within me and I wanted to hit or kick to release the feeling. I remember thinking that the bird bath was in the middle of the garden and so obviously, it was related to the ‘g’ sound. I marked the suitcase with a ‘b’ because boxes are containers and the suitcase was a box-like container (Grandin and Scariano 1986:25).

Others used a classification system of colors to organize their world and organized how they felt:

I had an internal color system which became a way of connecting information about different worlds, about the nursery world and the garden world….The dining-room world, the kitchen world and the hall world—none of these had anything to do with each other until a color made me connect. If my mother said something in a violet-colored way in the kitchen and two months later used that violet tone of voice in the bathroom, I suddenly realized that the kitchen and the bathroom had something to do with each other, so I could begin to find other similarities such as that there was water in both rooms. But the first connection was always via colors (Gerland 1996:21).

Mr. Jeavons, the psychologist at the school, once asked me why 4 red cars in a row made it a Good Day, and 3 red cars in a row made it a Quite Good Day, and 5 red cars in a row made it a Super Good Day, and why 4 yellow cars in a row made it a Black Day, which is a day when I don’t speak to anyone and sit on my own reading books and don’t eat my lunch and Take No Chances. He said that I was clearly a very logical person, so he was surprised that I should think like this because it wasn’t very logical.

I said that I liked things to be in a nice order. And one way of things being in a nice order was to be logical. Especially if those things were numbers or in an argument. But there were other ways of putting things in a nice order. And that was why I had Good Days and Black Days. And I said that some people who worked in an office came out of their house in the morning and saw that the sun was shining and it made them feel happy, or they saw that it was raining and it made them feel sad, but the only difference was the weather and if they worked in an office the weather didn’t have anything to do with whether they had a good day or a bad day (Haddon 2003:24).

In this section, I have tried to convey the experiences of some autistic individuals. A part of their life has to do with fear, anxiety, pain, discomfort, disorientation, confusion with the emotions of others and those that they themselves experience, and an internal world
that interprets the external world in a particularly unique way. These lived experiences, for some autistic individuals led to a sense of sensory overload. This feeling of sensory overload led to a variety of actions on part of these autistic individuals.

*Sensory Overload*

These personal accounts show that there are several types of sensory issues that autistic individuals had to confront because of the actual pain and discomfort that various stimuli brought to them. Touch, taste, smell, sight, and noise all colluded to bring pain and anxiety upon these individuals. This combination of heightened sensitivity to the social and physical world has special consequences for those with this condition. The text of these autobiographies revealed that a common experience for autistic individuals was *sensory overload*. Depending on the social or environmental circumstances, autistic individuals were prone to severe situations where their own bodies were resistant to the assortment of stimuli assaulting them.

Autobiographical accounts of autistic people revealed several different situations when they would have a feeling of sensory overload. Some reacted severely when being hugged even though they craved the pleasant sensation that a hug could provide:

From as far back as I can remember, I always hated to be hugged. I wanted to experience the good feeling of being hugged, but it was just too overwhelming. It was like a great, all-engulfing tidal wave of stimulation, and I reacted like a wild animal. Being touched triggered flight; it flipped a circuit breaker. I was overloaded and would have to escape, often by jerking away suddenly (Grandin 1995:62).

Thomas McKean wrote about a situation when he was a child and in the presence of a therapist:

There was no need to play that silly clay game, and I could have done without the sensory overload it caused me. My tactile senses did not like the way the clay felt, my auditory senses did not like the sound it made when it hit the mat on the
table, and my visual senses did not like the random movement of everyone else in the room (McKean 1994:69).

Other individuals with this condition experience sensory overload because of an accumulation of the day’s events and the demands that are placed on them by others. Wendy Lawson wrote of a particular fall day:

In November 1995 I went into overload. I covered my ears, walked around in circles and then the screams came up from within me. I walked out of the lounge room, through the corridor and into the bedroom. There was no way out. I simply created one by attempting to walk through the closed bedroom window. The window cracked along one side. I just had to get away from expectation. I had attempted too much during the day and had not recognized the signs of sensory overload (Lawson 1998:101).

In addition, some autistic individuals become overloaded on the basis of particular senses. Darius, a college student, wrote about how he was emotionally overloaded on the basis of his sensitivities to sounds and odors:

Only hearing and smell generate emotions in me. The only emotions I am able to feel through vision are those that are the result of beautiful nature and beautiful art. In a social environment visual experiences don’t generate any emotions in me at all. Sound and smell, on the other hand have an enormous emotional impact on me and I am quickly emotionally overloaded through those channels (Darius 2002:26).

Finally, the intensity of stimuli also had much to do with autistic individuals’ experience with sensory overload. This adversely affected social relationships.

My communication skills also depend on how many people are present. If there is not too much sensory chaos, I am much better at decoding social behavior than when I find myself in a noisy group of people in a small space (Darius 2002:23).

I had the ability to hear noise before they (peers) did, which meant that I could tell when the school bus was approaching before others could hear it. Noises seemed so much louder for me, and I had to move away from conversation at times because the noise hurt my ears. It was easy for me to move into a state of sensory overload and when this happened, it was always difficult to stay among people (Lawson 1998:30).
These autistic individuals wrote about their experiences with pain, discomfort, and sensory overload. They seldom wrote of any internal chronic pain that they were enduring. They wrote that their body was unable to tolerate eye contact with other people, loud noises, several noises at once, embraces from other people, and bright lighting. These particular autistic individuals wrote of an outside world (people and physical stimuli alike) that when encountered, caused feelings ranging from discomfort to sickness to excruciating pain. Experienced together, or with a special intensity, these occurrences resulted in sensory overload. As Wendy Lawson wrote, her sensory world was “painfully overwhelming” (Lawson 1998:3).

Withdrawal. The text of autobiographical material presented by autistic individuals reveal that many simply withdrew from the external world and entered into an internal world of their own. This was especially true in their childhood years. Most did not feel any sense of loneliness or feel that they were missing anything by not playing with other children.

I don’t remember feeling lonely at the nursery, probably because I was so absorbed in my books and beads and circles…I didn’t yet feel any desire for friends; I was happy enough playing by myself (Tammet 2006:27).

I had little interest in other children, preferring my own inner world. I could sit on the beach for hours dribbling sand through my fingers and fashioning miniature mountains (Grandin and Scariano 1986:18).

Wendy Lawson, too, was content being alone, writing, “…Being alone did not really bother me—I was happy with my own company” (Lawson 1998:57). She wrote extensively on her experiences regarding withdrawal. She wrote that “There was such a battle going on inside my head. I wanted to respond, to laugh and clap with them, but I was terrified. All I could do was withdraw” (Lawson 1998:41).
When someone was talking to me or reading a story in class, I found it difficult to concentrate on what they were saying. Sometimes I laughed when other children did not and at other times I would miss the joke completely. It seemed preferable to stay withdrawn and not enter into conversation at all if possible” (Lawson 1998:31).

On reflection, I think my family tried to include me in things that were happening, but kindness and affection were emotions I did not understand. I so often felt suspicious and frustrated—Why is this person talking to me? I would think. Other people seemed to be there just to interrupt and disturb me, or demand from me. I responded with withdrawal or anger” (Lawson 1998:15).

For Wendy, entering a state of sensory overload forced her to disengage from others. This disengagement from others was a sign that a complete shutdown of the nervous system was imminent. An example of just having to “shut down” because of sensory overload is illustrated through the character of Christopher, an autistic child in the novel The Curious Incident of the Dog in the Night-Time. Christopher writes:

> And when I am in a new place, because I see everything, it is like when a computer is doing too many things at the same time and the central processor unit is blocked up and there isn’t any space left to think about other things. And when I am in a new place and there are lots of people there it is even harder because people are not like cows and flowers and grass and they can talk to you and do things that you don’t expect, so you have to notice everything that is in the place, and also you have to notice things that might happen as well. And sometimes when I am in a new place and there are lots of people there it is like a computer crashing and I have to close my eyes and put my hands over my ears and groan, which is like pressing CTRL + ALT + DEL and shutting down programs and turning the computer off and rebooting so that I can remember what I am doing and where I am meant to be going (Haddon 2003:143-144).

Some autistics simply closed themselves off to external stimuli by physical blocking off their sensory capabilities. For example, Wendy wrote what she does, even as an adult, when it all becomes too much:

> If things became really bad and I suffer what I call sensory overload, then I close out all the sounds and noises of the world. I could sit somewhere quietly or put my hands over my ears and enjoy the quieter sounds of life. Somehow to just sit and close off gives me space and time to recover from being anxious. It helps me to calm down (Lawson 1998:101).
Thus, one refuge from the external world for autistic individuals was simply to withdraw from it. Instead of engaging with the world, some autistics reported that they withdrew into an inner world in an attempt at solitude. Most reported being quite content as a child when they were left alone. Even as adults, some feel the need to physically shut themselves off from the external world to find serenity. But some needed to actively search for a safe physical place where they actually could be left alone to find a calm and solitude that they desperately needed.

*Calming down.* Many autistic individuals reported in their autobiographies that they required a physical space in which they could find solitude and even silence. As Thomas McKean wrote:

> There is a need; a drive to hide, to retreat, to get away from it all. To find a place quiet and tranquil. I never knew where I was going, but I knew I was there when I arrived (McKean 1994:49).

Most individuals with this condition wrote that they needed to find very small spaces in which to crawl into to find calm. Dawn Prince-Hughes wrote about an unsettling experience she had with a teacher, and how she was ducked into a small space to regain a calm equilibrium. “I would go home, go down to the basement, and hide in the tiny space between the wall and the furnace and listen to its perfect mechanical pulsing” (Prince-Hughes 2002:111). Christopher also found that inching up close to heating elements within the house produced a sense of calm:

> I like really little spaces, so long as there is no one else in them with me. Sometimes when I want to be on my own I get into the airing cupboard outside the bathroom and slide in beside the boiler plate and pull the door closed behind me and sit there and think for hours and it makes me feel very calm (Haddon 2003:50).
The text of these particular autobiographies also revealed that autistic individuals preferred to be enveloped by materials in order to find the calm that they were craving. As Daniel Tammet related, “Whenever I was feeling tired or upset I would crawl into the darkness under the bed and lie there” (Tammet 2006:27).

I also liked being in small cramped spaces where it was quiet and calm, especially when I fitted exactly into the space. I wanted to put on a space, put on a sort of cave, like a garment—it felt safe when it was cramped. There were to be no gaps between things, and when I fitted into something exactly, a calm came over me (Gerland 1996:24).

I liked squeezing myself up tight in a tiny ball when I was little, hiding where no one could see me. I still like the feeling of lying under things and having them press on me. Today, when I lie on the bed I’ll pile the pillows on top of me because it feels better than a sheet (Robison 2007:16).

Water also provided a safe haven that helped autistic individuals find calmness and serenity. Dawn Prince-Hughes and Wendy Lawson wrote about how the experience of water helped them feel composed for several hours:

There was a little stream that ran through it (forest), and a wonderful underpass which our country road passed over. I would stand inside it, where the water ran through, and beat on the walls with stones for hours. I loved the echo and the repetition. It was also dark and hidden and safe (Prince-Hughes 2002:111).

As I approached the sandy shore I noticed how calmly the water washed over the grains of sand and pulled them back into the sea as it retreated. The movement of constant washing, pushing forward and retrieval fascinated me and I could watch it for hours...I felt life was different beside the sea: there were no demanding voices, no instructions to follow, no commands to obey, no competition or fights with my sisters over chairs. There were no limitations, and I did not want the feeling to stop (Lawson 1998:23-24).

Bonding with Numbers. Some autistic individuals used numbers and mathematics as a way of calming themselves. Working on mathematical problems on paper and in their heads was for some a way to compose themselves. Daniel Tammet wrote about how working mathematical puzzles was a way to find a sense of tranquility:
I loved doing these (mathematical) puzzles (for children); they stretched me in a way that the math I was taught in school did not. I spent hours at a time reading and working through the questions, whether in class, the playground or my room at home. Within its pages I found a sense both of calm and pleasure and for a while the book and I became inseparable (Tammet 2006:60).

Christopher just worked out number problems in his head to find peace:

I doubled 2’s in my head because it made me feel calmer. I got to 33554432, which is $2^{25}$, which was not very much because I’ve got to $2^{45}$ before, but my brain wasn’t working very well (Haddon 2003:120).

The calming experience of numbers was enough for some autistic individuals to feel safe, calm and content after a difficult day:

There are moments, as I’m falling into sleep at night, that my mind fills suddenly with bright light and all I can see are numbers—hundreds, thousands of them—swimming rapidly over my eyes. The experience is beautiful and soothing to me. Some nights, when I’m having difficulty falling asleep, I imagine myself walking around my numerical landscapes. Then I feel safe and happy. I never feel lost, because the prime number shapes act as signposts (Tammet 2006:9).

Seeking Pleasure. While these autobiographies reveal that fear, anxiety, and disorientation ruled much of their lives, autistic individuals also sought pleasure as gratifying and as a way of calming themselves and of helping them to maintaining a sense of power and control over their own bodies. They sought bodily pleasure through their own basic sensory system. When he was young, Daniel Tammet experienced a particular type of input into his sensory system for the pure enjoyment of it. He wrote:

My favorite experience at the park was going on the swings. My father would pick me up and sit me down on the swing and push me gently. When he got tired and stopped pushing me I would shout ‘More…more’ until he started pushing me again. There was also a merry-go-round, and I sat in the middle of it as my parents stood on either side and slowly moved it along. As the merry-go-round spun again and again I closed my eyes and smiled. It made me feel good (Tammet 2006:25).

Other autistic individuals felt more alive when they sought input into their vestibular system. The writings of Temple Grandin and Wendy Lawson illustrated this point:
Spinning was another favorite activity. I’d sit on the floor and twirl around. The room spun with me. This self-stimulatory behavior made me feel powerful, in control of things. After all, I could make a whole room turn around (Grandin and Scariano 1986:18).

I always needed to be on the move. Even when I was made to sit still on a chair, I had to rock it. If I sat on the floor, I needed to rock myself and suck the roof of my mouth – the rhythm and the movement meant I was alive and kept the music going (Lawson 1998:24).

These individuals sought and gained pleasure by moving their body in certain ways to feel pleasure. Others focused on their vision to obtain a sense of contentment.

For many of these individuals, watching objects move about in a repetitious manner brought great pleasure to them. Temple Grandin wrote about her early experiences:

I loved to watch supermarket sliding doors go back and forth. When I watched the edge of the door move across my visual field, I’d get a little pleasurable chill up my back (Grandin 1995:73).

Watching objects spin was another favorite pastime for Thomas, Wendy, and Donna:

I will be the first to admit that I find spinning object fascinating. It has a rather pleasing effect on the eyes. I like to occasionally spin a quarter or a penny, play with a top, or watch the wheels spin on a car (McKean 1994:51).

I turned my new bicycle upside down and spun the wheels round and round and round. The light gleaming from the silver mudguards seemed to go on forever. It was so intoxicating and I felt so alive. To have that feeling interrupted by so much as a word or an action evoked extreme irritation and anger in me. I hated being disturbed or interrupted when I was involved with some repetitive action that gave me delight. I felt a sense of connection as I watched the shiny mudguards. I felt safe, almost as if I were part of the bike. It belonged to me and I to it (Lawson 1998:2).

I often played alone, swinging on the monkey bars, looking at my cards, climbing trees, pulling flowers apart, spinning around and around as I stared up into the sun. I would fall to the ground and watch the world spin (Williams 1992:24).
Thus, one way vision worked to gain a sense of pleasure was watching objects move in a predictable, patterned way. In addition, vision brought a sense of contentment when closely regarding tiny, almost imperceptible entities. Daniel Tammet explained:

> During warm weather the sunlight poured into my room, brightly tingeing the many specks of dust swimming in the air around me as they merged into a single pattern of freckled light. As I sat still and silent for hour after hour, I diligently watched the wash of different hues and colors ebb and flow across the walls and furniture of my room with the day’s passage; the flow of time made visual (Tammet 2006:58).

Other autistic individuals enjoyed watching dots and spots in the air as a way of losing themselves in the moment and finding contentment. These moments were illustrated in the writings of Wendy Lawson and Donna Williams.

> I had enjoyed playing with the round dots dancing before my eyes. I could lose myself with them and feel content as colors and sparkles merged into each other before me (Lawson 1998:20).

> I discovered the air was full of spots. If you looked into nothingness, there were spots. People would walk by, obstructing my magical view of nothingness. I’d move past them. They’d gabble. My attention would be firmly set on my desire to lose myself in the spots, and I’d ignore the gabble, looking straight through this obstruction with a calm expression, soothed by being lost in the spots (Williams 1992:3).

These individuals found pleasure in looking directly at something close to nothing.

But many of these autistic individuals found pleasure in everyday occurrences, focusing intently on the beauty of the external world. Donna Williams wrote about how she would literally stop and smell the roses:

> Roses hung over the fences of the long London street I now walked along on my way to the house where my tea chest lived. Listening to the sound of my feet, I reached out, picked a petal, and shredded it. The wet strawberry color covered my fingers as I broke the petal apart, rolled the bits, and gathered them in the center of my palm. My nose zoomed in on them like a camera taking a photograph and I took a long breath. I was swept up in the smell, becoming part of the rose it had come from (Williams 1994:6-7).
This theme of taking time to appreciate the beauty of the natural world could be found in the writings of Wendy Lawson as well:

I find it perfectly exciting to study a nectarine growing on the tree in my garden. The smooth almost-round shape covered in red, orange and yellow with a green splash in the middle is most exhilarating! To be able to watch them grow and develop is a miracle that never ceases to amaze me. To take half hour to look at one does not seem strange to me—indeed it is hard to take my eyes away from the fruit even after such a length of time (Lawson 1998:4).

Glancing at the ground as I walked along, I noticed some movement at my feet and saw the last exit moments of a cicada crawling out of a hole in the ground. I watched this creature transform before my eyes from a dull brownish-green bug into a beautiful bright green and gold, singing creation. The process took only one and a half hours… I have since heard that people thought my standing in the heat for one and a half hours to watch an insect was a crazy thing to do. I think it is they who are crazy. By choosing not to stand and watch, they missed out on sharing an experience that was so beautiful and exhilarating. A miracle can be happening around us and no one is aware of it (Lawson 1998:115).

These particular individuals wrote about how they sought pleasure and contentment. Many felt that experiencing these pleasures gave them a sense of control and connection. But they realized that the manner in which they sought pleasure was distracting to others. That is, their behavior was considered unusual or abnormal. The text of these autobiographies show that the reaction to their pleasure-seeking, autistic behavior ranged from puzzlement to outrage.

Wendy Lawson acknowledged that her behaviors could possibly be seen by others as peculiar. She wrote, “I simply find the world around me difficult to comprehend, and therefore my behavior may be viewed by some as egocentric and a bit odd” (Lawson 1998: i). Daniel Tammet understood early in life that certain pleasurable behaviors were seen as strange. He wrote about his experience in elementary school:

There was a reading corner nearby where the children sat on a large mat around the assistant and listened to a book being read to them. On one such occasion, I was sitting near the back with my legs crossed and my head down, absorbed in
my own world. I didn’t hear a word of what was being said. Instead, without realizing it, I began to hum. As I looked up, the assistant had stopped reading and everyone was staring at me. I stopped humming and put my head back down and the reading resumed (Tammet 2006:26-27).

Wendy Lawson also wrote of her experiences at school, this time about an incident in the playground:

At play times, I ran and ran and ran, giggling out loud as I did so…After being at school for only two days, a tall woman with grey curly hair yelled at me to stop. She told me that I was in the boys’ play area where girls were not allowed…I stopped running. From that day on, and for several years, I did not run any more in the playground. Instead I sat on the floor and rocked myself, or hung off the railings that surrounded the playground and watched the world go by (Lawson 1998:29-30).

Wendy learned right away that the rules of behavior did not allow for enjoying the experience of running and laughing at the same time. She embodied those rules by adopting another form of self-stimulation—remaining silent and rocking back and forth.

The reaction that Jim received from other people when he was in high spirits was one of confusion. He wrote, “If I am happy or excited, my body rocks and my voice changes but very few people know what this means” (Jim 2002:74). On the other hand, Sean Barron’s behavior resulted in anger from his mother:

I got enormous pleasure from throwing things into a big tree in our backyard. It didn’t matter to me what shape or size the object was—I took toys out of the sandbox or things from the kitchen (if I could sneak in and grab something) and threw them all into the tree. I wanted to see how high they would go and where they would get caught. I loved the pattern: throwing the object as high as I could, seeing where it hit the tree, following its downward movement with my eyes, and watching where it got stuck…When Mom called me I would suddenly get scared because I knew I would be yelled at once again for doing something I enjoyed (Barron and Barron 1992:44-45).

In fact, some autistic individuals were confused as to why people would get angry with them when they sought behavior that would stimulate their senses. Some believed that
other people were not all that different from them, and couldn’t understand why their behavior was so offensive. Wendy Lawson explained:

My world was a rich one, full of color and music that seemed to splash over and around me wherever I walked. I thought everyone saw things the same way I did, but my behavior seemed to make people angry or cause them to distance themselves from me (Lawson 1998:40).

Being different, in whatever way, seems to upset other people. It can make them nervous, angry, abusive and indifferent, and these reactions to me were always strong. I thought everyone saw the world in the way I did, and it was very confusing for me when my delights and ecstasies were not seen or understood or understood by other people (Lawson 1998:57).

These reactions, however, did not prevent Wendy from seeking pleasure and excitement when she desired it:

In most situations my excitement and enjoyment of life is spontaneous and unaffected by the response of others. The need for acceptance and friendship with other people is still quite real but it does not dominate my interactions with them (Lawson 1998:116).

Wendy did not allow others to dictate what she could and could not do to find excitement, joy, and pleasure in her life. But for others, simply knowing that other people could react sharply to their pleasure seeking behavior forced many of these autistic individuals to try to hide these behaviors. Darius wrote of his experiences in trying to disguise or hide his behaviors:

I used to rock back and forth, bump with my back against the back of the chair endlessly, and swayed my head back and forth at night in bed until I fell asleep. I engaged in self-simulative behavior in public until I was about 11, when my school teacher stopped me one day while I was busy bouncing with my back to the wall of the bicycle shed again and again during recess. He told me not to do it and I remember not understanding why I could not bounce, as it was such a reassuring feeling…I also had by that time learned to “disguise” some of the “stimming” and repetitive behavior. I sat for hours on the swing in our garden when I got home from school, for instance (Darius 2002:13).

I still engage in self-stimulative behavior, but I make sure no one notices. I still rock, but only within the confines of my own apartment. I always make sure the
curtains are closed so the neighbors can’t see me. I do have to monitor myself, for excitement generates an automatic “stimming” response and when I am in a public environment I have to check my impulses (Darius 2002:24).

In sum, these individuals sought pleasure and sensory stimuli through the use of their bodies. They spun, twirled, and rocked their bodies to feel gratified, and in control for at least a few moments in their lives. They sought visual stimulation through gazing at spinning objects and at barely perceptible minute entities. They took long moments to take in the beauty of the natural world. They realized, however that their pleasure seeking behaviors were seen as odd by others. Many could not, until their later adult years, understand why others thought that their behaviors were so peculiar. Many decided to hide these “stimming” type behaviors.

*Making Sense of the World*

In moments of calm and quiet, these autistic individuals sought to comprehend the external world of humans and objects. The analysis of autobiographical texts revealed that they were (and remain) curious about their world, understood the world in particular ways, worked hard at understanding their world, used repetition and imitation to understand their world, and ordered and classified things accordingly. These characteristics contributed to how these particular autistic individuals made sense of their external world.

*Seeking knowledge.* Despite existing in a world of discomfort and disorientation, these particular autistic individuals were very curious about the external world. Some admitted that they really did not entirely figure out what was happening around them. Gunilla Gerland wrote, “I always felt there was something I didn’t really understand.
That feeling was constant and followed me everywhere” (Gerland 1996:21). In fact for Gunilla, it took a great deal of energy to make sense of everything around her:

I wanted to be left in peace there behind the armchair, and I often was. I just stayed there, just being, absorbed in the material on the back of it. There was no energy to be found there, but there was rest, a way of keeping my mouth shut and holding on to a little of the energy that had otherwise been spent in trying to understand what was incomprehensible, how everything hung together (Gerland 1996:18).

But this lack of energy did not stop her from developing her own theories of how her world worked:

I desperately wanted to understand, and this led to theories: if everything looked in a certain way in the living room—the sun shining in through the curtains, the ashtray on the table with a newspaper beside it—and if Kerstin then came back from school…I thought that everything had to look exactly the same the next day, for her to come back from school (Gerland 1996:26).

The theme of possessing a quest for knowledge and understanding pervaded these texts. Temple Grandin, Wendy Lawson, Donna Williams, Tom McKean, and Sean Barron expressed this in their respective autobiographies:

Constantly asking questions was another of my annoying fixations, and I’d ask the same question and wait with pleasure for the same answer—over and over again. If a particular topic intrigued me, I zeroed in on that subject and talked it into the ground (Grandin and Scariano 1986:31).

Being quite academic and possessing a love for books, poetry and study, I have an insatiable appetite for knowledge. This need to understand the world around me drives me to interact with people and constantly explore their reasoning for what they do, think and feel (Lawson 1998:i).

I wanted to know things. I wanted to accumulate knowledge. I would walk about talking, trying to attract attention and going on and on about something in a very indirect way. My mother called my means of verbal communication “wonking.” This was equivalent in definition, I suppose, to ‘unintelligible, mindless babbling.’ For me, this “wonking” was my way of conversing and was certainly not mindless (Williams 1992:52).
And the concept of time fascinates me. Is time a continuum? What is the link it has with space? What if it was not so much a continuum as it was a circle? If it were to speed up or slow down, would we even notice? (McKean 1994:51).

I loved the information I could obtain on radio and TV call letters—the letters themselves and the cities they were located. It was easy to find the information since the stations were listed in *National Geographic* magazine. I knew it was knowledge that few other people had, and that made me feel excited and powerful—so much so that I kept a list of the call letters in my head. On any given day one station’s letters would stick in my mind, repeating themselves over and over…The sound of the letters was strong and vivid, blotting out all my insecurities (Barron and Barron 1992:120).

Some of these individuals had an intense curiosity about the physical environment around them. They took to closely examining objects, even to the point of taking them apart to satisfy their need to understand their world:

I took the microscope out of its red wooden box and went in search of investigation material. Most of what ended up under the lens came from human beings: skin and hair, saliva and nails—anything I could find. My investigations contained a strong desire to find out about human beings. If I could examine things in their most minute detail, perhaps something would be revealed, something would make me understand better, help me to cope with everything (Gerland 1996:91).

I wanted to know how things worked and I would take them apart. Nothing was off-limits to me; I would dismantle phones, paper fans, toys, small engines, seed packets, and hearing aids (Prince-Hughes 2002:109).

Others were more cerebral in their approach to understanding. Darius had several interests that he would ponder in the silence:

I would come up with detailed knowledge at unexpected moments such as the dressing habits of the Chinese under the Manchu Dynasty. At night, in my bed, I philosophized about such things as to whether being an ergative languagespeaker leads to different perception of the self, the problems of giving an exact definition of a chair, and what the artistic requirements of a poem in sign-language might be (Darius 2002:14).

The textual accounts written by these autistic individuals suggest that they were extremely curious about their world. They sought an understanding of their world to the
point that they were willing to closely examine objects and even take them apart. They also pondered grand problems when they were afforded solitude. To be able to comprehend their world took keen observation techniques.

*Observing.* Autobiographies revealed that these individuals had an intense focus on their world. They were keenly aware of humans in their world as well as objects. They studied both people and objects intently for the purpose of better understanding the external world. In order to focus, distractions had to be obliterated. One autistic individual explained that “after a while, I learn to ‘wall off’ the distracting stimuli to a certain degree and pay attention only to what needs to be attended” (Darius 2002:35).

Many autistic individuals reported in their autobiographies that they studied people. This interest in human behavior started early in life, as this comment from Dawn Prince-Hughes illustrates:

> In the first grade I became increasingly obsessed with rules. I studied people’s behavior and actions and read written rules carefully to try to make sense of me school community and fellow human beings (Prince-Hughes 2002:110).

For autistic adults, studying human behavior helped them adapt to their own social world, as Wendy, Gunilla, Thomas, and Susan pointed out:

> By studying an individual’s posture, actions, voice tone and facial expression, I can now usually work out what they are feeling. The hard work of studying the reactions of others and recognizing that people respond differently to different emotions has been very beneficial to me (Lawson 1998:9).

> Observing what other people do has always been my way of trying to teach myself to be like them. But nowadays, I mostly use my powers of observation in order to understand what I have in common with others and what distinguishes me from them (Gerland 1996:248).

> I have lately been very careful to observe society and interaction. There are many ways that people communicate and many things that they do while they are together that simply make no sense to me. Sometimes I make a note of these
things I see, and then I contact someone who knows me well enough to answer my questions about it in a way that I can understand (McKean 1994:50).

I studied (my best friend) intently in the nine years I knew her and extensively modified my mode of self-expression in the process. Many of my expressions, from the patterns of intonation in my voice to the way I smile, have existed only since my early 20s and were copied directly from her (Susan 2002:98).

These autistic individuals reported that they enjoyed focusing on the small details of objects in order understand them. Gunilla took pleasure in attending to how small an object she could discover, while Susan took pleasure in finding particular examples of past undiscovered dialects:

I also very much liked doing things with small objects. I would cut out tiny bits of paper and stick them on to cardboard. I made little men out of wool. Whatever I created became increasingly smaller—I wanted to see how small it was possible to go. I liked it when it was fiddly and rather difficult to do, so that it took all my attention (Gerland 1996:20).

In the six years that I researched language use in the past two centuries, I must have looked at hundreds of thousands—if not millions—of pages of text (much of it in manuscript form) in the search for tiny quotations of a specific dialect that hardly anyone bothered to write down…this was work I found immensely enjoyable. Archival research is a tedious, slow, careful process and usually does not yield much data for the time spent. But it is something I do very well and I know few who have carried it to the lengths that I have in my field (Susan 2002:105).

These autistic individuals fed their curiosity about the external world by being keenly aware of the physical environment of objects and the social environment of people. In addition, they closely examined and observed these environments, often down to the minutest detail. One observation, however, was not enough for these individuals to be able to make sense of the world. They had to learn through repetition.

Repeating. For many, the act of repeating words and phrases that they heard often helped them make sense of their social world. They wrote that constant repetition of people’s speech was one way of helping them understand situations with other people.
As Wendy Lawson wrote, “I tell stories that friends have heard so many times before, but it is the repetition that builds the picture that helps me to understand what is happening” (Lawson 1998:103). This statement illustrates how some autistic people learn and understand their social world. Dawn Prince-Hughes made repetition a common practice when she was young:

I liked acquiring new words and had a ritual in which I would ride my tricycle up to the dining room table and ask for a new word. One of the adults would give me one, trying to make it too hard for me to say, then I would speed off on my tricycle to follow the circular path from the dining room, to the bathroom, to the living room, and back to the table. On my circular route I would say the word over and over and when I reached the table again I would say the word perfectly and have it memorized for instant recall at any time in the future (Prince-Hughes 2002:108).

For some autistic individuals, repeating others’ words were sometimes involuntary acts. Darius recalls a time during adolescence where he could not stop repeating what others around him were saying:

When I was a teenager, I suddenly experienced a period of echolalia in which I would repeat other people’s social comments and mimicked their behavior. I only did this in situations where there was a distinct social interaction going on, never in situations where the conversations were purely informational. It was an entirely involuntary reaction, as if I was forced to try and be part of a social interaction by imitation (Darius 2002:20-21).

As Darius suggested in the writing of his experiences, imitation was a by-product of repetition and echolalia. In fact, many of these individuals reported that they could imitate other people. Dawn Prince-Hughes wrote, “I could duplicate accents and repeat pieces of dialogue exactly” (Prince-Hughes 2002:108). Darius wrote of his experiences imitating his grandmother:

I used to relate what my grandmother had said in exactly her words and tone of voice. My family thought I had a great sense of humor, but I wasn’t trying to be funny. Content and form were inseparable to me and this was the reason I
repeated the message verbatim and in her voice. It is a bit like singing a hit record by a particular artist in exactly the same style and type of voice (Darius 2002:21).

Many of these autistic individuals wrote of imitating others as a way of getting a sense of how the social world worked. Gunilla Gerland wrote about how she needed to follow and imitate people who she thought had a keen grasp of how to behave properly in the social world:

I tried imitating other people. Now that I was with people more, I had to be someone. People asked me what I wanted, what I thought. I took features from people I met and added them to me. I often took features from people who seemed very self-confident. I did this immensely skillfully (Gerland 1996:209).

According to these autobiographical accounts, many autistic individuals repeated and imitated other people as a way of understanding and fitting in to the social world. These individuals also wrote that they were drawn to repetition in other facets of life other than the social world. Wendy Lawson wrote that, “As far back as I can remember, I have been distracted and absorbed by repetitious sounds and movements” (Lawson 1998:1). Machines and tools were especially fascinating for Dawn:

As I got older, around four or five, I started to have fascinations with objects: kitchen utensils, rocks, tools. I liked to watch tools and gadgets work over and over. Mixers and wrenches were great. I delighted in watching my grandparents use these things and perform the same motions over and over. I remember feeling like these tools and devices had meaning and perfection (Prince-Hughes 2002:108).

Many of these individuals knew that they could tolerate repetition and even enjoyed it, as Daniel and Sean noted in their respective autobiographies:

I have a high tolerance for repetition and sometimes played the same song a hundred times over on my personal Walkman, listening in an unbroken sequence for hours at a time (Tammet 2006:111).

I loved repetition. Every time I turned on a light I knew what would happen. When I flipped the switch, the light went on. It gave me a wonderful feeling of security because it was exactly the same each time. Sometimes there were two
switched on one plate, and I liked those even better; I really liked wondering which light would go on from which switch. Even when I knew, it was thrilling to do it over and over. It was always the same (Barron and Barron 1992:20).

*Imposing order and sameness onto the world.* The text of autobiographies revealed that these autistic individuals preferred sameness and routine in their environment. They wrote that they functioned better in a world where everything in their environment remained unchanged and unvarying.

When things stay the same it’s easier to feel safe, to understand what is expected and to gain a sense of connection. For me, it is easier to function with routine and constancy than to process the complications such as choice and decision (Lawson 1998:2).

School was very soothing to me in a way. I immediately saw the structure of it, and that helped me feel I had some control. Since I could already tell time when I got there, I knew exactly what would happen when—and that had a calming effect on me. The day was broken up into small parts and I knew exactly what to expect—I could respond to that. When I was in school I could come out of myself a little bit; I could see how other people acted with one another and what they did in a group (Barron and Barron 1992:83).

Many of these autistic individuals wrote that when the physical environment changed, it was difficult to adjust. Thomas McKean wrote that,

> Nothing is going to stay the same forever. But while things are the same, there is a feeling of security. You know where and when and how and sometimes even why everything is. Then when it changes, it forces you to readjust, something I have never found easy to do (McKean 1994:39).

In fact, even small changes in the physical world could bring about anxiety for these individuals. Dawn Prince-Hughes tried to make sure that the things in her own room hadn’t been moved:

> I felt intense attachments to my own things: my tinker toys, my rock and bone collection, my stuffed animals, all would be meticulously arranged and guarded. Woe to anyone who moved any part of an arrangement. I felt terrible anxiety when things were moved or changed (Prince-Hughes 2002:109).
An emotional consequence of sudden unexpected changes, for Dawn, was anxiety. For some autistic individuals, it was imperative to replace objects to their former position in particular environments. Christopher especially felt this need:

It is permitted to move the chairs and table in the kitchen because that is different, but it makes me feel dizzy and sick if someone has moved the sofa and the chairs around in the living room or the dining room. Mother used to do this when she did the hoovering, so I made a special plan of where all the furniture was meant to be and did measurements and I put everything back in its proper place afterward and then I felt better (Haddon 2003:47).

Darius found that moving objects around was as disorienting for him (and people like him) in much the same way as it would be for someone who was unable to see:

…many autistic people prefer things to stay the same. If you were blind, I’m sure you would also develop a ‘preference for sameness’ for the placement of the furniture, for instance. I don’t want the furniture of the sensory stimuli moved around too much either, because it makes it difficult to navigate the social and learning environment in much the same way (Darius 2002:35).

These autistic individuals wrote of their preference for their environment to remain unchanged. Many were anxious about changes in their environment, which inhibited their understanding of the world.

Summary

In sum, the text of the autobiographies reveals that these autistic individuals were intensely curious about the external world, and endeavored to understand aspects of it. They closely observed social and physical phenomena. Finally, repetition and imitation aided in their understanding of the world.

In concluding this chapter on the lived experience of autistic individuals, the narratives of these individuals provide a rich source with which to characterize what is referred to as autism. Based on the texts of these autobiographies that I have assembled, several themes emerged under the categories of the everyday world of autistic
individuals, sensory overload, and making sense of the world. First, these individuals experienced pain, sickness, and discomfort as a result of interfacing with the exterior world and the social world. Second, they reacted with fear, anxiety, and disorientation to this exterior world, mostly because of the constant changes happening all around them. They preferred an ordered world and were active in ordering their world. Third, at times, these individuals felt the need to disengage and withdraw from the outside world, many times seeking safe spaces in which to find calmness, peacefulness, and silence. Fourth, these individuals had an intense curiosity about the world and tried to make sense it. They loved to observe the world and the people in it. In trying to make sense of the world they focused on repetition, whether it was spinning objects or just repeating what other people were saying. They used their visual skills in order to cognitively process the stimuli coming in from the outside world. Words, letters, and numbers were more than just symbols—they were the things themselves and had aesthetic qualities all their own. Fifth, these individuals sought pleasure through their vestibular system and through sight. Their pleasure seeking behaviors were viewed by others as bit odd. Some were even angered by these behaviors, and many autistics could not understand why. The themes that have emerged from this textual retelling identify some of the key experiential characteristics of autistic individuals.
CHAPTER III
MEDICINE, PSYCHIATRY,
AND THE MEDICAL MODEL OF DISEASE AND DISORDER

Autism, as it is known in contemporary society, emerged from the production of scientific evidence that autistic children had a chance to become what medical science imagined as normal. I show that while other treatments were being recommended, it was the production of improved empirical and quantifiable test scores that catapulted autism into being the well known disorder that it is today. The issue, therefore, is why science was so instrumental in the production of autism. To better understand the pivotal role that science played in the production of autism, I begin my literature review with a brief history of scientific medicine and its authority. I end this review by presenting the way in which scientific medicine sees disease, illness, and mental disorders: though a medical model

In this chapter, I review the sociological literature that has examined the history of scientific medicine and its authority. I show how scientific medicine established credibility and authority during the course of the 19th and 20th centuries. In addition, I show that scientific medicine’s ascendency toward acceptance paralleled an increase in the importance of rational production. Finally, I show that scientific medicine became a superior knowledge of the body relative to other forms of medicine.
Secondly, I show how deference to the authority of scientific knowledge became linked with the state. That is, scientific medicine, in order to maintain its authority, enlisted the state for political and legal support. Medicine, as I show, created a structured dependence on its knowledge and its practices. Third, I show that the state in history supported both the authority of medicine in general and psychiatric medicine in particular. Fourth, I describe the medical model of disease and disorder, suggesting that, because of scientific medicine’s entrenched authority, the medical model became the only way in which to look at bodily conditions. This review will help readers understand that when medical science both formed the autistic child as an object of medical examination, and then later subjected the child to power—which is what my findings show—few challenged these practices. My dissertation is about challenging these practices; it is first and foremost a sociological critique of the medical model and the medical practices used in autism.

*An Brief History of Scientific Medicine*

In this section about the relationship between scientific knowledge and medicine, I rely on core literature regarding this subject. I pay particular attention to Paul Starr’s (1982) work, *The Social Transformation of American Medicine*. This book provides a comprehensive overview of the development of and relationship between science as a mode of knowledge and the establishment of medicine’s authority in the United States. Starr’s approach to this topic provides a particularly helpful backdrop for understanding the issues of concern in this dissertation research. The issues that I address are related to the acceptance of scientific medicine, medical authority, and medical authority and state involvement in medicine.
In the pre-industrial era, individuals largely relied on lay healers and folk remedies to treat the ill in their communities (Coe 1978; Freidson 1970; Sigerest 1960; Starr 1982). Most were treated by first observing symptoms, and then treating the sick based on traditional therapies for the presenting symptoms (Foucault 1994a; Starr 1982). But pre-industrial society also saw major developments in medicine due to advances in science and technology (Freidson 1970). Technical and scientific advances allowed medical people to view disease as a natural phenomenon rather than seeing sickness as a moral issue (Starr 1982). As treatments grounded in scientific medicine yielded more reliable results than conventional therapies, these new scientific foundations came to be respected by the populace (Freidson 1970; Starr 1982). Thus, science began making inroads into medical knowledge during the pre-industrial era.

Despite these inroads, folk and traditional therapies remained dominant during this period. The field of medicine itself was considered a useful but minor occupation in pre-industrial society (Coe 1978; Freidson 1970). Individuals who engaged in the healing arts only did so when the need arose—that is, when an individual in the community fell ill (Freidson 1970; Starr 1982). Thus, medicine prior to the middle of the 18th century was considered just one of many practical trades (Starr 1982). Both popular medicine and scientific medicine were considered a trade among many, but both aimed to be well-respected permanent occupations.

In order for scientific medicine to gain recognition, it had to respond to lay or “common sense” practices of the past, to new competitive forms of secular medicine, and to an overall distrust of a privileged form of knowledge among people. The first challenge to scientific medicine’s ascent to respect was the “common sense” practices of
healing that were primarily used in colonial family life of the 17\textsuperscript{th} and 18\textsuperscript{th} centuries (Starr 1982). Using traditional methods that were passed down from previous generations, women engaged in healing practices as part of their domestic chores (Starr 1982). Ostensibly to assist the isolated family in Early America, physicians who used secular medicine began publishing guides to domestic medical practice for home use.

Emphasizing simplicity in their treatments, these domestic guides were intended to simplify the complicated language of medicine (Starr 1982). Scientific medicine at this point in its history had the \textit{ability} to speak of illness and treatment in ways that lay people could understand.

A second challenge to scientific medicine’s attempt at recognition was competition from other forms of secular medicine. For example, one form of secular medicine that threatened the existence of scientific medicine in the early part of the 19\textsuperscript{th} century was the botanic medicine movement led by Samuel Thomson (Starr 1982). Thomson’s concept of the difference between health and illness was a simple one: cold was the cause of all disease and heat was the remedy (Starr 1982). Thomson patented his therapeutic system, and his followers organized societies, held conventions, and published journals (Starr 1982). Thomson and his disciples believed that the educated, the aristocrats, and the physicians were of the same social class. What is more, the Thomsonians considered this social class as fundamentally opposed to the ideals of common sense, democracy, and popular healing (Starr 1982). In the end, the Thomsonian Movement was a critique of the way knowledge was controlled under the class system; it was not a critique of science itself (Starr 1982). Thus, the scientific
knowledge that medicine utilized in this era was thought by many to be aristocratic and undemocratic, tied to the emerging class structure of the United States.

There remained a third challenge to the growing field of scientific medicine in 18th and 19th century America: distrust on the part of the populace. The primary cause of skepticism among Americans was the specialized language that scientific medicine used in many of their publications. For example, the founder of Methodism, John Wesley, wrote of medical doctors of the time, “Physicians now began to be had in admiration, as persons who were something more than human. And profit attended their employ as well as honor: so that they had now two weighty reasons for keeping the bulk of mankind at a distance; that they might not pry into the mysteries of the profession. To this end…they filled their writings with abundance of technical terms, utterly unintelligible to plain men.” (Wesley, cited by Starr 1982:33-34). For many, the use of language that “plain men” could not understand was cause enough for concern that medicine was not to be trusted. In the early days of scientific medicine, the language of medical science reflected a choice between simple and exclusionary language.

As noted above, scientific medicine was also distrusted because it seemed to go against the democratic values of the new republic. In 18th and 19th century America, there was a conflict between the rise of egalitarian principles, and the desire on the part of physicians to form an elite occupation based on scientific knowledge (Starr 1982). Scientific medicine was beginning to be seen as taking place behind the closed doors of a communal-like organization between small groups of men with special knowledge (Starr 1982). Not only that, practitioners of scientific medicine wanted little to do with competing in the market for patients (Starr 1982). Men in this branch of medicine felt
that theirs was a privileged knowledge and it was beneath them to have to compete with lesser forms of medicine.

So, what was happening inside these special groups of medical men with special scientific knowledge during the 19th century? Men of medical science wanted to develop practical technologies that would successfully treat illnesses (Freidson 1970). Further, they wanted to evaluate the effectiveness of their (and others’) restorative medical techniques (Starr 1982). These physicians wanted to shift their own medical methods from using some indistinct classification system of disease to forming, and then employing, modern clinical practices (Starr 1982). Instead of merely observing patients, scientific medicine wanted to examine disease confined to a small area of the patient’s body (Starr 1982). In the 19th century, medicine in America was beginning to be shaped by an elite group of men with specialized medical knowledge rooted in scientific thought and clinical practice.

External to this elite group, American society was changing rapidly from a pastoral, agrarian society to an industrial society. How society was transforming affected scientific medicine in the following ways. First, society was being transformed from one based on affective and traditional values and authority to one based on increasingly rational thought and authority (Weber 1958). This suggests that values within medicine should not be seen as isolated from society; instead, they are incorporated within the intricate arrangement of broad values that make up the culture of any society (Coe 1978). Consistent with this view, Starr (1982) notes that the values within medicine became increasingly grounded in rational science at the same time that the U.S. was developing a rational system of industrial production and distribution. Hence, there was an association
between the development of rational industrial capitalism and the development of scientific medicine. Further, there was an association between the values of industrial capitalism and the values of a scientific, rational medicine.

In addition to the analogous relationship between the industrial economic system’s values and the values of scientific medicine, industrialism caused massive demographic and structural shifts. Populations moved from isolated farms to crowded cities. This marked the end of pastoral/agrarian society. In agrarian society in America, people and families were isolated and lived great distances from each other. This meant that people had to rely on domestic medical practices as well as the local lay practitioner (Starr 1982). The demise of agrarian society meant the demise of non-scientific medicine. This is important because in agrarian American society, the men of scientific medicine were located primarily in the cities in the 19th century. Thus, the growth of the cities under industrial society meant that people would rely on the physicians in the area. This meant that scientific medicine was progressively more relied upon by a rapidly growing urban population.

Starting in the second half of the 19th century, Americans began to accept scientific knowledge as the way to diagnose and treat illness. This acceptance of scientific knowledge occurred for two reasons. One, as industrial production became more and more complex, mass public education developed to meet the demands of a work force that could handle complicated manufacturing processes. This educational system emphasized the importance of rational thought as the way toward knowledge. Public education established in rational scientific thought promoted broad acceptance of the work of scientifically trained physicians (Freidson 1970). In late 19th century
America, the population had begun to shift their system of knowledge and beliefs toward a more scientific orientation (Freidson 1970). Generally, people were becoming more attuned to scientific thinking. This way of knowing was strongly associated with medicine’s way of knowing (Freidson 1970). An education system entrenched in rationalism helped increase acceptance of scientific medicine.

Two, from the middle of the 19th century onward, medicine became increasingly technical and specialized. It also became increasingly effective (Sigerest 1960). Medicine was beginning to understand the causes of disease starting in the mid-1800s (Freidson 1970). This led the way for better and more effective treatments and prevention based on scientific knowledge (Freidson 1970). Further, scientific medicine was able to demonstrate a qualitative difference in the effectiveness of their remedies relative to those of lay healers—and they showed that their treatments had more success than other treatments based on other forms of knowledge used by lay and countercultural healers (Freidson 1970). The developments in science led to higher success rates where medical treatments were concerned (Freidson 1970). This fact was not lost on the American people. In fact, people began to experience the benefits of medical scientific knowledge when they got well (Starr 1982). Medical science affects people’s bodies (Epstein 1996), and when it affected people’s bodies in a positive way, scientific medicine gained wider acceptance.

In sum, medical knowledge based on science gained credibility throughout the latter part of the 19th century in America. It did so because medical science successfully applied its knowledge to sick people. It also gained credibility because, as rational means of production became more widespread, the values of rational behavior and empirical
science became more accepted. As a result of these trends, medical practice based in scientific knowledge came to be seen as superior to the medical practices of lay and countercultural practitioners. In the context of the current dissertation research, the fact that scientific knowledge was and is seen as a superior knowledge within medicine is important because this is the same medico-scientific knowledge base that has been applied to the bodies of autistic children and that has produced a discourse that has profoundly shaped these children and their families.

*Medical Authority*

Authority can be characterized as having some status or claim that induces trust or obedience (Weber 1964). In the case of medicine, this status was not based on the accumulation of economic capital – as was the case for the bourgeoisie under capitalism. Instead, medicine’s authority was rooted in its success in treating illness with a scientific orientation (Starr 1982). This meant that physicians had cultural authority as well as scientific authority (Starr 1982). In this section, I describe the cultural authority that medicine was gathering from the late 19th century into the 20th century. Without such cultural authority, the medico-scientific gaze and discourse would mean little in regard to exercising power over autistic (or other) bodies.

Cultural authority “refers to the probability that particular definitions of reality and judgments of meaning and value will prevail as true and valid” (Starr 1982:13). Cultural authority may be located in cultural objects such as past intellectual activities that are recorded in academic and scientific texts (Starr 1982). This means that individuals and institutions with cultural authority have the ability to define particular situations or experiences as universally “real” or “true” when presented discursively.
Thus, in examining cultural objects (i.e., texts) one should be able to identify this capacity -- or authority -- to define reality. For example, medicine has both the ability and cultural approval to determine whether persons are experiencing the bodily condition of illness (Freidson 1970). It also has the capacity to define whether bodily conditions are good or bad, right or wrong, and desirable or undesirable.

Starr (1982) suggests that medicine, unlike all the other professions in the United States, developed and maintained a high level of cultural authority. The public’s acceptance of scientific medicine’s authority “was in a sense, America’s Cultural Revolution, and like other revolutions, it threw new groups to power—power over experience as much as power over work and institutions” (Starr 1982:17). This meant that the American public granted medicine the authority to define itself as an institutional power, thereby granting it the authority to define the experience of health and illness.

The ascendance of American medicine’s cultural authority coincided with the rise of the middle-class in the 19th and early 20th centuries (Pescosolido and Martin 2004). In fact, the emerging middle-class along with its values supplied the pathway for medicine’s rise. It did this by providing a client base of like-minded professionals. These professionals, managers, administrators, and academics inhabited similar centers of power as physicians. Thus, the middle-class opened the door for medicine’s cultural authority, not just among the emerging privileged class, but among the American populace (Pescosolido and Martin 2004).

Cultural authority enabled medicine to make pronouncements about who is ill and who is not (Freidson 1970). By virtue of this authority they could separate the ill from the healthy, the sane from the insane. In concentrating patients in hospitals and asylums,
medicine could exercise its authority in a particular social sphere away from industrial production (Starr 1982). In so doing, medicine was defining deviance (Freidson 1970). This developing medical jurisdiction over defining normalcy and deviance was medicine’s way of actively intervening in the affairs of the social system (Freidson 1970). People who were insane or sick disrupted the social order—they disrupted the current of industrial production; therefore, they had to be separated from the rest of the working population. The fact that medicine had and still has the authority to define deviance is important because it is this authority, as I will show, that labeled autistic children as deviant rather than something else.

Physicians saw that possessing cultural authority was beneficial in that it gave them power. Again, this power was not directly linked to economic power, but it was linked to political power. Physicians saw little use for corporate influence in their emerging profession, but they did see a need for political and state support to legally establish its authority (Starr 1982). For medicine to gain a monopoly over the authority to define illness and health, medicine needed widespread support: total deference from the public, and the legal support of the state (Starr 1982). To do this, medicine had to create a structured dependence upon their specialized knowledge and practice.

*Medical Authority and the State*

While physicians have had a large amount of autonomy with regard to their practices, the state attempted to control how medical personnel were to be licensed. Two centuries ago, as more states were being added to the union, laws were enacted so that the state could control the licensing of graduates of medical colleges or to influence how medicine as a profession set up its own board to license all graduating students (Bordley
and Harvey 1976). Many of the state laws ultimately failed because of the profession’s (and public’s) refusal to support them (Starr 1982).

But after the Civil War, with advances in scientific medicine, the profession and a more informed public soon saw the need to re-enact laws establishing state licensing boards (Bordley and Harvey 1976; Duffy 1993; Starr 1982). With the rise of the public’s acceptance of scientific medicine in the late 19th and early 20th century, organized scientific medicine (i.e., the American Medical Association or AMA) sought to protect its favored position by seeking passage of laws to protect them from various threats. For example, at the turn of the century, patent medicines (unregulated drugs manufactured by pharmacists), were thought to be a threat. The AMA crusaded for the regulation of these medicines (Starr 1982). This example illustrates how the state supported and protected scientific medicine.

Also in the latter part of the 19th century, state governments began to be involved in public health (Starr 1982). This coincided with the scientific discoveries of Koch and Pasteur which suggested that the etiology of most diseases was bacteria and therefore, most diseases could be prevented (Bordley and Harvey 1976). The creation of laboratories and funding for research came from states (Bordley and Harvey 1976). But the AMA had rejected any and every effort by the federal government to enter their area of medical care (Bordley and Harvey 1976).

After World War II, the federal government did become involved in medicine’s affairs (Bordley and Harvey 1976: Starr 1982). The federal government funded and supported medical research in cancer, mental health, and vaccines (Starr 1982). It offered training and fellowships to medical students in these and other areas. In sum, medicine
and the state had developed a relationship whereby the state offered support for medical research, and protected medicine’s autonomy, but medicine relied on government funds to perform research. This relationship is important to acknowledge because, in my study, I demonstrate how and where federal government agencies choose to fund medical research on autism.

The state and psychiatric treatment. In this section, I address the issue of state involvement in psychiatric treatment. This relationship between the state and psychiatry in the treatment of mentally ill persons because as I will show, the state had become more and more involved in research in treatment for autism. I will show that this involvement has helped to make autism a medical problem and a growing social concern.

Throughout American history, the state has been involved in the treatment of madness, insanity, and/or mental illness. Before the Revolutionary War, one of the first mental hospitals in the colonies was funded by the Governor of Virginia, the House of Burgess and the General Assembly (Dain 1975). Because there was little distinction between many asylums and almshouses, private philanthropy and public funds helped finance the asylums (Grob 1994). In fact, these institutions at the time were controlled and supported by trustees rather than physicians (Grob 1994). Even when physicians and psychiatrists had more control over the asylums during the middle of the 19th century, state governments saw the need to fund these houses because of the high success rate psychiatry was having in treating mentally ill patients (Grob 1994; McGovern 1985).

Whereas the states had little direct control over treatment and who were accepted as patients in the middle decades of the 19th century, states began taking more control over asylums and hospitals by the latter part of the 19th century (Grob 1994; McGovern
1985). The states played a more custodial non-therapeutic role in the development and maintenance of the asylums as psychiatrists left the domain of the asylum in droves (Grob 1994). As psychiatry moved into the research and psychotherapeutic hospitals in the early 1900s, in combination with the mental hygiene movement, government involvement in psychiatry turned once again to funding rather than direct control in their therapies. For example, in the early 1900s, childhood neuroses and maladaptive behaviors became a concern among psychotherapists. Funding for research into this problem was supported by the National Committee of Mental Hygiene (Kolb 1975).

Later, as veterans were returning home from World War II with psychological problems of their own, psychiatry and the rest of society was even more understanding of the influence of environment on mental health. The federal government became more involved in mental health because they realized that the mental fitness of the United States population was in danger (Grob 1994). Therefore, policy was developed to support research relating to cause, diagnosis, and treatment of psychiatric disorders. These policies would translate into federal grants awarded to states for this research. The federal government would also financially support training for mental health personnel by providing fellowships and institutional grants. These policies culminated in the National Mental Health Act of 1946 (Grob 1994). Three years later, the National Institutes of Mental Health was created, also for the purpose of funding research. Finally, in 1963, President Kennedy advocated for reforms in mental health care that included a call for Federal, state, and local governments, along with private foundations, to take responsibility for developing community mental health treatment centers (Szasz 1970a).
In sum, colonies, states, and the federal government have played roles in organizing the tasks of psychiatry.

State involvement in the organization of psychiatric medicine is an important issue because in my dissertation, I show that state involvement in how medicine and the discipline of psychology treat autism has been important in creating the medical problem of autism. Autism has seen increased government involvement in the funding for research to discover the biological etiologies of autism as well as its treatment. In fact, the object of the autistic child was produced through a medical model of illness. As a consequence, federal funding for the search for an etiology and treatment for autism began.

The Medical Model of Disease

The medical model of disease is the standard paradigm for modern western medicine (Turner 1995). Its origins can be traced to Cartesian positivist philosophy (Turner 1995). The medical model of disease first views the body as a type of machine (Conrad and Schneider 2005; Turner 1995). Any malfunction of this body-as-machine can be traced to an observable, causal agent which eventually was labeled and diagnosed as a disease (Conrad and Schneider 2005). Therefore the medical model of disease implicitly states that all real diseases have a specific causal mechanism (Turner 1995). For example, Pasteur’s and Koch’s scientific work in the 19th century led to the development of a germ theory of disease. This theory states that it is a particular germ that invades the body which then causes it to malfunction (Kelman 1977; Turner 1995). In this case, it is necessary to track the particular germ in order to produce a diagnosis, and then to treat the disease.
This medical model explains disease by focusing on the individual body and its condition of dysfunction (Tausig, Subedi, and Subedi 2004). That is, in adopting this model, medicine could only focus on the internal environment where the agent or germ existed—the individual body (Conrad and Schneider 2005). This model, almost by definition, ignores the external or societal environment (Dubos 1959). The essence of the medical model, a model unified and accepted in the United States as scientific medicine in the 19th century (Conrad and Schneider 2005), is that illness happens to individuals through the invasion of agents, causing the body to malfunction. This illness can only be treated by those capable (physicians) of finding and observing the agent for the purpose of medical diagnosis and medical treatment (Conrad and Schneider 2005; Tausig et al. 2004; Turner 1995). The medical model does not concern itself with prevention. It must wait until the particular germ or agent invades the body. Therefore its method is interventionist, which is a particular variety of medical practice (Turner 1995). In my dissertation, I show the interventionist strategies practiced by medicine in autism. As I demonstrate, these interventionist strategies in medicine did not cure autism or solve the problem of autism; these medical interventionist practices actually produced autism as we know it today.

Autism first came under the jurisdiction of psychiatric medicine. One of the ways that the medical model of mental disorders manifests itself in psychiatric medicine is through the way in which mental disorders are diagnosed and classified. In order for psychiatry to diagnose and classify mental disorders—including autism—it uses the Diagnostic and Statistical Manuals (DSM). Below, I provide a brief history of the DSM. I address the historical and critical issues involved with the development of the DSM.
because the description of autism in the DSM, as I will demonstrate, played a major role in how autism became the medical problem that it is in contemporary society.

*The Medical Model of Mental Disorder in Psychiatry: The DSM*

At the turn of the 20th century, an attempt was made to arrange psychopathologies in such a way as to reflect the thinking of mental disorders at that particular time (Malik and Beutler 2002). The *Short Textbook of Psychiatry* by German psychiatrist Emil Kraepelin (1923[1907]), although read widely by other psychiatrists, did not immediately lead to widespread agreement about a classification system (Grob 1991; Malik and Beutler 2002). Kraepelin used massive amounts of statistical data in sorting out symptoms. His nosological scheme increased the number of mental illnesses from one (i.e., insanity) to eight. More statistical information about mental disorders was emerging around the same time. At the beginning of the 20th century, the United States Census Bureau collected large-scale demographic data related to rates of idiocy and insanity (Malik and Beutler 2002).

Psychiatry, at first, showed little interest in statistical data. However, it soon found the prospect of creating preventative public mental health policy through the analysis of this data appealing. In 1912, the National Committee on Public Hygiene was founded as a way of advancing psychiatry into the field of public mental health. Further, the American Medico-Psychological Association (forerunner of the APA) was asked by the Census Bureau to gather data on mental disease and mental hospitals. In 1913, the AMPA formed a Committee on Statistics. By 1917, however, it was clear to the committee that no thorough analysis of the data could be performed due to lack of uniformity in which deviant behaviors and mental disorders were measured (Grob 1991).
As a consequence, the first standardized nosology was developed a year later. The Statistical Manual for Use of Institutions for the Insane divided mental disorders into 22 groups, twenty of which were deemed to be biological in origin (Grob 1991). Although the manual had its opponents, psychiatry was now beginning to adopt a thoroughly medical, scientific, and biological approach to mental disorders (Grob 1991). However, this classification system became obsolete almost overnight as the effects of war on returning WWI soldiers suggested that environment and not biology was a central cause of mental illness (Grob 1991).

By 1950, the American Psychiatric Association (APA) had collected and sorted suggestions from psychiatrists on how to classify mental disorders (Grob 1991). Two years later, the APA formally published the first Diagnostic and Statistical Manual of Mental Disorders (DSM-I). The document reflected “the intellectual, cultural, and social forces that had transformed psychiatry during World War II” (Grob 1991:428). The first type of mental disorder was one that resulted from primary impairment of brain function (i.e., trauma, poison, infection, or heredity). The second type of mental disorder was one that arose out of a general inability to adjust to normal situations. This type was further subdivided into whether the patient showed psychotic symptoms or whether the patient demonstrated psychoneurotic behaviors such as depression, anxiety, phobia, or personality disorders (American Psychiatric Association 1952).

Thus, the events leading up to the creation of the first DSM were: the availability of census data to psychiatrists; psychiatry’s inclination to play a role in the preservation of mental health among the populace; a nosology of mental disorders already in place and that was used by psychiatrists prior to World War II; and the need to address the unique
mental health issues of war veterans upon their return. The DSM-I was quite popular, having been reprinted 20 times from 1952 to 1967. It was widely distributed in the United States and in other countries as well (American Psychiatric Association 1968). The DSM-II, published in 1968, differed little in its theoretical organization from the original in that both conceived of “disorders as a continuum or reactions to biopsychosocial factors (Rogler 1997). However, the foreword of the DSM-II suggested that diagnosis and classification of deviance in the same manner as somatic medicine was on the horizon. The DSM-II hinted that a major change was taking place within psychiatry and that a medical model approach to mental disorder would be forthcoming in the third edition of the manual (Rogler 1997). “The rapid integration of American psychiatry with the rest of medicine also helped create a need to have psychiatric nomenclature and classifications closely integrated with those of other medical practitioners” (American Psychiatric Association 1968:vii). Thus, the main paradigm shift from theory to empiricism in the DSM-III was anticipated in the first two editions of the DSM (Follette and Houts 1996; Rogler 1997).

The DSM-III marked the return to descriptive diagnosis and the medical model that was started by Kraepelin nearly a century before. In fact, the DSM-III was seen as the high point of the remedicalization movement within American psychiatry (Wilson 1993). There are three issues that psychiatry addressed in the DSM-III which suggested that a medical model was the way to diagnose and treat mental disorder.

First, the DSM-III (American Psychiatric Association 1980) was an attempt to end the speculation as to the etiology of mental disorder within psychiatry (Rogler 1997). The DSM-III shifted psychiatry’s perspective from a theoretical one to a highly empirical
one (Follette and House 1996; Mechanic 1989; Rogler 1997). New theories could only be accepted based on observation of symptoms. Any categorical additions to the DSM were to be based on descriptive criteria (Rogler 1997). This signaled a sudden venture into positivist science that sought to identify certain physical, mental, and behavioral criteria to classify discrete mental disorders (Rogler 1997).

Second, the DSM-III made structural changes to the nature of mental disorders (Rogler 1997). “Diagnostic categories have been increased by the inclusion of new disorders not previously defined and by the differentiation of previously defined disorders” (Rogler 1997:13-14). This means that many disorders were actually split into two or more disorders. For example, *Schizophrenia, Childhood Type* evolved into two distinct disorders: *Infantile Autism* and *Childhood Onset Pervasive Development Disorder* (American Psychiatric Association 1980).

Third, the paradigm shift to an increasing empirical medical model was reflective of the influence of the neo-Kraepelinians (Rogler 1997). The DSM-III was the result of the efforts by the adherents to Kraepelin who advocated for a return to the classification of symptoms to better identify and treat individuals who exhibited these symptoms (Rogler 1997). Of the 19 members of the psychiatric task force who helped develop the DSM-III, ten were neo-Kraepelinians. They favored a close relationship with medicine, the type of medicine that identified, diagnosed, prescribed, and treated patients (Rogler 1997). After some uneasiness with the medical model, psychiatry adopted the medical model to classify mental disorders. The future of psychiatry from 1980 onward lay in its ability to use a scientific model of disease to diagnose mental disorder using a reliable classification system.
The paradigm shift in 1980 toward empiricism and applying the medical model of disease on to mental disorders is of importance to my thesis because it was this paradigm shift that helped tear down one discourse in autism in favor of another. In fact, this paradigm shift, as I show in my results, is one explanation as to why we know autism the way we do today and how it became a medical problem.

A More Scientific Approach to the Mind

But the paradigm shift toward a more scientific approach to the human psyche that manifested itself in the DSM-III actually began to emerge before 1980. A need for a more scientific perspective emerged as soon as the asylum fell out of favor in society. Psychiatry needed new scientific knowledge of the psyche because in the days of the asylum, treatment was based on a belief system, a belief of moral treatment that had little science behind it, only statistics (Grob 1994; Romano 1975). As psychiatry integrated with medicine in the beginning of the 20th century, and as the domain shifted from the asylum to the research hospital, psychiatry began a shift from patient care to laboratory experiments and results (McGovern 1985). This did not mean that patients would be ignored, but the focus shifted from care of patients to gaining knowledge from them (Romano 1975).

Psychiatry was also gaining knowledge through the academic journals and books of the day on the subject of the science of humans: human genetics, neural sciences, human growth and development, psychopathology and psychodynamics, clinical psychology, sociology, syndromes, diagnosis, prognosis, courses of maladies, epidemiology, and an assortment of therapeutic approaches (Romano 1975). But during this time of the research hospital where knowledge of insanity was gained, this
knowledge would not only serve the patients, it would serve society as well. In fact, a central perspective within psychiatry in the early decades of the 20th century was one of mental hygiene for all (Grob 1985; Shorter 1997). The mental hygiene movement was about improving society through improving its members. Psychiatry was taking a position within society to lead research and policy into implementing its methods into “such areas as mental hygiene, care of the feebleminded, eugenics, control of alcoholism, management of abnormal children, treatment of criminals…” (Romano 1975:9-10).

Despite the project of mental hygiene for all, despite the research hospitals, despite the increased knowledge gain of the human mind, no singular therapeutic perspective was agreed upon by psychiatry before the Second World War. Some psychiatrists were receptive to biological medicine and any biologically-based therapy that would return the patient into the community (Grob 1985). There were the psychoanalysts, who had more of a faith and belief in Freud’s ideas rather than scientific evidence that his concepts could be verified in the real world (Shorter 1997; Szasz 1970a). Others followed Kraepelin who believed that symptoms represented particular mental disorders and should be classified as such (Shorter 1997). Still others followed the notions of psychotherapy that believed that all people face mental difficulties, but some have more severe reactions to these problems than others (Shorter 1997). One particular movement that branched out of psychotherapy was the Behavior Modification movement that emanated from the work of Ivan Pavlov and Clark L. Hull (Romano 1975). Except for psychoanalysts, what most psychiatrists did have in common was that they wanted to understand mental illness in scientific terms and treat mental illness not based on beliefs but based on science.
Finally, by war’s end in 1945, social psychiatry was heading toward becoming the accepted therapeutic model within the profession (Grob 1994; Sabshin 1975). Social psychiatry had its roots as a therapeutic modality in the late 18th and early 19th centuries (Sabshin 1975). But the social psychiatry of the 20th century was to borrow smaller theories from the sociobehavioral sciences (Romano 1975; Sabshin 1975). Social psychiatrists were interested in a scientific understanding of the causes and mechanisms underlying mental illness (Romano 1975).

To this end, social psychiatrists often used social variables to predict and alter mental states (Sabshin 1975). The one therapeutic modality that gained acceptance within psychiatry that could actually measure whether certain therapies actually worked was the behavior modification of B.F. Skinner (Romano 1975). The essentials of behavior modification were the following:

“In this there are highly rational goal-directed procedures that emphasize the shaping and control of behavior through cognitive methods or through laboratory principles of learning. These techniques can be defined with precision, as can criteria for success. Central in behavior modification is the notion of control. The therapist clearly states the nature and direction of the procedure” (Romano 1975:39).

Behavior modification or behavior therapy was purely a psychological therapy but based on the idea that all social behaviors are learned, with the social environment acting as the stimulus (Kolb 1975). Behavior therapy sought then to seek out “deficits in the learning process of the developing human;

it offers alternative learning processes to replace unsatisfactory learning. These processes either extinguish the early learning that produced the maladaptive behaviors or, where deficits in behavior exist, establish more effective behavioral responses. Such new learning experiences must be associated with the arousal of emotion, either pleasurable as gratification, or painful as aversion” (Kolb 1975:61).
Thus, around the 1960s and into the 1970s, psychiatry began to accept the idea of controlling behavior rather than trying to understand it and treat it. I show in my results chapters how this shift manifested itself in the case of autism.
CHAPTER IV
MODERNIST THEORETICAL PERSPECTIVES ON MEDICINE

While medicine uses a biomedical model to examine disease, illness, and other disorders, sociologists of medicine critique this model. They suggest that practices in medicine have less to do with biology, physics, and biochemistry, and have more to do with the social milieu. In other words, medical practices should be seen by critical sociologists as mechanisms for social control and the problematizing of deviant behaviors through the act of medicalization. In addition, sociologists of medicine also question the neutrality of scientific knowledge of disease and disorder and suggest that this knowledge reflects (and shapes) the surrounding social context.

My study is a critique of the medical model used in the case of autism. Most sociologists of medicine suggest that disease and disorder are socially constructed by actors within a powerful medical institution. They suggest that disease and disorders are constructed and that researchers can trace the origins of these constructions to medical professionals and medical institutions. Foucault agreed that disease and disorders are socially constructed. He believed, however, that instead of disease and disorders being constructed, it was rather the case that the truth of disease and disorder were socially constructed. I follow Foucault in that I show in this project that the truth of autism was socially constructed. In my dissertation, I use Foucault’s concepts of the medical gaze,
power, discourse, subjectivity, and surveillance to critique both past and present medical conceptions of autism that produced this truth.

Specifically in this chapter, I first review how and when psychiatry adopted the medical model in modern times. I provide specific modernist critiques of how the medical model was utilized within psychiatry because it was psychiatry, as I show, that first produced a discourse around autism and thus a truth about autism. (I define modernist as non-Foucauldian). Second, I review the modernist theoretical perspective on the medical power, social control, and the social construction of medical knowledge and illness. Within these modernist critiques, I provide an explanation of what I will be doing differently in terms of theory in my dissertation on the topics of the social construction of autism and medical power utilized in the case of autism. Third, I provide a brief review of another critical perspective in the sociology of medicine, the sociology of the body. I review this literature on the sociology of the body because power deployed onto bodies is a central theme in Foucault’s theoretical work, and because I use Foucault’s theory of the relationship between power and the body in describing and analyzing medical practices used onto the bodies of autistic children.

In the first section of this chapter, I present modernist sociological critiques of the medical model of disease and disorder used in psychiatry. I do this because I want to show the similarities and differences between Foucault’s critique of psychiatry and the modernist critique of psychiatry. This will aid in the understanding of how I approach my critique of psychiatric practices in autism.
Critique of the Medical Model of Disease in Psychiatry

In the review of the sociological literature, there are two central criticisms of the use of somatic medical models within psychiatry. The first states that it is impossible to apply a model made for diagnosing and treating somatic diseases to outward signs that may or may not reflect a real brain disease. The second states that applying a medical model to mental illness is much too narrow and ignores societal influences on psychiatric disorders. Below, I briefly outline these two arguments.

The first critique is related to the “anti-psychiatry” model espoused by Laing (1967, 1969) and Szasz (1970a, 1970b, 1974). Laing’s (1969) central critique is a really a critique of positivism (Samson 1995). Laing (1969) suggests that the application of a positivist philosophy onto human experiences is inherently inhumane because it objectifies human experience (Samson 1995). That is, psychiatry uses the same objective methods from the natural sciences to investigate subjective states in human beings (Samson 1995). These subjective states are caused by environmental circumstances (i.e., social, economic, and political) that lead certain individuals to dissociate (Laing 1969). Thus, the medical model can be regarded as having little use in the treatment of this sort of dissociation.

Szasz’s (1960, 1970a, 1970b, 1974) critique of the application of the medical model onto the mental experiences of human beings carries a similar theme to that of Laing. Just as Laing sees behavioral difficulties as a result of the influence of social conditions, Szasz (1960) sees these very same difficulties emerging as a result of a problem of living with the conflicts of modern society (e.g., heterogeneous values, a wide range of social and personal relations and interactions). He suggests that what is called a
mental illness based on a medical model is really an existential crisis of life in modernity (Szasz 1960).

Szasz goes further in his critique of the medical model in psychiatry. He suggests that a medical model of disease uses physics and biochemistry to examine somatic, real diseases (Szasz 1970b). For psychiatry to adopt the same model to mental processes is inherently misleading and false (Szasz 1970a, 1970b, 1974). This is because psychiatry could not prove that many of the disorders that they examined had any somatic causes within the brain or nervous system (Szasz 1974; Turner 1995). For Szasz (1974), psychiatry is using the wrong medical terminology, concepts, and theories in its attempt to fix problems of living. In fact, while somatic medicine can examine behavior, and then actually find a physical deformity or lesion in the body that can be reasoned to be the cause of the behavior, psychiatry cannot perform the very same examination. In sum, Szasz (1974) suggests that psychiatry’s adoption of the medico-scientific model masquerades as science.

The second critique of the medical model of mental disorder states that because behavior problems are indeed rooted in the social condition, the scientific study of mental illness should include a broader examination of its societal causes. That is to say that a purely medical or even psychiatric approach to mental illness is much too narrow an approach to gain a full appreciation of maladaptive behaviors (Aneshensal and Phelan 1999). Contrary to Laing and Szasz, this critique of the medical model of mental disorder suggests that this model does not go far enough scientifically. Instead of being dubious of the science of the medical model, this position holds that more social
scientific investigations need to be performed to fully understand mental disorders in modern society (Aneshensal and Phelan 1999).

These issues are important to sort out in the context of the current project because my critique is more—but not totally—in line with the anti-psychiatry model of Laing and Szasz. Consistent with Laing and Szasz, I suggest that approaching autism through the medical model is inherently inhumane because the model objectifies the autistic child. In addition, in keeping with Laing (1969), and contrary to Aneshensal and Phelan (1999), the current research operates from the perspective that one should bring less positivism into developing an orientation to medicine’s relationship with autism and the autistic child rather than advocating for more positivistic study. Although some have stated that psychiatry was making false claims as to the medical nature of problems of the psyche based on the misuse of science, I show that in autism, the use of science manufactured a medical problem.

In the next section, I first provide an outline of modernist sociological critiques of the institutions of medicine and psychiatry. Topics within these critiques of medicine include the “social construction of disease and illness,” “medical power and social control,” “medicalization of deviance,” and the “social construction of medical knowledge.” These topics are important to present here because Foucault covers all of these subjects in his theoretical approach to medicine and psychiatry, but not necessarily in quite the same manner as modernist approaches. I use Foucault’s perspective on these topics to show using the methods of archaeology and genealogy, that medicine does not have any power over autistic children, but its use of power subject them to a discourse of disability, disturbance, and disorder. In using Foucault’s perspective and methods, I also
show that not only was autism constructed by medical science, the truth of autism was also constructed through the use of power.

*Medicine as Social Control*

As the sociology of medicine began to distance itself from the profession of medicine and psychiatry in the 1950s, critiques began to develop of the profession. These critiques centered on medicine and psychiatry being institutions of social control. I present this brief history of sociological critiques of medicine as controlling institutions because the current project also examines how medicine – or more specifically, medical discourse -- serves as a mechanism of social control. Thus, while these critiques have suggested that social control emerges from the medical institution, I suggest that social control emerges from medical practices. I show this through the example of the interplay between medicine and autism.

The publication of Parsons’s *The Social System* (1951) led to a new way to see the role of medicine in modern society, as an institution of social control (Conrad 1992). Social control can be defined as the means by which society motivates people to adhere to social norms. More specifically, social control is the elimination, minimization, or normalization of deviant behavior (Conrad 1992).

Parsons (1951) suggested that being sick is a *social* state of being (Turner 1995). Parsons proposed that sociologists need to examine health and illness in terms of how they function and serve the needs of the individual and ultimately of the social system. For Parsons (1951), illness as a social state affected the capacity of the sick individual to perform social roles within social systems. This concept is important in the sociology of medicine because it shows that sickness is not only a biological state that affects the
afflicted individual’s body but the social body as well. This means that the process of how sick persons get well can be studied sociologically.

But according to Parsons (1951), given the needs of particular systems, the sick person is obliged to take on a new role: that of being sick. He suggested that in order for the social system to exist in equilibrium, ill persons had to willingly accept their new role of patient within a medical system whose main task was to treat the sick and to return them to a normal state (Parsons 1951). Moreover, because the sick person is not in a normal state, by definition, he or she is treated as deviant by social systems that need actors to fully perform their social roles (Parsons 1951; Turner 1995).

Parsons saw the sick person as having to consult a qualified medical practitioner, and offer his or her own cooperation in the therapeutic effort (Twaddle 1981). In fact, both the treatment of illness and seeking out competent treatment were, for Parsons, cultural values (Parsons 1951). These cultural values were about respect and deference to medical authority. In the previous chapter, I showed how scientific medicine’s authority rose during the 19th and the first half of the 20th century. Further, not seeking competent treatment is seen by social and cultural systems as deviant (Gerhardt 1987; Parsons 1951). In this manner, Parsons illustrated how the medical institution was an element of social control of deviance vis-à-vis the sick role (Gerhardt 1987; Levine and Kozloff 1978). As I showed, the medical institution’s influence and authority in the social system rose during the industrial age of the first half of the 20th century, thus it is understandable why Parsons would see medicine as an institution that sought to identify and then treat the deviant and the sick. Parsons understood that the role of an ill person was to seek medical attention from qualified authorities. Despite the fact that he saw this as the sick
person’s role and duty, he understood institutionalized medical authority as a means of social control. In sum, Parsons’s theory of medicine as an institution of social control was one that used the concepts of systems and roles to understand the nature of medical social control. I show that social control in autism does not emerge from an authoritative institution and the prescribed roles that individuals play within it; social control in autism emerges from medical practices.

After Parsons, more explicit critiques of medicine emerged within sociology. For example, Zola suggested that medicine in the 20th century overtook religion and law as the “new repository of truth” (1972:487). Whereas religion and law made judgments on humans based on a particular moral code, medicine made judgments based on claims by objective experts who were assumed to be morally neutral (Zola 1972). These judgments have little to do with virtue or legitimacy; rather they have everything to do with health (Zola 1972). Zola argued that these judgments of health and illness by medicine operate as an insidious form of social control because these judgments are part of everyday living and, due to their ostensibly neutral and objective basis, they are readily accepted by the populace (Zola 1972). Thus, Zola saw medical intervention as a scientific means of social control that seeks to limit, modify, regulate or eliminate deviant behavior in the name of health (Conrad 1992; Conrad and Schneider 1992).

A potential consequence of medical social control is an increasing belief among the populace that there is either something somatically wrong with them, or that they have an array of medical procedures to choose from to look and feel better (Zola 1972). In other words, people begin to believe that disorder is all around them. This belief is enhanced, according to Zola, “by a reading of the scientific, pharmacological and medical
literature, for there one finds a growing litany of indictments of ‘unhealthy’ life” (1972:498).

Zola’s understanding of medical social control and its potential consequences are relevant to my findings in that first, I show how scientific medicine limits, modifies, regulates, and attempts to eliminate autism in children. But I demonstrate that it is not done in the name of poor health; it is done in the name of regulating the life of the child. Second, I demonstrate how the populace comes to believe that the medical disorder of autism is all around them in contemporary society. I demonstrate how medicine produces an array of medical procedures and practices not for individuals and populations to look and feel better. I will show instead how medicine, through its practices, conveys a message that there is a wide variety of things that are possibly behaviorally, intellectually, emotionally, and linguistically wrong with their children. Further, I show how medicine, through its practices, conveys a sense that parents ought to closely observe their children to discover these problems. This is how the population comes to believe that the disorder of autism is all around them.

Zola (1972) suggested that medicine does not, in actuality, distance itself from morality and social control, because it uses a moral rhetoric of goodness and badness when it comes to, respectively, health and illness. Medicine exercises moral authority and social control by claiming power to label illness, and anything that might have to do with the etiology of illness, even when it can do little about dealing with the etiology or the illness (Freidson 1970; Zola 1972). As I reveal in my results section, medicine does not distance itself from the social control of autism. I show within medical texts that medicine’s dream is to in fact not to heal the autistic child, but to control the autistic
child’s behaviors. I also show how autistic children came under the watch of medicine, even though it had yet to find the etiology of autism or to find a cure for this supposed medical disorder.

Zola (1972) sees the medical profession attaching itself to anything having to do with illness as the process of medicalizing society. There are four ways that this process occurs in medicine: 1) expanding from a singular etiology of disease into a multi-causal model, thereby expanding to those areas of social life that could be relevant to disease; 2) retaining absolute control over technical procedures; 3) retaining the license to examine the most intimate workings of the human body and mind; and 4) the general public’s use of medical rhetoric to establish what in social life is health or unhealthy (Zola 1972). I show how these procedures work in the case of medical practices in autism. First, I show that medicine expanded its theories of the etiologies of autism to include genetics, parental behavior, and the physical environment. Second, I show how medicine retained control over the technologies of treatment through the use of power. Third, I show within medical text how psychiatry retained its license to examine the inner working of the autistic child’s body and mind. Fourth, I show how the general public has become aware of autism as a result not of texts produced for the purpose of persuasion, but as a result of an ostensibly neutral discourse.

Medical Control and Medicalization

Later, Conrad (1979) conceptualized three types of medical social control: 1) medical technology, 2) medical collaboration, and 3) medical ideology. First, medical technology can range from medications to surgeries to behavior modification treatments. Conrad (1979) notes that behavior modification is not a medical technology because
behaviorism rejects the medical model of disease that would suggest that behavior is a symptom of an illness. Yet, physicians accept these forms of therapy because they are used to dealing with symptoms (Conrad 1979). In my dissertation, I reveal how behavior modification is used as a particular medical practice and form of social control with autistic children.

Medical collaboration means that medicine is not an independent agent of social control but involves other authorities as well. Medicine not only intervenes in the patient’s condition, it can also act as information provider to institutions (Conrad 1979). Thus medicine can be seen as part of the framework of society. It plays the role of officially assigning the sick role. This means that it had the ability to define particular deviants actions as illness, and had the authority to report these behaviors to other institutions of social control, namely the state (Conrad 1979). For example, psychiatric medicine involves itself in court cases to determine the “sanity” of defendants and witnesses. As my later analysis will show, the processes of informing agents of social control also operate in regard to autism in that medical knowledge informs governments, educational institutions, and families about the autistic condition.

Medical ideology is a type of social control that involves defining a behavior or condition as a medical problem so as to benefit the institution of medicine and society itself (Conrad 1979). This means that medicine uses the subtleties of language to manipulate lay individuals to see illness, disease, and health their way. While ideology at times may benefits certain individuals and society as a whole, the function of ideology is removed from any biological basis for illness or even treatment for the illness (Conrad 1979). But in my study, I do not analyze ideology because ideology is assumed to have
been developed through conscious effort to manipulate language. My thesis is that medicine does not consciously lay out an ideology that promotes the idea that autism is a form of deviance. Rather, its scientific discourse subjects individuals to think in a certain manner about autism. Through medicine’s authority, and the deference shown to medicine’s authority, autism is described in scientific ways. Because of the very fact of the supremacy of science, and its unquestioned production of the truth, individuals are subjected to a particular truth about autism. I contend, and then I show, that medicine uses not language, but discourse to subject individuals and populations to a certain way of seeing autism.

Conrad (1992) later adopted a fourth approach to the conceptualization of medical social control. He suggested that Foucault’s concept of surveillance is useful in distinguishing types of medical social control (Conrad 1992). Medical surveillance as a type of social control legitimizes physicians’ claims to play an active role in all the activities pertaining to a particular condition (Conrad 1992). According to Conrad (1992), physicians perceive bodily conditions and behaviors through a medical gaze. This gaze, essential to medical surveillance, is a method of social control because it helps to lay truth claims about bodily conditions and behaviors. Conrad (1992) offers the example of childbirth, as medicine’s surveillance of obstetrics extends from prenatal lifestyles to the actual birth to postnatal interactions between parents and their babies.

In fact, medical surveillance had been used first by medicine in the 20th century as a form of social control of childhood (Armstrong 1995). It was the child in the twentieth century, according to Armstrong (1995), who became the first target of surveillance medicine. “The significance of the child was that it underwent growth and development:
there was therefore a constant threat that proper stages might not be negotiated that in its turn justified close medical observation” (Armstrong 1995:396). Thus the body was an object of medical surveillance as it grew and developed. With the growth of the height and weight charts within pediatrics, an idea of normal growth began. A normal growth trajectory had to be developed; and it was developed by taking the sum total of growth trajectories and determining the mean (Armstrong 1995). But Armstrong (1995:397) asks, “A test of normal growth assumed the possibility of abnormal growth, yet how, from knowledge of other children’s growth, could the boundaries of normality be defined?” Abnormality was then a relative phenomenon. A child was abnormal in reference to other children, and even then, only by degrees. In effect, the growth charts were significant for categorizing and identifying the child in a space set down not by the absolute categories of physiology and pathology, but by the characteristics of the normal population (Armstrong 1995).

But it wasn’t just onto the body of children that medicine focused its gaze, it was onto the psyche—the still developing psyche—of children. Armstrong continued:

As with the close surveillance of the infant’s body, the new medical gaze also turned to focus on the unformed mind of the child. As with physical development, psychological growth was construed as inherently problematic, precariously normal. The initial solution was for psychological well-being to be monitored and its abnormal forms identified…The nervous child, the mal-adjusted child, the difficult child, the neurotic child, the oversensitive child, the unstable child and the solitary child, all emerged as a new way of seeing a potentially hazardous normal childhood (Armstrong 1995:396).

Thus medicine used surveillance and the gaze as techniques of the social control of children in the 20th century. In fact, as Armstrong (1995) stated, children were the first target of these medical technologies of control. My findings show that surveillance and the medical gaze were indeed techniques that were used to identify the autistic child in
the middle of the 20\textsuperscript{th} century. These techniques not only identified particular children as autistic, but these techniques produced the object of the autistic child that medicine would observe, examine, and normalize—that is to say, medicalize—for the next several decades.

Because medicine has the authority and jurisdiction to examine a variety of behaviors to determine which are healthy and which are unhealthy, they have the ability to define particular behaviors as an illness or a medical problem and then to medically treat individuals with these particular behaviors (Szasz 1970, 1974). The process of defining behaviors as medical problems is referred to as \textit{medicalization}.

“Medicalization describes a process by which nonmedical problems become defined and treated as medical problems, usually in terms of illnesses or disorders” (Conrad 1992:209). The importance of medicalization is the issue of medicine’s ability to \textit{define} disorders as a medical problem through a process of construction. This process of how nonmedical human problems get defined involves medicine’s use of medical terms and use of medical language to describe the disorder, the adoption of medical paradigms to understand the problem, or the use of medical intervention to treat the problem (Conrad 1992). “This is a sociocultural process that may or may not involve the medical profession, lead to medical social control or medical treatment, or be the result of intentional expansion by the medical profession” (Conrad 1992:211).

A great deal of medicalization research has looked at the etiology of certain conditions. That is to say, studies have examined the \textit{discovery} of an illness or disorder (Conrad 1992). By examining professional literature, events, and claims-making activities, researchers have been able to analyze how certain life problems have entered
the domain of medicine (Spector and Kitsuse 1977). But while life problems and life processes have been medicalized, one prominent trend in medicalization research has been to focus on deviant behavior (Conrad 1992). Examples of medicalized deviance include madness (Scull 1989, 1991), excessive drinking (Schneider 1978), homosexuality (Bayer 1981), and gambling (Castellani 2000).

Research in the area of the medicalization of childhood, including learning disabilities in childhood, and behavioral problems in childhood, has grown over the last 35 years (Armstrong 1995; Conrad 1975, 1976; Halpern 1990; Pawluch 1983). The current project’s focus on autism fits within this trend in that medicine perceives autism as a childhood developmental disability diagnosed on the basis of certain behaviors.

In essence, medicalization analysis “creates new understanding about the social processes involved in the construction of medical knowledge” (italics added) (Conrad 1992). This means that how medicine comes to understand a human problem as a medical one (i.e., illness, disease, disorder, behavioral problem) is a critical component when undertaking a sociological examination of the medicalization process. In fact, a consequence of medicalization is that it masks and hides the effects of practices on individuals (Conrad 1992). Such practices, as I show in the case of autism, are structured by medical discourse. In examining the history of the processes of medical practices in autism, I heed Conrad’s (1992) call for more examinations of the cultural and structural underpinnings of the medicalization of deviance and of childhood.

Medicalization researchers examine the process of how certain behaviors come under the domain of medicine. As Conrad (1992) points out, this research should include an examination of how medical knowledge is constructed and how disease and disorders
are constructed. In the next two sections I briefly outline theoretical issues related to the social construction of medical knowledge and disease. This discussion addresses issues concerning the social construction of medical knowledge regarding autism and the social construction of autism as a medical disorder.

*The Social Construction of Medical Knowledge*

The process of medicalization involves the process of knowledge construction in medicine (Conrad 1992). In Chapter III, I stated that medicine needed to construct a specialized knowledge in order to create a structured dependency on its profession. The construction of medical knowledge revolves around the themes of science, professional autonomy, authority, and power. The following is a brief presentation on past and current theories of the social construction of medical knowledge.

*History.* Medical science in the 19th century had no interest in losing its cultural authority (Starr 1982). Physicians did not want to risk losing it as it was recognized as the source of their power. Scientific medicine needed to show that their brand of medicine—rooted in scientific knowledge—was superior to other styles of medicine. This scientific knowledge was seen as an objective science of the human organism, using the sciences of biology, physics, and chemistry.

A knowledge elite rooted in the scientific method was developing within medicine in the late 19th century. These elite became institutionalized upon the publication of the Flexner Report (Hafferty and Light 1995). It is generally agreed that the Flexner Report of 1910 marked the beginning of professional institutionalized authority in medicine (Wolinsky 1988). The Flexner Report was an attempt to bring out in the open the gap between the poorly run medical education system at the time and the
increasing scientific knowledge being gained by medical researchers (Starr 1982). In bringing this discrepancy to light, it was hoped that medical training would become more rigorous.

By the early part of the 20th century, scientific medicine in America had established its cultural authority over a public willing to accept it. It also made great strides in institutionalizing this authority. Scientific medicine was setting stringent standards on how doctors were trained such that universities began to open medical schools on their campuses. For example, the Presidents of Harvard and Johns Hopkins were so impressed by medical science’s discoveries and therapies that they eagerly founded medical schools within their respective universities (Starr 1982). Scientific medicine also began lobbying efforts to create laws that would, in essence, recognize its right to have a monopoly on decisions related to health and illness (Freidson 1970; Starr 1982; Wolinsky 1988). In setting scientific standards that could be internally reviewed by similarly educated peers, and in structuring scientific medicine in such a way as to form a monopoly, physicians were seeking to establish professional autonomy.

*Autonomy.* The difference between professions and occupations is that professions are legitimate, organized, and deliberately granted autonomy, whereas occupations are not (Freidson 1970). Following this, professional autonomy can be described as a profession’s right to control all aspects of its work, how it is performed, and by whom (Freidson 1970). Autonomy also means having the right to send away outsiders who would scrutinize professional behavior (Freidson 1970). Therefore, professional autonomy is the ability of a profession to self-regulate and control the
conditions of their work. But this ability must be continually granted and recognized by economic and political elites, as well as by an interested public.

The public became deeply interested in scientific medicine as agrarian life and the values that went with this life began to fade. Starr (1982) notes that near the end of the 19th century, the American ideology of community self-reliance declined. As people moved to crowded urban areas for employment, they became “more accustomed to relying on specialized skills of strangers” (Starr 1982:18). This meant they became more dependent on physicians and less dependent on midwives and other domestic and lay practitioners. The American way of life shifted from isolated farms to crowded cities; from dependence on local healers to dependence on the profession of medicine. This allowed medicine to become an authoritative profession (Starr 1982). Dependence on medicine also enabled the institution to make claims that professional autonomy -- with little interference from the state or the corporations -- was needed to efficiently serve the populace.

There are two steps in achieving professional autonomy. First, the profession must demonstrate that it performs valuable societal work. This is done by establishing educational requirements for the profession’s members, licensing procedures, creating codes of ethics, peer oversight, and professional associations (Freidson 1970). These are all elements of self-regulation. Second, the profession attempts to have legal autonomy bestowed upon them through interaction with powerful political elites (Wolinsky 1988). To bestow such authority, elites need to be convinced of the positive value of the profession (Freidson 1970; Wolinsky 1988). At the turn of the last century, scientific medicine took these specific steps to achieve professional autonomy.
Medicine also sought professional autonomy over the technical aspects of healing. These technical aspects were developed through the utilization of highly specialized knowledge. Freidson suggests that the “autonomy of technique is at the core of what is unique about the profession” (1970:45). Medicine in the United States was a leading example of a profession with almost complete autonomy over the technical character of its work (Freidson 1970). Even though the political system supports and maintains medicine’s position in society, the profession is still autonomous due to the control over its work and due to the specialized knowledge that it owns (Freidson 1970). Retaining control over the technical aspects of everyday work has been a key factor in medicine’s ability to maintain its professional autonomy.

Medicine fiercely pursued and protected its autonomy during the early part of the twentieth century. It developed its own internal checks and balances to demonstrate to other elites within society that they were responsible enough to be granted autonomy by the state. Scientific medicine worked with political elites to ensure their legal autonomy, whereby no one could make claims that medicine defied laws in building up a monopoly. Finally, like most professions, medicine maintained autonomy over the technical aspect of its work.

In sum, medical knowledge rooted in the scientific method has had the authoritative word on disease and illness from the 19th century until the present day. Scientific medicine reached its “golden age” of dominance by the middle of the 20th century (Conrad and Schneider 2005; Freidson 1970; McKinlay and Marceau 2005). Despite such dominance, over the past four decades, there have been signs that professional medicine and medical knowledge was changing.
Recent changes in medicine. There is now evidence that medicine has undergone changes which have cut into its authority (Timmermans and Kolker 2004). These changes include technological changes in health care, the emergence of a more educated public that questions medical decisions more frequently, large scale involvement of financial and industrial capital in medical business, and the continued expansion of government funding for research and medical regulations (McKinley 1988).

Corporations, government, bureaucratic administration and specialization have all eaten into medicine’s claim to exclusive medical knowledge (Timmermans and Kolker 2004). Guidelines about how to diagnose and treat patients are being created by outside parties, especially insurance companies. Further, evidence-based practices are being encouraged within medicine. This means that treatments are to be based on the highest success rate of a certain treatment given the symptoms presented by an individual patient (Timmermans and Kolker 2004). As a consequence, the locus of knowledge has begun to shift from biological and physical examinations of the individual body to the aggregated population (Timmermans and Kolker 2004). Although medicine seems to have lost some control over its everyday work over the past 40 years, it still maintains some degree of cultural authority (Timmermans and Kolker 2004).

Medical sociology has recognized this trend. Even by the early 1970s, sociologists wondered whether physicians truly dominated the realm of medicine. Some have suggested that physicians have been deprofessionalized (Haug and Lavin 1983). The theory of deprofessionalization suggests that the division of labor inside medicine is not as hierarchical as it once was, thereby offsetting the power of the physician (Timmermans and Kolker 2004). Moreover, this theory holds that computerized systems
that influence decision-making about a patient has reduced the mysteriousness of the knowledge that physicians once possessed (Wolinsky 1993). Outside groups, such as insurance companies, also now have access to information that was once the domain of medicine. For these reasons, deprofessionalization theory holds that physicians have lost some of their authoritative status and prestige (Wolinsky 1993) -- as well as their power.

Others suggest that the profession is becoming proletarianized. Advocates of this view suggest that physicians, similar to those in other professions and occupations, are losing control over their work. As medical work becomes more alienating for physicians, their power decreases (Wolinsky 1993). Doctors are making fewer decisions about their work and must increasingly rely on the representatives of capitalism for directives in decision-making. Overall, the theories of deprofessionalism and proletarianization suggest that medicine is losing its exclusive claim to, and control over, medical knowledge and power (Timmermans and Kolker 2004).

One prevalent argument regarding the loss of physician power is the theory of countervailing powers. This theory holds that there have been and continue to be shifts in power within medicine (Hafferty and Light 1995; Timmermans and Kolker 2004). Emerging out of the success of medicine during the 1950s and 1960s, countervailing powers such as pharmaceuticals and other for-profit industries (Timmermans and Kolker 2004) have placed constraints on the autonomy of professional medicine and decision-making. Mid-20th century medical dominance thus created its own potential gravediggers as control over medical work increasingly came under the purview of administrators whose directives emanate from the profit motive (McKinley 1988; Wolinsky 1988). These administrative elites have emerged over the past three decades and presently wield
economic and organizational power within medicine (Hafferty and Light 1995). The fact of the emergence of administrative elites within medicine lends evidence to the claim that medical research, diagnoses, and treatments have thus become increasingly influenced by the logic of the capitalist economic system.

Another powerful elite that has risen in importance within medicine is an elite armed with technical knowledge. These knowledge elites apply technical skill and information onto patients. Although they have been in existence since the 19th century, these particular elites have become more important to medicine, (Hafferty and Light 1995). But of the two elites, Hafferty and Light (1995) predict that the administrative elite will become more dominant. The administrative elite are seen as working closer with corporations and their interests as well as with bureaucratic infrastructures in medicine (Hafferty and Light 1995). Nevertheless, the rise of both of these elites within medicine is seen as part of a more general process of rationalization that has accompanied medicine’s continued prominence (Hafferty and Light 1995). In sum, various powerful elites within medicine have undermined physicians’ professional autonomy.

Although physician autonomy has dissipated, and the quantity of medical power may have decreased over the past few decades, there is little evidence that medicine has lost its hold on power rooted in its scientific knowledge and cultural authority. For example, Arskey (1994) found that although lay individuals have the potential to play a role in the construction of medical knowledge, they must first confront a core, powerful circle of elites in medicine who have the final say in the laying out of medical facts and knowledge.
While medical power may not be as dominant as it once was, it can be seen as a key power among many, and what power it does retain continues to be based in scientific and technical knowledge. Clearly, scientific knowledge and the associated medical practices remain at the center of medicine’s power and authority -- a topic of primary interest within postmodern approaches to medical sociology. This is important to note because a postmodern approach to medical sociology borrows several concepts from Foucault. These concepts will be explored in the next chapter and will be used to frame the history of medical practices in autism.

Having reviewed the critiques related to medical social control and medical power, I focus on critiques of psychiatric control and psychiatric power. This is because much of the medical practices in autism have been carried out with the field of psychiatry. Below, I present sociological critiques of psychiatry’s power to control and regulate the lives of individuals and society in general. The purpose is to show how my critique of psychiatric practices in autism fits within prior sociological analyses.

*Psychiatry and Social Control*

Nineteenth century psychiatry represented new forms of expertise and knowledge, new institutions (asylums), new theories and technologies of intervention and treatment, and new boundaries between the normal and the pathological. The asylums of 19th century America were about the moral treatment of the insane for the purpose of reintegrating this group of people into the general population. Scull (1989, 1991) suggested that while asylums housed mechanisms of intervention and treatment, they were actually machines that served to dominate and control the population by isolating those with problem behaviors.
This domination and control was located within a system of punishments and rewards in the asylum. But this system was framed by psychiatry and its supporters as moral treatment (Scull 1989, 1991). For a time, this moral treatment, for the true believers, was a form of righteous rehabilitation. But for Scull (1991), moral treatment reflected the tension between rehabilitation and repression. “Only over time were these tensions systematically resolved in favor of an oppressive system of moral management, enforced conformity, and disciplined subordination” (Scull 1991:154).

The moral management of the asylum proved to be an effective way of controlling individuals during the 19th century. As evidence, the rate of increase in the asylum population was higher than the rate of increase in the general population (Scull 1991). Therefore, a larger portion of the population was being controlled within asylums. Further, successful treatment was not a reason why these populations increased; it was due to the failure of moral treatment that kept individuals within the asylum (Scull 1989, 1991). During the latter part of the 19th century, psychiatry could no longer boast about the effectiveness of moral treatment and cure rates went down. But what they could do is make statements that dangerous behaviors were firmly under its control and that psychiatry was performing a needed social function (Scull 1991).

In the 19th century, the moral management of the insane within the asylum by psychiatric domains was seen as a benevolent gesture to the delusional; but it was a technology that controlled individuals and populations. With the failure of moral management, mental illness was looked upon as an irreversible process of mental decay and degeneration (Scull 1991). Thus, the delusional population began to be thought of as a result not of societal influence, but of heredity. This meant that by the turn of the
century, psychiatry could lay claim to performing a social function of keeping
degenerates out of open society (Scull 1991).

Both Foucault and Weber remarked that the beginning of the 20th century was the
moment of enormous intensification of bureaucratic regulation and the decreased
significance of human agency (Samson 1995). Psychiatry played a special role in the
social control of individual agency and the general management of the population during
this period. Classification systems were being developed. This meant new forms of
neuroses were invented (Scull 1991). By the decades between the two world wars,
psychiatry was intervening in the lives of returning soldiers, addressing the issues of
alcoholism and marital disharmony, and managing infancy and childhood, especially
childhood delinquency (Scull 1991).

Alongside this development was the explosion of community mental health
centers. This meant that as new forms of psychiatric difficulties arose from various
sectors of society, more and more patients could be seen by the profession (Scull 1991).
During this time, a wide “array of deviance was systematized within an orderly
framework, and in reducing them to a medical paradigm, an attempt was made to
reconstitute them as conditions” (Scull 1991:164) in an atmosphere of increased visibility
of the practice of psychiatry in the community. No longer was their work of moral
significance, it was of scientific significance (Scull 1991). This meant that psychiatry
increased its leverage into formal social control during the 20th century as a result of their
embracing of medical science.

From a macro level, psychiatry was successful in marginalizing the insane for the
purpose of professional intervention. It also attempted to reconceptualize mental disorder
through classification systems so as to identify social problems as medical conditions in
need of medical treatment. This represented a “massive expansion of psychiatry’s role in
the process of social control” (Scull 1991:165). As a result, psychiatry was able to lay
claim to the right to intervene in both domestic and social life. It was not the use of
rhetoric that catapulted psychiatry to this position. Instead, it was the claim that its
methods of discovering and then treating psychiatric disorders were firmly rooted in the
natural sciences, a claim that no other could match (Scull 1991). For sociologists of
medicine, psychiatrists invented mental disorder (Szasz 1974).

Szasz (1970b) maintained that the use of science in the examination of the psyche
of individuals created an ideology of sanity and insanity. Further, this ideology served to
oppress and control people and diminish them (Szasz 1970b). This meant that psychiatric
control of humans was a way of preventing them from achieving their inalienable rights
(Szasz 1970b). This was, for Szasz, no different than the use of religious ideologies in
past historical eras to restrain individuals and populations.

Psychiatry uses ideology and classification to justify social control. Szasz
(1970a) suggested that psychiatry desires social control because it sees itself as a
replacement for religion in forming a new ideology to control individual desires. At the
same time, psychiatry could lay claim to being a moral authority, much like religion.
Instead of religious incantations about God, psychiatry used incantations of scientism to
fill the gap created by the downfall of religion (Szasz 1970a). Szasz (1970a) suggested
that the reason psychiatry feels the need to create an oppressive ideology is to fulfill a
basic human need to validate a self as good and normal by invalidating others as evil and
mentally ill. This is important to note because I show that it is not psychiatric medicine’s
particular brand of ideology that restricts autistic individuals from attaining their rights. Instead, it was psychiatric medicine’s scientific discourse that controlled, yet enabled autistic children. In addition, following Foucault, I show that there are no basic human needs to control autistic children, but that these needs emerged from power relations.

I have briefly reviewed modernist critiques of medicine and psychiatry, and their techniques of social control and power. In addition, I showed in the previous chapter that in somatic and psychiatric medicine, the scientific method constructs knowledge of disease. In the next section, I review how sociologists analyze the social construction of disease in medicine and mental disorders in psychiatry.

The Social Construction of Disease

In research, medical sociologists are often unclear as to the exact theoretical version of social constructionism that they are using. But according to Brown (1995), there are four distinct versions of social construction in medical sociology. The first version leans toward a symbolic interactionist approach to the social definition. The second version is related to a sociology of science. The third version is based on postmodernist theory. The fourth version, authored by Brown (1995), combines symbolic interaction with a version of structuralism. Below, I briefly explain these four versions for the purpose of presenting the exact version of social construction that I use in the current project.

A symbolic interactionist approach to the social construction of disease and illness began with Freidson. He used a symbolic interactionist approach to analyze how the lay culture of illness and the professional culture of illness struggle to shape illness roles and behavior (Freidson 1970; Halpern and Anspach 1993). He viewed this as a
one-sided struggle because medicine has a monopoly and thus the authority to create illness as a social role (Friedson 1970). This means that medicine is positioned to create a social reality distinct from a physical reality of bodily illness. Further, physicians have the authority to assign meaning to an individual’s illness. In this way, the person with a biophysical disease can come to be labeled a social deviant (Freidson 1970).

Freidson’s version of a symbolic interactionist approach to the social construction of illness was important in two ways. First, he stated that in the physician-patient relationship, not only does medicine have the authority to construct a social role of illness, but medicine also has the authority to assign a meaning of deviance and abnormality. Second, Freidson acknowledged that individuals can have a biophysical disease. This is important because other symbolic interactionist approaches have little recognition that a biophysical reality actually and objectively exists.

For example, social constructionists such as Spector and Kitsuse (1977) are not at all concerned with objective conditions (Brown 1995). These and other early social construction theorists endeavored to search for, and then uncover, the process of definition-making between actors without regard to showing causality (Brown 1995). In fact, Brown (1995) stated that this type of social construction approach tends to focus on processes to the exclusion of context. This deficiency in the interactionist perspective has led to a second distinct approach to the social construction of illness.

Brown (1995:36) suggested that social constructionism should move toward a “synthesis of symbolic interactionism and structuralist/political-economic approaches.” He suggests that, like Freidson, biomedical conditions actually do exist. To not appreciate this fact produces an unfulfilling theory of the social construction of illness.
Further, symbolic interactionist approaches fail to show the causal processes in the construction of illness. Brown (1995) suggests that a synthesized theory that takes into account the formation of meaning between actors, as well as the context of social situations and structures within which meaning is formed, can demonstrate causal processes of diagnosis (Brown 1995).

A third approach to the social construction of illness involves a sociological approach to science. Latour (1987) suggested that the construction of facts about a disease, illness, or disorder emerges from “mutually conceived actions by scientists in workaday life in the laboratory, combined with scientists’ effort to promote their work in public and private venues” (Brown 1995:36). This approach may be useful for medical sociologists examining the scientific discovery of disease and the development of new technologies in medicine (Brown 1995).

Finally, a postmodern approach to the social construction of illness is seen as a fourth option for medical sociologists. Starting with Foucault (1988), postmodernist approaches criticized positivism and its approach to the construction of illness. Postmodernism rejects the construction of illness by actors, groups, and institutions (Brown 1995; Riska 2001). My study, too, is a rejection of the notion that illness is constructed by actors, groups, and institutions. I show that the disorder of autism is constructed by another means.

Brown pointed out that the postmodernists see illness as socially constructed in the language and symbols. “The postmodern alternative is to deconstruct language and symbols in order to show the creation of knowledge” (Brown 1995:36). But here I break with the postmodernists in two ways. First, I reject the theoretical notion that the
disorders are constructed through language and symbols. This notion would suggest that there is a deep, underlying symbolic meaning in language that the researcher must deconstruct to understand how the knowledge of an illness is created. Instead, in adopting Foucault’s perspective, I deconstruct not underlying meanings of language, but a discourse that produces and constrains individuals and society. I explain this idea further in the next chapter on Foucault’s theoretical perspective.

Second, I reject the notion that knowledge is created. Just as Foucault sees power as being everywhere, knowledge can be seen as being everywhere. Thus I see scientific knowledge not being created through language and symbols, but I see scientific knowledge as emerging through discursive and nondiscursive practices. In my dissertation, I refer to knowledge and discourse in autism as emerging rather than being created. Thus, while some postmodernists addressing this issue might seek how knowledge of autism is created, I seek the emergence of discourse in autism. I show the emergence of this discourse through archaeology and genealogy. I do not examine the language used in text to find an underlying meaning; I examine the text to see how discourse has the potential of producing real effects on the psyche of autistic children. Therefore, in taking a Foucauldian approach to the social construction of autism, I do not examine individuals, groups, institutions, or language in terms of its underlying meanings, but I examine the role that discourse plays in the social construction of autism by medicine. Since autism is seen as a psychiatric disorder as evidenced by its entry into the DSM, I review what has been stated in the sociological literature regarding the construction of these particular disorders.
**Social construction of psychiatric disorders.** Despite its critics, Szasz’s work has been influential for scholars studying the social construction of psychiatric disorders (Cockerham 2006). Szasz is essentially correct when he argues that the decision about whether a person is mentally ill is a social judgment based on standard social norms (Cockerham 2006). People are seen as mentally ill when they violate these taken-for-granted norms. This means individuals are not determined by psychiatry as mentally ill solely based on symptoms. Rather, the determination of mental illness is based on the norms and rules of normal behavior. What is important to note is that the norms of behavior change according to dominant modes of thinking within a particular historical period (Cockerham 2006). Therefore, social constructionism looks at how categories of mental illness evolve and change from one era to the next.

Social constructionism also examines who has the power to enforce definitions of normality and abnormality (Horwitz 1999). Finally, social constructionism argues that the creation of medical terminology to describe certain symptoms actually disguises the fact that certain conditions are not diseases (Cockerham 2006). In keeping with a social constructionist approach, I explore how autism has been constructed over historical eras, looking at how power shapes these constructions and looking at terminology about autism within medical and psychiatric discourse.

In general, the construction of a mental disorder means a construction of a category of mental disorder. Whether it is based on internal states and how subjective meaning is attached to behavior (as the symbolic interactionists favor), or based on direct, observable external behavior (as the social learning theorists favor), categories of deviance have increased in importance over the last several decades. The Diagnostic and
Statistical Manuals that have been published since 1952 are evidence of this. Horwitz (2002) claimed, for example, that the increasing importance of the DSM is a consequence of powerful professionals who supported diagnostic categories of mental disorder. That is, these professionals, committed to biomedicine, “developed and improved a disease-based classification system for mental illness that became the dominant perspective in psychiatry and the basis for the current editions of the DSM” (Cockerham 2006:124). The purpose of presenting the following critiques of the construction of the DSM is to show that psychiatry was able to make truth claims about mental conditions. In my research, I demonstrate how psychiatry, through the use of the DSM, was able to make truth claims about autism and autistic children.

Classification system: The DSM. Controversy around the DSM swirls within the sociology of medicine (Loring and Powell 1988; Mechanic 1989; Mirowsky and Ross 1989). Sociologists have criticized the development of the DSM for four reasons. First, psychiatry, in its attempt to align itself with somatic medicine, constructs mental disorders and syndromes based on aggregated data from individuals who present similar symptoms. By then performing a type of factor analysis with these data, psychiatrists and other creators of the DSM “come to equate categorical measurement with true science” (Mirowsky and Ross 1989:21). Thus, despite the fact that the symptoms of different syndromes can overlap, syndromes and disorders are conceived of as discrete categories.

Second, psychiatry has provided little evidence in the DSM that these disorders that are being classified are actually diseases or disease-like (Aneshensal and Phelan 1999). The DSM is unable to distinguish between disease states and social behavior.
Third, diagnoses based on classifications in the DSM are linked to the race and
gender of the patient and the psychiatrist. This means that truth claims are dependent on
the demographic characteristics of actors as well as the clinical setting (Loring and

Fourth, sociologists see the process of classifying mental disorders for the DSM
as inherently political. Psychiatrists and psychologists on the task forces who are
responsible for the development of the incarnations of the DSM have negotiated
fundamental approaches to mental disorder. Both disciplines have battled and threatened
to vote down propositions, resulting in threats, discord, and negotiated settlements in
determining whether certain behaviors are indicative of particular disorders (Follette and
Houts 1996).

In sum, in developing the DSM, psychiatry attempted to use empiricism to
classify disorder and it classified disorder and disease based on constructs of symptoms.
In addition, diagnosis based on the classification system within the DSM has been shown
to be problematic. Finally, the classification of many disorders and behaviors are the
result of discussion, argument, and negotiation.

This critique of the classification system in the DSM has implications for social
researchers. First, social researchers need to be wary of truth claims regarding mental
disorder that are produced as a result of observation and classification. Second,
researchers need to acknowledge that science and knowledge within psychiatry are often
products of competing power relations. By adopting an empirically derived classification
system of disorder, psychiatry’s reach into the clinic and clinical practices was
lengthened. The DSM is publicly visible and is regularly used by clinicians (Wilson
Further, the production and development of the DSM was both a scientific and a political process. It was not an either/or project as some would suggest (Schacht 1985). For example, the DSM-III, published in 1980, was “both a tool for the production of scientific knowledge and an instrument of rhetoric, social organization, and power distribution” (Schacht 1985:520). By basing the classification of mental disorders on empirical observation (with little theoretical foundation to support the results), psychiatry had made truth claims about how the management of mental health should be conducted, while propping up these claims with scientific authority.

Review. Thus far, I have reviewed the sociological critiques of medicine and psychiatry. Specifically, I have reviewed the critiques of the medical and psychiatric models of disease and mental disorder. I have outlined the concept of medicine as an institutional means of control and medicalization theory. I have also outlined theories regarding the social construction of medical knowledge as well as the construction of disease and disorder by somatic medicine and psychiatry. But debates around the social construction of disease and illness have not been settled by sociologists (Brown 1995; Turner 1995). What can contribute to these debates is an investigation into the body.

What is missing in this literature review is a sociological acknowledgement of the body. The body plays an important role in the current project because power is being applied to the autistic child’s body in order to gain knowledge of autism as well as to discipline the child and the parents.

Toward a Sociology of the Body

The sociology of the body has been an expanding field of research (Turner 1995). While topics within the sociology of the body include the gay and women’s movement,
sex and gender, and virtual reality and its information systems, this area of sociological
interest is also playing a major theoretical role in regard to medical issues. These issues
include somatization of illness, medical and reproductive technologies, anxiety over
AIDS and HIV, and the emergence of diagnostically complex medical conditions (Turner
1995).

With regard to medical conditions, the body is seen as central to the debate within
social constructionist theories. These constructionist theories have challenged traditional
medicine in suggesting “that diseases have a history, are culturally shaped by
contemporary discourses and owe their existence to relations of power” (Turner
1995:233). What is more, the sociology of the body suggests that the body is a product
of history, discourse, and power as well. I show, by using Foucault’s theoretical
perspective, how the autistic body is also a product of history, discourse, and power.
CHAPTER V

FOUCAULT’S PERSPECTIVE ON SCIENTIFIC MEDICINE’S APPROACH TO THE HUMAN PSYCHE

In the previous chapter, I presented sociological critiques of medicine and psychiatry. In this presentation, I gave serious consideration to the critiques of the positivist approach to what is referred to by medicine and psychiatry as mental disorder and mental illness. The primary critique in this dissertation is directed toward the positivistic approach to autism that is taken by medical science. This means that the theoretical orientation guiding my research must be one that repudiates empiricism and positivism as a way of knowing individual humans and humanity in general, and a way of knowing about the human psyche in particular. Michel Foucault is one such theorist that rejects a positivist, empirical approach to ways of knowing about the human psyche.

In this chapter, I provide a detailed description of Foucault’s theoretical orientation. First, I present Foucault’s historical analysis of how the human sciences of medicine and psychiatry were born. This is important because it grounds my own questions concerning the scientific methods of medicine and psychiatry in autism. Second, I provide a description of the key concepts used or developed by Foucault that were then applied in conducting my dissertation research. Third, I show the differences and similarities between the sociological critiques of medicine and psychiatry that I presented in Chapter IV and Foucault’s critiques of medicine and psychiatry. These
comparisons are important to explain because one of my goals in writing this dissertation is that while sociologists of medicine recognize the importance of Foucault’s theoretical contributions, they have not utilized his research method. In my investigation of medical practices in autism, I show that not only does Foucault add to theories of medicalization, medical power and social control, and the social construction of medical knowledge and illness, but that his specific methods can accomplish this task. My contribution in using Foucault’s theory and methods in the particular case of autism is to add to theoretical knowledge in the sociology of medicine.

Foucault’s General Perspective on Science

Foucault’s philosophy toward society was a rejection of positivism and the Enlightenment. This meant that he rejected the idea that humans were actually free. They were free from the idea of God as explanations of phenomena, but they were not free from a new way of thinking about phenomena that was ushered in with the Enlightenment. Foucault suggested that while positivist investigations (e.g., mathematics and physics) into the natural world were valid and were certainly an improvement over supernatural explanations of natural phenomena, he believed that adopting scientific methods in the investigation into the nature of human beings was inherently dubious. “Human” sciences such as medicine, psychiatry, and criminology were not only dubious, but they subjected human beings to a discourse that disallowed any other way of thinking about other human beings and oneself. In this section, I explain how Foucault sees these human sciences emerging. My investigation into medical practices in autism is focused on three of these human sciences: medicine, psychiatry, and psychology. I reveal that medicine—psychiatric medicine in particular—and psychology made unique
contributions in forming the autistic child as an object for medical examination, and once
objectified, subjected to disciplinary power. I show the procedure in which psychiatric
medicine and psychology objectified the autistic child and subjected the child to power
respectively to produce how it is society understands autism today.

_Foucault and the Human Sciences_

A major theme of Foucault’s early research concerns the historical conditions that
made the emergence of the human sciences possible (Smart 2002). This work (Foucault
1988, 1994a, 1994b) dealt with the conditions surrounding the emergence of the
distinction between reason and unreason, and the subsequent development of medicine
and psychiatry in the classical age (Smart 2002). The classical age as Foucault defined it
is considered to be the era from the middle of the 17th century to approximately the end of
the 18th century in Europe (Dreyfus and Rabinow 1982; Foucault 1994b; Smart 2002).
For Foucault, the classical age begins with a mutation and transformation in knowledge
(Smart 2002). During the Renaissance, humans looked to the cosmos and the heavens for
answers to questions about natural phenomena. But humans became more attuned to the
importance of nature in the production of goods in agrarian society. Survival then
depended on a closer and more methodical inspection of material and physical
surroundings. Sustenance, production methods, and communication became vital
concerns in an increasingly organized society (Foucault 1994b). Knowledge that was
gained through scientific inquiry into these concerns became privileged during the
classical age as sciences such as mathematics provided answer to questions of production
and survival.
Foucault (1994b) maintained that biology, economics, and linguistics were the three important sciences that emerged in the classical age because they were able to answer the troubling questions regarding central issues for humanity: life, labor, and language. Because humanity was concerned with its physical survival, biology was to be the study of life. Biology was then the study of the physiological, social, and cultural functions of human as they processed various stimuli (Foucault 1994b). Humanity was also concerned with the struggle over nature and the labor required to access and obtain scarce materials and goods. Economics was to emerge as the science that would study the consequence of human desires and needs, conflict with others and other interests (Foucault 1994b). Finally, humanity was concerned with how to use language to communicate so that survival and conflicts of interest issues could be resolved. Linguistics emerged as the study of the system of words and gestures used by humans (Foucault 1994b). In the end, Foucault (1994b) suggested that biology was the study of the average norms that permitted humans to perform their functions, economics was the study of how to establish rules regulating conflict, and linguistics was the study of the system of signification of words and gestures.

For Foucault (1994b), the sociological examination of these emerging human sciences is important because these sciences borrowed the techniques of investigation from the natural sciences and applied them to human beings. This meant that what we would know about the human species would be known through the techniques of the natural sciences. Because of the privileged position of the scientific method in general, discourses were permitted to emerge about human beings and of the nature of humanity.
Key Foucauldian Concepts

In the next section, I present, define, and explain key theoretical concepts that I will be applying in my dissertation research. These Foucauldian concepts include discourse, power (including power/knowledge, disciplinary power, and bio-power), discipline, and the medical gaze, I also illustrate these concepts through examples found in Foucault’s writings.

Discourse. Foucault conceived of discourse as a delimited body of social knowledge (McHoul and Grace 1993). Where others have suggested that discourse is merely language that has underlying hidden meanings, Foucault suggested that discourse actually replaces language (Dreyfus and Rabinow 1982; McHoul and Grace 1993). Language is thought of by linguists as implying a system of representation, a system where its elements represent something (McHoul and Grace 1993). Foucault contends that discourse, having replaced language, really is the means by which we know something (McHoul and Grace 1993). Therefore, discourse actually does something to people; it has an effect on them. Since the primary manner in which we know something is through the scientific method, Foucault wanted to understand the dynamics of scientific discourse.

It was Foucault’s belief that the general function of a scientific discourse was to produce human beings as objects of study for the purpose of gaining knowledge about the nature of humanity (Smart 2002). As a consequence of this new scientific knowledge about humans, individuals were in turn made subject to this new knowledge; knowledge that could be located in discourse (McHoul and Grace 1993; Smart 2002). But how they
were made subjected to discourse depended on the historical era in which the discourse emerged.

For Foucault it is not merely enough to comprehend the discourse to understand how humans and humanity are shaped; one had to understand history. This is because particular historical eras are dominated by different political regimes which allow for particular discourses to emerge (Foucault 1980, 1995).

Foucault (1980, 1995) understood recent history as being divided into two distinct eras dominated by two distinct regimes. The first was the authoritarian regimes of the classical age. For Foucault, the classical age can be seen as emerging from one particular moment in time: the King’s Edict of 1656.

The edict of Louis XIII mandated that the poor, both able-bodied and sick, should be looked after, fed, and cared for (Dreyfus and Rabinow 1982; Foucault 1988). While appearing humanitarian in nature, the Edict of 1656 also stressed the dangerousness of the idle poor in the streets of Paris (Dreyfus and Rabinow 1982; Foucault 1988). In delivering this edict, the sovereign recognized the gravity of the potential problems that a disgruntled population could bring to the state. Therefore, the King needed a way to classify and organize humans to separate the productive, healthy, law-biding citizens from the dangerous class of the criminal, the mad, the unhealthy, and the shiftless.

*The discourse of the human sciences.* The classical age then was characterized by the need to organize populations by the *type* of individuals that could be found in society. Discourses emerged that classified individuals as criminal, insane, poor, diseased, and lazy. These discourses emanated from the new human sciences of medicine, criminology, and psychiatry (Foucault 1994b). Thus, these human sciences were caught
up in an episteme (way of thinking) of classification and organization that served the
needs of authoritarian regimes in the classical age (Dreyfus and Rabinow 1982; Foucault
1994b, 1995). But the French Revolution (and other similar democratic revolutions
around the same time) created new regimes, and thus new ways of thinking. These new
regimes ushered in the second historical era that Foucault was concerned with: the
modern age.

According to Foucault (1995), the modern age ushered in a new episteme
allowing for a new discourse about human beings to emerge. New regimes in the modern
age were not so much concerned with organizing and classifying deviant individuals (i.e.,
criminals, the insane, and the diseased) as they were with returning them to the
mainstream – an outcome consistent with a new democratic society that was concerned
with rational production (Weber 1964). Regimes in the modern age were concerned with
rational production and needed as many able-bodied persons as possible to contribute to
production. Therefore, according to Foucault (1995), disciplinary regimes in the modern
age needed individuals to be reformed in order for them to be productive members of
society. As a consequence, disciplinary regimes allowed for discourses of rehabilitation,
moral reform, treatment, and cure rather than merely discourses of classification (Dreyfus
and Rabinow 1982; Foucault 1980, 1995; McHoul and Grace 1993).

For Foucault (1980), these discourses were made possible by the knowledge that
the social sciences – now appropriately called disciplines – gained in the process of
rehabilitation and treatment. Under disciplinary regimes, Foucault (1980) suggested that
gaining a deeper knowledge of the human body and the human psyche is advantageous to
the regime because in knowing how particular individuals act, think, behave, and emote,
new and better practices can then be applied to individuals for the purpose of shaping a more productive, more efficient being.

In brief, Foucault believed that the human sciences shape humanity through discourse. Although many scientific discourses circulate throughout society, only particular discourses are allowable depending on the historical age and the type of political regime. This means that for Foucault, there is no true human nature, but human nature is shaped by discourses that are dependent on the particular episteme of particular historical eras under particular historical regimes. It is with this understanding of the modern age and the scientific discourses that guide my investigation into the medical practices in autism. I show that the practice of discourse shaped the autistic child as we know these children today.

*Power.* Foucault (1980) suggested that discourse shifts and modifies positions, which then opens up new possibilities of what can and cannot be stated. The *apparatus* within which discourse operates (e.g., institutions, regulations, administrative measures, philosophical and moral propositions all within historical conditions) has a strategic function embedded in power and knowledge. Foucault suggested that the “apparatus is thus always inscribed in a play of power, but it is always linked to certain coordinates of knowledge which issue from it but, to an equal degree, condition it. This is what the apparatus consists in: strategies of relations of forces supporting, and supported by, types of knowledge” (1980:196). Thus, although the concept of the apparatus (*dispositif*) is not often used by Foucault, the concept remains important here because it provides clues as to how Foucault saw the relationship between discourse, knowledge, and power. The
relationship between knowledge and power for Foucault was seen as vital in understanding how humans emerge from scientific discourse.

Before I outline Foucault’s perspective on the relationship between power and knowledge, it will be helpful to explain what exactly Foucault means when he refers to “power.” Foucault explained that what he meant by power is contrary to previous conceptions of power that were held in the 18th and 19th centuries. First, Foucault suggested that power was not the power conceived of in juridical theory (Foucault 1980). This liberal theory held that power could be seen as a commodity that could be transferred through legal contractual exchange (Foucault 1980). Second, Foucault’s version of power was the not the version of power conceived of by Marx. This Marxian version of power stated that power was embedded in the function of economic systems that by definition oppress human beings (Foucault 1980). Thus Foucault’s conception of power fundamentally differed from traditional liberal or even Marxist notions of power.

Foucault’s explanation of power actually is not intended as a theory at all (Dreyfus and Rabinow 1982). As opposed to a context- and historically-free “objective” theory of power that is exchanged or located only in economic relations, Foucault saw power as exercised and existing only in action (Foucault 1980). He suggested that power is visible in all aspects of social life; power is everywhere (Dreyfus and Rabinow 1982; Foucault 1990; McHoul and Grace 1993). Power is movable. It is not a commodity, right, or property. It is not a position or a scheme (Dreyfus and Rabinow 1982; Smart 2002). It is not a thing that it is hidden that is possessed in secret. It is not a thing to be discovered. Power is exercised and the task for the researcher is to identify and analyze how power operates (Dreyfus and Rabinow 1982; Foucault 1980, 1990).
For Foucault, power both functions to dominate and produce – that is to say, enable – human beings. This means that power has both a dominating and productive quality to it (Dreyfus and Rabinow 1982). Power not only serves to repress individuals and humanity, but it produces the *truth* of what being human is. Power, always seeks and records the truth (Foucault 1980). Truth, however, is not a one-dimensional entity that exists and is to be discovered by scientific inquiry. Rather, truth is to be found within relations of power where discourse is produced, functions, and circulates (Foucault 1980).

This power to dominate and produce the truth of individuals and humanity is particularly important when one considers the importance of the *discourse of the human sciences*, according to Foucault. Although Foucault saw power as being exercised at all points in society, he was concerned with the institutional location within which power is practiced. That is, he was interested in where the discourse of the human sciences is generated (Dreyfus and Rabinow 1982; Foucault 1980, 1988, 1994a, 1995; McHoul and Grace 1993; Smart 2002). It is important to remember that Foucault insisted that power is neither the institution nor the structure; power is rather a strategy with the intentional aim to make truth claims (Foucault 1980). When these strategies are employed in the human sciences, recognition of authority is acquired when these particular domains refer to *scientific truths*. It is within discourse where these strategies can be found.

*Power/Knowledge.* Foucault’s conception of power is as strategy (Smart 2002). More precisely, it is conceived of by Foucault as a complex strategic situation where an array of force relations plays out (Smart 2002). Power then arises out of, and is acted out, based on maneuvers, tactics, and techniques employed in domains or institutional sites.
(Foucault 1980; Smart 2002). These technologies of maneuvers, tactics, and techniques are found in specific institutions such as medicine, psychiatry, or any of the social sciences where discourse around humanity and individuals is generated (Dreyfus and Rabinow 1982). The result of the use of technologies or strategies within institutional settings is to gain new knowledge. This knowledge which power produces (Foucault 1980) is expressed in discourse. Discourse is where power and knowledge are joined together (Foucault 1990). Knowledge then implies power and power implies knowledge (Foucault 1995; Smart 2002). The association between power and knowledge is expressed in discourse.

Foucault was thus deeply interested in the relationship between knowledge and power (Turner 1995). In fact, according to Foucault (1980), there can be no knowledge without power and no power without knowledge. He stated, “There is no power relation without the correlative constitution of a field of knowledge, nor any knowledge that does not presuppose and constitute at the same time power relations” (Foucault 1995:27). But because he understood that knowledge is produced within power relations rather than attained through objective methods, Foucault suggested that processes and struggles internal to institutions actually make domains of knowledge possible (Foucault 1995). This means that discourse (where power/knowledge resides) is the product of struggle.

The question of power became central to Foucault’s theory of discourse in his later work (see for example Discipline and Punish, The History of Sexuality and his many interviews). The concept of power in his theory of discourse helps explain the effect of discourse on humanity. Foucault’s early work (1988, 1994a, 1994b) suggested that ruptures in knowledge happen internal to the domain or institution. Some knowledges
become preferred while others are dismissed as a result of something internal to the discourse. What that “something” was remained unclear to Foucault until his discovery of power. While discourse and knowledge seemed to go hand-in-hand, it was when Foucault added power to the combination of discourse and knowledge that he came to understand how discourse shaped humans and humanity. Discourse went from a detached series of statements about humanity to becoming the manner in which a complex system of power-knowledge relations shaped humans as objects of knowledge for the human sciences and subjects of power. Humans are thus effects of power-knowledge relations (Turner 1995) expressed through discourse.

As a result, Foucault’s central question became: How are human beings formed within a complex system of power-knowledge relations that serve to dominate but also to produce individuals as objects of knowledge and subjects of power as part of a general humanistic scientific discourse (Smart 2002)? In the next section, I explore how “bodies” serve as the site on which Foucault saw power deployed as it transforms humans into objects and subjects of discourse. When Foucault speaks of bodies, he is referring to not only the bodies of individuals, but the social body as well (Foucault 1980, 1995; Smart 2002; Turner 1995). Foucault’s interest in how power is organized on bodies links to my goal of showing how medical power is organized on the bodies of autistic children and, in so doing, on the social body as well.

The body. Foucault’s interest was in the exercise, organization, and deployment of power on bodies in different historical eras (Dreyfus and Rabinow 1982; Foucault 1980, 1995; Turner 1995). Bodies are critical to any theory of power because the body has been largely ignored within analyses of power (Smart 2002). In this case, the body is
considered “natural” with no culture or history attached to it (Smart 2002). But right away in Foucault’s early works, he showed how the body became an *object* of scientific and medical examination and analysis (Foucault 1994a). Foucault further proposed that the body is located in a political field and thus is *subject* to power relations (Smart 2002). This means that power relations determine the usefulness of the body in production and are subject to the needs of particular economic and political regimes (Smart 2002). For example, the body’s “constitution as labor power is possible only if it is caught up in a system of subjection; the body becomes a useful force only if it is a productive body and a subjected body” (Foucault 1995:26).

The body is thus a target for the exercise of power. As Foucault himself suggested, there can be nothing more “corporal than the exercise of power” (Foucault 1980:58). Further, he maintained that multiple relations of power actually pervade and constitute the social body (Foucault 1980). This means that Foucault saw power operating all through the population for the purpose of *regulating* populations (Turner 1995). Power is not possessed; it is deployed throughout society *and* it is deployed on to the bodies of individuals (Foucault 1980, 1990, 1995). This very proposition suggests that individuals and populations are actually effects of power. However, this particular feature of power is not an entirely negative feature. For Foucault (1990), power was also productive; it makes us who we are. In the following section, I review how Foucault saw power operating on bodies and populations in different historical eras. Based on his historical analysis, this review shows how Foucault suggested that there are shifts in how power is deployed onto bodies and populations, depending on the historical situation. In
my dissertation, I too map out the historical shifts in the organization of medical power, but in this case, on to bodies of autistic children as well as on to the social body.

*Sovereign power in the classical age.* In the beginning of the classical age, during the reign of the monarchs in Europe, power was organized through public penal torture (Foucault 1995; Smart 2002). During this historical epoch, the laws – actually, edicts – represented the will of the sovereign (Dreyfus and Rabinow 1982; Foucault 1995). Any crime that was committed was a personal offense to the king and a direct challenge to the king’s authority (Dreyfus and Rabinow 1982; Foucault 1995). Therefore, in order to maintain his authority, the king had to demonstrate to his subjects that any crime committed would be met with brutal bodily punishment (Foucault 1995). The sovereign would organize this bodily punishment of the criminal openly for all to see in the form of a spectacle. In this manner, the intent of the king – to demonstrate his supreme authority – would not be lost on his subjects (Dreyfus and Rabinow 1982; Foucault 1995).

Torture during this period was an enactment of sovereign power, and the site of this power was the flesh and bone of the human body (Dreyfus and Rabinow 1982). The truth of the authority of the king was revealed in the spectacle of public torture as the criminal pleaded for forgiveness. The criminal’s confession that he had indeed dishonored the sovereign, coaxed out through excruciating bodily punishment, reaffirmed the truth of the judicial system under the monarchy (Dreyfus and Rabinow 1982). The purpose of the spectacle of penal torture was now complete; the people witnessed firsthand the authority of the sovereign and his judicial system. Sovereign power was made visible.
This brief description of sovereign power lends evidence to Foucault’s claim that “the classical age discovered the body as object and target of power” (1995:136). During the early portion of the classical age, the way in which power was deployed to punish was through penal torture (Foucault 1995; Smart 2002). But by the middle of the 18th century, the public spectacle of bodily punishment began to fall into disfavor (Foucault 1995; Smart 2002). The organization of the people into mobs witnessing punishment was potentially dangerous to the sovereign (Smart 2002). Further, and perhaps more importantly, academics and reformers influenced by the ideals of the Enlightenment saw public torture as inhumane and much too violent for the sensibilities of the masses (Dreyfus and Rabinow 1982; Foucault 1995). During the course of the 18th century, the idea of reforming law-breakers became the favored way of addressing the issue of crime (Foucault 1995; Smart 2002).

At first, notions regarding the humanitarian reform of criminals involved public works (Dreyfus and Rabinow 1982; Foucault 1995). The thought was that by forcing criminals to labor and to be productive members of society, the body could be manipulated to perform good deeds (Dreyfus and Rabinow 1982). Labor and production would be the moral lesson for the criminal. Further, because this labor was performed in public, people could witness the transformation from criminal to moral subject. This restoring of morality would then re-qualify the deviant for acceptance into the mainstream of respectable society (Dreyfus and Rabinow 1982; Foucault 1995).

Humanitarian reform also involved notions of classifying crimes so that punishments fit the crime rather than having punishments being determined by the arbitrary whims of the sovereign (Dreyfus and Rabinow 1982; Foucault 1995). These
reformers believed that the laws and the appropriate punishment for breaking particular laws had to be made clear to the people (Smart 2002) because stating a clear link between crime and punishment could then serve as a preventive measure against deviant acts (Dreyfus and Rabinow 1982; Foucault 1995). Reformers wanted all people to understand the laws and to understand the punitive consequences (Dreyfus and Rabinow 1982). But in order for the reformers to know whether and/or how people understood the rules of society, they had to understand the individual in much greater detail than they had previously (Dreyfus and Rabinow 1982). A deeper understanding of humans and humanity was therefore needed to more efficiently prevent and correct human behavior (Dreyfus and Rabinow 1982; Foucault 1995; Smart 2002). As was the case with other sciences, their aim was to create a table of types of crimes, criminals, and punishments that would be made known to the public (Dreyfus and Rabinow 1982). Social reformers thought that by developing a plan that would prevent crimes before they happened, or warned potential criminals what would happen if they committed a crime, they could end the atrocity of torture (Dreyfus and Rabinow 1982; Foucault 1995). For Foucault, this signified the emergence of a sudden growth in the human and social sciences. But this humanist endeavor really never developed because of public resistance (Dreyfus and Rabinow 1982). In addition, the humanist plan of classifying crimes and punishments became a non-issue as the regimes after the French Revolution officially abolished torture (Foucault 1995).

However, at the moment when the humanist plan of classifying and organizing crime, punishment, and deviants began to die, the new democratic authorities established after 1789 in France resurrected elements of a new technique (Dreyfus and Rabinow
This technique became an element of power, a power that Foucault (1980, 1995) called disciplinary power.

*Disciplinary power in modernity.* This new technique of power was no longer about repression of the body in order to restore the sovereign’s authority (Foucault 1995). It was about repression of the mind through a disciplining of the body by the new political system. Repression and pain were no longer the goals, but power was about getting into the mind of individuals and disciplining it (Foucault 1995). As Foucault (1995) suggested, physical chains were no longer needed to control individuals. In line with the growing rationalization of modern society (Weber 1964), what was needed under the new political regimes of the late 18th and 19th century was to control deviance and delinquency through a more calculated and efficient form of punishment: a disciplining of the mind toward reason (Foucault 1995). Foucault offered two examples in which disciplinary power was deployed onto bodies in the late 18th century as modernity emerged: prisons and asylums.

In *Discipline and Punish*, Foucault (1995) showed how punishment broke from one of repression of the body to the correction of the mind in the course of 80 years. This rupture in the methods used to punish criminals coincided with the transition from the classical age to modernity. The transformation in the form of punishment from public torture to other forms of penal practices was an attempt to alter the punishment from bodily punishment to one of punishment of the psyche or the soul (Dreyfus and Rabinow 1982; Foucault 1995; Smart 2002). Yet, for Foucault, the deprivation of wealth, freedom, and rights of the individual suggested that there remains a sign of bodily punishment even in modernity (Smart 2002).
The goal of disciplinary power with regard to criminals was to reform their moral being (Foucault 1995). To do this, the prison transformed from a house of forced labor and pain to a house of confinement, scheduled activities, and surveillance. By creating a physical structure whereby prisoners could be observed by guards at all times, and by scheduling activities such as work, education, and moral lecturing, it was thought that the very soul of the criminal could be changed (Dreyfus and Rabinow 1982; Foucault 1995). This change in the morality of the criminal was important, not for humanitarian reasons, but to maintain the social and moral order (Foucault 1995). Prisons were to be built for the purpose of changing prisoners from deviants to individuals who understood the importance of the social and moral order.

To transform the very soul of the prisoner, an idea of a structure that would enable prison guards to observe the movements of prisoners was developed during the course of the 18th century. Although never fully constructed, the panopticon was an architectural style that allowed guards to monitor prisoners at all times (Foucault 1995). But the genius of the panopticon was that the guards were hidden from view of the prisoners (Foucault 1995). This meant that observation went only in one direction: from the authority figure to the deviant. But the effect of this architectural style was most significant for Foucault. The effect of this type of prison was that, because prisoners were unsure as to whether they were being observed, they closely monitored their own actions (Foucault 1995). In this manner, the guards or any other authority figures were not responsible for transforming the souls of the wayward and criminal; the inmates transformed their souls on their own. This made for an efficient system of discipline, a self-discipline of the psyche and body that would maintain the social order.
In *Madness and Civilization*, Foucault (1988) showed the transition from bodily repression and confinement of the insane to the moment when they were freed from their chains. In the classical age, criminals, the poor, the unemployed, and the mad were housed in one great structure of confinement (Foucault 1988). These former lazar houses were domains of brutal bodily repression. But during the course of the 18th century, there were outcries that even the criminal and the shiftless should not have to be housed with the insane (Foucault 1988; Smart 2002). Thus the insane were confined to their own domain: the asylum.

At first, the asylum was a house of brutal bodily oppression, much like the early prisons. Inside the asylum, various torturous techniques were used on the body in the attempt to drive out unreason from the minds of the delusional (Foucault 1988). But as insanity was beginning to be thought of as a contagious disease, medicine was called forth to cure the delusional (Smart 2002). Once inside the asylum, doctors were appalled that inmates were chained to bedposts and then beaten. As they smashed the chains within the asylums, doctors were at one moment liberating the delusional from physical chains, but affixing them to another form of bondage: the disciplinary power of psychiatry (Foucault 1988).

Psychiatry near the end of the classical age did not want to brutalize the bodies of the delusional (Smart 2002). Rather, psychiatry attempted to understand and then transform the minds of the insane (Foucault 1988). After the French Revolution, the asylums were the places where psychiatry could examine patients in an attempt to achieve transformation (Smart 2002). Given that the new regime desired more systematic forms of control, psychiatry obliged by setting up routines for the patients and
enforcing moral codes that patients were to internalize (Smart 2002). The goal was to engineer self-restraint through work and observation, punishments and rewards (Smart 2002). For the purpose of creating an ever more efficient way of self-discipline, psychiatry needed consent and submission from their charges (Foucault 1995; Smart 2002).

The institution of the asylum became a medical space for the exercise of disciplinary power on to the minds of the delusional (Smart 2002). Ironically, this disciplinary power did not emerge because of the special skills or possession of knowledge of the doctors as they entered the asylums. Rather, they developed skills and knowledge by observing those housed there (Smart 2002). Because doctors had authority as a result of their assumed virtuousness, the knowledge and skills they gained through observation were highly regarded (Smart 2002). This gave them the authority to deploy this new disciplinary power on to unreasonable people.

There is one last point about disciplinary power that Foucault observed. In the classical age, humans could not be an object of study (Foucault 1994b). They could only observe and classify objects in nature. But as the need for humans to produce goods on a mass scale grew, they became another object that needed to be classified. This was because humans themselves needed to be organized and classified for the purpose of efficient, rational production. The subject (the individual) was not made visible on its own. It was at the moment when disciplinary power was deployed on the human body that humans became visible objects that could be classified and counted as another entity in economic production. But the insidious nature of disciplinary power is that while the subject was made visible in the exercise of disciplinary power, disciplinary power itself
remained invisible. It is now taken for granted, seen as a natural state of things. Therefore, one goal of the current dissertation research is to render disciplinary power visible. Specifically, I intend to expose disciplinary power as deployed on to autistic children.

In sum, Foucault’s theory is that power is deployed within institutional domains such as asylums and prisons. The site of power is the same throughout historical eras. The site of power is always the body. However, the goal of power is different depending on the historical regime. In the classical age, under regimes of sovereigns, power was deployed brutally onto bodies as a display of the king’s authority. This was the manner in which populations were controlled. In modernity, the deployment of power was on bodies for the purpose of disciplining the minds of the criminal, the delusional, and the deviant. This was the manner in which bodies could be disciplined and yet productive. In the next section, I take a detailed look at the idea of discipline and what it means for the human sciences and for medicine. In this discussion, I describe and analyze techniques of bodily discipline that move through the medical institution onto bodies of autistic children and the social body as well.

*Discipline.* Discipline can be understood as a “technique of power which provides procedures for training or for coercing bodies (individual and collective)” (Smart 2002:85). Discipline actually creates and produces individuals by training them for some purpose (Foucault 1995). For Foucault, discipline proceeds in four ways. First, discipline physically encloses individuals so that they know their place. Second, it breaks down, adjusts and controls bodily movements. Third, in discipline, the organization of bodily training progresses from the simplest moves to those that are more complex.
Fourth, the specifics of this training must be coordinated with the general manner in which society operates and produces (Foucault 1995; McHoul and Grace 1993). During the course of the classical age, this type of training and disciplining of the body took place in certain segments of society such as monasteries, labor camps, factories, and army barracks (Foucault 1995; Smart 2002).

Foucault understood that discourse around the benefits of discipline circulated long before the political upheavals near the end of the classical age. But it was not until the modern age that disciplinary measures became a mechanism of power over the individual body and the entire collective social body (Foucault 1995; McHoul and Grace 1993). In the classical age, authority was with the sovereign and disciplining ordinary subjects as well as the entire kingdom was impossible. But with modernity came the emergence of new authorities: medicine and other human sciences (Foucault 1994b, 1995). This, in combination with increases in the size and density of the population, created a need to control and regulate individuals efficiently for the new rational production methods under capitalism (Smart 2002; Weber 1958). Authorities with specialized knowledge would be vital in organizing populations for the purposes of control and production. Scientific bodies of knowledge were held in esteem by the time the monarchies of Europe fell at the beginning of the 19th century (Turner 1995). Thus, these much needed and appreciated knowledges within medicine, psychology, criminology, and sociology would become known literally as disciplines (Smart 2002).

These disciplines emerged during the 18th century and were primarily concerned with the nature of humans and humanity. For example, as early as the beginning of the 18th century, there was a concern not with better bodily punishments of criminals but with
the criminal mind (Foucault 1995). In regard to medicine, 18th century physicians had wanted to dissect corpses in order to discover the true nature of disease and thereby uncover truths about the physical being (Foucault 1994a). But it wasn’t until a new democratic regime was ushered in that these disciplines were permitted to investigate humanity in such a three-dimensional manner (Foucault, 1995; Smart 2002). As discussed earlier, the political regimes after the 18th century did not emphasize brutal restraint. Rather, they emphasized systematic forms of control, routines, internalization of particular moral values and enforcement of codes of conduct (Smart 2002). In addition, by the latter part of the 18th century, the entire undercurrent of discourses revolving around the advantages of discipline and confinement coalesced within the human sciences with looking at humans for the purpose of gaining a deeper understanding of humanity. To do this, instruments and methods were developed within these sciences that would form humans into objects of study and thereby subject them to a new disciplinary power. In keeping with the needs of new political regimes, the human sciences were well poised to contribute to the creation of a disciplinary society.

Observation, judgment, examination. In the attempt to gain a deeper knowledge of the human body and mind, the disciplines developed three methods. These methods were hierarchical observation, normalizing judgments, and the examination (Foucault 1995; Smart 2002). First, hierarchical observation is simply an apparatus that organizes and ranks humans according to the particular characteristics and qualities that are of interest to the scientist (Foucault 1995; Smart 2002). This method enabled the documentation, classification, and identification of individuals through procedures of writing and registration (Foucault 1995; Smart 2002). That is, hierarchical observation
enabled the meticulous recording of individuals’ movements and actions for the purpose of classifying and then registering them in some formal manner in accordance with the new regimes’ administrative apparatus.

Based on the aggregated data accumulated and recorded in national registries, *normalizing judgments* could be made by academic disciplines. Once it was established which behaviors could be considered the “norm,” judgments could be made of individuals within the disciplines by comparing their actions, thoughts, and behaviors to the norm (Foucault 1995; Smart 2002). Individuals within disciplines had the capacity to judge another on the basis of their knowledge of the norm, knowledge which the individual being judged did not hold (McHoul and Grace 1993). This normalization of individuals was considered necessary for the managing of life-processes under the new democratic regimes (McHoul and Grace 1993). Normalizing judgments allowed for a system of punishments and rewards for the purpose of individual conformity. Normalizing thought and behavior became the goal under this new disciplinary regime (Smart 2002).

Finally, the *examination* combines the techniques of hierarchical observation and normalizing judgment (Foucault 1995; Smart 2002). Foucault stated that the examination “is a normalizing gaze, a surveillance that makes it possible to qualify, to classify and to punish. It establishes over individuals a visibility through which one differentiates and then judges them” (1995:184). According to Foucault, the examination is central to the disciplinary procedure. This is because the examination “is at the center of the procedures that constitute the individual as effect and object of power, as effect and object of knowledge” (Foucault 1995:192). Thus, what is important here is that humans
become objects of study in order to gain knowledge and a deeper understanding of the human species. This knowledge is then turned back onto humans in order to subjugate them to disciplinary power. Knowledge is gained and disciplinary power more efficiently deployed on to bodies as a result. For Foucault (1995), the examination is the method of power for all the disciplines.

*The clinical gaze.* Within medicine, for example, the clinical gaze is the examination of potentially diseased bodies (Foucault 1994a). This clinical gaze was made possible because of an emerging discourse that favored the use of corpses for the purpose of examination in the latter part of the 18th century (Foucault 1994a; Smart 2002). Death provided a vantage point from which to examine disease (Foucault 1994a; Smart 2002). Death became not a hindrance to medical knowledge, but it enabled medical knowledge (Smart 2002). Instead of classifying disease, the examination of corpses allowed for a deeper understanding of the human anatomy (Foucault 1994a). The clinical examination identified an individual body as an object of scientific medical examination and analysis (Smart 2002). This meant that medicine, through its gaze, was able to assume control over defining and identifying disease, deviance, and disorder within the body. In a phrase, medicine now had the social authority to define the reality of the human condition (Turner 1995).

*Linking power and knowledge.* It is clear that, from Foucault’s point of view, the examination makes individual bodies the site of disciplinary power beginning in the age of modernity. While the normalizing and clinical gaze disciplined the individual body, the examination also linked the relations of power and knowledge. First, the examination transformed the field of visibility into a domain of power (Smart 2002). This means that
the gaze onto the body and mind creates societal realms where power can be deployed; realms where the express purpose is to gain knowledge about the nature of humans. For example, the domain in which there is an accepted authority to deploy power onto diseased bodies is medicine. The domain in which authority is granted to deploy power onto the mind is psychiatry. And the domain in which there is authority to deploy power onto the soul was criminology (Foucault 1995). The body in the age of modernity is the site where power is deployed by disciplines and, at the same time, where knowledge of humanity could be acquired.

Second, power and knowledge were linked through the collection of files, documents, and records (Smart 2002). The assemblage of bits of knowledge attained through the examination of bodies (and the documentation of findings) was used to aggregate thoughts and behaviors for the purpose of arriving at a norm of thought and behavior (Foucault 1995). The process by which the human sciences were able to collect and assemble knowledge attained from the examination of bodies was power made manifest through disciplinary practice.

Third, relations of power and knowledge were linked by examination through the formation of individual cases (Smart 2002). In examination, thoughts and behaviors of each individual (e.g., criminal, deviant, or sick) were recorded. In this way, each individual became a case; a case that could be studied and compared to the aggregated norm. Any case therefore could be referred to and characterized for the purpose of developing knowledge about humans. This meant that particular human beings could be compared to, and judgments made about, over, and against, other statements made about other humans. The ability to form particular human beings purely in relation to others
was also a manifestation of power. But power was manifested in another way as well: through writing.

Foucault suggested that the power of the human sciences lay in their writings. This “power of writing was constituted as an essential part in mechanisms of discipline” (1995:189). Foucault went on to suggest that “the examination that places individuals in a field of surveillance also situates them in a network of writing; it engages them in a whole mass of documents that capture and fix them” (1995:189). In Foucault’s eyes, procedures of writing were especially important as clinics and hospitals began to emerge. Writing in medicine was important because medicine had to identify the patients and the bogus doctors, follow the evolution of disease, study treatment effectiveness, record similar cases of illness, and trace the beginnings of epidemics (Foucault 1995). The trail that medical writing – based on examinations of bodies – leaves behind is a meticulously constructed archive (Foucault 1995).

Foucault understood disciplinary techniques as techniques that render human beings visible as objects and subjects of power/knowledge. The ability to use these techniques in institutional domains such as prisons, hospitals, and asylums indicates that these are places where knowledge of humans as a species is attained and where power is organized on individual human and social bodies. Disciplines such as criminology, psychology, psychiatry, and medicine are aptly named because it is precisely what these sciences do to the body and the psyche. These disciplines could have only developed in the 18th century when regimes sought to understand and then control populations for the purpose of production. The disciplines therefore not only sought knowledge of humans through examination but unwittingly created new power relations in society based on
scientific knowledge. As the documentation of knowledge about humans has grown and infiltrated all aspects of society, scientific knowledge of the species has increased and power relations have spread to the furthest fragments and dimensions of human life. Foucault referred to this society as a *disciplinary society*.

The disciplinary society can be thought of not as a perfectly ordered society, but as a society where disciplinary mechanisms (as outlined above) are extended throughout all dimensions of the social body (Smart 2002). In a disciplinary society, the disciplines themselves – what were hitherto the human sciences – are the authors of the general blueprint of domination (Smart 2002). The function of a disciplinary society is to train individuals and, further, to create individuals (Foucault 1995).

Disciplinary regimes produce individuals by highlighting personality differences among patients, deviants, delinquents, the delusional, and children (McHoul and Grace 1993). Thus, humans are individualized. Individuality becomes a modern phenomenon under disciplinary regimes (McHoul and Grace 1993). But this is not accomplished for humanitarian ideals of liberty. Rather, the creation of individuality ensures that each person can be placed appropriately within production mechanisms.

Once a personality is created, individuals in disciplinary societies are differentiated, sorted out, separated, and distributed (Foucault 1995). Individuals are then ready to be positioned in society, and are trained and coerced through a vast system of controls (Foucault 1995; McHoul and Grace 1993). These regimes use time-tables and other maneuvers to manage even the smallest acts (Foucault 1995). The body of the individual as well as the social body becomes pliable and docile (Foucault 1995). More and more progressive forms of training develop, courtesy of the disciplines, and
individuals and populations become enmeshed within a permanent state of regulation, docility, and openness to being coerced (Foucault 1995).

The regulations under disciplinary regimes are concerned with making the most of the body’s forces and capabilities, especially among those who refuse to go along – the delusional and the criminal (McHoul and Grace 1993). But there is another aspect of disciplinary regimes that actually constitutes a response to this concern regarding the individual’s capabilities. There is a concern under disciplinary regimes with regulating general aspects of the life processes of all individuals. For example, in modern societies, interventions and regulations are put in place to govern birth, mortality, contraceptive practices, and general health of the populace (Dreyfus and Rabinow 1982; Foucault 1990; McHoul and Grace 1993; Smart 2002; Turner 1995). These interventions and regulations Foucault referred to as bio-power (Foucault 1980, 1990, 1995). As McHoul and Grace state, “[d]isciplines of body and regulations of population constitute two poles around which organization of power over life was deployed – both are encompassed by the term ‘bio-power’” (1993:77). Disciplinary society is therefore concerned with both the regulation of the individual body and with the regulation of the social body through bio-power.

*Bio-Power.* Foucault’s concept of bio-power was first introduced in *Discipline and Punish* (Dreyfus and Rabinow 1982). Foucault (1995) suggested that bio-power is the form of power that pervades contemporary society (Dreyfus and Rabinow 1982). As I have shown, however, the concern for bodies and populations emerged as early as the 18th century (Smart 2002). These two poles of concern (individual bodies and the social body) emerged in the classical age but did not combine until the beginning of the 19th
century when psychiatric discourse centered on sex (Dreyfus and Rabinow 1982; Foucault 1990). In what follows, I briefly outline the history of bio-power.

In the classical age, one pole around which there was concern was for the human species, the social body (Foucault 1980; McHoul and Grace 1993; Smart 2002). The philosophical questions regarding the essence and origins of humans were beginning to be discussed during this time (Dreyfus and Rabinow 1982). Further, questions concerning the processes of human regeneration and survival began to be asked (Dreyfus and Rabinow 1982; Smart 2002). These questions were asked not out of idle curiosity, but within the context of an emerging state that needed to regulate the populace in order to retain authority (Dreyfus and Rabinow 1982). Thus, deep attention was beginning to be paid to the social aggregate (Smart 2002).

The other pole around which there was concern in the classical age was the individual body (Foucault 1980; McHoul and Grace 1993; Smart 2002). More specifically, interest focused on the capabilities of the individual body (Smart 2002). Again, this was not merely a contemplative exercise. Within the context of the authority of the state and the growth of industrial capitalism, interest in individual bodies concerned the body as an object to be manipulated in order to ensure that it contributed efficiently to new, more complex productive forces (Dreyfus and Rabinow 1982; Foucault 1980). The body had to be observed and examined to reach conclusions about how best to manipulate it for efficient production. Interestingly, the science of the functioning and manipulation of the human body emerged from the peripheries of society (Dreyfus and Rabinow 1982). As Foucault (1988, 1994a, 1995) pointed out, the peripheries of society were the labor camps, the asylums, the hospitals, and the prisons.
where the disciplinary powers of the human sciences applied power and knowledge to bodies and psyches. Thus, Foucault saw the emergence of discourse around bio-power in the classical age as tied directly to the needs of production.

By way of contrast, Foucault suggested that although the exercise of modern bio-power serves the needs of production through knowledge gained in observing and examining bodies, it has become its own political rationality (Dreyfus and Rabinow 1982). The human sciences served as proxies for the state’s deployment of power onto bodies in the beginning of the modern age. But during the course of the 19th century, these human sciences became disciplines unto themselves. It was no longer just the state that organized power onto bodies, other forms of power developed within institutions (Dreyfus and Rabinow 1982). These were the domains of medicine, psychiatry, and criminology. These disciplines’ authority increased with every increase in knowledge attained through the use of discourse, or discursive practices, and other forms of power.

In review, I have outlined Foucault’s theory of discourse, knowledge, power, and bodies. I have done so because these are the elements that I will use in my study of the history of medical practices in autism. Bringing a Foucauldian perspective to the issues of social construction of medical knowledge and disease, and medical power, social control and medicalization, I hope to contribute to the development of a more complete theory of the medical institution. While most theories suggest that the medical institution is powerful by the very fact of authority, science, knowledge, professionalism, authority, and technology, I maintain that the medical institution is not itself powerful, but that medicine is the institutional domain through which power operates. Further, this power is not merely an oppressive power that controls only patients. The power that is deployed
is deployed on to bodies for the purpose of manipulation of both the physical body and the psyche.

The exercise of power on to bodies fulfills historical cultural values. First, the exercise of power helps to keep scientific knowledge of humans at the top of the knowledge hierarchy. The scientific knowledge that medicine gains from using humans as subjects of study constantly reaffirms science’s place in the medical discourse. The use of scientific methods to examine humans is a modern cultural value. Second, the modern value which suggests that individuals should be productive is also apparent in the deployment of power on to the body. Power deployment not only serves to dominate, but it enables humans to be productive. In the case of medicine and psychiatry, in order to analyze power, the researcher must analyze medical practice as it is performed on to bodies.

*Traditional and Foucauldian Critiques of Medicine*

In this section, I compare modernist sociological critiques of western medicine with Foucauldian critiques of medicine. I examine briefly how each critique views medical power and control, medicalization, the social construction of medical knowledge, and the social construction of disease and illness. This is important because to achieve a new understanding of medical practices in autism, readers must fully understand Foucault’s ideas on these topics.

*Social control and medical power.* Early modernist sociologists of medicine saw medicine as an institution of social control (Parsons 1951). They defined social control as the elimination, minimization, or normalization of deviant behavior in the name of health (Conrad 1992; Zola 1972). Zola (1972) saw the development of a medicalizing society,
seeing social control as a top-down procedure starting with a medical profession that had a moral authority to attach itself to anything having to do with illness. Modernist sociologists (Conrad 1979; Parsons 1951) offered several examples of these procedures (e.g., confining patients to a role, using medical technologies such as medications, surgeries, and behavior modification, collaborating with other institutions of social control in determining illness, and using a medical ideology through rhetoric). Recently, another procedure, that of surveillance through a medical gaze (Conrad 1992; Foucault 1994a) has been added as another method of social control. In fact, it was pointed out that this method of social control was first used during the course of the 20th century on children (Armstrong 1995).

While Foucault (1994a) does see the medical gaze and surveillance as an important method of social control, he introduces the idea of the deployment of power as a method of social control (Foucault 1980, 1995). In contrast to modern critics of medicine who see medicine as an institution that has the power to control people, Foucault sees social control in medicine (and other areas such as the penal system) as the application of power onto bodies. That is, social control is a procedure, a practice of power (Foucault 1980). Power is everywhere for Foucault, it just needs to be deployed onto bodies, both individual and social. In the current project, I show that the social control of autistic children, and the population around them, emerged not from a powerful institution that forced its way onto the scene, but from an academic department of a university.

*Medicalization.* For modernist sociologists, the process of defining behaviors as medical problems is referred to as *medicalization* (Conrad 1992). According to Conrad
(1992), medicine’s ability to define disorders as a medical problem takes place through a process of construction. This process is a sociocultural one, involving the use of medical language, terminology, paradigms, and interventions (Conrad 1992). Conrad suggested that this medicalization process “may or may not involve the medical profession, lead to medical social control or medical treatment, or be the result of intentional expansion by the medical profession” (1992:211). I show how Conrad’s conception of medicalization is different from Foucault’s version.

While Conrad (1992) suggests that medicalization involves language, paradigms and intervention emanating from certain cultural values within medicine, Foucault would suggest that medicalization of deviant behaviors emerges from a scientific discourse within medicine. The difference here is that Conrad sees medicalization emerging from professional values. Professionals in medicine are aware of these values at a conscious level. In contrast, Foucault (1994a) sees the medical domain as guided not by conscious values, but by a scientific discourse that they are subject to. This means that while Conrad sees medicalization operating at a conscious level, Foucault maintains that medicalization, vis-à-vis discourse, operates at an unconscious level. Then, in terms of this research project, I do not investigate the medical profession’s values regarding their practices in autism; rather I investigate its discourse. This is because from a Foucauldian perspective, the discourse is where the medicalization of autistic children emerges.

*Constructing medical knowledge.* Both Foucault and mainstream critics agree that medical knowledge is socially constructed. Modernist critics argue that medical knowledge is constructed by powerful elites within medicine (Hafferty and Light 1995; Starr 1982; Timmermans and Kolker 2004). While these elites may shift over time, it is
still the few who construct knowledge (Hafferty and Light 1995; Timmermans and Kolker 2004). In contrast, Foucault is not concerned with who constructs medical knowledge. For Foucault (1994a), medical knowledge is constructed at the site of the body. That is, it is the medical gaze (i.e., observation, examination, and judgment) onto the body that produces medical knowledge. In my dissertation, I reveal how, instead of elites producing knowledge about autism, the medical gaze on to particular children produces knowledge about autism.

*Constructing illness*. Social constructionists regard the social construction of illness in three ways. First, some either do not place physical conditions in the forefront of their theory, or they believe that illness does not exist at all, as is the case for mental illness (Spector and Kitsuse 1977). Second, and more commonly, sociologists recognize illness as a biomedical condition, but suggest that the actors (physicians) who construct the illness have a decided cultural advantage in interaction with the patient so as to have the power and authority to determine its nature (Freidson 1970). Third, some social constructionists suggest that illness is constructed through actions of scientists who through their work in laboratories and in a conscious effort to promote their work (Brown 1995; Latour 1987). That is, illness is constructed by actors within a medical context.

In terms of mental illnesses, some see mental illness as constructed through an ideology. This ideology was as a subversive way to deny people exhibiting deviant behavior their political rights (Szasz 1970b). In addition, psychiatry, bases its opinion as to what is a mental illness on the prevailing cultural norms of a society.

Foucault, on the other hand, suggests that the social construction of illness emerges from a scientific discourse. This discourse emerges from scientific knowledge
of the body and mind and when this knowledge is enhanced with the application of power onto bodies (Foucault 1988, 1994a, 1990, 1995). But Foucault does not see this process constructed on a conscious level by free actors. Instead, the construction of illness is performed by subjects of a prior discourse of scientific medicine.

Thus Foucault saw not actors but subjects of discourse. In order to understand the construction of illness by medicine, researchers need to deconstruct discourse around the illness in question. In this way, Foucault argued, researchers would be able to see how illnesses are constructed. My dissertation takes Foucault’s approach in deconstructing discourse (found in text) through the methods of archaeology and genealogy.

Summary

In this chapter, I have detailed Foucault’s theoretical outlook and have compared his analysis of the medical domain and its practices to other perspectives. In what follows, I take a purely Foucauldian perspective on the history of medical practices in the case of autism. This means that I adopt his theoretical perspective, which rejects positivism and empiricism in the investigation of human social phenomena. I believe that I can apply the same theory and methods to American medicine as Foucault did in French medicine because both systems use science, empiricism, discourse, the clinical gaze, and power in similar ways given the fact that both systems are related to western medicine. In implementing a Foucauldian viewpoint, I also utilize his particular historical methodologies in sociological research of human relations: archaeology and genealogy.
CHAPTER VI
ARCHAEOLOGY AND GENEALOGY: FOUCALUT’S TECHNIQUES OF EXAMINING HISTORY

In this chapter, I explore the historical methods that Foucault used to describe and analyze discursive and non-discursive practices of medicine and other disciplines within different historical eras. There are two historical methods that Foucault used to expose these practices: archaeology and genealogy. While archaeology describes discourse, or more precisely, the history of structures of discursive practice, genealogy is an analysis of how discourse, the expression of power/knowledge, emerges; that is to say, its narrative. These methods show the history of how humans and the human species are made into objects of knowledge (archaeology) and how they are subjected to its power (genealogy). These methods further expose the points in history when power is deployed on to individual bodies and on the social body by the disciplines, and in what manner power is deployed. I use the methods of archaeology and genealogy to expose, describe, and analyze the history of medical practices (i.e., how medical power/knowledge is deployed) in the case of autism.

First, however, it is necessary to position Foucault’s historical method within traditional historical sociology. In what follows, I briefly outline some prominent traditions within historical sociology for the purpose of showing how Foucault’s particular historical methods are different from traditional historical sociology and how
the goals of traditional historical sociology are different from the goals of Foucauldian historical analysis. This juxtaposition of methods will help to clarify that the outcomes I seek in my history of medical practices in autism may be different from what would be expected from a more traditional approach to the history of these practices. For example, traditional methods suggest that causal relationships can be established through time to produce a specific outcome. This history of autism would suggest that given the historical circumstance, it was inevitable that the social problem of autism would exist today. I make no such claims in my history of medical practices in autism. I show that it was discourse of a particular type in a particular historical era in autism that produced autism as we know it today.

*Traditions in Historical Sociology*

Historical sociology dates as far back as sociology itself. The founders of modern sociology – Marx, Durkheim, Weber, de Tocqueville, even Adam Smith – all used some type of historical analysis to explain massive changes in social structure during the epoch in which they lived (Mahoney and Rueschemeyer 2003; Skocpol 1984; Tilly; 1981). These sociologists and economists endeavored to explain sequences of historical events in order to explain patterns of change (Skocpol 1984). While Durkheim and Marx analyzed change in terms of evolution and an unceasing developmental process, Weber analyzed political and economic development by comparing nations with similar and differing characteristics (Bendix and Roth 1971; Gerth and Mills 1946; Parsons 1964; Skocpol 1984). The work of these founders of sociology—historical or otherwise—set standards for future historical sociologists.
For example, these early thinkers helped to establish four of the general characteristics of historical sociology (Skocpol 1984). Historical studies subsequent to Marx, Durkheim, and Weber have some or all four of the following characteristics: (1) they ask questions about social structure and processes within a context of time and space; (2) they privilege temporal sequences in accounting for specific outcomes; (3) the analysis addresses relationships between actions that have meaning and social structure, and with the idea of examining intended and unintended consequences for actors; and (4) the studies look at varying social structures and varying patterns of change (Skocpol 1984).

Despite its contributions, historical sociology lost its appeal early in the 20th century as symbolic interactionist theories of behavior became prominent within the United States. Historical sociology lost further appeal as Parsonian sociology – with its indifference to history -- became the dominant paradigm in the 1940s and 1950s (Mahoney and Rueschemeyer 2003; Skocpol 1984). Even Marxist theories of change were rejected by scholars. This was due, in part, to the social conditions in Russia and Eastern Europe, and because of the inherent limitations of Marx’s economically deterministic view of how class society develops (Skocpol 1984). By the 1960s, disillusioned with the weak explanatory power of Marxist and Parsonian theories of change, sociologists turned to developmental explanations of historical transformations (Bendix and Roth 1971; Skocpol 1984). However, the real revival of historical sociology in the United States was rooted in a revisiting of Weber’s work.

Weber’s historical sociology. Weber’s historical sociology appealed to scholars who rejected the anti-historicism of Parsons, the economic determinism of Marx, and the
evolutionary theories of Durkheim (Bendix and Roth 1971; Mahoney and Rueschemeyer 2003; Skocpol 1984). Weber appealed to sociologists because his work helped explain social change occurring across different types of nations and economies, change that was taking place during the global upheavals of the 1960s (Bendix and Roth 1971). A brief review of Weber’s work is called for given that his mode of analysis was predominant in historical sociology until the 1990s, when newer sociological theories of history (such as postmodernism) began to find their place in the field.

Weber’s historical analysis was rooted in humanism. “Weber’s methodological reflections are clearly indebted to the philosophy of the enlightenment. His point of departure and the ultimate unit of analysis is the individual person” (Gerth and Mills 1946:55). Weber believed that humans and their rational motivations could be understood and then interpreted (Bendix and Roth 1971; Gerth and Mills 1946; Parsons 1964). This meant that causality could be traced back to particular human beings’ motivations. In addition, any historical outcomes that were under study by the sociologist could be interpreted as a result of human intention. For Weber, this interpretive historical sociology would study humans, acts, and institutions as documents that are manifestations and expressions of a “larger morphological unit that underlies particular data” (Gerth and Mills 1946:56). Thus Weber’s method in the study of history was an interpretive endeavor because humans, who have particular rational motivations, could be understood. His method also meant that it was possible to trace causality.

Another important contribution that Weber made to historical sociology was the use of typologies in historical analysis. Because Weber’s approach to understanding was similar to the approach used by the natural sciences, he believed that there were
qualitative and quantitative differences in historical phenomena (Gerth and Mills 1946; Parsons 1964). In terms of methodology, this meant that the researcher could examine a certain amount of historical cases, find cases that had similar properties, and classify grouped cases into typologies referred to as ideal types (Bendix and Roth 1971; Gerth and Mills 1946; Parsons 1964). Weber (1964) then constructed and compared these ideal types to particular political, economic, religious systems, as well as to types of authority and actions. Although Weber was interested in historical problems, his methodology reflected his emphasis on comparative historical sociology (Bendix and Roth 1971; Gerth and Mills 1946). Thus, in the attempt to explain historical processes and historical change, Weber imposed theoretical paradigms on to history.

*Changing approaches in historical sociology.* With the revival of Weber from the 1960s into the early 1980s, imposing theoretical paradigms on to history for the purpose of explaining outcomes was the primary methodology in historical sociology (Skocpol 1984). Instead of answering large-scale questions grounded in historical research, much of comparative historical sociology was applying theoretical models to history (Mahoney and Rueschemeyer 2003; Skocpol 1984). This way of approaching historical sociology began to change in the 1980s. Some believed that this was for the better. As Skocpol explains, “When substantive problems and perspectives, rather than preconceived epistemologies or methodologies, define the substance of historical sociology, research and arguments are free to develop in a variety of styles” (1984:361).

Since the 1990s, there have been new developments in methods that have expanded the macro-oriented field of historical sociology (Mahoney and Rueschemeyer 2003). As many have become discontented with abstract assumptions about how
individuals understand the situations they face, historical sociologists have become less interested in deploying actor-choice models (Mahoney and Rueschemeyer 2003). This has meant that the door has been opened to a variety of perspectives in historical sociology, including postmodern perspectives.

The linguistic and cultural turn (i.e., postmodernism) within historical sociology, and the social sciences more generally, has questioned the use of preconceived theoretical models in research. Postmodernism also challenged the idea of causal explanations.

More mainstream cultural and postmodern theorists still often express disenchantment with social science efforts to formulate universal generalizations and lawlike propositions. A major response of some has been to reject causal analysis as the primary goal of social science analysis and to seek other strategies of enlightenment (Mahoney and Rueschemeyer 2003:22).

Further, for postmodernists, power was of central concern. In fact, for postmodern historical sociologists, causal explanations for historical phenomena are of relatively little importance, or of no importance at all (Mahoney and Rueschemeyer 2003). The goal of a postmodern analysis is not to find a causal explanation. Rather, the goal is to deconstruct and demystify power and its uses onto individuals. Further, postmodern historical sociologists, by exposing power relations, critically analyze exploitive social relations and seek to play a role in the emancipation of oppressed groups (Mahoney and Rueschemeyer 2003). This suggests that a purely scientific and empirical method, which seeks to describe and explain historical events through objective, time-tested methods, is not well-suited to the task of critiquing power.

Other issues. One sticking methodological issue that all historical sociology faces is the problem of cases. Specifically, historical sociology is wary of research that uses a small number of cases to generate hypotheses (Rueschemeyer 2003). Further, there is
debate as to whether the exploration of one case is a valid method through which to generate hypotheses. However, Rueschemeyer (2003) suggests that not only can the investigation of one historical case be a valid method to generate hypotheses, but the results emerging from the investigation of one case has the potential to generate new theoretical ideas and to test prior theoretical assumptions. In my dissertation, I explore the one case of autism over the course of its short history to generate new hypotheses about how particular bodily conditions become a medical problem.

Finally, to reiterate, Weber’s interest was not so much in specific problems in history, but in applying paradigms to specific historical circumstances to describe, analyze, and predict social change. It should be noted, however, that looking at particular problems in history is one way of reading history (Castel 1994). Weber’s reading of history did not focus so much on how particular events became problems in society, whereas for Foucault, problematization as a mode of analyzing history was his primary focus (Castel 1994). For Foucault, this meant writing new histories of problems in terms of how the problem is seen in the present (Castel 1994).

In describing and analyzing specific problems in history, Foucault was concerned with how objects (i.e., individuals) become a conversation, or a debate about truth and falsehood (Castel 1994). Foucault stated:

Problematization is not a representation of a pre-existing object, or the creation through discourse of an object that does not exist. It is the totality of discursive and non-discursive practices that brings something onto the play of truth and falsehood and sets it up as an object for the mind…By production of truth I don’t mean the production of true statements but the administering of realms in which the practice of the true and the false can be both regulated and relevant…In short, I would like to place the register of the production of truth and falsehood at the heart of historical analysis and political debate (Foucault in Castel 1994:237-238).
Foucault suggested that specific problems of truth and falsehood emerge through discursive and non-discursive practices, and that not only should these practices be analyzed by the historian, but these practices should be exposed for the purpose of expanding a debate on truth in the public discourse.

Selecting historical materials for description and analysis is a concern for historical sociologists, and it is no different for Foucault. However, because Foucault’s focus is on the problematization of particular human beings, he suggested that the decision as to how to select particular materials has to do with the following: (1) The material should reflect the functions of the givens of the problem; (2) the materials should be documents through which the researcher can see how problems are resolved; and (3) the material should be selected because these materials show the establishment of relations that permit this solution (Castel 1994). This means that historical texts should be selected on the basis of whether they document how the problem emerges, on whether and how the problem can be resolved (and there maybe more than one resolution proposed), and on the grounds that the text documents the relations that permit particular solutions. In the current project, I selected documents on the basis of whether the documents describe the emergence of the autistic child as an object of medical examination and on the basis of whether the documents show how the autistic child is subject to power. These two sets of documents show how autism as a particular bodily condition became a medical problem.

Summary. There are six issues in historical sociological methodology that relate directly to the methodology that I use in this dissertation research. First, while Weberian and neo-Weberian methods are rooted in the philosophy of positivism, the methods that I
use in my dissertation are not. They are Foucauldian methods of historical research, methods that are rooted in a postmodernist philosophy. Thus a postmodern philosophy guided my methodology.

Second, Weber saw the human being as the unit of analysis because meaning can be ascertained from humans. He saw the individual as a document to be read for the purpose of understanding human motivation, actions, and the resulting historical outcomes of these motivations and actions. Instead, following Foucault, I maintain that a complete understanding of individuals is impossible. Thus, instead of examining individual humans as documents to be read, I examine actual written documents where discursive practices can be found. These discursive practices actually subject humans to a particular way of thinking. Thus, I examined documents as a way of understanding history, not human beings.

Third, Weber and other historical sociologists have scientifically developed and used preconceived paradigms in which to fit particular historical cases. In taking a postmodernist approach, I reject the method of taking scientifically developed paradigms to analyze the history of medical practices in autism. Instead, I examined the surface of documents to understand the structure of discourse, rather than structuring discourse on the basic of pre-conceived paradigms.

Fourth, while traditional methods in historical sociology seek causation, I did not. Specifically, I did not aim toward a causal explanation for the current rise in the incidence of autism. In taking a postmodern approach, I sought to deconstruct medical power in autism to expose its inner workings. In this manner, my hope was to open new spaces for a discourse on the uses of power in medical practices in autism.
Fifth, much of the work in historical sociology is comparative research. My research did not compare the case of medical practices in autism to other cases. Instead, I investigated how autism became problematized. My research is about how the trueness and falseness of statements in medicine about autism emerged in history. This meant that the selection of documents to examine was only focused on collecting documents related to medical and scientific statements concerning how the problem of autism first emerged, how autistic children could be subjected to therapeutic practices, and the relations of power that permitted these statements to emerge.

Finally, it has been stated that historical research into one distinct case can help to confirm or support present theories (Rueschemeyer 2003). This type of historical research has the potential to help develop new theories; thus another aim of this study was to examine present theories of medicalization and social construction in relation to the examination of the singular case of autism. Having presented a brief synopsis of methods in historical sociology, having clearly stated how the methods that I borrowed from Foucault are different from traditional methods, and having clearly stated the goals of my research, I now provide details of the archaeological and genealogical methods that I used to examine the history of medical practices in the case of autism.

Archaeology

Archaeology is a historical examination of medical or social scientific disciplines such as medicine itself, psychiatry, psychology, and criminology. Specifically, archaeology scrutinizes the discourse that emerges from these disciplines. The discourse that emerges from these disciplines centers on human beings and humanity in general. Not only does the scientific discourse focus on humans as objects of study, in practice,
this discourse subjects humans to certain normative standards. Therefore, the 
arkeological examination of these discursive practices can be a useful method when 
attempting to understand the relationship between human sciences (i.e., the disciplines) 
and human beings in particular historical eras.

importance of the relationship between the human sciences, the discourse that emerged 
from the human sciences, and humanity (see also Dreyfus and Rabinow, 1982; 
was concerned mostly with the relationship between discourse and the production of 
humans as objects and subjects of scientific study. Even his later work suggested that 
discourse is part of a disciplinary society that seeks to transform the psyche of the 
criminal (Foucault 1995), and subject humans to particular ways of speaking about 
sexuality (Foucault 1990). In the end, Foucault maintained, the structures of discourse 
rupture, break down, and then are built up upon different bases.

Foucault (1972) had a particular method—archaeology—that sought to uncover 
the structure of this scientific discourse centered on humans and discover its ruptures. In 
so doing, Foucault believed that one could produce a critical analysis of discourse by 
examining the results of an archaeological inquiry. But both followers (Dreyfus and 
Rabinow 1982) and critics (Fairclough 1992) of Foucault, as well as Foucault (1972) 
himself, have expressed dissatisfaction with this singular method of analyzing discourse. 
They suggested that archaeology is at best incomplete, at worst, a complete failure. All 
perceive archaeology as having limitations.
In this section, I clarify what Foucault’s archaeology was set out to accomplish in terms of examining scientific discourse. I also explain what archaeology cannot accomplish. Finally, I sort out the limitations of archaeology as a method of examining the relationship between the discourse of the human sciences and human beings. However, despite its limitations, the archaeological method of examining a scientific discourse on selected populations of children can, in my view, be a useful component of a wider analysis of the structure of the discourse on autism.

In order to support using the archaeological method in this way, I review how Foucault orients this method of examining scientific discourse. I describe what Foucault sees as the archaeologist’s tasks and goals in the research process (i.e., what archaeology will ultimately unearth). I then examine the contradictions within the archaeological method that tend to limit its ability to fulfill its stated mission. Finally, I outline precisely what the archaeological method can and cannot accomplish.

*Archaeology and the structure of discourse.* In the examination of discourses, Foucault stated that the researcher is looking for the rules of formation related to scientific statements regarding human beings and thus humanity (Dreyfus and Rabinow 1982; Fairclough 1992; Foucault 1972; Smart 2002). In uncovering these rules of formation, Foucault originally thought that some meaning and understanding could be made about the structure of discourse. The goal of archaeology was then to “reveal the rules of formation, the regularities, and modes of organization of thought which lay beneath particular formations of knowledge, rules which eluded the consciousness of the scientist and yet were fundamental to the constitution of ‘scientific’ knowledge and discourse” (Smart 2002:37). This meant that the archaeologist, in the course of examining
discourse, was to attempt to discover the intrinsic, internal rules of the formation – the structure -- of scientific statements of which even scientists were not fully aware. These rules were called the *rules of discursive formation* (Foucault 1972).

*Discursive formations.* The rules of discursive formation focus on the systems of the distribution of objects, types of statements, concepts, and thematic choices (Foucault 1972). *Objects* were the entities under scientific investigation (Foucault 1972; Fairclough 1992). Naturally, in the case of the human sciences, these objects were human beings. *Statements* were the ways in which objects could be spoken or written about; that is, descriptions and hypotheses about objects (Foucault 1972; Fairclough 1992). *Concepts* were the arrangement and ordering of statements into systematic wholes by types, elements, and categories (Foucault 1972; Fairclough 1992). Finally, *thematic choices* were the theories and strategies used by science through the combining of objects, statements, and concepts to say something about a particular phenomenon (Foucault 1972; Fairclough 1992). The entity that the archaeologist is required to analyze is the system of the distribution of objects, statements, concepts, and thematic choices – the rules of discursive formation.

But the question of how these rules of discursive formation emerge (and then break down) was problematic. Foucault originally believed that the rules of discursive formations surfaced within discourse itself. Foucault assumed that these rules would emerge and form autonomously (Dreyfus and Rabinow 1982). That is, these rules would appear without the interference of outside influences such as social and institutional regulations (Dreyfus and Rabinow 1982). Accordingly, the researcher had to treat and analyze archaeological data as if it were autonomously structured. The archaeologist was
not to attempt to seek any connection from the formation of discursive rules to societal institutions or their practices (Dreyfus and Rabinow 1982). On the contrary, the researcher was to merely plot on a two-dimensional analytical grid when, where, and how objects, concepts, statements, and themes were dispersed in particular historical eras. Therefore, only the surface of the archaeological findings could be analyzed.

Foucault believed that when these rules of discursive formation were exposed by the archaeologist, the discontinuities and transformations of thought would be revealed as well (Smart 2002). For Foucault, these ruptures and breaks in lines of thought about humans were just as important to understand as the rules themselves. This was because the history of knowledge is usually told as if it were a continuous, progressive, evolutionary line that leads to some inevitability (Foucault 1972). By exposing these discontinuities, however, the archaeologist is able to show how and at which moments in history the construction of thought is built and rebuilt without truly achieving some type of inevitable completion (Dreyfus and Rabinow 1982). But in the analysis of discursive formations, the archaeologist must remain neutral about what is stated (Dreyfus and Rabinow 1982). There is no room for the search for deep meaning in archaeological analysis because the discourse emerged presumably without the influence of institutional domains and human beings (Dreyfus and Rabinow 1982; Smart 2002). In the end, though, this presents a dilemma for the analyst because now there is nothing to analyze with regard to society and its members (Dreyfus and Rabinow 1982; Foucault 1994b). Archaeological description of statements may say something new about history, but alone, archaeology says little in sociological terms.
But Foucault ultimately *wanted* to know how discourse shaped the lives of humans and humanity in western society. However, it seemed from the start that his theory of archaeology as an analytical tool was insufficient in being able to expose the relationship between discourse and humanity (Dreyfus and Rabinow 1982). The archaeological method assumed that there were underlying structures in how and where statements could be made about humans, thus subjecting them to knowledge. But this method never took into account that the discourse was constructed by *those subjected to the same discourse* (Smart 2002). Archaeology could only expose and describe ruptures of thought in discourse. It could not analyze the subjects that constructed discourse, nor analyze the relationship between discourse and the formation of humans into objects and subjects of knowledge. In the next section, I outline the contradictions implied by this preceding discussion.

*Contradictions of archaeology.* Foucault certainly rejected the idea that deep meaning could be attained through the archaeological analysis of discourse (Dreyfus and Rabinow 1982; Foucault 1994b). He emphatically stated that his was not a phenomenological project, nor was it the project of deep understanding of the meaning of discourse (Dreyfus and Rabinow 1982; Foucault 1972). Perhaps influenced by French structuralism – the short-lived philosophical movement of the 1960s – Foucault had attempted to find underlying, autonomously constructed structures of discourse (Dreyfus and Rabinow 1982; Smart 2002). But even in his early works, Foucault (1988, 1994a, 1994b) acknowledged that institutional practices and regulations had something to do with the construction of, and ruptures within, discourse. This meant that archaeology
alone may have been an insufficient means by which to methodically examine the structure of and ruptures in discourse.

In the foreword to *The Order of Things* (1994b), Foucault addressed some methodological concerns of his critics, specifically the methods used in his early work on psychiatry and medicine. Although he did not refer to *Madness and Civilization* (1988) and *The Birth of the Clinic* (1994a) specifically, Foucault hinted that archaeological analysis of medical and psychiatric discourse was insufficient for explaining the ruptures and changes in discourse. Foucault (1994b) reiterated that changes in scientific discourse should not be attributed to the spirit of the times or to the genius of particular individuals. But he also stated that – in accordance with his belief that the archaeologist must truthfully investigate changes in discourse – the researcher must understand that changes in science occur at different levels, and archaeological analysis of transformations in discourse must reflect this fact (Foucault 1994b). Foucault proposed that the culture constructed an order to things and that this order “create(s) the positive basis of knowledge” (1994b:xxi). What is important is that this order is *imposed*. The idea that order is imposed is significant for the researcher because one can theorize how order, and thus knowledge, is constructed and demolished (Foucault 1994b). Foucault concluded the foreword to *The Order of Things* (1994b) by stating that his new aim was to *rediscover* the basis on which scientific knowledge and theory became possible.

What was astonishing was that Foucault did not realize that he already had solved the problem of discovering the basis of scientific knowledge and the rules of discursive formation. The solution was the institutions themselves, with their own internal regulations, logic, points of view, subjects, and practices that constructed knowledge and
discourse. For example, in *Madness and Civilization* (1988), Foucault clearly shows that the practice of confinement of the insane in asylums, the agreement to permit psychiatrists to enter these asylums, and already established scientific procedures, constructed a discourse of unreason. In *The Birth of the Clinic* (1994a), Foucault recounts how the availability of corpses at the time of the French Revolution allowed clinicians a new perspective on disease. This perspective, this gaze directed toward the three-dimensional body, with its tissue, bone, and lesion, was central to the construction of a new discourse around disease. Therefore, the rules of discursive formation were not constructed in an autonomous fashion; they were constructed by subjects (scientists), within institutional domains, and through debated, and sometimes agreed upon practices.

In sum, Foucault’s theory of archaeology was originally conceived as a method to uncover discursive formations that were constructed autonomously, thus yielding the discovery of an underlying structure. But in the course of his work during the latter part of the early 1960s and early 1970s, Foucault came to realize that discursive formations were not constructed autonomously. Discourse was an object constructed by and constituted of institutional practice, regulations, and subjects in particular historical eras. Thus, if archaeology uncovers nothing but the positioning of objects, concepts, statements, and thematic strategies that constituted discourse, no underlying autonomously constructed structure could be discerned.

Foucault then reversed his position because he realized that there needed to be some force that structured discourse. He suggested that the archaeologist could not search for any underlying structure of discourse because the archaeologist had no method of finding this force (Smart 2002). Instead, archaeology could only describe the range of
what can and cannot be said, by which subjects, and through which institutional locations. Archaeology could only create a two-dimensional grid that precluded the possibility of an analysis of discourse (Dreyfus and Rabinow 1982). Thus, Foucault abandoned the notion that archaeology could uncover an autonomous internal system of governing rules regarding what can and cannot be stated in discourse (Dreyfus and Rabinow 1982).

Archaeology’s present uses and tasks. While the original goal of archaeological analysis was discarded by Foucault, the method and analysis were not (Dreyfus and Rabinow 1982). The goal is no longer to discover the autonomously crafted rules of discursive formation; it is merely to isolate discourse objects (Dreyfus and Rabinow 1982). This means that the two-dimensional grid that archaeology creates cannot be used for analysis of the positioning of objects, statements, concepts, and thematic choices over time. It can only be used for the purpose of describing the positioning of these discursive elements over time. Archaeology now can demonstrate that discourses are constructed. This is important for Foucault because it allows humans to understand that they are being made subjects of discourse generated through institutional settings, internal regulations, and subjects themselves within certain historical periods (Dreyfus and Rabinow 1982). The next section outlines Foucault’s original archaeological method in regard to creating a two-dimensional grid or table that can be used to describe the positioning of discursive elements (objects, statements, concepts, and thematic choices) over time. I argue that these techniques of mapping and tracing how objects are formed for the first time, and plotting the positioning of subjects,
institutions, concepts, and theories over time are still useful ways to describe the surfacing up of discourse as well its demise.

*The archaeological method.* First, Foucault suggested that the archaeologist needs to unearth the texts that allow human being to emerge as objects of study. To describe how it is possible for disciplines to transform humans into objects within discourse, Foucault (1972) stated that the archaeologist must show when, how, and where in history these humans emerged as an object. The archaeologist must also explain who sets the limits and boundaries of what can and cannot be stated, and describe by what means these boundaries are created. Moreover, Foucault (1972) perceived that humans are transformed into objects of study by way of a group of relations between authorities. These authorities include specific institutions, economic and social processes, behavioral patterns, systems of norms, techniques, types of classification, and modes of characterization (Fairclough 1992). What this all means is that the archaeological description should include a classification of the particular institutions that supported the scientific research on the object, processes, behavioral patterns, systems of norms, techniques, types of classification and modes of characterization that led up to the emergence of the object. Once this description is completed, the archaeologist can then describe the history of the discourse to discover the ruptures and discontinuities in discourse. These methods are described below.

Second, to describe how it is possible for statements about particular objects under study to be formed in discourse over time, Foucault (1972) stated that three problems should be addressed: (1) who is speaking, who has the right, and who is qualified; (2) the institutional site from where statements emerge; and (3) the perceptual
field (i.e., in what manner do these authorities interrogate, question, and investigate). For Foucault, subjects who produce statements are not entities independent of discourse (Fairclough 1992; Foucault 1972). They are rather produced by discourse. For the archaeologist, this means that a biography of the individual scientist is meaningless. Instead, the archaeologist reveals the position that the subject occupies within institutional domains (Fairclough 1992). In addition, the archaeologist should note the institution from where statements emerge. Finally, the archaeologist should note the types of statements (i.e., hypotheses) and how studies on humans are performed (e.g., case studies, biographies, double-blind tests, etc.). The archaeologist must trace the formation of statements over time.

Third, to describe how it is possible for concepts about particular objects under study to emerge in discourse over time, the archaeologist then examines how statements are arranged so as to produce “truthful” concepts or refute, challenge, reject, and dismiss old ones (Fairclough 1992; Foucault 1972). The archaeologist therefore should trace and plot where exactly in the archive statements about objects are accepted as true by science and where statements are rejected and dismissed during a particular historical era. The results of this technique would provide clues to the discontinuities in discourse.

And finally, to describe how it is possible for certain themes, theories, or what Foucault (1972) referred to as strategies, to emerge regarding objects in discourse, the archaeologist must determine by what manner certain theories and strategies become accepted and rejected (Fairclough 1992). For Foucault, this archaeological procedure would reveal the changing space in which certain strategies are made possible or abandoned (Dreyfus and Rabinow 1982). Here, Foucault wanted to understand how
discursive formations were either accepted or constrained by inter-discursive or non-discursive entities and domains (Fairclough 1992). This last archaeological method may be the closest that Foucault came at this particular moment in his career to acknowledging that discursive formations are influenced from the outside rather than transformed by internal rules (Fairclough 1992).

In sum, archaeology’s initial goal was to uncover the underlying structure that made particular discourses possible. Foucault initially believed that underlying structures were autonomously and internally generated through certain rules that even scientists themselves did not fully understand. Therefore, the goal was to understand the underlying structure for the purpose of explaining a theory of discourse. However, Foucault understood that structure was historically specific. Further, structure was shaped not only by internal discursive practices that accepted, elaborated on, or rejected past discursive practices, but by institutions, regulations, and subjects themselves. Archaeological analysis would then involve a table – a grid of analysis – constructed by the researcher that presented the positioning of objects, concepts, statements, and thematic strategies or theories in a particular historical era. But these positions would no longer be thought of as a structure of discourse that was constructed autonomously. Rather, it had to be viewed now as a discourse structured by individuals, regulations, and institutions already subjected to a discourse.

The limitations of archaeological research on discourse. Foucault (1972) acknowledged that discourse found in official documented studies was not singular or unified. There are influences on discourse that could be lost to the archaeologist if the archaeologist only examines the end result – the end result being the document as is.
Foucault (1972) admitted that scientific documents are a result of an operation. Therefore, the grid of archaeological analysis of scientific documents was incomplete.

This grid of analysis lacked three qualities that would allow for a critical analysis of discourse. This is important because this is what Foucault had set out to do—critically analyze the discourse. First, the grid constructed by the archaeologist could only describe the positioning of these four entities (objects, concepts, statements, and theories). Any connections, any causal explanations of the relationships between the entities, could only be speculation on the part of the archaeologist. Therefore, a critical analysis of discourse by the archaeologist is impossible because it lacks any way of showing relationships between objects, concepts, statements and theories.

Second, the grid of analysis lacked the one thing that could have possibly shown the link between objects, statements, concepts, theories and domains such as institutions, regulations, and subjects. That one thing was power relations. Between the time that The Archaeology of Knowledge (1972) was published in the early 1970s and Foucault’s (1995) work on the prison system in France, Foucault discovered that it was power employed by the disciplines that transformed humans from objects of knowledge to subjects of power (Foucault 2003). From this point onward, Foucault focused on power, power/knowledge, and power relations as a way of understanding how discourse emerged over time.

Third, Foucault was interested in issues related to how power was deployed on to the body. The archaeological method revealed the discourse regarding bodies, but could not show how power was directly organized on the body. Although discourse was an object that could be examined through archaeology, it could not show the direct
connection between discursive practices (discourse) and the non-discursive practice employed by domains such as institutions and subjects on to bodies. Therefore, Foucault needed a method to be able gather enough evidence to show that domains and discourse employed power to produce humans through non-discursive practices organized on to bodies. It was through the examination of the unofficial texts that led to the surfacing of (and breaking down of) discourse – the letters, diaries, notes, drafts, and sketches – as well as texts and images that represent power being applied to bodies that would show how particular discourses at particular historical moments are made possible. The method that captures these processes was genealogy.

*Genealogy*

By the end of the 1960s, Foucault became more interested in the relations between knowledge and power and the relations between discursive and non-discursive domains and practices (Smart 2002). He also became more interested in how power was deployed on to bodies of humans as well as on to humanity (Foucault 1980, 1990, 1995). As a result, Foucault needed a method with which he could analyze the relationships between knowledge and power, discursive practices and institutional domains, and how these relationships ultimately organize power on to bodies. This section will outline the genealogical method that Foucault employed in his research during the 1970s. The genealogical method is a critical analysis of the exercise of power (practices) on to bodies. It is also a method that examines the history of how certain practices emerged. It is a unique method of analyzing history because it does not treat history as a singular unity. It understands history as being made up of singular and distinctive events. These events are then the basis for how certain practices came to be. In the current research, I
used the genealogical method to analyze the emergence of a particular medical practice that subjected autistic children to disciplinary power both in past and in the present.

*From archaeology to genealogy.* Foucault shifted his analytic priorities in the 1970s because of his growing interest in social practices and how they were related to discourse (Smart 2002). He understood that archaeology alone could not address the relationships between power, knowledge, discourse, and practice (Dreyfus and Rabinow 1982; Fairclough 1992; Smart 2002). Archaeology could merely reveal and describe what could and could not be stated about objects in discourse. It could also reveal where the ruptures in discourse took place historically (i.e., where in time one knowledge becomes favored and another is rejected). But Foucault needed a new type of investigation that could analyze the precipitating factors that lead to accepted and rejected discourses.

Further, Foucault’s early work did not explicitly address the body. As Smart (2002) notes, the body was not emphasized although it was there. Even though issues related to the confinement of bodies and the diseased body were focal points in *Madness and Civilization* (Foucault 1988) and *The Birth of the Clinic* (Foucault 1994a), there seemed to be no room in archaeology for a complete analysis of the practical relationship between discourse and bodies. Thus, Foucault needed to develop a method that would capture the relationships between knowledge, power, and discourse and its practical deployment on to bodies over time. This organization of power on to bodies was being made explicit through non-discursive practice (Smart 2002). The new method would make available a critical analysis of practices.
A critical analysis. With *Discipline and Punish* (1995), Foucault wanted to examine the techniques that the human sciences used to subjugate humans and turn them into objects of knowledge. He further wanted to analyze the ways in which power and knowledge were arranged so that once humans became objects of knowledge they went back to being the subjectified effects of power (Smart 2002). These techniques or practices of subjugation and objectification were, according to Foucault, becoming more and more part of our society in the age of modernity (Dreyfus and Rabinow 1982). These cultural practices of transforming humans were an important way of understanding human beings, and this understanding emerged from discourse (Dreyfus and Rabinow 1982). Therefore, Foucault (1980) called for a critical analysis of both discursive and non-discursive practices that attempted to understand humanity. Critical analysis of practice (i.e., genealogy) was important for Foucault because practice had real effects on individual humans and the human species.

In contrast to the detached stance of the archaeological analysis of scientific discourse, genealogy is a critique directed at scientific discourse (Smart 2002). Scientific discourse presents itself as a totality with all-encompassing theories and unfailing systems of thought (Smart 2002). However, Foucault suggested that these discourses, practices, and institutions are all susceptible to criticisms from those subjected to power (Smart 2002). Such susceptibility is due to the relationships between discourse, practice, and institution not being based on rational scientific argument, but on more mundane and personal forms of being and clandestine struggles (Foucault 1980; Smart 2002). These relationships and struggles had, according to Foucault (1980), been restricted to the periphery of history. The role of the genealogist, then, is to meticulously rediscover these
struggles and relationships and expose them (Foucault 1980). In the end, the relations that genealogy analyzes – and critiques – are power-knowledge relations (Smart 2002).

Genealogy is critical of two features of scientific discourse: its form of knowledge and power. First, genealogy challenges the proposition that forms of knowledge are to be ranked according to how well they meet scientific criteria (Smart 2002). This hierarchy shuts off the possibility that local forms of knowledge attained through bodily experience will be accepted as true. The hierarchy also automatically subjugates bodily knowledge to the hierarchy’s lower ranks. It is important to note that Foucault did not challenge the existence of scientific knowledge, nor did he oppose the contents, methods, or concepts of science (Foucault 1980; Smart 2002). What Foucault (1980) – and genealogy – challenged were the unitary bodies of theories that presented themselves as developing through purely objective scientific means. Although theories are presented through discourse, the discourse does not reveal the actual subjective and non-discursive operations through which these theories emerged. For Foucault the genealogist, scientific theories emerge through the non-discursive practices of subjects and institutional domains. Genealogy aims to expose these practices for the purpose of a critical analysis of the genesis of the scientific knowledge found in scientific discourse. Genealogy therefore endeavors to show that scientific knowledge should be displaced from its privileged position in the hierarchy of forms of knowledge. This is important in critical analysis because knowledge is a tool of power (Smart 2002).

Following from its opposition to scientific knowledge as presented in discourse, genealogy also challenges the deployment of power by the human sciences. Specifically, genealogy opposes and critiques the effect of power on humans. “It is against the effects
of power of a discourse that is considered to be scientific that the genealogy must wage
its struggle” (Foucault 1980:84). For Foucault, this struggle is over discourse; and
discourse serves as a key mechanism through which power is deployed (Fairclough 1992). By showing that discourse was the product of a subjective operation that involved subjects and institutions (and not pure science), the effects of discursive power on humans would be exposed and thereby diminished.

Genealogy thus exposes the relations of power between subjects, between institutional domains, and with each other to show how particular knowledges become privileged, thereby becoming the discourse regarding a certain topic. For Foucault, this topic, this object around which discourse speaks, was the body. Therefore, genealogy must perform a thorough historical analysis of how power is organized and exercised on bodies through discursive and non-discursive practices.

The exercise of power. Genealogical analysis begins with these types of questions: How is power exercised? What is the relationship between power and knowledge? How should the meaning of non-discursive practices and techniques used on the body be interpreted? (Dreyfus and Rabinow 1982; Smart 2002). In sum, the central question is always: How is power/knowledge organized on bodies for the purpose of gathering more knowledge on human subjects in order to manipulate them for economic production (Fairclough 1992)? In what follows, I describe five key issues that Foucault maintained are central to the genealogical analysis of power and its deployment on bodies. But first I provide a very brief overview of what the genealogist should keep in mind when approaching the relationship between power and bodies.
For Foucault (1990, 2003), power utilized under modern regimes can be referred to as bio-power. “Bio-power is the increasing ordering in all realms under the guise of improving the welfare of the individual and the population” (Dreyfus and Rabinow 1982:105). The idea of bio-power is that every aspect of the body can be modified with appropriate techniques, maneuvers, and tactics (Dreyfus and Rabinow 1982). But the tactic for the genealogist is to recognize that the ordering of these realms of human life is everywhere and that all humans are enmeshed in this network and practice of bio-power (Dreyfus and Rabinow 1982). It is therefore not the duty of genealogists to study subjects such as individuals or groups; it is their task to analyze the social practices and the locales in which these practices take place (Dreyfus and Rabinow 1982; Foucault 1980).

The genealogist must also recognize that the body is caught up in the political field because of its usefulness in economic production (Dreyfus and Rabinow 1982). Therefore, Foucault wanted to know how the body can be divided up, manipulated, and transformed in the context of the political and economic reality of the day (Dreyfus and Rabinow 1982; Fairclough 1992). Genealogy would then analyze specific social and historical practices applied to the body where power, knowledge, and truth claims would be at issue (Dreyfus and Rabinow 1982). It was not about subjects or institutions; it was about isolating the technologies of the body (i.e., the deployment of power on to bodies) and examining them (Dreyfus and Rabinow 1982; Fairclough 1992; Foucault 1980). Foucault (1980) stated that there were five tasks that genealogists had to take up in the examination of these technologies of the body:

1. Locate power at extreme points of its exercise close to the edge of legality.
2. Analyze power at the point where it is in direct relation with the object. Point to where power is located and applied for the production of real effects. Do not analyze power at the conscious level or at the level of intention of subjects.

3. Point to how particular exercises of power can be seen within a network. Any reference to individuals is for the purpose of showing that individual as a vehicle of power.

4. Look at the instruments used where power is exercised. These instruments help scientists attain and accumulate knowledge of humans; therefore genealogy should document methods of observation, techniques of cataloging individuals, and procedures for investigation and research – all apparatuses of control of the body. The analysis of any form of ideology is inconsequential to genealogy.

5. Show how local applications of power become more global. Show how these exercises of power become politically useful and economically advantageous when applied to the entire social body.

In sum, Foucault (1980) suggested that genealogy direct its research to how power transforms humans into subjects of knowledge. In addition, genealogy should trace the line from how power is exercised locally to how it is practiced on a grand scale in regard to the social body. Finally, genealogy bases its analysis of power on the study of techniques and tactics that serve to transform humans and thus dominate them. To that end, genealogy avoids the examination of ideologies and institutions.

*History of the present.* The starting point for genealogical analysis is a diagnosis of the present practices and exercises of power (Dreyfus and Rabinow 1982; Foucault 1995). This means that the genealogist must locate particular manifestations of power as
Foucault thought that genealogy should isolate the “central components of political technology today” (Dreyfus and Rabinow 1982:119), and then trace them back in time. Therefore, the work of the genealogist is to diagnose the history and organization of present cultural practices (Dreyfus and Rabinow 1982). In order to analyze this “history of the present” (Foucault 1995:31), the genealogist must analyze history through descent in order to show how practices emerge (Foucault 1984).

Descent, discontinuities, and distinctive events. “Genealogy, as an analysis of descent, is…situated with the articulation of the body and history. Its task is to expose a body totally imprinted by history and the process of history’s destruction of the body” (Foucault 1984:83). This statement indicates that the results of genealogical analysis must show the historical process of how particular social and cultural practices came to be. But this analysis is not an attempt to find the origin of particular practices. It is not an attempt to reveal the essence of certain practices (Smart 2002). Rather, genealogy exposes all the small, seemingly inconsequential events which are the basis for historical beginnings (Foucault 1984; Smart 2002).

Genealogical descent exposes presupposed unities in history and focuses on the singular and distinctive events that are usually buried and forgotten by traditional historical analysis (Smart 2002). While traditional history shows present practices as a logical and evolutionary consequence of progress, genealogy aims to show the complex strategies, connections, and forces that predate the present (Smart 2002). Further, genealogy does not focus on these events as caused by individuals: no one is responsible for the emergence of certain practices (Smart 2002). Instead, genealogical analysis sees
present practices as the “effect of haphazard conflicts, chance, error, or relations of power and their unintended consequences” (Smart 2002:59). Therefore, in attempting to search for the basis of beginnings, Foucault (1984) encourages the genealogist to excavate the depths of history, no matter where it might lead. The genealogist must be attentive to details, accidents, petty malice and jealousies, as well “sentiments, love, conscience, and instinct” (Foucault 1984:76).

The results of genealogical analysis will expose the history of practices deployed on the body not as an evolutionary continuity, but rather as a series of discontinuous events. “Genealogy does not pretend to go back in time to restore an unbroken continuity,” but it identifies “the accidents, the minute deviations – or conversely, the complete reversals – the errors, the false appraisals, and the faulty calculations that gave birth to those things that continue to exist and have value for us” (Foucault 1984:81). The genealogist must therefore be willing to accept that the task is not one of creating unity out of a series of events starting from some “origin.” The task is to point out the singular events, the accidents of history, that precipitate present day practices for the purpose of demonstrating that practice is also an accident of history and can be challenged.

Summary

Archaeology is used as a historical analysis of discursive practices employed by the disciplines. Archaeology discovers what can and cannot be stated through discourse regarding humans at particular moments in history. Archaeology therefore describes forms of knowledge about humans, or ways of knowing about humans over time. But, this knowledge can change over time. As such, the archaeologist then must trace the
fluctuations of the emergence of privileged knowledge as well as the demise of other “lesser” forms of knowledge. What becomes privileged knowledge is a matter of the deployment of power.

Genealogy is the examination of the exercise of power. This power is deployed on bodies for the purpose of attaining new knowledge. This new knowledge emerges and becomes discourse not through the open debate among the human sciences, but as a by-product of singular events and even accidents of history that the traditional historian rarely documents. In describing the history of discursive practices through archaeology and analyzing non-discursive practices of the deployment of power on to bodies through genealogy, the researcher, according to Foucault, can present a critical analysis of the history of particular practices. This critical analysis makes way for less privileged knowledge of the body to surface.
CHAPTER VII
THREE RESEARCH QUESTIONS AND THE HISTORICAL METHODS USED IN THIS RESEARCH PROJECT

From the preceding review of the current problem of autism, the sociological literature on the domains of medicine and psychiatry, medical power and control, medicalization, social construction of medical knowledge and diagnosis, the review of the literature on the history of autism, and Foucault’s theoretical concepts and methodology, my research questions are as follows:

1. At what moment in time did medicine believe that it could successfully *treat* the autistic child?

2. What is the history of both discursive and non-discursive practices that precipitated this deployment of medical power on the bodies of autistic children?

3. In the history of medical practices in autism, how is power deployed onto the social body in general with regard to autism?

I place these questions in the above order so that in answering the first question (1) the reader knows upfront when and where power/knowledge is applied to the autistic child for the first time. In this way, the later historical description and analysis of discursive and non-discursive practices (2) will provide the reader with the historical pre-conditions for the first application of power/knowledge on to the autistic body for the purpose of
treatment. Then, with the understanding of the pre-conditions of the application of power on to the individual body, I show how this power then transfers to power on to the social body. I do this by answering question 3.

*Research Question # 1*

My first question is, “At what moment did medicine believe that it could treat the autistic child successfully”? Foucault (1988, 1994a, 1995) noted that there are certain moments in history where the deployment of power changes drastically, thus producing a discourse that changes drastically. Edicts, laws, and even the physical removal of chains, have all been moments that Foucault documents. Because I first wanted to examine the structural shift in medical discourse in autism, I provide a genealogical analysis of the text that showed the emergence of this new discourse. This means that I need to show how the object of the autistic child became subjected to power. I use genealogy because power used to subjugate individuals is a non-discursive practice. I show how power is used at the edge of legality, for the production of real effects, and within a network. I also show the procedures of power, and how this power could be deployed more globally. In Chapter VIII, I show how power was deployed at its most visible for the first time on to autistic children.

*Research Question # 2.*

My second question is, “What is the history of both discursive and non-discursive practices that precipitated this deployment of medical power on the bodies of autistic children?”

Addressing research question 2 requires the accumulation of historical data. In the following, I describe the data that I obtained to address question 2, the sampling
method used, and the exact methods used: archaeology for the description of discursive practices and genealogy for the analysis of non-discursive practices.

*The data.* The data for archaeological description of the medical discourse on autism is found in text. The sum total of all medical text on the subject of autism can be considered the archive of the medical discourse on autism. The unit of analysis for my archaeological investigation is the *document.* The definition of a document can be considered to include both books and journal articles (Foucault 1972). Books may contain studies of autism, or they may be anthologies, or they may be textbooks (Foucault 1972).

I gathered these documents from a variety of sources. Libraries were one source for the gathering of documents, especially books. When I was not able to find documents at the University of Akron Bierce Library, I obtained the necessary documents through the interlibrary loan service. To gather the necessary articles that I needed for an archaeological description of the medical discourse on autism, I used the *Medline, Psychology and Behavioral Sciences Collection,* and *Web of Science* databases. From these databases, I downloaded and printed all the medical articles needed to complete an archaeological description of the medical discourse on autism.

The necessary documents that are needed to describe the archive of the medical discourse on autism are defined as the documents that are taken most *seriously* by the medical profession, especially with regard to how the problem of autism is formulated from the time autism emerged as a problem to the time that the problem could be resolved. I define “seriously” as those documents that were cited often by others in medical science.
Since even Foucault (1972) admitted that performing an archaeological description of all the documents that make up an entire archive was impossible, there must be a method of reducing the sheer number of documents to be included in the study, while extracting the most important (for medicine) documents from the archive.

Through inductive processes, I selected the medical documents that problematized autism during this time. I first performed a search of autism-related texts in educational databases in order to be sure that autism entered the realm of medicine before it entered the realm of education. There were no articles in the Education Research Complete database that revealed articles about autism or used the subject term autistic before psychiatry used the term in 1943. Once I had established that autism was seen as a medical problem rather than as a learning problem, I gathered medical documents that viewed autism as a medical problem.

I limited the population of these documents to those within the time-frame 1943-1987. [From the time autism was discovered (Kanner 1943) to 1987 when a treatment was found to show improved behavior among a group of autistic children (Cipani 2008; Lovaas 1987)]. I imputed the words autism OR autistic (topic) into the Medline, Psychology and Behavioral Sciences Collection and Web of Science search and I have found the following:

1. A search using the Medline database showed that there were over 2,000 medical journal articles published on the subject of autism from 1943 to 1987.
2. A search using the Psychology and Behavioral Sciences Collection database showed 121 articles published on the subject of autism from 1943 to 1987.
3. The Web of Science database only documents cited articles on particular subjects back to 1965. A search on the Web of Science database showed that there were nearly 2,000 articles and books published on the subject of autism from 1965 to 1987.

4. The Web of Science database is the only database that shows how often particular articles and books are cited.

These databases provided me with a variety of documents from which to select.

But archaeology is an inductive process. I first found the document that stated that medicine had discovered a new syndrome in children called *autistic disturbance of affective contact* (Kanner 1943). I wrote an archaeological description of this document because I was searching for what could and could not be stated about these children who were now transformed into an object for medical examination. I thought that this archaeological description was important because the statements, concepts, and theories about these children would provide a basis for what was to be stated later about autistic children and the condition of autism henceforth.

At the same time that I was searching for medical documents in the databases that referred to autism, I contacted the archivists at the Center for the History of Psychology on the University of Akron Campus. I asked them if they could do a search on the topic of autism. Since the documents in the archives are organized by author rather than topic, the process of searching for appropriate documents related to the topic of my dissertation was tedious. The senior archivist was able to find, however, several folders authored by both psychiatrists and psychologists that referred to autism in their work. I took many notes on these documents, mindful of Foucault’s concept of power. I had the archivist
I wanted to know if other ways of knowing about autistic children were emerging. This was because the first visible application of power on to autistic children (Grant 1965) was performed by a psychologist. Therefore, I wanted to trace back further from that moment when a psychologist became involved in treating autistic children. I searched for documents in the archive that revealed a psychological approach to autism or autistic thinking.

Thus, I had gathered documents that dated from 1943 to 1965 from databases and the University of Akron Archives of the History of American Psychology. The archaeological and genealogical examination of these documents would be the basis for the writing of Chapters IX, X, XI, and XII – to help provide the answer to the second research question.

The writing. I had already written an archaeological description (the formation of objects, statements, concepts and theories) of the text that identified autistic disturbances in children in 1943 (see Chapter X). Further, it was my understanding from my reading of Foucault that the formation of objects, statements, concepts, and theories takes place in institutional domains. Therefore, I examined the assembled documents (and others that I gathered others along the way in order to provide a rich description and analysis of the history of medical practices in autism) to better understand the orientation of child psychiatry at the time of Kanner’s 1943 article. I used these documents to show how the domain of child psychiatry was formed. I not only traced the years prior to 1943, but also the years after 1943. I wanted to understand better child psychiatry’s objectives in
treating children in general and deviant children in particular. I was searching, quite simply, for how a discourse in autism was constructed by child psychiatry during the time period after the first autistic child had been produced in 1943 (see Chapter IX).

Thus, I examined documents within psychiatry that had as its subject autistic children. In the reading of subsequent documents within psychiatry (1943-1965), I was looking for how psychiatric medicine formulated statements, concepts, and theories about autism and the autistic child. I wanted to know what statements it made about the child’s behavior, the etiology of the disorder, how it conceived of the disorder in terms of normality and abnormality, how it observed the children, what kinds of research was being formed, and what recommendations it had for treatment. I was also looking for any clues as to whether power was being deployed to affect autistic children’s behavior. Because I found little evidence of direct psychiatric, disciplinary power being deployed onto the bodies of children, I wrote an archaeological description of my findings (see Chapter XI).

In the examination of the material from the archives, I found textual material that showed that psychology had an interest in deviant and autistic children. Therefore, I followed the citations that those in psychology used in their writings about autism. I traced the development of psychological thought to the time that the term *autistic* was first used as a way of thinking, which was in 1911. I gathered documents from within psychology that referred to autistic thinking and reasoning, and outlined its concerns. Using archaeology, I wrote a history of psychology’s knowledge of autistic thinking (see Chapter XII).
But I also needed to see how psychology used power onto autistic children. In my reading of early treatments in autism, it became apparent that the preferred method of treatment in autism was Applied Behavioral Analysis. From accounts that I had read, and through my own personal knowledge of treatments in autism, and in the citations that contemporary medicine used in its articles, I found a particular article by Lovaas (1987) that was the most influential in the development of ABA in autism. I traced back through this text’s citations to find when psychology first used its knowledge to treat autistic children. I was able to trace back to the publications within the discipline of psychology (and linked with psychiatry) that first experimented with autistic children. Intrigued by the methods used on autistic children, I also searched on the website www.neurodiversity.com (the same website I found the Life article) for more articles on early behavioral treatments in autism. I downloaded and printed these for genealogical examination as it was evident that power was being applied to their autistic subjects.

Finally, during the course of my research, I found that a 1987 article authored by Lovaas was a key piece of research that influenced treatment practices in the United States. I believed that this article was when the behavioral psychological discourse about autism came to its apex and that it was a central text that was associated with the emergence of autism as a medical problem and a social concern. Thus I used genealogy to analyze how scientific power was deployed in order to produce this medical problem of autism.

Research Question #3

My third research question was, “In the history of medical practices in autism, how is power deployed onto the social body in general with regard to autism?” I had
already established that science was willing in the early 1960s to discipline autistic children vis-à-vis power deployed onto the body of four young autistic children. I had also traced the history of medical practices in autism along with the history of a particular discipline’s orientations toward autism. It was time now to explore texts to reveal where and how power was deployed onto the social body.

First, I explored the objectives of ABA in order to determine how, since I knew that it had become a popular and accepted treatment in autism, power was deployed onto certain populations. Second, I examined documents within psychiatry to determine how power within medicine was deployed onto the social body. I examined diagnostic material that is used with patients because I believed that this was one way medicine could control large amounts of people using the same practices. I examined the Diagnostic and Statistical Manuals and other texts that were produced for the purpose of identifying autistic children. Finally, I wanted to know how the state deployed power onto the population with regard to autism. It is well known that the National Institutes of Health, a government domain where funding and surveillance of disease and disorder takes place, has addressed the issue of autism in the recent past. I searched through the University of Akron Library website to find particular government documents that addressed autism. I used a combination of archaeology and genealogy to describe and analyze these texts. I was searching for both the range of statements that could be made in developing perhaps a new discourse and I was searching for how power was being deployed onto the population.
CHAPTER VIII
THE DEPLOYMENT OF DISCIPLINARY POWER
ON TO FOUR AUTISTIC CHILDREN

In a text produced by a psychiatrist involved in research on disturbances in children, a story is related about a particular experimental procedure:

“Will you stick pins into him?” said the young mother anxiously, as we came in laden with testing equipment and movie camera.

“Goodness, no! Why would we do that?” we said horrified.

“Well, what will you do to him?”

“Nothing that you do not do all the time.”

And with that we started our tests, experiments and films. The mother was quickly reassured, finding her baby laughing and gurgling constantly during our work. This is the kind of maternal reception which we frequently meet in the course of a research program, started in 1936, which is now connected with the New York Psychoanalytic Institute’s activities in child research (Archives of the History of American Psychology undated:1).

Here, the emergence of a type of research into very young children by child psychiatry is presented. A painless procedure, a baby laughing, a mother at ease. A quarter of a century later, scientific research into autistic children would be dramatically different.

In 1965, Life magazine published a photo-journalistic article entitled “Screams, Slaps and Love: A surprising, shocking treatment helps far-gone mental cripples,” about a never before seen medical practice applied to autistic children. A portion of the text read:
The most drastic innovation in Lovaas’ technique is punishment—instantly, immutably dished out to break down the habits of madness. His rarely used last resort is the shock room. At one point Pamela had been making progress, learning to read a little, speak a few words sensibly. But then she came to a blank wall, drifting off during lessons into her wild expressions and gesticulations. Scoldings and stern shakings did nothing. Like many autistic children, Pamela simply did not have enough anxiety to be frightened.

To give her something to be anxious about, she was taken to the shock room, where the floor is laced with metallic strips. Two electrodes were put on her bare back, and her shoes removed.

When she resumed her habit of staring at her hand, Lovaas sent a mild jolt of current through the floor into her bare feet. It was harmless but uncomfortable. With instinctive cunning, Pamela sought to mollify Lovaas with hugs. But he insisted she go on with her reading lesson. She read for a while, then lapsed into a screaming fit. Lovaas, yelling “No!”, turned on the current. Pamela jumped—learned a new respect for “No” (Moser and Grant 1965:5).

The text here describes an element of a new experimental treatment for autistic children.

This is electroshock as punishment for the behavior of an autistic child who is not in compliance with the commands of the researcher. But punishment is only one form of coercion applied to autistic children. Another portion of the text reads:

Even more than punishment, patience and tenderness are lavished on the children by the staff. Every hour of lesson time has a 10-minute break for affectionate play. The key to the program is a painstaking system of rewarding the children first with food and later with approval whenever they do something correctly. These four were picked because they are avid eaters to whom food is very important. In the first months they got no regular meals. Spoonfuls of food were doled out only for right answers (Moser and Grant 1965:7).

Here, a description of rewards for compliant behavior of the autistic child is presented.

But in actuality, these rewards are also a form of coercion on part of the researcher. The autistic child is being forced to comply through the threat of hunger for non-compliant behavior because food was important for this particular child.
Thus, a system of coercion is being used on particular autistic children in these scenes of treatment. From a Foucauldian point of view, however, these coercion techniques are elements of *disciplinary power* being applied by the human science of behavioral psychology to the bodies of two autistic children. More broadly, these scenes can be described as scenes of *power relations* between autism and behavioral science. The vehicles for these power relations are four autistic children, Lovaas—a behavioral psychologist—and his colleagues and graduate students in the Psychology Department of the University of California, Los Angeles. The domain in which these power relations took place was the UCLA Neuropsychiatric Institute, where the researchers came to work and the children came to live during the experiment.

These scenes show that for the first time in history, particular autistic children could be subjected not to meaningful treatment, but to a discourse of behaviorism. This discourse is deployed through certain procedures and practices. This assertion requires further analysis to support its claim. In this chapter, I present a genealogical analysis of these behavioral practices in autism. Because genealogy is the examination of the exercise of power, I examine how power is deployed within these practices. In addition, I introduce bodies into the analysis of power because Foucault sees the application of power on to bodies as a crucial point where discourses on particular subjects can be brought forth. Thus, this chapter serves as an analysis of disciplinary power as deployed by behavioral psychology on to these bodies for the purpose of obtaining knowledge *about autistic bodies*. This knowledge would then be transformed into a new discourse on autistic children.
I locate power as it is deployed at extreme points to show how it is exercised close to the edge of legality. I will also describe the instruments used where power is exercised, pointing to how these particular exercises of power can be seen within a network. This means that I show that it is power deployed onto the bodies of these four autistic children not by one individual, but by several individuals and one particular medical domain. I analyze power at the point where it is in direct relation with the child’s body. The point of this genealogical account of particular practices in autism is to show that through the deployment of power, a new scientific knowledge of what is referred to as autism can be gained. Through the utilization of this power/knowledge, a new discourse in autism was set in motion below the surface, and then over time emerged to the surface as a dominant discourse in autism.

In this moment, when these particular treatment methods are deployed, a history of medical practices in autism can begin. This is because, as will be seen later, such practices not only created certain outcomes, but helped to construct a discourse of treatment in autism that would produce more autistic children for years to come. The particular experimental medical-behavioral practices that are described and analyzed here did not put an end to autism; these practices produced autism as we understand it today. In showing how these practices produced autism, I first describe and then analyze key images and texts. The description and analysis of these practices begins this general history of medical practices in autism.

A Description of Treatment for Autistic Children

The images and text of the *Life* magazine article shown above demonstrates the reality of a burgeoning treatment for autistic children in the early to middle 1960s. In this
section, I describe this treatment using the text and images of its procedures as presented by *Life* magazine. I describe both the punishments applied, and the rewards offered, to the four particular autistic children in this behavioral experiment.

**Punishment.** In the case of 9-year-old Pamela, punishment to her entire body through the use of electroshock was one way for the researcher to coerce the child to carry out her lesson. She had been making some progress but at some point, there was noticeable regression. She would drift off from her assigned reading, stare around the room and then become more focused, staring at her hand. She would be given both an unsympathetic scolding and shaking by the researcher. All the while, she was placed in the shock room where electrodes and a floor with metallic strips were in place. By attaching electrodes on her bare back, Pamela could easily be jolted with currents of electricity when her behavior was deemed inappropriate by the psychologist. This coupled with a loud “no” from the voice of the researcher would teach the child not to behave the way she had been and to return to her lesson. This form of punishment was used as a last resort because sternness and shaking of the body was futile in getting her to perform the tasks required of the researcher (Because copyright laws prohibit the use of these pictures in this document, please go to [www.neurodiversity.com/library_screams_1965.html](http://www.neurodiversity.com/library_screams_1965.html) Pp. 3-5).

A second form of punishment applied to these four autistic children were slaps to their faces.

Enraged bellows at the boy, then a sharp slap in the face. This deliberate, calculated harshness is part of an extraordinary new treatment for mentally crippled children (Moser and Grant 1965:1).
According to the article, Billy received this sharp slap in the face “when Billy did not pay attention during his speech lesson” (Moser and Grant 1965:2). The moment when the researcher began and ended a brief but harsh punishment to an inattentive child can be seen at www.neurodiversity.com/library_screams_1965.html p. 1.

Autistic children in this particular experiment were caught up in systematized techniques of punishment. They were not punished for being unable to read or speak, as the cases of Pamela and Billy demonstrate. Rather, they were punished for inattentiveness. Yet there were other techniques that could be used on these autistic children by researchers to get them to pay attention. These children could be subjected to a system of rewards as well.

**Rewards.** The children in this behavioral experiment were also given rewards for actions approved by researchers. As the text stated, affection and food were offered to the children when they did something “correctly.” With regard to food, these children, for the first few months did not receive regular meals from the researchers, despite living at the institute. The children could only receive food when they gave “right answers” (www.neurodiversity.com/library_screams_1965.html p. 8). In addition, children were offered food for playing correctly. The text shows a researcher teaching a child how to play by offering some sherbet (www.neurodiversity.com/library_screams_1965.html p. 8).

Children were even offered food as a reward for showing proper affection for one another. The caption in the text reads: “Billy and Chuck practice the mechanics of friendship and so get some sherbet for their proper hug” (www.neurodiversity.com/library_screams_1965.html p. 6).
But food was not the sole reward for these four children. Often, these children were shown affection by researchers themselves as rewards for good behavior. The text show researchers in close proximity with some autistic children in order to reward them through physical affection (www.neurodiversity.com/library_screams_1965.html Pp. 5-6).

In sum, a system of coercion through both rewards and punishments was put in place as a possible new break-through treatment for autistic children. But a genealogical analysis of this new system, this new practice in autism, starts at how power is deployed on to the bodies of these children in this system of coercion.

*The Deployment of Disciplinary Power on to Autistic Children*

This new practice of coercion by behavioral psychology in autism was clearly a case of using discipline as a technique of power. This form of power was disciplinary in nature because it provided “procedures for training or coercing bodies” (Smart 2002:85). Foucault (1995) suggested that discipline, in general, proceeds in four ways. First, discipline physically encloses individuals so they know their place. In the case of this behavioral experiment, these children lived in the rooms and corridors of the UCLA Neuropsychiatric Institute. They were also placed in shock rooms where there was no escape.

Second, discipline breaks down, adjusts, and controls bodily movements. It can be seen from the images and texts presented that staring wildly or calmly, being attentive to other things rather than to the task assigned by the researcher, hugging, and eating were all bodily movements that were controlled and manipulated by the researchers and psychologists.
Third, discipline organizes training such that the body progresses from the simplest moves to the more complex. In this experiment, this progression from simple to complex was especially true regarding the training in linguistic tasks.

A case in point was teaching Billy to talk. First he had to learn how to mimic the sounds of speech. He started by learning how to blow out a match with a sound like *who*. Every *who* was rewarded with food. Next he was encouraged to babble these sounds aimlessly. From time to time he would accidentally form a word. Every word got its reward. So he would repeat the accident and after weeks had a vocabulary of words like *ball, milk, mama, me*.

Then they tried to teach meaning. When a ball was held up, Billy would just as likely say *milk*. This went on for frustrating weeks. In the sixth week the staff realized Billy was smarter than they had thought. When he gave the wrong word, the researcher would prompt him with the right word. When he echoed it, he was fed. Changing the method, the researcher held up a ball. Billy said, “Me!” and got nothing. He fidgeted. Desperately he began going through his whole vocabulary. When he hit *ball*, he was fed. In an hour Billy had caught on and could find the right word immediately. Today he can ask for any food by name, ask to go out, to go to the bathroom. In short, Billy can talk. All it took was ingenuity and some 90,000 trials (Moser and Grant 1965:9).

In this particular case, Billy was encouraged to mimic sounds of speech, then encouraged to babble sounds. This was followed by accidentally sounding real words, identifying objects with words, and asking permission to use the bathroom. From being unable to perform simple linguistic tasks, to more complex ones, it took 90,000 attempts by psychology to get an autistic child to obey authority.

Fourth, bodily training in discipline is coordinated with the general manner in which society operates and produces. In this experiment, children were coerced into behaving in normative ways; ways in which society operates. Children were disciplined in the proper ways to show emotions (i.e., returning affections, not showing affection to authorities unless authorities initiated the affection, and showing affection properly to friends). They learned through coercion to control their own emotions, a control which
society encourages in families, schools, offices, shops, and factories (Stearns and Stearns 1986). Stearns (1994) shows how the controlling of emotions has taken place in history and in different social contexts. These children were also on strict time schedules, which is how schools and workplaces operate. (To see how individuals are disciplined similarly, see Fiske 1993, *Power Plays, Power Works*)

In sum, the lessons learned by the autistic children were not the lessons of reading, writing and arithmetic. They were the lessons of discipline taught by behavioral psychology in particular, by the human sciences in general. Moreover, the practices on display here are reflections of disciplinary power in the modern age.

Disciplinary power, according to Foucault (1995), was the repression of the mind through a disciplining of the body by systems of authority that benefit political regimes. Power would be about getting into the minds of subjects (individuals) and disciplining them. (See page 87 of this dissertation). From the emergence of the modern age onward, political regimes were interested in controlling deviance through a more calculated and efficient form of punishment: a disciplining of the mind toward reason (Foucault 1995). These regimes would rely on the human sciences (i.e., the academic disciplines) to shape psyches toward reason for the benefit of the organization of society. This portion of the text in *Life* magazine clearly illustrates disciplinary power in the treatment of autistic children in the 1960s.

Dr. Ivar Lovaas, the 38-year-old creator of the UCLA project, argues that “you have to put out the fire first before you worry how it started.” An assistant professor of psychology at the UCLA Neuropsychiatric Institute, Lovaas believes the whole present concept of “mental illness” is flawed because it relieves the patient of responsibility for his actions. Lovaas is convinced, on the basis of his experience and that of other researchers, that by forcing a change in a child’s outward behavior he can effect an inward psychological change. For example: if he could make Pamela go through the motions of paying attention, she would
begin eventually to pay genuine attention. Lovaas feels that by 1) holding any mentally crippled child accountable for his behavior and 2) forcing him to act normal, he can push the child toward normality (Moser and Grant 1965:3).

The components of disciplinary power are presented in this portion of the text. The academic discipline: psychology. Its task: to manipulate and alter behavior in an efficient manner to effect changes in the psyche of the child through techniques of control. The purpose: to get the child to pay attention to authority, consistent with the needs of political regimes. Thus, there is evidence in the text that disciplinary power was deployed onto four autistic children in this behavioral experiment.

A Genealogical Analysis of Discipline as a Technique of Power in the UCLA Experiment

Power was organized on to the bodies of autistic children for the first time in the 1960s in the corridors of UCLA by behavioral psychology. This deployment of power held out the promise to medical science and parents that autistic children could improve.

As a portion of the text in Life (Moser and Grant 1965:10) reads:

One of the leading authorities on autism has called the UCLA project “a tremendous accomplishment.” There are not yet plans for a clinic to offer general treatment, but Lovaas hopes he has found a way to help any child with a broken mind more quickly and simply than with methods now used. On visiting day for parents, Chuck’s mother sees his behavior through a one-way mirror and is overjoyed at what she sees.

At the same time science saw accomplishment, mothers saw better behavior. The accomplishment that behavioral psychology achieved, and the outcomes that mothers witnessed were immediate. What both science and parents saw was the direct result of the deployment of psychological power on to certain autistic children. Only science, however, witnessed the deployment of power; parents were not privy to this deployment, only to its results. What was hidden from them tells a more insightful story.
In a system of coercion (i.e., pain inflicted in to the body, actual or threatened denials of pleasure, and controlled displays of affection), the bodies of autistic children, as objects of scientific inquiry, were in direct relation with power as deployed by behavioral science. As genealogy states (Foucault 1984), power relations are organized and applied for the production of real effects. In the case of these autistic children, the real effect was that they were “helped” by behavioral science for all to see. In actuality, the real effects were particular, temporary behavioral outcomes. These outcomes involved coerced learning styles and the controlling of children’s emotions and affections—that is to say they involved obedience to a discipline of scientific behaviorism. The methods that were used to obtain these outcomes were a combination of previous notions of sparing the rod and modern science:

It is based on the old-fashioned idea that the way to bring up children is to reward them when they’re good, punish them when they’re bad. At the University of California in Los Angeles, a team of researchers is applying this precept to extreme cases…And, by alternating methods of shocking roughness with persistent and loving attention, the researchers have broken through the first barriers (Moser and Grant 1965:1)

Breaking through barriers was the goal of behavioral science; the goal was not to locate the etiology of these barriers. In fact,

The causes of their strange affliction are uncertain. Like most other autistic children, these four are healthy and coordinated, neither brain damaged nor retarded. But the team conducting the experiment at UCLA is not interested in causes (Moser and Grant 1965:3)

So it was not deficiencies in cognitive skills or in health conditions or physical coordination that behavioral psychology sought to remedy. It was behavior that was considered abnormal—more specifically, autistic behavior—that behavioral psychology attempted to break. But these behaviors identified who these children were in the first
place. By breaking their behaviors, behavioral psychology was actually attempting to transform the child to be something else. This transformation was not suggested at the time to be about making autistic children healthier, more intelligent, and more coordinated. Instead, breaking through meant that psychology would normalize the behavior of these particular children. Moreover, what behavioral science did was to force the child to act normally, and in so doing, the child would be normal. Behavioral psychology then set out to transform the bodies, psyches, the very souls of autistic children. This transformation was not intentional and brought to consciousness through an ideological plan. The transformation of the souls of autistic children would be guided by scientific discourse—a discourse of behavioral discipline and normalization.

This new understanding of how to normalize particular children would be enough to allow for new techniques of power. That is to say, it would allow for new practices in treating autistic children that could potentially normalize autistic children. Normalization could only come about if a discourse of positive effects in behavior through specific practices could emerge.

But real effects would have to be produced. These effects would be produced through a behaviorist perspective that fixed its gaze on to the autistic body. The gaze by itself, however, would not be enough to produce effects. Power needed to be deployed on to bodies in a system of coercion: punishments, threats of punishment, deprivation and presentation of sustenance, and controlled displays of affection. These were the general instruments of power in this experiment with particular autistic children.

In the cases demonstrated in this chapter, the bodies of researchers and autistic bodies were in close proximity. This close proximity enabled the vehicles of behaviorist,
psychological power to apply its trade to the bodies of autistic children. In terms of punishment, researchers were permitted to attach electrodes to the bodies of these children, as shown in the case of Pamela. There were other forms of physical dominance in these power relations between the behavioral science and autism. Researchers were also permitted to physically brutalize these children by slapping them in the face for non-compliant behavior (i.e., not paying attention during a particular speech lesson). This would be a crucial first step in correcting autistic behavior and thus autistic thinking. This would be a crucial first step toward normalizing autistic children.

There could be no other way. Behavioral psychology was not “interested in causes” of autistic behavior, only outcomes. When a discourse of behaviorism assures us, therefore, that positive outcomes could be produced when deploying specific scientific techniques, violence can be the only solution to the non-compliance of an autistic child when all other means have been applied. Autistic children were, after all, mental cripples who were required to be fixed, adjusted, treated, and normalized.

The researcher not only deployed power on to the body of the child for the purpose of progression in cognitive skills, the researcher deployed the very same power to establish at what point the child could emote. According to the text (Moser and Grant 1965:5), Pamela attempted to show the researcher affection even during an event filled with anxiety. Yet the researcher impeded her attempt at emotion and instead, with a loud “no” and a bolt of electricity, establishes when and how the child can display her emotions. Her emotions were manipulated, deprived, and negated by the researcher. The child’s own bodily experiences—even pleasure—were denied by the researcher for the purpose of gaining scientific knowledge. While autistic children were seen as mental
cripples in an emotionless state, behavioral science at this point was denying them any chance of showing or having emotions.

Only researchers could *lavish tenderness* on to the child. It could not be reversed, as the case of Pamela demonstrates. She attempted to give the researcher hugs, but was rebuffed by the researcher. The researcher alone was the one who determined when affections could be displayed and who could initiate them. Children were permitted 10 minutes per hour of affectionate play. At all other times, they were not permitted certain emotional states by behavioral science, lest they be punished. Expression of emotional states and particular behaviors were forbidden. These autistic children had to pay full attention to and act upon the dictates of researchers—themselves subjects of discourses in behavioral psychology. Autistic children, unbeknownst to them, were beginning to be enmeshed in a wider network of power relations whose parameters were set by behavioral psychology and its discourse. Therefore, behavioral science dominated power relations in this new treatment when it came to emotions.

A summary of this genealogical analysis of power in the case of autism is now in order. First, power was most assuredly deployed on the edge of legality. Slapping children in the face, withholding food, and applying electroshock to these four children would most certainly be questioned even during the 1960s in most public spheres. Second, power was deployed within a network of power relations. The psychology department at UCLA applied its trade within the domain of the Neuropsychiatric Institute. Professors, researchers, and graduate students all were vehicles of power enmeshed in a system of discipline. Third, they exercised power through the utilization of specific instruments such as electrodes, floors with metallic strips, food, affection, and
slaps. These instruments of power were deployed directly on to the bodies of these children.

These four children were also part of power relations. But the power they attempted to deploy, both expressions of frustration and affection were denied and negated by behavioral psychology. Behaviors such as staring or ignoring were negated through slaps and electroshock. The purpose, as the text suggested, was to normalize the children. For example, in Pamela’s case, she was being instructed to read. It was thought that during her lesson she was not anxious enough. The researcher, therefore, had to give her something to be anxious about, never mind that her wild expressions and gesticulations may have signaled the very state of anxiety. Power then was applied to the body of the child vis-à-vis electroshock so that the psychology could produce behavior closer to what it considered the norm. Normal behavior would be considered a gain for these children by behavioral psychology.

Opening the Door to a New Discourse of Treatment in Autism

These gains actually had less to do with the successful treatment of autistic children and more to do with expanding scientific knowledge about autistic children. The evidence for this will be shown in Chapter IX. Nevertheless, at this point it can be stated that at the same time the autistic child was learning to read a book in the shock room, the researcher was learning to read the body of the autistic child. This reading of the body, in the end, would further scientific knowledge of autistic children, and expand scientific power in relations with autistic subjects. The combination of knowledge and power [labeled as power/knowledge by Foucault (1980)] would be the basis for a new discourse of the possibility of treatment and recovery in autism.
Behavioral psychology was able to apply disciplinary power on to the bodies of autistic children because the autistic child had already been identified as deviant, pathological and inferior by psychiatry. In the next three chapters (IX, X, and XI), I trace the history of the psychiatric discourse on the autistic child and psychiatric therapeutic practices that had been applied to autistic children. Chapter IX focuses on the history of the domain of child psychiatry; the domain in which the autistic child first came to the attention to psychiatric medicine, as I describe in Chapter X. Chapter XI describes the subsequent medical discourse about the autistic child, a discourse that set the backdrop to behavioral psychology’s deployment of power onto autistic children.

The events described in this chapter permitted new statements to be made about autistic children. Power would continue to be deployed on to the bodies of autistic children for the next quarter of a century. Further knowledge would be gained about autistic children, and would allow for the emergence of a discourse that would dominate and set the tone for medical practices in autism from 1987 (the year of the culmination of power/knowledge by behavioral psychology in autism) to the present day.

Before an exploration of present-day medical practices in the case of autism can begin, a description of the historical preconditions that allowed for this event described and analyzed above needs to be presented. Specifically, the construction of a discourse of deviance, disability, and disturbance of the autistic child will be traced and unearthed from the time the first autistic child was produced as an object of psychiatric examination in 1943 to the emergence of a new discourse on autism by psychology in 1961.
CHAPTER IX

A GENERAL CONCERN FOR CHILDREN, CHILD PSYCHIATRY, AND THE INSTITUTIONALIZATION OF A DOMAIN

In the previous chapter, I answered my first research question, “When was it thought that medical science could treat autism successfully?” Through genealogical research, I found that this moment occurred sometime in the early 1960s when researchers in the Psychology Department at UCLA deployed disciplinary power onto four autistic children. My second research question is, “What is the history of both discursive and non-discursive medical practices that precipitated this deployment of disciplinary power on to bodies of particular children?” I ask this question because, like Foucault, I am interested in the history of the present; in this case, I am interested in the present situation with regard to the general awareness of autism in contemporary society and its countless therapeutic practices. Believing that the initial deployment of power on to autistic bodies by behavioral psychology made it possible for therapies in autism to emerge, I trace the history of medical practices in autism from the moment when the term autism was first used to the moment when behavioral psychology disciplined four autistic children.

In this chapter, I outline the history of the discipline of child psychiatry and its emergence as a domain. This is important in a Foucauldian analysis of medical practices in autism because Foucault sees power operating within institutionalized domains. I
suggest that it is disciplinary power that allows for discursive and non-discursive practices to emerge and form a discourse in autism. Therefore, I describe this domain and its general concern with children.

*Child Psychiatry from 1900 to 1940*

This outline of the history of child psychiatry is drawn from a singular work by the recognized expert in child psychiatry, Leo Kanner. I draw from the fourth edition his work, *Child Psychiatry* (1972[1935]). I cite liberally from this text in order to show the succinct orientation of child psychiatry in the first four decades of the 20th century. I detail this orientation and this work because it marks the historical preconditions for the first diagnosis of autism in 1943.

Kanner suggested that the development of child psychiatry could only come about during the particular era that it did because of emerging cultural attitudes of the times:

When the twentieth century made its appearance, there was not—and there could not be—anything that might in any sense be regarded as child psychiatry. It took a series of definite steps in the development of cultural attitudes to make possible the inclusion of children in the domain of psychiatry (Kanner 1972:5).

Kanner clearly stated here that child psychiatry would have been practically impossible if not for changes in cultural attitudes during the early part of the 20th century. That is, it was impossible to even consider children within the domain of psychiatry until these cultural shifts took place in this particular historical era. Kanner then presented particular historical events, decade by decade, that illustrated this cultural shift in attitudes toward children in the U.S.

For Kanner, there were four particular events that took place that in the first decade of the 20th century that allowed “individual work with children who presented any sort of difficulty in performance and behavior” (Kanner 1972:10) to emerge. First, in
France, there was a great deal of public concern about the effectiveness of the public schools at the turn of the century. Psychometry was introduced as a way of measuring intelligence and scholastic ability. Binet and his partner Simon undertook, through a battery of mental tests, to measure individual students’ intelligence. “With the help of this procedure, it was possible to learn to what extent any individual pupil conformed to, or deviated from, the norm or average” (Kanner 1972:7 italics in original). According to Kanner, Binet’s work was important because,

it brought into existence a concrete and reliable method of helping teachers to evaluate a child’s ‘mental age,’ so that instruction might be made to conform to the pupil’s need and grasp, instead of trying hopelessly to force a pupil to conform…to a preordained course regardless of personal fitness (Kanner 1972:8). Second, the advent of dynamic psychiatry was a cultural shift that influenced the beginnings of child psychiatry (Kanner 1972). A dynamic psychiatry suggested that there were several varieties of insanity, as opposed to the one insanity that was imposed on patients during the age of the asylum in the 19th century. Kraepelin’s (1923[1907]) work in classifying mental disorders, although not widely accepted at the time by psychiatry, laid the groundwork for a dynamic perspective of mental illness, an attitude introduced by Freud and Meyer (Kanner 1972[1935]). Freud, already influential in Europe, and Meyer, influential in the U.S. came to the conclusion that certain experiences lead to certain mental disorders (Kanner 1972[1935]). For therapists dealing with adult patients, this meant getting them to talk about their individual childhood experiences so that they would be able to diagnose the problem. This underscored the importance of seeing childhood as a key biographical period when attempting to classify and treat mental illness.
Third, according to Kanner (1972), the establishment of juvenile courts was a cultural shift which signified that children, no matter how deviant their actions may be, should be treated differently by the law relative to adults. As these juvenile courts began to spring up in the United States, many judges were not satisfied with sentences and verdicts.

They wanted to learn why the children brought before them had been driven to their transgressions...they turned for enlightenment to those from whom they thought might logically expect it; they consulted psychologists and psychiatrists, who thus were put under the obligation to occupy themselves directly with children’s behavior and its motivations (Kanner 1972:10, italics in original).

Finally, according to Kanner, a fourth shift in the culture was the mental hygiene movement. This movement focused on the prevention of mental illness, not unlike preventing somatic disease caused by bacteria. Here, preventing mental illness early in life through the promotion of good mental hygiene was an important factor in the emergence of child psychiatry.

In the 1910s, psychiatry was unprepared to answer questions about how to prevent mental disorders in children.

They [psychiatrists] discovered that little was known about the nature and meaning of children’s behavior difficulties, which adult onlookers had hitherto treated with assorted punitive methods but rarely with the desire or ability to understand the children motives and needs. This realization, disconcerting though it must have been, resulted in one of the most significant developments in the history of modern psychiatry—the beginning of serious, scientific efforts to study, comprehend, and treat personal disorders experienced or presented by young human beings (Kanner 1972:11).

Kanner notes that during this time child care was in a state of disorganization, with philanthropic efforts being average at best. A systematic scientific effort emerged to care for “the decidedly delinquent, the noticeably retarded, and the woefully neglected and mistreated” (Kanner 1972:11). Three organizational efforts emerged from a gradually
sympathetic population: juvenile court probation, foster home placement organizations, and special education. In sum,

[p]eople no longer merely thought about children as in the first decade, but they were prepared to do something to children by working with the community, improving its existing facilities, and establishing new facilities (Kanner 1972:12, italics in the original).

In the 1920s, there were a few events that helped lay the groundwork for child psychiatry, according to Kanner. First, the emergence of child guidance clinics began to be established in several cities in the United States.

A ‘team’ of psychiatrist, psychologist, and social worker formed the nucleus of the clinic, to which parents, schools and child-caring agencies were encouraged to bring or refer children with disturbing or otherwise puzzling behavior” (Kanner 1972:13).

These child guidance clinics used a variety of techniques to understand the child’s behavior. Psychiatrists within this setting also investigated the interpersonal relationships at home and in school, as these were thought to be motivating factors in the child’s behavior. In this context, parents and teachers were encouraged to discuss, examine, and modify their feelings and emotional relationships for the purpose of discovering what it was about the parent or teacher that caused the behavior in the child.

Behavior which had been previously regarded as ‘bad,’ unexplained, and incomprehensible, came to be recognized as a child’s reaction to adult attitudes toward him, such as overprotection, overindulgence, oversolicitude, perfectionism, disapproval, and overt or concealed hostility (Kanner 1972:13). Second, after polling teachers in the United States, the Wickman studies of 1928 suggested that teachers should be instructed to recognize and treat behavior problems among students. As a result, Wickman advocated that a shift be made from an emphasis on the psychology of learning and of mental and intellectual differences in children to a psychology of the social development of children.
The 1920s was about “the study and therapeutic modification of attitudes *on behalf of problem children*” (Kanner 1972:14, italics added).

The remedial equipment no longer consisted merely of doing something *to* children by placing them bodily in special classes of in foster homes, but also embraced efforts to do something *for* them by working constructively with the family and the school (Kanner 1972:14).

Finally, in the 1930s, psychiatry had devised ways of working with children as well as doing things to and for them. At the same time, psychiatrists, dissatisfied with merely observing and recoding patients’ complaints, began to be interested in how patients attached meaning to their behavior and thoughts. For children to be able to express themselves, play therapy was developed, especially that based on the work of Anna Freud (1964[1946]).

For Kanner (1972:15), the cultural developments that took place in American society over the first four decades in America allowed for a spirit of “closer collaboration between all those agencies which were interested in the mental hygiene of childhood.” This new attitude broke down barriers between groups who were all concerned with the welfare of children.

This new attitude gave rise to a variety of liaison arrangements. In 1930, the first full-time psychiatric clinic was established as an integral part of a pediatric hospital. Child psychiatry began to be taught in schools of social work, in some medical schools, and in some teachers’ colleges. It has found its way to juvenile courts and to summer camps. School teachers are learning more and more to call upon child guidance clinics for help with their problem pupil (Kanner 1972:15).

In sum, the first four decades before the discovery of the autistic child saw a shift in how the dominant culture thought about children. According to Kanner, (1972[1935]), this thought went from a general concern about the intelligence, emotional life, behaviors, and mental capacities of children to psychiatry’s attempt to invent therapeutic
measures that would address these issues in children. This is consistent with Armstrong’s (1995) analysis of the rise of medical surveillance onto the development of children that was noted in Chapter III.

From a Foucauldian point of view, an anatamo-politics of the body was emerging onto *children*. While Kanner may have seen the rise in the concern for children as a cultural phenomenon, a Foucauldian analysis would suggest that power, already weaving itself around adult society, was beginning to seep into the lives of children. The regulation of the lives of children fell into the lap of psychiatry. As I show in the next chapter, in was at the precise moment went child psychiatry believed it could offer therapeutic treatment to deviant and abandoned children that the autistic child was produced for medical examination. I describe the concern for motherless, abandoned children in the next section.

*Psychiatry and Its Concern for Children (and Their Mothers)*

By the mid-1940’s, some psychiatrists were interested in the development of children while, at the same time, they became interested in the phenomenon of infant separation from the mother. This interest coincided with the institutionalization of abandoned and deviant children (Spitz 1983). The child psychiatrist Rene Spitz, working within the New York Psychoanalytic Institute, wrote a great deal on the effects of institutionalization on the psyches of children (Sander 1983).

In describing the purpose of the New York Psychoanalytic Institute, Spitz wrote in an undated paper entitled, “…and the greatest of these…”:

> Why would an institute devoted to psychiatry be interested in research on infants? One does not usually think of babies in terms of psychiatry. The New York Psychoanalytic Institute’s attention was focused on the problems of infancy when it became increasingly clear that the groundwork for some of the severest mental
disturbances of children and adults is laid during the first year of life (Archives of the History of American Psychology undated:1).

Here, Spitz noted a trend in psychiatry that allowed for the investigation of very young children because of the connection between problems during infancy and psychiatric problems later in life.

Spitz stated that the institutionalization of children could lead to psychosis and depression as early as infancy. His investigations into the effects of institutionalization of very young children led him to believe that the relationship between the child and the mother was vital to the well-being of the child (Emde 1983). “Based on his [Spitz’s] observations…it was the experience of the institutionalized infants that, in large part, led to developmental and physical retardation; moreover, much of this experience had to do with deficits in mothering, with separation, and with depression” (Emde 1983:3-4). Spitz used the term *hospitalism* to describe children’s condition when separated from the mother for even a relatively short period of time during infancy.

In one study, Spitz compared the well-being of children born to delinquent girls in settings known as nurseries (where the mothers attended to their children) and the well-being of children in Foundling Homes (where poor women took their children to be cared for physically) (Spitz 1983). He found that babies who were not separated from their mothers, no matter the mental health or deprivation of the mother, had better outcomes than babies who had little attention from their mothers. This was true even when babies, separated from their mothers, were provided high-quality food and hygiene provided in a sterile environment run by professionals such as nurses (Archives of the History of American Psychology undated). Spitz spread this new knowledge about the effects of mothering on infants to other institutes and to the benefactors of similar institutes as well.
In his *Address for presentation to the donors of the PA Institute*, entitled, “Are Babies Expendable?” Spitz (Archives of the History of American Psychology 1946:1-2, italics added) described why the study of infants is important within psychiatry.

You are accustomed to consider psychiatry and its psychoanalytic branch as a method to cure maladjustments, neuroses, insanity in adults. You assume, therefore, and rightly so, that our Institute is occupied with work on grown-ups. That is actually what 99% of the work in this Institute is concerned with and will be concerned with in the future. However, bear with me if I remind you of a commonplace which you are all familiar with, namely that these maladjustments, neuroses, psychiatric breakdowns in the army and insanity, develop on foundations which are laid in youth and early childhood. Until a few years ago we believed that these early influences went back to somewhere around the sixth year of life and earlier. More recent research, some of which I have had the privilege of conducting, has shown that in a large number of cases the most serious damage, resulting in psychopathy, criminality and imbecility, was suffered in the course of the first year of life.

The damaging factors, as far as up to now we have been able to ascertain them, can be discovered in the field of feeding, in the field of hygienic ministrations, in the field of habit training. *The common denominator to all these fields can be termed as being the baby’s emotional relations to its mother.* Babies who suffer deprivation in one or all of the provinces of maternal care, babies who don’t get the proper share of emotional interchange with their mothers, invariably develop later into the most severe social and psychiatric problems.

These findings were striking at the time. Frailberg (1983:442) notes,

> The younger generation no longer knows first hand that when Spitz’s studies of hospitalism and anaclitic depression appeared in the 1940s they were greeted in psychological circles with disbelief that deprivation of mothering could produce enduring effects on an infant’s psychological development.

Spitz filmed his research on deprived infants for the purpose of having closer observation of children and their institutionalized settings. He used these films to instruct other psychiatrists and those close to psychiatry. In addition there was a concern for the type of nurturing that the infants received. But Spitz also used film because of the problem of the analytic techniques available at the time. In a “copy of rough draft of
The findings we have mentioned above sound impressive. Nevertheless we feel that these findings and their statistical expression do not even distantly compare with the phenomenological changes observed in any of these children as a result of mother separation. The physiognomical changes show no delay. They often appear in a few days. And the general behavior of the children strikes any sympathetic observer. We believe that it is a serious shortcoming of our technique that we are as yet not able to communicate in a quantitative fashion the existence of such changes. We are working on this problem, but we feel that solving it is a long and arduous task. In the meanwhile we are forced to supplement our findings by giving you a number of case histories and by showing you the physiognomical changes with the help of films.

After showing a series of films demonstrating the effects of mothers being separated from their children (inability to walk and talk, dependence in eating and dressing, even death), Spitz concluded with these remarks in his address to donors:

I have shown you these films in preference to dull and boring figures because I believe that they bring actual facts closer to human understanding than figures can. Please do not believe that such films can be made without an enormous amount of observation, filing, charting, filtering of facts and figures collected over many years of time with great effort and at great expense. The few simple facts I have communicated to you here are the result of investigations made by myself and others over a period of ten years. They can only be accomplished by the collaboration of carefully trained scientists such as are turned out by the institute you have so generously supported…

…No money expended on research, prophylaxis or treatment alone is more than a temporary alleviation of the situation. Both for the present and for the future the training of adequately equipped scientific workers is a primary need. It has shown itself in the terrible lack of psychiatrists discovered already during the first world war. It has become much more pronounced in the second world war. Your cooperation in our endeavor to train those psychiatrists who will do the treatment, the research and the prophylaxis, your help in creating and running our Institute will represent a lasting and outstanding service both to our community and to the nation (Archives of the History of American Psychology 1946:7-8).

In sum, infant separation from mothers began to be seen as a growing problem around this time. Institutions were inadequate substitutes for mothering because they
failed to emotionally support very young children. This resulted in depression, delays in development, and even death (Archives of the History of American Psychology 1946). Psychiatry was interested in these developments because impairments in the normal development of infants were believed to produce social problems such as deviant behavior, psychosis, and criminality in later years. Observations by Spitz and others in psychiatry concluded that mothering is of the utmost importance for the developing child and thus the mental well-being of adults.

This was a new development in psychiatry because whereas others (Freud in particular) could only theorize about the importance of the mother in the developing child, Spitz was able to show through visual recordings that separation from the mother in the early stages of life could damage the child permanently. But psychiatrists studying the infant-mother relationship and its potential hazards needed better statistical techniques as well as more funding for research and institutions to support that particular research agenda. Thus a discourse about the importance of the mother in the first several months of a child’s life was beginning to emerge within the domain of child psychiatry.

Despite the urgent need for new discourses on the mother-child relationship, the discipline of child psychiatry had little authority at the time. A domain where knowledge could be gained, power could be deployed, and a discourse to surface, did not emerge in child psychiatry until around 1953 when the Journal of Child Psychiatry was first published and an American Academy of Child Psychiatry was established.

The establishment of this journal was important because it provided a vehicle for a psychiatric discourse around developing children in the society. Not only was the journal a vehicle where power onto and knowledge of children could coalesce into a
discourse about children, it could at the same time deploy power onto children and the population—mostly of parents—through the discourse that emerged from the journal. The creation of the *Journal of Child Psychiatry* would provide a foundation of a discourse into childhood, a discourse that would set up the paradigms of normality and abnormality in all aspects—intellectual, behavioral, emotional—of the developing child.

At roughly the same time period as a foundation to a discourse around autism was being constructed, the domain of child psychiatry was dealing with internal issues, trying to come to terms with the nature of its own profession. What follows is a series of statements within child psychiatry that deals with these issues. These statements are important because it, among other historical pre-conditions, set the parameters of what could and could not be stated about children with an autistic condition and the parents who raised them.

*A Concern for the Profession*

A memorandum dated April 12, 1954, was sent by Secretary of the American Academy of Child Psychiatry Frank J. Curran, M.D., to its members. This memorandum included materials that consisted of, among other items: “The high-lights of the discussion of future programs of the Academy held in Los Angeles on May 4, 1953;” (Archives of the History of American Psychology 1954a) and “Minutes of the meeting of the Membership in New York City on March 12, 1954 (Archives of the History of American Psychology 1954b), and particularly items dealing with future program suggestions.” The highlights and minutes included comments of child psychiatrists. According to this memorandum, the “Comments of the members (were) to be sent to Dr.
Leo Kanner, Chairman of the Program Committee, Johns Hopkins Hospital, Baltimore, Maryland.”

In this section, I provide a description of this memorandum from the American Academy of Child Psychiatry because this particular document outlines the general concerns of the domain of child psychiatry. These concerns provide a basis for what would happen later in regard to medical practices in autism.

In the document entitled, “Discussion of Future Programs for the Academy of Child Psychiatry – Los Angeles May 4, 1953,” it was noted that a certain Dr. Jensen presided over the meeting. Comments from 14 child psychiatrists were noted, including those from Dr. R. Spitz. The following are some of the minutes from that meeting:

Dr. J. Rose suggested that we consider a series of topics. He felt that we could benefit from a discussion on areas of competence in child psychiatry. He felt we should discuss the overlapping of other disciplines. What are the forces that dilute this sub-specialty? Why do we think that two months training is adequate? What competence is needed in dealing with children? What are the areas of our understanding and knowledge? What is the reality scope embraced in this field?

Dr. F. Anderson states that we need a re-emphasis on sharper delineation in problems of diagnosis. What constitutes a psychiatric problem in a child?

Dr. Lurie – What constitutes a child psychiatrist?

Dr. Rose – It would be helpful if we could sketch out the various areas of competence in this field. We work in clinics, we assist with adoptions, with residency training and treatment programs, with hospitalized cases, etc.

Dr. Jensen – If our knowledge and skill are adequate, we should be able to make adequate diagnosis.

Dr. Bruch – We need to formulate out the work in relationship to other groups such as teachers in progressive schools and in teacher training colleges. What does a psychiatrist do that a school teacher can’t? The field of education is very large. How do we work with other professional groups?

Dr. P. Schroeder – The general psychiatrist feels he needs no special training in order to work with children. This should be clarified. The pediatrician puts an
arbitrary age limit and stops seeing patients at a certain age. The child psychiatrist, however, needs to learn special techniques for handling children and for handling parents of children.

Dr. E. Greenwood – Raised the question with reference to the work of pediatricians as being chiefly in the field of prevention. He then went on to say that there is a varied scope of problems in child psychiatry. We work with defectives, epileptics, psychotics and severe neurotics. Therefore, we cannot do adequate treatment in a few weeks.

Dr. Jensen – What is the role of child psychiatrist in prevention?

Dr. V. Bernard – The child psychiatrist doesn’t deal just with children. Many child psychiatrists not only work with children and their parents, but also work with other adults with different types of psychiatric problems.

Dr. Jensen – The Ithaca Conference indicates that there are very few places available for residents to get indoctrination in this field. It was felt that the general psychiatrist should have at least three months indoctrination in child psychiatry.

Dr. J. Rose – We need to have a history of our derivation.

Dr. Mahler – We often treat the mother and the child as a unit.

Dr. Barhash – The academy should be concerned with research. Why is so little research done in this field?

Dr. Bruch – We need a clarification of terms “preventive psychiatry” and “preventive pediatrics.” What really is “preventive psychiatry?”

Dr. H. Greenberg – Why not have a symposium on one or more groups or problems? For example, have Dr. Spitz discuss research, Dr. Greenwood discuss residency treatment, Dr. Lemkau discuss preventive psychiatry, and Dr. Lippman and Rose, work in clinics. Different members are concerned with different aspects of the problem in this general field of child psychiatry.

Dr. R. Spitz – If we circumscribe the areas of child psychiatry, we won’t be able to avoid limiting it somewhat to age. Delinquency and drug addiction may begin in childhood and continue on into adolescence. We, therefore, cannot stop at the age of twelve as the pediatrician does.

Dr. M. Sperling – In the role of prevention, we should also consider treatment of adults. How can we prevent neurosis of childhood unless we treat the neurotic problems in their parents?
Dr. Lippman – Should we treat these neurotic adults or refer them for treatment elsewhere?

Dr. M. Sperling – In many instances, the child psychiatrist has to deal with the parent as well as the child.

Dr. Bruch – The work done by the child psychiatrist with a parent is different from the definite treatment of an adult alone such as psychoanalysis.

Dr. Rose – We need proper focus of treatment.

Dr. Bruch – We need to work through the relationship of the parent to the child.

Dr. Greenwood – What shall we do with children in agencies or special institutions where we give treatment to a child and not to a parent? Can or should we treat a child without treating the parent?

Dr. M. Sperling – We should deal with the foster parent and child or, in a nursery school, deal with a child and parent surrogate.

Dr. Jensen – We have different backgrounds and we work in different geographical areas. We must consider the facilities available. Should we struggle with definitions of basic principles? Can we reach certain areas of agreement?

Dr. Greenwood – Can we review the training of the social worker, clinical psychologist and the staff in residency programs to see if training is adequate for the job they are doing? Is there a need for special training for residency workers? (Archives of the History of American Psychology 1954c:3-5).

The minutes of this meeting reveal a general concern for the field of child psychiatry and its future development. Dr. Jensen drew up a summary of this discussion from the Los Angeles meeting. This summary was also to be sent to members and to Dr. Kanner. The reason for this summary was to provide a basis for the “discussion of areas of interest to which the Academy might direct its attention for future program planning.”

Dr. Jensen further wrote:

After a review of the aims and purposes of the organization as defined in the constitution the meeting was opened for discussion of the question, ‘What are the areas which need of clarification as we begin planning for the future?’ Lively discussion followed for over an hour during which many questions were raised
which defined themselves into four areas of interest (Archives of the History of American Psychology 1954c:6).

These four areas of interests were:

1. What is Child Psychiatry and who is a “Child Psychiatrist?”
2. What shall our responsibilities and relationships be with others who are interested in and deal with children and their problems?
3. The Field of Prevention
4. The Need for Research

These concerns, then, were related to developing a definition of what constitutes a child psychiatrist, what constitutes a psychiatric problem in childhood, what constitutes proper treatment and who receives this treatment, where psychiatric practices should be applied to children, the constitution of a field that is distinct from general psychiatry, and how this field could be strengthened. In Foucauldian terms, child psychiatry was seeking a means to increase its surveillance of children within other institutions such as schools, clinics, hospitals, and in other agencies that deal with children. The surveillance of children would lead to more knowledge of children and their development. The authority of child psychiatry would thus be strengthened. In order to gain knowledge and authority, the medical gaze would have to be directed toward several “types” of children within several different institutions.

This document also reveals that strategies needed to be put in place for power relations to be set between child psychiatry, parents, schools, and others concerned about children. For example, in the document above, questions were asked as to what the relationship would look like between child psychiatry and special agencies and other medical subspecialties such as pediatrics that deal with children, whether parents needed
to be contacted when dealing with children, and what child psychiatry specifically can do that teachers cannot do.

In addition, spaces needed to be opened up where these power relations could take place. For example, questions were asked as to where the specialized knowledge of child psychiatry would be most effective in treating children, not only in terms of geographic location, but also in terms of domains such as the family, schools, clinics, adoption agencies, residency training, and a variety of treatment programs.

Finally, child psychiatry was asking questions as to the type of patient it would deploy its therapeutic powers onto. For example, it understood its task in normalizing defectives, epileptics, psychotics and severe neurotics. But it also asked at what point in a young patient’s life does its therapeutic power become ineffective. In other words, when does child psychiatry stop treating the child? Do pediatricians cease treatment at the age of 12 at the onset of adolescence? Child psychiatry could not stop its treatment at adolescence because that is when “behavioral problems” surface. Treatment would have to be ongoing because of the potential of mental and emotional problems over the course of several years from the start of life. Child psychiatry even believed that it needed to extend treatment into adulthood. Thus surveillance of children needed to be increasingly deployed and power relations between child psychiatry and those concerned with children, needed to be expanded in domains, institutions, and over the course of a life. The regulation and the restoration of life in society would be the responsibility of child psychiatry, and this regulation and restoration of life would begin in early childhood.

But, as Dr. Jensen duly noted, a recurring theme of a shortage of research methods in child psychiatry also emerged from the minutes of this meeting. In his
summary outline of the meeting minutes, Dr. Jensen transcribed the questions regarding the need for research:

(a) Why is so little research being done in child psychiatry?
(b) What can be done to stimulate research? What areas are important?

In Foucauldian terms, new knowledge of children was needed by psychiatry. The knowledge that it had gained about children, especially those considered to have psychiatric problems, was insufficient. Spitz had called for the need of statistical analysis of the well-being of children years before. Still, at this point in time, child psychiatry was in need of new types of analyses. Child psychiatry sought ways of acquiring new knowledge which would thereby be applied to bodies of children. This would be done because as the document reveals, there was a general concern for delinquency, drug addiction, psychosis, neurosis, and the defective and epileptic child. Thus, power would be applied to bodies of children for the purpose of normalization. But power could not be applied until new knowledge was gained. This meant gaining access to children for the purpose of psychiatric research through the educational system, social service agencies, hospitals, and the family.

The following year, in 1954, child psychiatry began to be more specific with regard to psychiatric research on children. In the “Notes Taken by the Secretary in Long Hand with Reference to the Future Programs” dated March 12, 1954 in New York City, several statements were made regarding the problems of research and the dissemination of knowledge.

Dr. Kenworthy: …We’ve got to take apart dynamics and find the essence, the tiny core that can have value and relatedness to other aspects. Let’s forget about
verbiage and look for intuitive hunches that really can be crystallized and which are cogent and can be shared with others. The Academy should be composed of persons who are dedicated, not caring for themselves, but making their knowledge available to others.

(...)

**Dr. Balser:** ...Our ideas should be crystallized and worked over among ourselves.

(...)

**Dr. Ackerly:** I have a topic suggested by several. How many clinics do real careful follow-up studies? Every other branch of medicine does it. We use all manners of rationalization.

**Dr. Gardner:** I know of very few follow up studies. Nothing is harder to design than a follow-up study. We even need a method.

**Dr. Ackerly:** I suggest as a topic “The Method Follow-Up Studies.”

(...)

**Dr. Rexford:** I would like to testify as to the potency of Dr. Gardner’s ideas on research. He talked to my Board and this lead to an accumulation of some money for research.

**Dr. Otto Sperling:** I would like to suggest a discussion on identical twins with a study of heredity and environment. This is very difficult for a single investigator because large groups of identical twins are rare. However, in this whole group working all over the country, we could accumulate a large number of anonymous case histories and these could be studied by a committee and we could reach certain scientific conclusions. In this way we could get as many cases studied from the specific viewpoint of psychiatry (not anatomy or biology). It would be advisable to have in the Academy a treasury of case histories to be used later for special studies in this field.

**Dr. Rose:** Dr. Sperling’s idea is laudable and applicable not only for a study on twins but in other clinical material. We should have a special set-up for this type of function. I want to get back to Dr. Krug’s point. We are in a point of crisis. This was very obvious at the Training Director’s meeting at A.A.P.C.C. earlier this week. At that time I said that many people in general psychiatry don’t understand child psychiatry but we should not agonize over this. Things are happening. In Boston the Judge Baker clinic is affiliated with the Children’s Medical Center and they are planning an extremely comprehensive program involving most of the clinical people in the child psychiatry field in Boston. In Philadelphia we have an arrangement with the Children’s Hospital and in January
we began with our first research grant to make a study on intestinal disorders of children within the first six months of life. This type of amalgamation, such as mentioned with adoptions, leads to new techniques…

Dr. Ross: We have talked around and around. There are a tremendous number of things we are interested in but two things stand out: 1) We want the Academy to have meaning for us and for others as a source or clearing house to see who is interested in what. 2) We have a desire for active not passive membership. It came out clearly at the previous meetings that our members want to be working members. I’d feel that the Academy was really started if we had a practical point of departure for the next meeting. I move, therefore, that we have Dr. Gardner’s paper and this is to be followed up by a discussion of the value and possible methodology of follow-up studies from the point of view of experience of people in various groups.

Dr. Clothier: I would like to restate the motion or suggestion that the topic be “Research in Child Psychiatry” for the May meeting.

Dr. Solomon stated that he felt the motion was unnecessary…There are discussions about adoption, child placement and therapy. All of these are worthy of research. All of these should be discussed and then finally those who are interested in certain subjects could work together in smaller groups…

Dr. Kenworthy: There is a definite impulse to communicate or to share here. Could the secretary send out mimeographed sheets and let us list our specific interests, such as adoptions? Dr. Clothier, Dr. Bernard and I are interested in adoptions. I have a friend, an attorney, who has accumulated considerable data on this subject. He received a 90% response from the heads of adoption agencies all over the country. This material has not been published. I think we could get this information and accumulate a series of things, to get a body of knowledge we could share. (Archives of the History of American Psychology 1954c:13-18).

The document also notes that after the meeting had adjourned, a certain Dr. V.V. Anderson asked that a statement be distributed to the members of the Academy of Child Psychiatry. This was that statement:

More than anything else child psychiatrists are concerned day in and day out with emotional problems of children. We, more than anyone else, have something special to contribute to this area. We know that the state rules that all children must go to school for a definite number of years. The schools put most emphasis on intelligence. Modern education is aware to some extent of emotional problems. We know that vandalism and delinquency are increasing. The knowledge which child psychiatry has accumulated should be applied and used in schools. Emotional factors as well as intelligence factors should be considered.
As psychiatrists we have methods to handle rebellion and other acting out processes, but as a rule the schools don’t call on us to use our knowledge. (Archives of the History of American Psychology 1954c:19).

Thus, new knowledge was needed by child psychiatry and there was a need for disseminating this new knowledge not only amongst themselves, but throughout all institutions that dealt with children. However, to gain knowledge, child psychiatry had to produce scientific data. It can be seen from the preceding statements that it believed that certain institutions could provide access to children for scientific investigation. It can also be seen that research methods would need to be emphasized because child psychiatry was required to be perceived as a distinct domain where the scientific study of children, especially deviants, troublemakers, and neurotics, could be accomplished.

Two months after the New York meeting, another meeting of the American Academy of Child Psychiatry was held in St. Louis. In a text entitled, “High Lights of Scientific Session Held in St. Louis on May 3, 1954” several statements were documented regarding research in child psychiatry. This text, in part, is revealed below.

“A paper by Dr. George Gardner entitled, “Research in Clinical Child Psychiatry” was mimeographed and distributed to all members prior to the meeting. The scientific discussion program immediately took up the content of this paper. The secretary has some 34 pages of detailed stenographic typed notes. The high lights of these notes are as follows:

It was agreed that there has been much neglect in research in child psychiatry. Research is needed to help evaluate what we are doing and to help us advance.

It is important to emphasize the close relationship of research and clinical work.

A discussion was held as to methods of obtaining research funds from Public Health Service grants, etc. It was felt we needed better public relations.

(…) 

There are various types of research:
(a) That done by the therapist himself
(b) That done by the Director or instructor.
(c) That done by a special research person who has no direct responsibility

It was pointed out over and over that when research is done, both treatment and training in the same place is at a higher level.

It was repeatedly mentioned that we take things for granted. For example, we accept ideas with reference to early maternal deprivation. We really need a thirty year follow up study on such cases. We do not have controlled studies.

Often there is a poor working relationship between the research person and the clinician. If one attempts to work in an institution and fails to have good working relationships with other professionals at all levels, then the observations will be faulty and the research will not be successful.

It was agreed that a research project could be valuable even if it only supplied a partial answer.

Clinicians frequently seek research funds without having research viewpoints or backgrounds.

Discussion was held as to whether or not Fellows in their second year of training should do some research under supervision.

A decision was finally made that the Academy should establish a research committee to set up a research design (Archives of the History of American Psychology 1954d:1).

This document shows that there was a sudden interest in scientific research within child psychiatry. Further, the type of research that was needed was to be performed in close collaboration with clinicians. In fact, it was stated that poor working relations between the clinician and the researcher had to be rectified if child psychiatry was to move forward. It was also believed that research performed in domains where both training and treatment occur would produce a higher level of scientific knowledge. Finally, the assumptions made within child psychiatry regarding the effects of maternal deprivation on the psyche of the child needed to be backed up by scientific research.
The discipline of child psychiatry was changing rapidly. An emphasis on scientific research began to emerge. Research designs had to be formed. Research would mean 30 year follow-up studies, thus bodies would have to be examined over the life course into adulthood. As Foucault (1994a, 1994b, 1995) suggested, for disciplines to have a deeper knowledge of the human body and mind, a gaze involving observation, judgments, and examinations would have to be deployed for the purpose of accumulating scientific data and making any abnormalities in children’s minds visible.

In the case of child psychiatry as a domain where disciplinary power could take place, there is evidence in these documents that the gaze would be focused on to particular children’s bodies. Observations would be made and compared to control groups, thus a normalizing judgment would occur (Foucault 1994a). New types of examinations were sought by child psychiatry. The examination was central to the disciplinary procedure, according to Foucault. For child psychiatry at this particular moment in time, certain children were to be examined, for the purpose of gaining a deeper understanding of children in general. The knowledge that would be gained by a new gaze—a new type of examination that would be documented and distributed to those within and outside the domain of child psychiatry—would soon materialize. This meant that a new discourse would emerge around particular children. These particular children were described in this very same document at the end of the text:

It was emphasized that all needed to share our experiences with autistic children, phobic children and psychosomatic cases. Dr. Gardner appointed a research committee of two persons, namely Dr. Spitz and Dr. Pasamanick with this assignment, “This committee should take as their initial task in the next half hour the assignment of seeing what they can do by bringing to our attention, by way of the Secretary, what they consider data which the various members of the Academy should collect.” It was also discussed that we invite a research member to address the Academy on the topic of “Research Design” and we would pay his
expenses to such a meeting (Archives of the History of American Psychology 1954d:2).

Thus, the scientific study of children would spare no expense to gain a deeper knowledge of autistic children, among other “types.” With this knowledge, a discourse could be produced around the autistic child. But for this discourse to be a force in the production of particular individual humans and particular populations, medical power had to be deployed on to autistic bodies. Further, in order to gain access to bodies, the autistic child had to be produced as an object for medical scrutiny.
CHAPTER X

THE BIRTH OF THE AUTISTIC CHILD

AS AN OBJECT FOR MEDICAL EXAMINATION

In the previous chapter, I stated that for the discipline of child psychiatry to be able to construct a discourse around the emotionally troubled child, it needed a domain within which to operate. This domain would be the site of power/knowledge, the precise entity that would generate a discourse. The second thing it needed was an object suitable for psychiatric medicine to examine. This object could not be the child with cognitive impairments, nor could it be a child with physical impairments. It had to be a child with emotional and psychiatric impairments, because these were the foci of the psychiatric domain. In the early portion of the 20th century, only one disorder unique to children was available: childhood schizophrenia. That changed in 1943.

It was in this particular year that child psychiatry produced the following statement after examining eleven children that were brought to his office in Baltimore:

Since 1938, there have come to our attention a number of children whose condition differs so markedly and uniquely from anything reported so far, that each case merits—and I hope, will eventually receive—a detailed consideration of its fascinating peculiarities (Kanner 1943:217).

After an examination of these peculiarities, child psychiatry produced this conception of the children that were observed:

The eleven children (eight boys and three girls) whose histories have been briefly presented offer, as is to be expected, individual differences in the degree of their
disturbance, the manifestation of specific features, the family constellation, and the step-by-step development in the course of years. But even a quick review of the material makes the emergence of a number of essential common characteristics appear inevitable. These characteristics form a unique “syndrome,” not heretofore reported, which seems to be rare enough, yet is probably more frequent than is indicated by the paucity of observed cases (Kanner 1943: 241-242).

Psychiatry theorized that,

We must, then, assume that these children have come into the world with innate inability to form usual, biologically provided affective contact with people, just as other children come into the world with innate physical or intellectual handicaps. If this assumption is correct, a further study of our children may help to furnish concrete criteria regarding the still diffuse notions about the constitutional components of emotional reactivity. For here we seem to have pure-culture examples of inborn autistic disturbances of affective contact. (Kanner 1943:250, italics in original).

Kanner’s article entitled, “Autistic Disturbance of Affective Contact” in the Nervous Child was the first scholarly piece on behavior that was referred to as autistic. While other texts emerged before this document that concerned themselves with autistic language and autistic thinking (as will be shown in the Chapter XII), this was the first text that documented the behavior of particular children. This was the first text that arranged statements about, concepts of, and theories regarding particular children in such a way that a psychiatric discourse on the autistic child could emerge. In addition to being about autistic behavior, these statements, concepts, and theories signified the birth of the autistic child as an object for medical examination.

The focus of this chapter is how psychiatry produced the object of the autistic child. In order to do so, I provide an archaeological description of child psychiatry’s (Kanner 1943) scholarly article that examined the autistic child for the first time. Specifically, I show how the autistic child became an object of medical study through statements, concepts, and strategies put forth by child psychiatry. I contend that it was
not child psychiatry’s unique ability as an individual to observe, record, and examine particular behaviors that produced the object of the autistic child. Rather, I maintain that child psychiatry produced statements, concepts, and theories of the autistic child that were in line with a specific psychiatric discourse about abnormally behaving children during this particular historical era.

This archaeological description of psychiatry’s objectification of the autistic child is followed in Chapter XI by descriptions of what psychiatry could state and not state about the autistic child in the subsequent decade and a half. But in Chapter XII, I provide a similar description of what the discipline of psychology could and could not state about autistic thinking and reasoning, not about the object of the autistic child itself. The goal of these next three chapters is to show that psychiatry was able to formulate a discourse about the autistic child in the 1940s and 1950s because it had already produced the object of the autistic child within its domain. Psychiatry constructed a discourse from the combination of the foundation of its own psychoanalytic constructs and the examination of the autistic child. Psychology, while it could produce statements about autistic thinking and reasoning in the 1940s and 1950s, was unable to construct a discourse about the autistic during this time. It was only until psychology could ensnare the body of the autistic child into its own network of disciplinary power of behaviorism (Chapter XIII) that a psychological discourse in autism was able to emerge. In so doing, psychology was able to tear down a psychiatric discourse in autism, and actually reverse psychiatric thinking about autism.

*The Production of the Autistic Child: An Archaeological Deconstruction of a 1943 Text*

In this section, I examine the text that documents the moment when particular
children were first observed and examined by medicine—in this case, child psychiatry—with the effect of being judged autistic. It was this text that opened a possibility of discourses on the autistic child, autistic children, autism, and finally, Autism Spectrum Disorder.

The transformation of the child with a unique condition into an object of study.

In the late 1930s, authorities in psychiatry became aware of particular children. The specific domains that supported the study of these children were in and around the Baltimore area: the Henry Phipps Psychiatric Clinic, the Harriet Lane Home for Invalid Children, the Johns Hopkins Hospital, and the Child Study Center of Maryland. Therefore, the hospital, the psychiatric clinic, the study center, and the residential home for disabled children were the domains that supported the possibility that particular children could be transformed into objects of study. Yet, it was only child psychiatry, a growing sub-field of psychiatric medicine at the time, which could transform these unique children into an object for case studies. Statements, concepts, and theories surrounding the autistic child were thus delimited first by child psychiatry.

What statements are made about the autistic child and how did these statements become possible? It was child psychiatry that had the qualification to speak of the autistic child. Its institutional site was the Children’s Psychiatric Clinic of the Johns Hopkins Hospital. Statements about the autistic child became possible through the findings of case studies of 11 particular children. These findings were published in 1943 in an article published by the Nervous Child entitled “Autistic Disturbance of Affective Contact.” The sole author of the document was Dr. Leo Kanner, a recognized expert in child psychiatry (Neumärker 2003; Sanua 1990).
Leo Kanner headed the first child psychiatry division within a pediatric hospital (Johns Hopkins University) in 1930 and wrote the first textbook on child psychiatry in 1935. Beginning in 1938, parents of particular children were being referred to his office. These children had already been examined either within a tuberculosis preventorium, within a certain Child Study Home of Maryland, by a psychiatrist, by an intern, within a boarding school, within a private nursery school, within a state training school for the feebleminded, by psychologists, or within a certain nursery school (Kanner 1943). In the span of five years, from 1938 to 1943, these 11 children were made subjects of case studies by Kanner in order to formulate specific statements about them. The text is specific in that these statements were to be part of a preliminary report to be expanded “as the patients grow older and further observation of their development is made” (Kanner 1943:217), and it trusted that this condition would receive a “detailed consideration of its fascinating peculiarities” (Kanner 1943:217). Kanner’s conclusions were not to be the last statements on the autistic child nor on the child’s condition.

Kanner relied on the examination of case material to formulate statements about the autistic child. These materials consisted of: (1) written reports of parents about their own child; (2) written reports from institutional settings in which some children either lived or were educated and cared for; and (3) Kanner’s own recorded observations of both the child and the parents while in the psychiatrist’s office. The following are lists of statements about the autistic child formulated as a result of observations by parents, institutions, and Kanner (1944) himself.

From parents:

…draws into a shell (218)…indifferent to much that is around (222) …absorbed (222)… repetitious (228)…obsessive (228)…plays alone (233)…fearful of being
hurt (234)…literal-minded (222)… people are an interference (223)…detachment and inaccessibility (236)…confuses pronouns (233)…ignores other people (223)…upset by any change (231)… lives in a world of his own where he cannot be reached (236).

But also,

…self-satisfied (218)…constantly happy and busy entertaining himself (218)…quickly learned to read fluently (220)…biddable and obedient (221)…gives the impression of silent wisdom (226)…well-liked (229)…a lot of manual dexterity (236)…wonderful memory for words (236)…memory almost infallible (241)…more imaginative (220)… people would not notice any abnormality in the child (236).

From institutions:

…disinclination to play with other children and do other things children his age usually take an interest in (218)…perfectly oblivious to everything about him (218)…marked limitation (219)…stereotyped movements (219)…no initiative, requiring constant instruction (219)…words had literal, inflexible meaning (219)…irrelevant utterances (219)…unable to generalize (219)…did not look into one’s face (241)…moves like a strange being (241)…compulsive behavior (228)…inability to conform (226)… going through a series of color mixtures (220)…created the impression of feeblemindedness (226)…vague and detached (240)… He appears to be always thinking and thinking, and to get his attention almost requires one to break down a mental barrier between his inner consciousness and the outside world (218)

But also,

…in good physical condition (219)…never angry at interfering person (220)… when allowed to look at pictures play alone with blocks, draw, or string beads, she could entertain herself contentedly for hours (240)…
…daydreaming and seems happy (241)…dreamy-like smile (224)…objects absorbed him easily (224)…good attention and perseverance (224)…good perseverance and concentration (224)…adequately curious (225)… seemed to have much pleasure in ejaculating words or phrases (219)…self-sufficient in play wandered about smiling (219)…neat and tidy (230)… performance reflects discrimination, care, and precision (230)…intelligence is superior to test scores (230)… quiet, solemn, composed (230)… finds pleasure in dealing with things showing imagination and initiative (230)… not resisted authority or caused any special trouble (231).

From Kanner’s observations:
...replies were metaphorical or otherwise peculiar (222)...extremely autistic (222)...‘conversation’ consisted of questions of an obsessive nature (222)...no contact with people, whom he definitely regarded as an interference (226)...no affective tie to people (228)...never looked up at people’s faces (228)...behaved as if people as such did not matter or even exist (228)...never used the pronoun of the first person (228)... When he had any dealings with persons at all, he treated them, or rather parts of them, as if they were objects (228)...no interest in test performance (229)...eyes had a blank expression (231)...annoyed by any interference (232)... never smiled (232)...not paid the slightest attention to the people present (232)...utterly incapable of making comparisons (239)...no indication of affective contact (229)...mechanical phrases (239)... paid not the slightest attention to the people present (236)...

**But also,**

...good manual dexterity (227)...face looked intelligent and animated (227)...not willingly disobedient or contrary (227)...vivaciously occupied (227)...highly satisfied (227)...not destructive (227)...could not be regarded as feebleminded (228)...astounding purposefulness in the pursuit of self-selected goals (232)...remarkably intelligent physiognomy (232)... excellent vocabulary (239)...excellent rote memory (238)...instantly and correctly identified Mendelssohn’s violin concerto (239).

Kanner also recorded his observations of parents, and histories of other family members.

Fathers were:

...successful (218)...meticulous (218)...hard-working (218)...absorbed in thinking (219)...patient (223)... even-tempered (223)...mildly obsessive (223)...immersed in his work (225)... unusually intelligent (232)... sensitive (232)...restless (232)...introspective (232)...serious (232)...not interested in people (232)...suspicious (233)...doesn’t get along well with people (233)...emotionally stable (237)...gentle (237)...calm (237)...placid (237).

Mothers were:

“...college graduates (219)...calm (219)...capable (219)...even-tempered (223)...restless (226)...unstable (226)... excitable (226)...kindly (229)...obsessive (233)...hypomanic (238)...energetic (232)...outgoing (232)...well-educated (229).

One mother was so fond of people and children that she found it “a great deal easier to accept people rather than try to understand them (232),” while another mother was
described as one who “sees everything as a pathological specimen rather than well (237).”

Kanner went on to make statements about other family members. Maternal grandmothers were, “excitable…explosive…an incessant solitaire player…hypomanic…forceful…hyperactive” (233-234). Maternal grandfathers were, “intelligent (225)…severely obsessed…protracted think along one line…repeated hand washing…fear of being alone” (233-234) Paternal grandmothers were, “domineering and hard to get along with (223-224)…obsessive about religion and washed her hands every few minutes,” (237-238) while some paternal grandfathers were of the “genius type” (233). One married sister of a parent was “high-strung and quite precocious,” (224) and a maternal aunt was “psychoneurotic, very brilliant, given to hysterics (236).

In short, statements about the autistic child and the family of the autistic child could be made by child psychiatry in 1943 after five years of observation at the Children’s Psychiatric Clinic at Johns Hopkins University. Statements about fathers ranged from calm to restless, but somewhere in-between, fathers were serious, hard-working, meticulous, and unusually intelligent. Statements about mothers ranged from calm and even-tempered to unstable and hypomanic. Statements about other family members ranged from being intelligent, very brilliant genius types to hysterical, high-strung, hyperactive types. Descriptions of mothers, fathers, and other family members included being obsessive, from mildly to severely.

Moreover, Kanner’s documentation of his and others’ observations of these 11 children suggested that a wide range of statements were possible upon observation of these children. In terms of possibilities, these children created both the impression of
feeblemindedness and the impression of intelligence; they were both perfectly oblivious to their surroundings and showed good memory; they both could not conceive the meaning of words and gave the impression of a silent wisdom; they both paid little attention to people and showed good attention and perseverance in playing with objects; they were both unable to conform and unable to be disobedient; their actions were both imaginative and stereotyped; they both seemed self-satisfied and they never smiled; they were both obsessed and vivaciously occupied; they experienced no affective contact and found pleasure in dealing with things. Given this range of statements about the autistic child and the child’s family members, certain concepts about the autistic child became possible.

What concepts are formed about the autistic child and how are these concepts made possible? Kanner first rejected the notion that the children that he observed have a form of another known mental disorder or cognitive disability. “It is quite possible that some such children have been viewed as feebleminded or schizophrenic” (Kanner 1943:242). Kanner did not conceive of these children as schizophrenic. This was because schizophrenia is brought on later in life, whereas these children show similar symptoms much earlier in life:

This is not, as in schizophrenic children or adults, a departure from an initially present relationship; it is not a ‘withdrawal’ from formerly existing participation. There is from the start and extreme autistic aloneness (Kanner’s italics) that, whenever possible, disregards, ignores, shuts out anything that comes to the child from the outside. Direct physical contact or such motion or noise as threatens to disrupt the aloneness is either treated ‘as if it weren’t there’ or, if this is no longer sufficient, resented painfully as distressing interference (Kanner 1943:242).

Further, Kanner did not conceive of the autistic child not as being low in cognitive abilities for the following reasons:
Even though most of these children were at one time or another looked upon as feebleminded, they are all unquestionably endowed with good cognitive *potentialities*. They have strikingly intelligent physiognomies. Their faces at the same time give the impression of serious-mindedness and, in the presence of others, and anxious *tenseness*, probably because of the uneasy anticipation of possible interference...The astounding vocabulary of the speaking children, the excellent rote memory for poems and names, and the precise recollection of complex patterns and sequences, bespeak good intelligence in the sense in which this word is commonly used (Kanner 1943:247-248, italics in original).

Based on statements produced through observations of particular children, notions of these children as feebleminded or schizophrenic were now in question. But based on these very same observations, these particular children could be regarded as having a distinct syndrome, as Kanner noted.

Kanner then listed the essential common characteristics of this unique syndrome. That is to say, any future conception of the autistic child had to take into account these characteristics. Kanner stated that the primary characteristic of this new syndrome is the inability to interact with other human beings in a normal manner. This inability is inborn according to Kanner:

*The outstanding ‘pathognomonic,’ fundamental disorder is the children’s inability to relate themselves in the ordinary way to people and situations from the beginning of life* (Kanner 1943:242, italics in original).

For Kanner, this inability was characterized by: (1) a failure to make “anticipatory motor adjustments” (Kanner 1943:242); (2) the use of speech and language; (3) a preference for being alone; (4) a preference for sameness; and (5) a preference for objects rather than people.

*First, Kanner stated that according to Gesell,*

*The average child at 4 months of age makes an anticipatory motor adjustment by facial tension and shrugging attitude of the shoulders when lifted from a table or placed on a table* (Kanner 1943:242).
This anticipatory response is almost universal and “is supplied by the frequency with which an infant is picked up by his mother or other persons” (Kanner 1943:242). Kanner stated further:

It is therefore highly significant that almost all mothers of our patients recalled their astonishment at the child’s *failure to assume at any time an anticipatory* posture preparatory to being picked up (Kanner 1943:242, italics in original).

Kanner clearly stated that while the “average infant learns to adjust his body to the posture of the person who holds him,” none of the children that he observed were able to do so “for two or three years” (Kanner 1943:242). Thus, one important characteristic of the autistic child was the child’s inability—at least for a period of time early in life—to learn how to adjust the body in preparation for interaction and contact. It was thus only possible to conceive of the autistic child as being below average in terms of learning how to use the body to receive touch. It was not possible to conceive of the autistic child as being resistant to touch because of the child’s unique vestibular system or bodily condition. It was therefore not possible to consider that the child *feared being touched and that it could be in fact painful.*

Second, the speech and language used by eight of 11 children was considered by Kanner as meaningless. “In none of the eight ‘speaking’ children has language over a period of years served to convey meaning to others” (Kanner 1943:243). The ironic quotation marks around the word *speaking* are telling. “As far as the communicative functions of speech are concerned, there is no fundamental difference between the eight speaking and the three mute children” (Kanner 1943:243). Instead, their utterances were parrot-like repetitions of heard word combinations. They are sometimes echoed immediately, but they are just as often ‘stored’ by the child and uttered at a later date. One may, if one wishes, speak of *delayed echolalia* (Kanner 1943:243, italics in original).
For Kanner, the utterances of the autistic child were inherently meaningless to the point where they might as well be silenced.

In addition, Kanner observed a certain “literalness” to these children’s understanding of language. He cited the example of Donald T. who, when asked to put something down, “promptly put it on the floor. Apparently, the meaning of the word becomes inflexible and cannot be used with any but the originally acquired connotation” (Kanner 1943:244). This literalness carried over to the use of personal pronouns and the repetition of words when asked questions. “*Personal pronouns are repeated as heard,* with no change to suit the altered situation” (Kanner 1943:244, italics in original). For Kanner, then, the conception of the autistic child included a characteristic of inattention when spoken to as signified by echolalia, repetition, and literalness (Kanner 1943). It was only possible at this point in history to think of these characteristics as pathological. It was not possible to conceive of the autistic child as *one who must repeat words to understand.*

Third, the conception of the autistic child included the notion that he or she preferred to be alone.

There is an all-powerful need for being left undisturbed. Everything that is brought to the child from the outside, everything that changes his external or internal environment, represents a dreaded intrusion (Kanner 1943:244). Food, loud noises, and sudden moving objects could bring about a “major panic” (Kanner 1943:245) in the autistic child.

Yet it is not the noise or motion itself that is dreaded. The disturbance comes from the noise or motion that intrudes itself, or threatens to intrude itself, upon the child’s aloneness. The child himself can happily make as great a noise as any that he dreads and move objects about to his heart’s desire (Kanner 1943:245).
Thus, anything that can intrude on the desire for aloneness is thought to be a characteristic of the autistic child. It was only possible to think of the autistic child as having uncontrolled, pathological needs, in this case for aloneness. It was not possible to conceive of the autistic child as one who prefers being alone because the child finds movement unpredictable and therefore frightening.

Fourth, how behavior was guided was also seen as a characteristic of the autistic child.

The child’s behavior is governed by an anxiously obsessive desire for the maintenance of sameness that nobody but the child himself may disrupt on rare occasions. Changes of routine, of furniture arrangement, of a pattern, of the order in which everyday acts are carried out, can drive him to despair (Kanner 1943:245, italics in original).

Based on observations of the children in Kanner’s study, the autistic child could now be characterized as anxiously obsessive about insisting upon a routine and sameness in day to day life. “A great part of the day was spent in demanding not only sameness of the wording of a request but also the sameness of the sequence of events” (Kanner 1943:245). In fact, any change or incompleteness in the environment was not experienced by the autistic child as something anywhere close to being positive.

The dread of change and incompleteness seems to be a major factor in the explanation of the monotonous repetitiousness and the resulting limitation in the variety of spontaneous activity. A situation, a performance, a sentence is not regarded as complete if it is not made up of exactly the same elements that were present at the time the child was first confronted with it (Kanner 1943:246).

Kanner stated that the autistic child was limited in spontaneous activity because of his pathological desire for sameness. It was only possible at this point to hold notions of the autistic child as having pathological desires rather than conceiving of the child as trying to make sense of the external world in the child’s own personal manner.
Finally, the autistic child related better to unchanging objects rather than people. “He has a good relation to objects; he is interested in them, can play with them happily for hours...When with them, he has a gratifying sense of undisputed power and control” (Kanner 1943:246). Kanner observed that these children would “exercise this power” by spinning objects that could be spun and watching them, “jumping up and down in ecstasy” and glee (Kanner 1943:246).

The children sensed and exercised the same power over their own bodies by rolling and other rhythmic movements. These actions and the accompanying ecstatic fervor strongly indicate the presence of *masturbatory orgastic gratification*” (Kanner 1943:246, italics in original).

When it came to objects, the autistic child possessed power not only over the object, but over their own bodies as well. Kanner saw this power as a component of a psycho-sexual stage of child development.

But these very same children’s relation to people was “altogether different. Every one of the children, upon entering the office, immediately went after blocks, toys, or other objects, without paying the least attention to the persons present” (Kanner 1943:246). In fact, “there is a far better relationship with pictures of people than with people themselves. Pictures, after all, cannot interfere” (Kanner 1943:247). Thus it could be stated that,

Objects that do not change their appearance and position, that retain their sameness and never threaten to interfere with the child’s aloneness, are readily accepted by the autistic child (Kanner 1943:246).

For Kanner, to envisage the autistic child is to envisage a child who had no desire to be around people because of the potentiality of intrusion into his or her inner world. But objects and pictures fascinated the autistic child, so much so that Kanner was able to
recognize the child’s potential. A potential for intelligence could now be a characteristic of the autistic child relative to the feebleminded child.

Further archaeological examination of the text revealed that Kanner dedicated one paragraph in his study about the further development that he observed for some of the 11 children in his study. He stated that the desire for aloneness and sameness remained for the five children aged 9 to 11, but these children began to develop in other areas too.

The basic desire for aloneness and sameness has remained essentially unchanged, but there has been a varying degree of emergence from solitude, an acceptance of at least some people as being within the child’s sphere of consideration, and a sufficient increase in the number of experienced patterns to refute the earlier impression of extreme limitation of the child’s ideational content (Kanner 1943:249).

Kanner theorized that “our children gradually compromise by extending cautious feelers into a world in which they have been total strangers from the beginning” (1943:249, italics in original). Thus, despite innate obsessiveness, these children were thought to be able to consciously break free from their limitations; limitations determined by innate desires. Kanner (1943:249) observed the development of some of these children at different stages.

Between the ages of 5 and 6 years, they gradually abandon the echolalia and learn spontaneously to use personal pronouns with adequate reference. Language becomes more communicative, at first in the sense of a question-and-answer exercise, and then in the sense of greater spontaneity of sentence formation.

Kanner observed that particular children were able to learn and speak with spontaneity, even by the ages of 5 or 6. He also noted that noises and movements began to be more tolerated by the child, and that the repetitiousness became more of a form of “obsessive preoccupations” (Kanner 1943:249). People were tolerated as well, but still “regarded as nuisances.” The children obeyed reluctantly, “with the implication that it would be best
to get these interferences over with, the sooner to be able to return to the still much desired aloneness” (Kanner 1943:249-250).

Later in childhood, even more changes were seen.

Between the ages of 6 and 8 years, the children begin to play in a group, still never with the other members of the play group, but at least on the periphery alongside the group. Reading skill is acquired quickly, but the children read monotonously, and a story or a moving picture is experienced in unrelated portions rather than its coherent totality. All of this makes the family feel that, in spite of recognized “difference” from other children, there is progress and improvement (Kanner 1943:250, italics in original).

Kanner identified changes in the autistic child as the child developed. While the children that Kanner observed were still considered different from other children, there was reason to expect that progress and improvement would be made. In fact, family members were able to see this improvement. *There was no mention in the text that improvement and progress in development would need to be aided by medical or psychiatric intervention.*

In sum, conceptions of the autistic child could only emanate from child psychiatry. This was because it alone was privy to the child’s body and was in the position to observe and record the bodily movements (i.e., behavior) of the autistic child. These conceptions had to do with the inability to relate to the outer world in a normal way. The lack of particular bodily movements, language use and the ability to understand, desires for aloneness, sameness, the wish not to be interfered with, and an extremely intelligent relationship to objects, were all abnormal characteristics that marked the autistic child. Yet these same children were thought of by child psychiatry to have the potential for intelligence which made them uniquely different from those children who had no potential for improved cognitive ability. In order to later correct
these abnormalities, certain theories as to why the autistic child behaved and reasoned the way they did had to be produced.

*What theories and strategies are formed about the autistic child?* According to Kanner (1943), any strategy to deal with the autistic child would have to wait until more observations could be taken. But theories about the etiology of the condition of these 11 children were already being formed.

Kanner first contrasted the condition he observed with childhood schizophrenia. He stated that the condition of the 11 children was fundamentally different because of the different timing of the onset of the two conditions.

First of all, even in cases with the earliest recorded onset of schizophrenia, including those of De Sanctis’ dementia praecocissima and of Heller’s dementia infantilis, the first observable manifestations were preceded by at least two years of essentially average development; the histories specifically emphasize a more or less gradual change in the patients’ behavior. The children of our group have all shown their extreme aloneness from the very beginning of life, not responding to anything that comes to them from the outside world. This is most characteristically expressed in the recurrent report of failure of the child to assume an anticipatory posture upon being picked up, and of failure to adjust the body to that of the person holding him (Kanner 1943:248-249).

Kanner theorized that the children he observed had an inborn, innate desire to be alone. They wanted little interference from the outside world. Their preference for relationships with objects rather than people, for Kanner, signified this desire to be alone. Objects could not interfere whereas people *could* interfere.

Our children are able to establish and maintain an excellent, purposeful, and “intelligent” relation to objects that do not threaten to interfere with their aloneness, but are from the start anxiously and tensely impervious to people, with whom for a long time they do not have any kind of direct affective contact (Kanner 1943:249).

A theory was established that these children were born with an obsessive desire to be alone. Alongside this particular desire was a desire for sameness. But this desire was not
seen as altogether undesirable. This desire for sameness led to some positive
developments in the child as well.

All of the children’s activities and utterances are governed rigidly and
consistently by the powerful desire for aloneness and sameness. Their world must
seem to them to be made up of elements that, once they have been experienced in
a certain setting or sequence, cannot be tolerated in any other setting or sequence;
nor can the setting or sequence be tolerated without all the original ingredients in
the identical spatial or chronologic order. Hence the obsessive repetitiousness.
Hence the reproduction of sentences without altering the pronouns to suit the
occasion. Hence, perhaps, also the development of a truly phenomenal memory
that enables the child to recall and reproduce complex “nonsense” patterns, no
matter how unorganized they are, in exactly the same form as originally construed
(Kanner 1943:249).

Thus, the condition that these children were experiencing was an innate, obsessive desire
to be alone. But this obsessiveness had its benefits in that it led to the development of a
powerful sense of recall.

Kanner theorized that the peculiarities shown by the autistic child, the unusual
development, the desire for sameness, the desire to be alone, the lack of affective contact
with people, had something to do with the family. But Kanner flatly stated that there is
an uncertainty to any analysis that would include family members and parents as the
cause of this condition among the children. He did, however, hint that there was an
association between the autistic condition of the 11 children that he observed and the
particular child’s family.

It is not easy to evaluate the fact that all of our patients have come of highly
intelligent parents. This much is certain, that there is a great deal of obsessiveness
in the family background. The very detailed diaries and reports and the frequent
remembrance, after several years, that the children had learned to recite twenty-
five questions and answers of the Presbyterian Catechism, to sing thirty-seven
nursery songs, or to discriminate between eighteen symphonies, furnish a telling
illustration of parental obsessiveness.

One other fact stands out prominently. In the whole group, there are very few
really warmhearted fathers and mothers. For the most part, the parents,
grandparents, and collaterals are persons strongly preoccupied with abstractions of a scientific, literary, or artistic nature, and limited in genuine interest in people. Even some of the happiest marriages are rather cold and formal affairs. Three of the marriages were dismal failures. The question arises whether or to what extent this fact has contributed to the condition of the children. The children’s aloneness from the beginning of life makes it difficult to attribute the whole picture exclusively to the type of the early parental relations with our patients (Kanner 1943:250).

Thus, any theory as to why these children, and others yet undiscovered, had this peculiar condition, would have to include the influence of parents and perhaps other family members. More specifically, the issue of how or whether the family is at the root of this “disturbance of affective contact” (Kanner 1943:250), this disturbance of the very emotional core of these children, would have to be taken up by psychiatry. The issue was that this new syndrome was not a physical or intellectual handicap, as Kanner’s (1943:250) last paragraph states, it was an emotional handicap.

We must, then, assume that these children have come into the world with innate inability to form usual, biologically provided affective contact with people, just as other children come into the world with innate physical or intellectual handicaps.

A Foucauldian Analysis

In 1943, child psychiatry opened the door to the possibility of a never before constructed discourse on the autistic child. Before 1943, a discourse on the autistic child was impossible because the autistic child, as an object for medical examination, had not been discovered. Therefore, a discourse on this particular child could not have been produced. But how was it possible to produce the autistic child as an object of medical examination at this moment in time?

Permission to examine. The following then can be stated about this situation in the early part of the last century. Children entered the domain of psychiatry because of a concern for the behavior, thoughts, mental-age and, social development, of children.
That is, psychiatry’s concern was about the mental hygiene of children (Kanner 1972[1935]). Psychiatry’s first task was to discover if particular children deviated from the norm in terms of intelligence. This was important to society because determining the mental age of children enabled them to be taught properly. In addition, psychiatry needed to determine whether children were so defective that to try to educate them would be an exercise in futility. If this were the case, they would have to be placed in foster homes, special classes or “in a school for the feebleminded” (Kanner 1943).

If the child were determined to be normal in intelligence, but presented disturbing or otherwise puzzling behaviors, the task of an enlightened psychiatric endeavor would not be to punish these particular children. Its task was to discover through scientific means the reasons and motivations for these behaviors. The moment when psychiatry was to use science in this endeavor was not an insignificant event in its history. The scientific study of behaviorally aberrant children as a way of understanding and then treating them was considered an enlightened, progressive move away from the forms of punishment that were being applied by schools and juvenile detention systems.

Child psychiatry, through the study of deviant children, understood their behaviors to be a result of adult attitudes toward the child (Bettelheim 1967; Despert 1951; Kanner 1935[1972]; Kestenberg 1954). In the definitive text on child psychiatry at this point in time (Neumarker 2003), Kanner (1935[1972]:111) noted the following:

It is quite conceivable that future textbooks of child psychiatry will be organized on the basis of parental attitudes and their effects on children. In fact, one is almost tempted to do so now. Much of the phenomenology of behavior disorders and personality deviations can be linked directly with motivations resulting from parents’ attitudes toward their children.
These attitudes ranged from overprotection to overindulgence to disapproval and overt or covert hostility in the case of autism. These attitudes would have to be adjusted by psychiatry through working with adults for the benefit of the child. In addition to this attitude adjustment, child psychiatry would have to interest itself in how particular children attached meaning to their thoughts and behaviors.

Finally, relationships between schools, agencies, clinics, and hospitals would have to be developed. Child psychiatry would be taught in medical schools, schools of social work and even some teachers’ colleges. By 1930 in Baltimore, a psychiatric unit would be established as part of a pediatric hospital (Neumarker 2003). By the 1930s, through its domains, its teachings, and its mission, child psychiatry was poised to focus its gaze on to deviant children. This meant that 11 children brought into Kanner’s office and observed from 1938 to 1943 were brought into a domain where there was a heightened concern for their mental hygiene. Further, psychiatry had the permission to examine these children through observation and with judgment.

A discourse of desire. Freudian psychiatry was concerned about the stages of development (psycho-sexual, emotional, or otherwise) of the child over time (Freud 1950). A characteristic of the gaze, related to Freud, was that the gaze shifted to the adults around the autistic child (i.e., family members and especially parents). Freud (1950) believed that relations between parents and their children were vital to the psychosexual and emotional development of the child. Thus, there was a concern for the normalization of childhood development and the normalization of child-rearing. Freudian psychiatry, dominant at the time, was concerned with the development of the child as well as parental relations with the child.
But Freudian psychiatry also theorized that all human beings, at any age, seek gratification for natural desires. Thus, upon observing the 11 children in his study, Kanner concluded that these children had desires to be alone and a desire for sameness. These desires were judged by child psychiatry (Kanner 1943) and the psychoanalytic discourse to be abnormal or obsessive. The real offense for child psychiatry was that these children’s desire for human contact was limited to one that would satisfy these children’s most basic need of being fed by another person. This rejection of the need or desire to be held or to have emotional contact with another person was deemed a disturbance of affective contact. The desire to be left alone and the desire for sameness were thus determined to be a disturbance in a supposed “natural” desire for emotional contact.

Within psychiatry, the explanation of behavior was desire. It was desire that guided behavior; therefore, deviant behavior had to be explained by desire. In the case of autistic disturbances, child psychiatry judged that the behavior of the children he observed was guided by a desire to be left alone (Kanner 1943). This desire was innate, but perhaps also influenced by parents’ child rearing styles. Whatever the causes, this desire to be left alone was judged to be puzzling and unnatural; therefore, these desires became a characteristic of a unique syndrome manifested by certain behavioral idiosyncrasies. Through the gaze on to particular behaviors, child psychiatry was able to determine that these children had essential, common characteristics sufficient to produce a new emotional handicap called “autistic disturbance of affective contact.”

The gaze. The historical precondition of the development of child psychiatry helped give birth to the autistic child as an object of medical examination. In addition,
the practice of a normalizing gaze also helped give birth to the autistic child as an object of examination. Recall that child psychiatry was required, at this time, to closely observe a child’s behavior in order to be able to understand and explain the child’s inner feelings (Kanner 1935[1972]). To do this, psychiatry located its normalizing gaze on the bodily movements (or lack thereof) of particular children as central part of the scientific examination of behavior. This was done because it was thought that the body and its behavior could be seen as a manifestation of unseen emotions and desires. Because the gaze also required judgments by the psychiatrist, these emotions and desires were determined to be either normal or pathological.

The practice of the gaze had to be used on the autistic child in order for the autistic child to become an object for later medical examination. There is evidence in the text that this was the case. First, child psychiatry stated that based upon observations of the behavior of 11 children, common characteristics emerged as essential markers of a new syndrome. These common characteristics formed the essence of these children. The essence of these children was that they had a unique syndrome. This syndrome was defined as a desire for aloneness and sameness. This meant that the syndrome would also be defined as an absence of the desire to have affective contact with other people.

Second, because the use of the gaze required judgments, the desire to be alone and the lack of a desire to be affectionate toward others was determined to be a disturbance, pathological, peculiar, and obsessive. The gaze then produced a child that had a syndrome made up of specific characteristics found in other similarly observed children, and it produced a child that had a pathological desire to be alone and for sameness.
Could the autistic child be produced as an object for medical examination in any other practice by psychiatry at this moment in time? The task of child psychiatry was not to punish children as did the educational and court systems. Its task was to find out why children behaved the way they did. Any child brought to psychiatry’s attention would necessarily have been thought of as abnormal, deviant, or pathological by the persons or institutions who brought the child to the psychiatrist’s office. Yet, psychiatry’s task was to treat each child one-on-one, on a case by case basis. Characteristics of the child were either deemed pathological or normal, but in the end, for the autistic child to be an object of medical investigation – and to continue to be an object of medical examination – only pathological qualities could be emphasized in texts written about these particular children. Thus, the gaze, with its keen observation and judgments, was the manner in which the autistic child as an object could be formed.

The consequence of the gaze meant that while these 11 children were judged to have intelligent qualities, of giving an impression of silent wisdom, a keen memory, of being satisfied with objects, obedient, self-sufficient, curious, neat and tidy, even having power and pleasure over their own bodies and so forth, the gaze, reflected in the text, would emphasize pathological qualities. These qualities would include obsessive desires for being alone, an inability to perform certain bodily movement, and disturbances in affective contact. Even after further observation over a period of months or even years, when other symptoms slowly decreased, the one constant was the child’s obsessive insistence upon sameness and to be left alone.

Thus, when the gaze was prolonged and behavioral and intellectual development was seen as improving, the text emphasized disturbances in emotional contact with others
and the ever-present, obsessive desire to be alone, and a rigid obsessiveness with sameness (Kanner 1943). But the gaze was not just directed at the behavior of particular children; it was also focused on adults around the child, who, according to Freudian psychiatry, were vital to the process of healthy childhood development.

_The gaze on the parents._ The gaze was not only focused on 11 particular children. The gaze was also focused on the parents who brought their child to Kanner’s office. To be sure, the focus of the gaze would be on the thoughts and behaviors of the child. But the gaze would also focus on the attitudes and child-rearing styles of the parents. The focus would have to be on both parties to determine the relationship between the characteristics of the parents and the characteristics of the child. In order for the autistic child to become an object for medicine to examine, the gaze had to be focused on parents as well. This was because child psychiatry already knew that children’s bad, unexplained, and incomprehensible behavior was just a reaction to adult attitudes toward the child (Kanner 1935[1972]). Any explanation of the reactions and behaviors of the autistic child would necessarily include the parental attitudes toward the child. Therefore, the location of the gaze had to be extended to parents in order to make this object of the autistic child comprehensible. Had not the gaze reached parents, according to child psychiatry, the autistic child would remain incomprehensible and thus merely a deviant subject who could either be sent to schools for the feebleminded or accepted as they were.

_A dilemma._ The case of autistic disturbance illustrates the quandary that child psychiatry was facing during this era. Measurements of affective and emotional
disturbance were practically impossible. Thus, Kanner began his historic text with an epigraph that described the modern problem succinctly:

To understand and measure emotional qualities is very difficult. Psychologists and educators have been struggling with that problem for years but we are still unable to measure emotional and personality traits with the exactness with which we can measure intelligence (Zeligs 1942 cited by Kanner 1943:217).

Although children’s intelligence could be measured using specific scales developed by Binet and others, other important traits within the internal life of the child, such as personality and emotions, could not be measured using similar scientific means. More importantly, by deploying standardized scales and measurements on to the cognitive skills of children, judgments could be made about their mental age and therefore particular children could be placed in particular educational settings. Not only did psychiatry not have standardized scales to measure emotions and personality, this very fact did not permit it to make judgments about particular children based on an agreed upon norm; a norm produced through a scientific, quantifiable, empirical endeavor.

The lack of scales and measurements of emotion and personality, however, did not stop Kanner from making observations and judgments of these children and their family members. Kanner (1943) took careful notes about the behavior of these children and their family members. He was able to observe, examine, and then judge these children not on the basis of measurements and scales, as was the dream (given the epigraph above). Rather, he was able to produce judgments based on a discourse within psychiatry at the time. Any comparisons to normally developing children was based on determinations of normalness of emotions and of personality found within a discourse already established in psychiatry.
Therefore, the autistic child became an object of medical examination based upon particular standards within a scientific discourse of psychiatry at the time. This discourse suggested that childhood behaviors have meaning and can be interpreted. Importantly, these behaviors could only be interpreted through the knowledge held by child psychiatry. The only possible way that Kanner could make judgments about the 11 children he examined, in lieu of statistical norms of behavior, was to rely on the scientific knowledge within child psychiatry. This knowledge, backed by medicine at the time, stated that the meaning of children’s aberrant behavior could be interpreted. This interpretation could only be carried out using specific theories of stages of childhood development and how parental attitudes shape the emotions and personality of children as they develop.

In Foucauldian terms, 11 children, upon entering Kanner’s office from 1938 to 1943, were transformed from interesting and peculiar subjects to an object for medical examination. It was the new branch of psychiatry, child psychiatry, which transformed the child with peculiar qualities to an object for medical consideration. This was accomplished through the use of the normalizing gaze, a gaze that did not use scales and measurements to establish emotional disturbance in the child. Instead, it relied on assumptions of normality that past discourses of psychiatry had already established. The gaze was deployed not only on to the behavior of these children, but also on to the personality traits of their parents and other family members. Through the use of the normalizing gaze, child psychiatry gave birth to a unique child, one who was neither feebleminded nor schizophrenic, but autistic. The birth of the autistic child as an object
of medical concern would at the same time allow for the emergence of discursive and non-discursive practices within psychiatric medicine on the autistic child.

As will be seen in the next chapter, Kanner’s (1943) work had a great deal of influence on attempts to construct a medical discourse in autism. Kanner had enormous influence over what could and could not be stated about autism because “Kanner was the first to organize clinical descriptions efficiently and effectively” (Rutter, quoted by Feinstein, 2010:7-8, in a conversation). In Foucauldian terms, this efficient description of particular children was a result of placing the medical gaze on to the bodies of children in the form of the examination.

In the end though, it would be a mistake to conclude that it was Kanner-as-actor that produced the autistic child. As Foucault (1988) suggested, individuals both outside and inside the domain of psychiatry are subject to a discourse. Kanner was subject to a discourse, a discourse to which he contributed. He produced the definitive text on child psychiatry in 1935 suggesting that future texts in psychiatry would need to concentrate more on parental attitudes toward their children in the medical examination of deviant children. Yet, in a lecture years later, Kanner recalled, “I couldn’t quite see all this very fascinating and pathological behavior as emanating from the difficulty of the mother’s ability towards relating to the child” (Kanner 1972 quoted in Feinstein 2010:36). Here is evidence of a contradiction between text and biography. This contradiction suggests that Kanner was following a discourse in his writing rather than writing what he truly observed.

Another example of this contradiction was that Kanner himself was not keen to the idea that genetics played a significant role in the etiology of autistic disturbances
(Feinsten 2010). Yet he produced a text in 1943 that stated that autistic disturbances were innate in nature, and formed in the earliest part of life. Perhaps the reason could be found within the discourse in psychiatry at the time of Kanner’s examinations of these particular children that he produced as objects of medical examination.

Indeed in July 1942, when Germany’s eugenics program was known to leaders in American Psychiatry, the official journal of the American Psychiatric Association published two articles debating a “final solution” for America’s retarded. In the journal’s lead article, originally a paper delivered at the annual meeting of the association, Foster Kennedy, professor of neurology at Cornell University, argued that all children with proven mental retardation (“feeble-mindedness”) over the age of 5 should be put to death to relieve them of “the agony of living” and to save their parents from expense and mental anguish (Feinstein 2010:34).

If biography is the measure of history, then Kanner was a sham and did not believe what he was writing when he produced the autistic child in 1943. But if discourse is the measure of history, then it could be said that Kanner was subject to a discourse of psychiatry in the production of the autistic child. Thus, what could and could not be stated about these 11 children was shaped by the prominent psychiatric discourse of the times. Once the object and the truth of the autistic child had been produced, a psychiatric discourse in autism emerged.
CHAPTER XI

MEDICAL KNOWLEDGE IN AUTISM, PSYCHIATRIC PRACTICES, AND THE CONSTRUCTION OF A DISCOURSE

I stated in the previous chapter that once Kanner’s statements, concepts, and theories emerged in 1943 (statements, concepts, and theories subjected to a particular discourse within psychiatry), the possibility of a specific discourse on autistic children could emerge. In this chapter, I show how psychiatry constructed a discourse about autistic children in the 1940s and 1950s. To show how psychiatry constructed this discourse, I deconstruct it using archaeology. The purpose of this deconstruction is to show that there was a wide range of statements psychiatry could produce about autistic children. These were statements that only psychiatry could produce because it had singly produced the object of the autistic child. I show in this chapter that psychiatry constructed a discourse that had to do with fixing emotional deficits in autistic children. As I show in the next chapter, at the same time psychiatry was constructing this one particular discourse, another discipline—behaviorism—was preparing a discourse in autism that had to do with eliminating emotion in the act of psychological reasoning.

First, I describe psychiatric medicine’s knowledge of autism as it continued to examine using a gaze directed toward particular autistic children. Second, I describe how autistic children are portrayed by psychiatric medicine and how parents of autistic children are portrayed. Third, I show what the favored therapeutic practices were during
this era. Fourth, I show that quantitatively, psychiatry dominated what could and could not be stated about the autistic child, with psychology close behind.

*Medical Knowledge of Autism in the 1940s and 1950s*

In 1943, Kanner had produced particular children as objects for medical and psychiatric examination through the establishment of a finite set of characteristics separate from childhood schizophrenia that he called *autistic disturbance of affective contact*. From that moment on, a discourse within psychiatry and child psychiatry began to be constructed around the autistic child. Statements were made regarding the nature of autism, conceptualizations of the nature of autism began to emerge, and theories regarding the prognosis and treatment of autism were attempted (Benda and Melchior 1958; Bender 1957; Betz 1947; Cappon 1953; Chapman 1957; Darr and Worden 1951; Despert 1951; Eisenberg 1956, 1957; Kanner 1944, 1946, 1949, 1951, 1958; Kestenberg 1954; Mahler 1958). In this section, I unearth the medical knowledge of autism during the 20 years following Kanner by providing an archaeological description of what could and could not be stated within the domain of psychiatry and child psychiatry regarding autism and the autistic child.

In the first two decades after Kanner (1943), statements about and conceptualizations of the autistic child were rooted in theories of psychoanalysis. To be able to produce statements, concepts, and theories about autism and the autistic child, child psychiatry deployed the psychoanalytic gaze on to children and their parents. Before I describe the psychoanalytic gaze in autism, I outline the problem of nosology in autism.
Classification. Kanner and others continued to try to separate schizophrenia and other childhood maladies from what was soon labeled as *early infantile autism*. Kanner stated in 1949, “Now that early infantile autism has a well-defined symptomatology and the syndrome as such can be recognized with relative ease, it is ready to apply for a place in the existing psychiatric nosology” (Kanner 1949:416). Kanner here is interested in the “intrinsic nature of the (autistic) condition as related or unrelated to the intrinsic nature of other conditions” (Kanner 1949:416-417). Kanner rejected notions that autism was somehow related to several other childhood disorders. For example, “Early infantile autism bears no resemblance to Heller’s disease or to any other organic condition” (Kanner 1949:417). Subsequent examinations of brain tissue by Benda and Melchior (1958) supported Kanner’s assertions.

But the problem of the distinction between childhood schizophrenia and early infantile autism remained. Kanner writes:

The extreme emotional isolation from other people, which is the foremost characteristic of early infantile autism, bears so close a resemblance to schizophrenic withdrawal that the relationship between the two conditions deserves serious considerations (1949:418).

Must we assume that early infantile autism represents a syndrome which is not in any way related to the known psychopathologic patterns, or are we justified in correlating the essential features of the syndrome with the essential features of a condition which it most closely resembles, namely, schizophrenia? (1949:418).

Early infantile autism may therefore be looked upon as the earliest possible manifestation of childhood schizophrenia. As such, because of the age at the time of withdrawal, it presents a clinical picture which has certain characteristics of its own, both at the start and in the course of later development (Kanner 1949:419).

I do not believe that there is any likelihood that early infantile autism will at any future time have to be separated from the schizophrenias, as was the case with Heller’s disease or with many instances of so-called dementia praecocissima of De Sanctis (Kanner 1949:419).
Hence, early infantile autism as a distinct syndrome could be correlated with schizophrenia, and it could not, because of their similarities, be separated from schizophrenia.

Other statements regarding the association between schizophrenia and early infantile autism began to emerge. Cappon (1953) hypothesized that childhood schizophrenia could be thought of as five groups of manifestation: neurotic manifestations, schizoid psychopathic personality, early infantile autism, schizophrenia, and dementia praecocissima. Eisenberg (1956:610) stated that, “In view of the heterogeneity of the schizophrenia, it would seem wise to isolate clinically distinct groups for purposes of study.” In the case of early infantile autism, it was noted that

[i]t remains a challenging problem, both because of its [autism’s] position as the earliest psychosis known to occur in childhood and because of its similarities to, and differences from, childhood schizophrenia. It becomes a matter of especial interest, therefore, to study the subsequent careers of children so diagnosed at an early age in order to determine the “natural history” of the syndrome (Eisenberg 1956:607).

Thus there was a need for long-term, life course studies of autistic children in order to satisfy the nosological requirements of psychiatry.

Yet there were questions about the actual ability of psychiatry to identify early infantile autism as a category within the range of childhood psychoses. Bender (1957:85), in her review of what had been written in psychiatry about autism, stated that,

although Kanner’s syndrome of early infantile autism is a valuable concept, it describes only a limited group of children from the particular sophisticated, intellectual strata who have consulted Professor Kanner, but it is not a clinical or etiological entity. To limit our concept and knowledge of autism to this group alone, limits us in our scientific studies and in the proper evaluation of the emotionally and mentally ill and retarded children who come to us for help.

Further,
Autism is not synonymous with psychosis nor does it indicate a specific type of mental illness. Autistic thinking and actions are a primitive form of behavior, a part of the normal developmental process which may persist and become exaggerated or represent by withdrawal, a defense against disorganization and anxiety in children with many different types of pathology in their genes, brains, perceptual organs or social relationships.

Here, Bender states that while serious pathologies exist, autistic thinking is one defense mechanism as a way of adapting to the pathology and to the problem of living with a particular pathology. Autism is not seen as pathology itself; rather autism is part of the normal developmental process of children. But, in particular children, this way of thinking, this way of behaving becomes exaggerated when trying to fend off a more serious organic disorder. She notes that in her clinical experience, she has seen autistic behavior among schizophrenic children, normally developing children, those with complete mutism, those with a mental defective appearance, those in mental hospitals, in institutions for the defective, those who had convulsions around the time of puberty, and those with retrolental fibroplasias, among others.

At this point in time, the 1950s, an official medical classification of early infantile autism would have to wait. Official classification of this childhood condition would come later. This meant that psychiatry was slow to diagnose infantile autism during this time, despite the fact that some in child psychiatry were, in fact, using Kanner’s diagnostic criteria on particular children.

In the analysis of the debate as to the nosology of early infantile autism, one is tempted to suggest that it is a matter of a squabble between actors. But a Foucauldian analysis would state otherwise. Discourses in psychiatry are oriented by the interpretation of patient behaviors and thoughts by trained psychiatrists who then formulate opinions, diagnoses, prognoses, and treatments. Thus, it is conceivable that
interpretations can be different, all the while staying within the parameters of statements, concepts, and theories of a psychiatric discourse.

But what appears to be a minor debate over the nosology of autistic behavior and how these behaviors ought to be interpreted has important consequences for how the future discourse is constructed. In the classification of the present case, as will be shown in Chapter XV, a dominant psychiatric discourse that autism was in fact a real quantifiable syndrome – and not just a concept – emerged later, and had profound consequences in terms of the scientific examination of the autistic body and of power deployed on to the social body. It would take rigorous scientific study of autistic bodies before power could be applied to both the autistic and social bodies.

Case studies and the psychiatric gaze. Psychiatry’s method of investigation into early infantile autism was the case study. Case studies of individual children determined to be autistic abound in the 1940s and 1950s. Kanner (1946) followed up with case studies of eight mute children. He also provided more case histories in 1946, 1949, and 1951. Betz (1947) investigated a particular case of a boy of five and a half years with a schizophrenic personality and symptoms related to what was considered an autistic barrier. Despert (1951) attempted to find the origins of autistic behavior in a child, beginning when the child was two and a half years old. Darr and Worden (1951) examined a patient as an adult who was brought to the Henry Phipps Center when she was four years old. She was diagnosed as having infantile autistic disorder three decades after she had been admitted to the center. Sherwin (1953) observed how three autistic children reacted to music. Kestenberg (1954) provided a case history of Stevie, who was thought to have an abnormally developing ego. Green and Schecter (1957) outlined case
histories of autistic and symbiotic disorders in three blind children. Chapman (1957) reported of a case of early infantile autism in identical twins. Mahler (1958) provided the example of George who had extreme disturbances of identity. Finally, Schopler (1962) observed young Ella for the purpose of investigating the child’s body image.

These papers were produced squarely within the domain of psychiatry. They were published in such journals as the *American Journal of Orthopsychiatry, The American Journal of Psychiatry, The Journal of Child Psychiatry, Psychiatric Quarterly, A.M.A. Archives of Neurology and Psychiatry, The International Journal of Psycho-Analysis*, and the *Journal of Child Psychology and Psychiatry*. Several papers were presented within the domain of psychiatry: The New York Psychoanalytic Society (Kestenberg 1954), The APA annual meeting (Darr and Worden 1951; Despert 1951; Kanner 1949), and the 20th Congress of the International Psycho-Analytical Association in Paris (Mahler 1958).

Thus, what could and could not be stated about early infantile autism was dominated by psychiatry and its gaze. What could be stated was a result of case studies. The psychiatric gaze continued to produce autistic child after autistic child. The foundation of a particular discourse was being structured through publications of texts, and dissemination of knowledge. What could and could not be stated about the autistic child was a direct consequence of the case history and the psychiatric gaze being deployed on to particular children—in Foucauldian terms, the examination. Knowledge was constructed through these means and disseminated to construct a foundation for a psychiatric discourse in autism. How, then, did psychiatry describe the autistic child during the 1940s and 1950s?
The Autistic Child During the 1940s and 1950s

The statements, concepts, and theories which could emerge within psychiatry regarding the autistic child varied little from Kanner’s (1943) first pronouncement about a new syndrome.

Statements. Statements about autistic children were based on the few case studies that were done on children who were identified by psychiatry as autistic or children who were thought to be schizophrenic with characteristics of autism. Most of the observations and examinations were performed on young children. Examinations showed that these children were physically healthy.

There was nothing which could be interpreted as encephalitis or other cerebral illness. Endocrine functioning was unimpaired. There were no congenital abnormalities of the body. On the whole, the children were well formed, well developed, rather slender, and attractive. (Kanner 1949:420).

Subsequent investigations of his physical status revealed no abnormal findings (Betz 1947:269).

L.’s, birth and early development—teething, sitting up, walking, etc. had been normal (Betz 1947:269).

Not one of the 55 patients studied has had in infancy any disease or physical injury to which his behavior could possibly ascribed by any stretch of the imagination (Kanner 1949:420).

Thorough pediatric examinations of all the children who have passed through our clinic have failed to reveal any more than occasional and apparently unrelated physical abnormalities (Eisenberg and Kanner 1956:560).

Based on observations of the surface of the autistic child’s body, no physical abnormalities were thought to be associated with the autistic condition. It was not yet possible to make statements about the relationship between any physical condition and the autistic condition. In fact, Kanner saw no reason to conduct physical examinations of the brain and nervous system of autistic children during this era of psychoanalysis.
Other statements about the autistic child were produced based both on direct observations and reports by parents from their own observations (Bakwin 1954; Benda and Melchior 1958; Betz 1947; Chapman 1957; Green and Schecter 1957; Kanner 1943, 1944, 1946, 1951; Kanner and Lesser 1958; Mahler 1958; Sherwin 1953). One reported on a case of an adult that was based merely on the notes of a psychiatrist from the 1920s (Darr and Worden 1951).

One noticeable characteristic detailed in these statements about autistic children was the way they contorted their bodies. A boy, L. at 5½ years:

The picture he presented was one of profound withdrawal and timid rigidity, with inhibition of bodily movements which at times almost resembled catalepsy. (Betz 1947:269).

George O., “when seen at 4, he stood on his toes rocking and humming, oblivious to his surroundings (Eisenberg 1956: 609). Another George, “when frustrated, but apparently without cause, would pace around the room, talking angrily to himself about something that seemed entirely unintelligible and irrelevant to his environment (Mahler 1958:80).”

“Jean would sit for hours staring at her fingers. At other times she would place her fingers in a stair-step position and gaze at them for long periods of time until someone came to move her hands (Chapman 1957:622).”

In other studies, psychiatrists observed their autistic patients as they attempted to take standardized tests of child development. A Dr. Richards from the Henry Phipps Psychiatric Clinic observed this about Jane:

It was impossible to get her to attend to very much of the material outlined in the Binet-Simon tests. For example, she responded promptly to naming “key, watch, and pencil”; she enumerated three objects in the pictures; she would not, however, respond to any of the four-year tests of the same revision, but quickly named the colors found in the five-year Terman Scale. The child replaced the blocks of the large form board in one and one-half minutes. Aside from this it was impossible
to elicit her cooperation in any of the other standardization tests. One got the
impression that this inability on her part to cooperate was due not to an inattention
associated with a scattering of general reactions, but an inattention associated with
preoccupation of some sort (Darr and Worden 1951:562).

Anthony F. was given the Seguin Form Board test, which he completed in 25
seconds. But he became disgusted with the star-shaped form. While quickly
fitting it in the appropriate space, he said, ”Star, you are bad.” He took it out, hit it
violently, and shouted: “Stay up in the sky!” He returned to the board several
times afterwards and each time again became angry at the wooden “star” which
was not up in the sky (Kanner 1951:25).

The findings of another test proved inconclusive to psychologists:

Before the transfer from one school to another the school psychologist gave
Stevie a routine test. His chronological age then was 8-3, his test age 5-1, and he
thus rated an intelligence quotient of 62. His vocabulary age was 7-4, but on the
Sequin Board he rated below 5-6. His basal age on the Binet was 4-6. He passed
the first two and the sixth item at the level of 5, and the last two items at the level
of 6. While failing all the next items he suddenly could answer correctly one of
the questions on opposite analogies at the level of 8. The psychologist felt that
these findings should be considered minimal and were in no way an adequate
measure of the child’s intelligence (Kestenberg 1954:19-20).

Despite the difficulty in testing these children, the consensus within psychiatry was that
these children gave the impression of having intelligence that distinguished them from
those referred to as “feeble-minded.” In the case of Margaret, “a complete Binet test
could not be given because of insufficient responsiveness, but the general impression was
that she was of at least normal intelligence” (Kanner and Lesser 1958:713).

Interestingly, a number of these emotionally isolated children, though confined to
institutions for the feebleminded, are still distinguishable from their fellow
patients, as is attested by reports of psychological testing that bewilder the
observer in the conjunction of social imbecility with the preservation of isolated
areas of unusual intellectual performance (Eisenberg and Kanner 1956:559, italics
added).

The intelligence that these observed autistic children showed was bewildering and
confusing to psychiatry. How could it be that these children showed signs of remarkable
intelligence yet could only perform in an average way on standard psychological tests?

Concepts had to be formed about autistic children to explain this baffling phenomenon.

*Concepts.* Any conception of the autistic child was based on case studies and reviews of the literature. Kanner had a clear definition of what autism was and in the end showed that intellectual potential was prevented by emotional challenges:

The case histories indicate invariably the presence from the start of *extreme autistic aloneness* which, wherever possible, disregards, ignores, shuts out anything that comes to the child from the outside (Kanner 1944:211).

I have designated this condition as ‘early infantile autism.’ Phenomenologically excessive aloneness and an anxiously obsessive desire for the preservation of sameness are the outstanding characteristics (Kanner 1946:242).

The common denominator in all these patients is their disability to relate themselves in the ordinary way to people and situations from the beginning of life (Kanner 1944:211).

Yet in spite of this seeming divergence they all present essential common characteristics to such an extent that they cannot but be considered as fundamentally alike from the point of view of psychopathology…But careful examination showed very soon that the children’s cognitive potentialities were only masked by the basic affective disorder…(Kanner 1944:211).

A concept of autism as disability emerges. This disability was characterized by psychiatry as a desire for aloneness, as a desire for sameness. It was characterized by how these particular children related to people and to situations in other than prescribed ways. It was also characterized by how these particular children displayed their emotions in other than prescribed normal ways. These problems were seen not as cultural differences, despite that these children were seen as going against cultural norms. Instead, these problems were seen as pathology by psychiatry. In addition, other characteristics of autism were ones having to do with speech and language:

Clinically, the degree of disturbance in language function emerges clearly as an important guide to prognosis. In effect, we have an index of the extent of autistic
isolation, for the development of language obviously bespeaks a meaningful interchange with other people (Kanner 1946:242).

Utterance of whole sentence in emergency situations; the use of simple verbal negation as magic protection against unpleasant occurrences; the literalness which cannot accept synonyms or different connotations of the same preposition; the self-absorbed inaccessibility which has caused most of the parents to suspect deafness; the echolalia-type repetition of whole phrases; and the typical, almost pathognomonic, pronominal reversals which consist of the child’s reference to himself as ‘you’ and to the person spoken to as ‘I’. (Kanner 1946:242)

Parents, physicians, and teachers have reported this type of language as being ‘nonsensical,’ ‘silly,’ ‘incoherent,’ and ‘irrelevant.’ Kanner (1946:242) states that he is able to trace these phrases to earlier sources. In so doing, he states that “the utterances, though still peculiar and out of place in ordinary conversation, assume definite meaning.” Kanner went on to present the cases of eight particular children and the language that they used. He was able, through parental reports, to trace these children’s utterances to some earlier incident in the child’s life. Kanner (1946:243) concludes:

The cited examples present in the main metaphorical expressions which, instead of relying on accepted or acceptable substitutions as encountered in poetry and conversational phraseology, are rooted in concrete, specific, personal experiences of the child who uses them. So long as the listener has no access to the original source, the meaning of the metaphor must remain obscure to him, and the child’s remark is not ‘relevant’ to any sort of verbal or other situational interchange. Lack of access to the source shuts out comprehension, and the baffled listener, to whom the remark means nothing, may too readily assume that it has no meaning at all…the personal metaphors of the autistic children can convey “sense” only through acquaintance with the singular, unduplicated meaning which they have to the children themselves. The only clue can be supplied by the direct observation and recall of the episode which started off the use of each particular metaphorical expression.

Kanner states that only experts (parents and therapists) can decipher these metaphors by understanding the origins of how the word was used in the first place. This meant that long term observations were needed, from early childhood into adolescence and then into adulthood. Investigations into autism needed to look at how autistic children use
language among other topics. In fact, early on, Kanner noted the importance of the study of autism and language:

This condition offers fascinating problems and opportunities for study from the points of view of genetics, of the psychodynamics of earliest parent-infant relationship, and of its resemblances to the schizophrenias. Among numerous other features, the peculiarities of language present an important and promising basis for investigation (Kanner 1946:242).

Psychiatry was concerned mostly though with the child’s emotional contact with the outside world. As Despert (in Kanner 1946:245) stated “The autistic child, even to a greater degree than the schizophrenic child, does not have adequate human relationships on an emotional basis.” But it also included how emotion affected perception of the outside world.

Insofar as human relationships are concerned, the autistic child lives in an emotional vacuum; language symbols have emerged with overwhelming affect charges which have seemingly blocked the emergence of other symbols. Such experiences are possible because the binding power of free flowing affect characteristic of the normal child is lacking. (Despert, in Kanner 1946:246).

Clinically, the degree of disturbance in language function emerges clearly as an important guide to prognosis. In effect, we have an index of the extent of autistic isolation, for the development of language obviously bespeaks a meaningful interchange with other people (Eisenberg 1956:610).

In a sense, the primary psychopathologic mechanism in infantile autism might be described as a disturbance in social perception, analogous to, but more complex than perceptual difficulties at a sensorimotor level. Affect contact assures in other children the precedence of things human over things inanimate. Thought and behavior are integrated by the driving force of human purpose, both individually and socially determined. It is this force that assigns the affective value to incoming sensory impressions and organizes the perceptual field into a socially meaningful whole. Its dysfunction in autism results in perceptions that are diffuse and stimulus-bound, thinking that is tangential to human goals, and behavior that is maladaptive. There can be no anatomical “locus” for such a disability; it can only be a reflection of the failure of cortical integration of the affective and cognitive components of behavior (Eisenberg 1956:611).
But theories were needed to show evidence that concepts about autism and the autistic child were true.

Theories. As Cappon (1953:46) noted, “…autism is a fundamental disarticulation between the child and his world.” Theories were developed about how this disarticulation came to be. Given the discourse of psychoanalytic thought predominant at the time, the focus was on parents. It was believed that adults who surrounded children within the family are there to help children develop a strong ego. Without a strong ego keeping the id (desires) in check, children were sure to act in any way they desired, disregarding social convention. The following is a report about what was stated within psychiatry concerning the parents of autistic children. These statements are important to highlight because it was thought that parents’ personalities, their characteristics, and their relationship with their children were strongly associated with early infantile autism.

The Parents of Autistic Children as Seen by Psychiatry

Following Kanner (1943), psychiatry focused its gaze on to parents, especially mothers, in attempting to understand early infantile autism. In its investigation of autistic children, psychiatry was compelled to assess the psychological makeup of the parents who reared these children. It also studied the relationships that parents had with their autistic children.

The personality of parents. In this section, I document what psychiatry said about parents of autistic children with regard to their background, their personality, and their emotional makeup. First, the background of parents of autistic children is described.

Family background was striking in the universal presence of high intelligence, marked obsessiveness, and coldness (Eisenberg and Kanner 1956:557).
One of the striking features of the clinical histories remains the unusually high percentage of these children who stem from highly intelligent, obsessive, and emotionally frigid backgrounds (Eisenberg and Kanner 1956:561).

My search for autistic children of unsophisticated parents has remained unsuccessful to date. This astounding fact has created a curiosity about the personalities of the parents, their attitudes and resulting behavior toward the patients, and the possible relationship between these factors and the presence and structure of the children’s psychopathologic manifestations. (Kanner 1949:421).

Parents of autistic children were seen as obsessive and emotionally cold, to the point of being emotionally frigid. But they were also seen as intelligent. Importantly, these personality characteristics were thought to influence their relationship with their children and could be a factor in shaping their children’s autistic personalities. For example, Despert (1951:339) clearly sees an association between the personality of one particular mother and the diagnosis of autism in the mother’s child:

To sum up, this young woman was compulsive, perfectionist, narcissistic, immature, frigid, emotionally detached, frightened by body contact, lacking in sensuousness, and capable of functioning satisfactorily only on an intellectual level. Her first child was a clear-cut case of early infantile autism.

Further, the impression of a lack of maternal characteristics was easily perceived by psychiatry. As Kanner (1949:422) observed, “Maternal lack of warmth is often conspicuous in the first visit to the clinic.”

But fathers were very much the same as the mothers, in the eyes of psychiatry. Kanner (1949:422) noticed that “…(Fathers) are outwardly friendly, admonish, teach, observe “objectively,” but rarely step down from the pedestal of somber adulthood to indulge in childish play.” Eisenberg (1957:722): “At home as well as elsewhere they (fathers) exhibit a remarkable lack of empathy for and sensitivity to the feelings of others.”
They (fathers) tend to be obsessive, detached, humorless individuals. An unusually large number have college degrees, as do their wives. Though intellectually facile, they are not original thinkers. Perfectionist to an extreme, they are preoccupied with detailed minutiae to the exclusion of concern for overall meanings. Thus, though a number are scientists, none is a major contributor to his field. They have a capacity for concentration on their own pursuits amidst veritable chaos about them (Eisenberg 1957:721).

An analysis of the behavior of the fathers of autistic children reveals the evidence of serious personality difficulties that markedly impair the fulfillment of a normal paternal role and that seriously influence the pattern of family living in a detrimental way. It suggests a need to reconsider the pat formulation that ascribes to maternal inadequacies alone the psychopathology in the schizophrenic child. The observation that the same parents who give rise to autistic progeny rear normal offspring implies the existence of other factors, residing perhaps in the child, that are necessary before psychosis appears (Eisenberg 1957:723).

Both mothers and fathers were singled out by psychiatry as culprits in the pathological behavior of their own autistic children. In fact, some went as far to say they these parents were ill themselves. A Dr. Ribble commented:

The fact that parents can be sick emotionally without being aware of it and can have their pathological symptoms brought to light in the setting of parenthood with such tragic effects on the child is shocking and challenging (Despert 1951:347).

Thus, the emotional illness of mothers and fathers had much to do with their child’s emotional illness as manifested through autistic behavior.

One is, therefore, led to think of a familial trend toward detached, obsessive, mechanical living. At the same time, it should not be forgotten that the emotional refrigeration which the children experience from such parent cannot but be a highly pathogenic element in the patients’ early personality development, superimposed powerfully on whatever predisposition has come from inheritance. (Kanner 1954:384).

Being emotionally cold, humorless, obsessive, detached, intellectual, serious, narcissistic, and objective were not characteristics that were valuable in raising a child. In fact, these characteristics were seen by psychiatry as a detriment to growing children and they could even cause permanent emotional damage to children. This was because as
children, these adults, these parents, were the ones to whom they needed to develop a strong bond.

*Parental relationship with the autistic child.* The emotional detachment of parents affected children in that they withdrew from their emotionless world and entered a world of autism. Children were exposed to this emotionless world very early in life.

Most of the patients were exposed from the beginning to parental coldness, obsessiveness, and a mechanical type of attention to material needs only. They were the objects of observation and experiment conducted with an eye of fractional performance rather than with genuine and enjoyment. They were kept neatly in refrigerators which did not defrost. Their withdrawal seems to be an act of turning away from such a situation to seek comfort in solitude (Kanner 1949:425).

Despert (in Kanner 1946:245) noted, “it can be assumed that there was a profound disturbance in the parent-child emotional relationships from the earliest stages of the infants’ language history.” Despert focused more on the effects of the mother-child relationship.

The core of the pathological problem in all the children is a disturbance of contact with reality which may be noted in some during the first months of life. For many of them, there have been lacking the warmth, the closeness, the body contact pleasures from the mother, which are recognized as essential to a normal development of relation reality. How early is the infant developing a sense of separateness from its mother? How is normal detachment achieved? One can speculate on these questions, but certainly the problem of affective contact with reality in the young child must hinge upon the kind of satisfactions or frustrations experienced by the infant in his early dependency on the mother (Despert 1951:346-347).

But while mothers and fathers had an emotionally warped, impersonal relationship with their young children, they were nevertheless obsessed about their children’s development. They did not necessarily enjoy the relationship they had with their child, but they monitored their behavior very closely.
Few children have ever been observed by parents with such minute precision. Every smallest detail of the child’s development, utterances, and activities had either been recorded in voluminous diaries or were remembered by heart (Kanner 1949:423).

This type of behavior on the part of parents was a characteristic of the mechanized relationship they had with their child.

But the same obsessiveness was a major contribution to the impersonal, mechanized relation with the children. The parents, apparently unable to derive enjoyment from the children as they are, work for the attainment of goodness, obedience, quiet good eating, earliest possible control of elimination, large vocabularies, memory feats (Kanner 1949:423).

A very revealing incident took place which crystallized, for the observer, the mother-child relationship. The little girl had climbed on her mother’s lap obviously for a little cuddling, and the mother was holding her at arm’s length, both of them in rigid motor attitudes, while the baby pointed to each of the mother’s facial features, giving softly the appropriate name, singsong, in the best old-fashioned classroom manner. There was a lack of spontaneity and emotional response in the mother and a robotlike mechanical character to the relationship (Despert 1951:343).

Instead of emotional support for the child in the relationship, parents were seen to stress success in areas other than anything having to do with mastering one’s emotions. It was suggested that “tender, emotional gratification from the mother was unavailable, while tremendous pressures for intellectual growth and achievements were exerted by both parents” (Despert 1951:343). This push for intellectual growth at the expense of emotional growth had serious consequences.

The ambitious parent who demands achievement and is hurt in his own narcissism by the child’s failures, will either encourage camouflage of the problem or unwittingly strengthen the tendency of the child to withdraw into an autistic position. The domineering aggressive parent who gets furious at disobedience and tries to force performance according to his wishes, will help to transform the passive non-co-operation of the child into an active negativism toward the outside world (Kestenberg 1954:33).
Another significant characteristic of the parent-child relationship, according to psychiatry, was the mechanical way in which children were treated by their parents. Parents fulfilled their duty with regard to the regulation of the behavior of their children, but were lost when it came to building an emotional attachment to their child.

The mother conscientiously and persistently turned to others for instruction and help in being a mother. Unable to follow the natural internal guidance of an empathetic response to the child, she perceived the patient as an object to be done for, a puzzling mechanism that needed manipulation… It is suggested that the patient’s pattern of interpersonal relationships has reflected the original mechanical rather than empathetic relationship with the mother (Darr and Worden 1951:568).

Mothers turned to an almost scientific, objective way of handling their children.

The mothers felt duty-bound to carry out to the letter of the rules and regulations which they were given by their obstetricians and pediatricians. They were anxious to do a good job, and this meant mechanized service of the kind which is rendered by an overconscientious gasoline station attendant (Kanner 1949:424).

The mother, a psychology graduate student, decided that the children were to be raised “scientifically”—that is, not to be picked up for crying, except on schedule (Eisenberg and Kanner 1956:561).

Physical needs were attended to mechanically and on schedule according to the rigid precepts of naïve behaviorism applied with a vengeance…The child’s worth seemed to lie in the extent to which he conformed to predetermined parental expectations: “perfect” behavior, cleverness, “self-sufficiency,” and so on (Eisenberg and Kanner 1956:563).

But fathers were implicated as well in this mechanized, scientific, objective way of raising their children.

They (fathers) rear them, if according to any plan, by a caricature of Watsonian behaviorism, a doctrine they find congenial. Such interest as they have in the children is in their capacity as performing automata. Hence, the frequent occurrence among autistic children of prodigious feats of recitation by rote memory. Conformity is demanded; what is sought is the “perfect” child—i.e., one who obeys, who performs, and who makes no demands (Eisenberg 1957:722).
Thus, the relationship that parents had with their autistic child was characterized by psychiatry as a relationship a scientist might have with a subject in an experiment. They closely monitored the child’s behavior and kept detailed records. Moreover, parents demanded perfect behavior, obedience, and conformity, according to psychiatry.

During the psychoanalytic era of medicine’s gaze on to parents of autistic children, the personality characteristic of parents (emotionally cold, serious, detached, humorless and objective) were seen as a detriment to a child, so much so that these characteristics were seen as being associated with a new syndrome referred to as early infantile autism. This determination followed the discourse in psychiatry at that time as noted in the previous chapter that children’s behavioral problems could be directly related to parental characteristics. These characteristics manifested themselves in the mechanical relationship parents had with their child. This mechanical relationship manifested itself in a type of behavior on the part of parents that was not seen as behavior typical of those who want to show warmth and love toward their child. Instead, they related to their child as a scientist would relate to a subject. In psychiatry, these personality characteristics, these mechanical relationships where outcomes were stressed rather than emotional contact, were seen as debilitating for the child. But in the hands of behavioral psychology, in a few short years, these ways of interacting with the autistic child would be invaluable tools to treat autistic children. Before these treatments receive archaeological and genealogical consideration, I first outline the approved treatment for early infantile autism during the 1940s and 1950s.

*Therapeutic Practices in Autism during the Psychoanalytic Era*
Therapeutic practices in autism followed a discourse of psychoanalysis. This meant that the relationship between the patient and the therapist was of the utmost importance. In 1947, Betz outlined the principles of psychotherapy with schizophrenic children who possess an autistic barrier to reality. Here, I give a detailed description of the tasks and goals of psychotherapy in autism because a scant 20 years later, the tasks and goals of therapeutic practices in autism suddenly change.

According to Betz (1947:268),

…the task of therapy would lie in the direction of finding ways by which the patient can gain sufficient courage to work out patterns of more spontaneous self-assertion and to develop a greater capacity for reacting emotionally with (her italics) others.

…it is the task of the therapist to assume initiative in negotiating (my italics) a significant contact, by some tactical approach geared to the particular patient’s receptive channels (Betz 1947:271).

The therapist’s goal was to understand the patient, so much so that the therapist could gain access to the patient’s emotions. But the attempt to gain access to these emotions would not be forced on to the patient.

The therapist’s tactics in assuming initiative then become a prime technical consideration. Clinical experience with the use of intellectualistic, rationalistic approaches to these withdrawn patients, and with directive, advisory maneuvers testifies to the non-receptivity to such therapeutic tactics and has led to a general medical attitude of pessimism with regard to psychotherapeutic possibilities. In the case of a child, such as L., the inappropriateness of such approaches is self-evident, and it is in part because of this very fact that the study of such a child provides a fruitful field for therapeutic investigation (Betz 1947:271).

Rationalistic approaches to the patient had shown to be ineffective in the treatment of the autistic barrier in schizophrenia. Directives from the top down, that is from the superior position of the therapist down to the unfortunate patient was fruitless in the treatment of an affective disorder such as autism.
The therapist needs deliberately to avoid assuming the pivotal role as represented by his professional status or his clinical “insight,” however accurate, and leaving the burden of mobility and adaptation to the patient (Betz 1947:271).

The therapist can in no way show that he or she has power over the patient or that he or she has total control over the autistic patient. It was up to the patient to adapt without being coerced.

This (psychotherapeutic) procedure is based on interest in unconditionally understanding the patient as he is and feels at the moment as an end in itself, without the injection of further objectives such as giving insight, evaluating, challenging, moralizing, disciplining, etc. When the therapist approaches the patient in this way, with the attempt simply to be an understanding person he does not seem to be felt as coercive or a threatening “influence.”...Empirically, the withdrawn patient whether child or adult has been found receptive to such a tactical approach and through it begins to have a rudimentary experience of being in a relationship with someone (Betz 1947:271-272, italics in the original).

Evaluations, moralization, and discipline were not characteristics of effective therapy.

Unconditional understanding of the patient as the patient feels at the moment – this was the key to successful treatment. It was the development of a meaningful relationship with the therapist that could bring the withdrawn child out and free him or her of the aloneness, using the emotional tools that the therapist helped provide. Betz (1947:273) outlined the proper therapeutic practices in schizophrenia and autism:

1. The presence of the schizophrenic patient is associated with an incapacity for spontaneous participation in relationship with another person, including the therapist. However, some capacity for receptive response to certain kinds of approach by another person is present.
2. The therapist, as the person whose immediate objective is to establish emotional contact with the patient, must assume the initiative in negotiating the contract.
3. The patient, in terms of his moment-to-moment attitudes and responsiveness, must be accepted by the therapist as the pivotal point around which the therapeutic relationship forms. The therapist who maintains expectations that his own attitudes and insight as the doctor will be accepted by the patient as the pivotal point around which to revolve is likely to find himself in a situation of therapeutic statis.
4. When the therapist approaches the patient with the unconditional objective of attempting to be understanding of what and how the patient feels at the moment,
some significant contact with the patient can be expected. What form the therapist’s understanding takes seems less important therapeutically than that he is attempting to be understanding.

5. As the patient accepts the therapist’s approach, however limited the area or degree of response, he is beginning a rudimentary experience of relatedness with another person.

6. As this experience of relatedness between patient and therapist is maintained, the therapist gradually becomes an emotionally significant person to the patient.

7. The patient now begins not only to respond to the person of the therapist, but to express feelings toward him and interest in his reactions. That is, the patient is no longer just receptive, but the rudiments of assertiveness and reciprocity appear.

8. Spontaneous mutual interaction between the patient and the therapist increases and with it the resolving of the autistic barrier in the therapeutic relationship.

9. Through this experience of relationship with the therapist, the patient’s self-dependence, self-esteem, and general spontaneity increase.

10. Other persons in the patient’s environment besides the officially designated therapist may be serving a similar therapeutic function, as acceptable persons with whom the patient may develop spontaneity.

11. Broadened social participation in relationships with other persons than the therapist begins, as the patient’s growing confidence in himself as a person diminishes his need for the protective isolation which he had previously insured for himself through the schizophrenic pattern and the autistic barrier.

Psychiatric treatment to resolve the autistic barrier in children understood that the child is receptive, but the child is limited in being receptive. It was the therapist’s job to slowly and carefully draw the child out so that there would be an emotional connection between the two. In this relationship, the therapist cannot provide clues to the child that the therapist has all the answers. The therapist always attempts to understand the child, but there were no prescribed procedures guiding the therapist to understanding. The goal was to have the child slowly accept the therapist’s approach, and for the therapist to become emotionally significant for the child. Once the therapist became an emotionally significant person to the child, reciprocity and satisfying interactions between the two could take place. As social interactions therefore increased from a new-found confidence, the child would resolve the autistic barrier on his or her own and become less
isolated. There would no longer be a need for protective isolation. Change in the autistic child would come from within.

But, a mere decade later, this type of psychotherapy (and psychiatric treatment in general) were deemed ineffective in the treatment of autistic children. A follow-up study of autistic children as they reached adolescence “fails to reveal any correlation between formal psychiatric treatment and clinical outcome” (Eisenberg 1956:608).

It should be stressed that, insofar as our data permit evaluation, psychotherapy seems in general to be of little avail, with few apparent exceptions. If one factor is significantly useful, it is a sympathetic and tolerant reception by the school (Eisenberg and Kanner 1967:560).

As Bakwin (1954:495) noted, “Kanner and Eisenberg state that none of the varieties of psychiatric treatment employed had any noticeable effect on the course of illness in their patients. It seems wise to surround the child with warm, affectionate, demonstrative adults.”

But therapy did have its place in autism.

The intrinsic severity of the autistic process thus appears to be the significant determinant of the outcome. In the absence of speech, the probability of emergence is vanishingly small, apparently without regard to which of the currently available treatment methods is employed. There is, however, no justification for the converse assumption that psychiatric supervision is superfluous and that recovery will necessarily occur when verbal communication is present…All of the customary indications for psychiatric guidance will still apply here: therapy for the child, help for the parents, proper choice of school, and so on (Eisenberg 1956:610).

A shift in emphasis in the goals of therapeutic mission in autism was underway. Because therapy was unable to help the child resolve the autistic barrier, psychiatry’s guidance would apply toward placing these children in appropriate schools, helping parents with the anxiety involved in raising the autistic child, as well as therapy that would not resolve the autistic barrier, but to aid the child in the child’s adjustment to the world.
Thus, rather than giving up therapeutic practices onto the autistic child, psychiatry would intensify its practices in autism. It would need to examine the disability of autism at a wide range of levels. As Eisenberg and Kanner (1956:564) wrote,

> Early infantile autism is a total psychobiological disorder. What is needed is a comprehensive study of the dysfunction at each level of integration: biological, psychological, and social…It remains for future investigation to uncover the precise mode of operation of the pathogenic factors as a basis for rational treatment.

This meant that more scientific research into the etiology of autism was needed so that a treatment – a rational treatment – could be applied to autistic children. The discovery of autism as a syndrome, for psychiatry, opened the door for new studies of autistic children and therapeutic measures designed to normalize them. But it would take experimentation.

The future of these children cannot be predicted with certainty at this time. The ultimate evaluation of treatment efforts must await further investigation. However, the delimitation of the autistic syndrome and the follow-up research done so far have opened an avenue for well focused curiosity and therapeutic experimentation (Kanner and Lesser 1958:729).

In summarizing this section on therapeutic practices in autism, initial therapies in autism followed a course prescribed by psychoanalysis. It was to be the art of gentle understanding of the autistic child’s emotional needs and barriers. This understanding was not to be from the point of view of the all-knowing expert, as tempting as perhaps it could be for the therapist. Rather, understanding would be the basis for a meaningful relationship. This relationship was not characterized by moralizing and discipline – this proved to be ineffective. The relationship was intended to allow the autistic patient to freely explore his or her emotions. Further, the therapeutic relationship would extend to
those around the autistic child. Confidence and self-esteem would increase. In so doing, the patient would be better equipped to engage in social relationships.

But a short time later, psychotherapy was thought to be a failure as it did not show positive clinical results. Schools were deemed more important in integrating autistic children into social relations than therapy. Parents would still need help, as the child’s prognosis was rather pessimistic. It was only until a definite etiology of autism was uncovered that therapeutic practices could hold any meaningful treatment for these particular children.

Up to this point, I have outlined the struggle to construct a discourse within psychiatry that pertains to autism and the autistic child. I revealed through archaeology the statements, concepts, and theories related to the autistic child, the syndrome referred to as autism, the classification, potential etiologies, prognoses, and treatments of autism.

Although a foundation for psychiatric discourse in autism was constructed in the 20 years following Kanner’s (1943) production of the autistic child, it was weakened by what was missing: power. While psychiatry observed and made normalizing judgments in their surface examination of the autistic children, they did not deploy power onto the bodies of autistic children. Psychiatry was able to produce knowledge, even a truth about autism and the autistic child. However, in order for a discourse to be constructed, it needed the use of power. Foucault maintained that it was both knowledge and power – power/knowledge – that could provide a firm basis for the structuring of a discourse. Thus, in an attempt to structure a discourse in autism, psychiatry failed to deploy power on to the autistic child, and thus failed to construct a discourse that could transform the
psyche of the autistic individual and that of the population in general as it regarded autism.

Despite this failure, psychiatry was able to dominate what could and could not be stated about autism and autistic children. Below, I show that in quantitative terms, psychiatry dominated this area of interest through its production of text.

A Description of the Medical Archive Pertaining to Autism (1943 to 1960)

I end this chapter with a description of the archive of medical knowledge about autism as it was from the time that Kanner (1943) examined particular children and produced a new syndrome of autistic disturbance of affective contact to the time that behavioral psychology involved itself in research and training of autistic children in 1961 (as I show in Chapter XIII). A description of the archive during this era is important because it shows that there was a dearth of articles within psychiatric medicine during the first two decades after Kanner’s construction of this new syndrome. In later chapters of this work, I compare the small quantity of articles produced with the vast amount of articles produced in later eras.

The medical research in autism was scarce during the 1940s and 1950s, the decades after the autistic child was produced by psychiatry. Table 11.1 shows the number of articles written on the topic of autism using the Medline database. I limited the number of articles to those found in English language journals for ease in determining which article pertained to psychiatry and those that pertained to other areas of medicine. I also limited the number of articles to those found in English language journals because these articles would have been more likely cited in order to produce a discourse about autism relative to non-English language journals.
As shown in Table 11.1, there was a paucity of articles written on the subject of autism within medicine. The average number of medical articles during this time period on the subject of autism was 2.55 per year. In later chapters of this dissertation, I compare the average number of articles published per year in different eras in the history of medical practices in autism.

Table 11.1. Search of Medline via Web of Knowledge. Number of Articles from 1943 to 1960 on the Topic of Autism. (Topic = Autism) or (Topic = Autistic) and Language = English.

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<td>1</td>
<td>1950</td>
<td>1</td>
<td>1957</td>
<td>9</td>
</tr>
<tr>
<td>1944</td>
<td>2</td>
<td>1951</td>
<td>4</td>
<td>1958</td>
<td>7</td>
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<tr>
<td>1945</td>
<td>0</td>
<td>1952</td>
<td>1</td>
<td>1959</td>
<td>4</td>
</tr>
<tr>
<td>1946</td>
<td>1</td>
<td>1953</td>
<td>2</td>
<td>1960</td>
<td>5</td>
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<tr>
<td>1947</td>
<td>1</td>
<td>1954</td>
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<tr>
<td>1948</td>
<td>0</td>
<td>1955</td>
<td>0</td>
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<td>n = 46</td>
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<tr>
<td>1949</td>
<td>1</td>
<td>1956</td>
<td>3</td>
<td>Mean</td>
<td>2.55</td>
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</tbody>
</table>

*Based on author’s own search. Web of Knowledge only goes back to 1950.

More importantly, a focused search of shows that particular fields within medicine dominated what could be said about autism and the autistic child, thereby constraining the construction of a discourse in autism to a particular science and to a particular way of knowing. The data provided in Table 11.2 shows that psychiatric medicine dominated what could be said about autism and autistic children during this time. Journals such as *The American Journal of Orthopsychiatry, The American Journal of Psychiatry, and Psychiatric Research Reports* were prime source of the discourse in autism.

In terms of the breadth of the medical archive with regard to autism during this time, a search on Medline and by my own count of articles that were produced in the 1940s, there were a total of 28 different journals within medicine that published at least
one article on the topic of autism. In later chapters in this dissertation, I compare the breadth of the archive from different periods in the history of the medical discourse about autism.

Table 11.2. Journals That Have Published More than One Article on the Topic of Autism, 1943-1960. Source: Web of Knowledge (Medline) and Researcher’s Own Search.

<table>
<thead>
<tr>
<th>Journal Titles</th>
<th>Number of Articles</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>The American Journal of Orthopsychiatry</em></td>
<td>5</td>
</tr>
<tr>
<td><em>The American Journal of Psychiatry</em></td>
<td>5</td>
</tr>
<tr>
<td><em>The Journal of Pediatrics</em></td>
<td>4</td>
</tr>
<tr>
<td><em>Journal of Abnormal Psychology</em></td>
<td>3</td>
</tr>
<tr>
<td><em>AMA Journal of Diseases in Children</em></td>
<td>2</td>
</tr>
<tr>
<td><em>Proceedings of the Annual Meeting of the American Psychopathological Association</em></td>
<td>2</td>
</tr>
<tr>
<td><em>Psychiatric Research Reports</em></td>
<td>2</td>
</tr>
<tr>
<td><em>The British Journal of Medical Psychology</em></td>
<td>2</td>
</tr>
</tbody>
</table>

As I have shown in this chapter, psychiatry dominated what could and could not be stated in the medical discourse about autism. Psychiatry began to construct a discourse centered on psychoanalysis and psychotherapy. Yet, by its own standards, it was able to do little about rehabilitating autistic children. Because psychiatric practices could do little to normalize these children, its psychoanalytic discourse about autism would eventually fall apart. Psychiatric medicine would need to adhere to a new way of knowing about autism—a way of knowing that would include the possibility that autistic children could be normalized. This discourse would be focused on the possibility that particular therapeutic practices applied onto autistic children could have a real effect on their behavior. It was child psychiatry’s dream that therapeutic practices could do something to change the behavior of deviant children [see Kanner’s (1972[1935]) review of the history of child psychiatry). But it would take disciplinary power deployed from
within another but closely related domain—psychology—to shape the autistic child as contemporary society understands the autistic child today: As a child whose behavior needs to be controlled by medicine. Paradoxically, and this speaks to Foucault’s point about the need to find a rupture in discourse, it was psychology that produced a rupture in the discourse in autism by using the very techniques of behavior modification on to unfamiliar children that psychiatry so disapproved of when parents used these techniques on their own children.
CHAPTER XII

PSYCHOLOGY AND AUTISM

In the last chapter, I reported that which could and could not be stated within medicine about the autistic condition after Kanner’s initial psychiatric analysis. I maintain that these statements, concepts, and theories were an important historical precondition to the emergence of what is now known as autism. Even though the psychiatric discourse in autism was weakened by the lack of power being deployed on to children, it set the stage for power to be deployed. Psychiatry, through its discourse, observed and documented the behavior of particular children, conceived of this behavior as problematic, focused on parents, and stated that therapeutic efforts were possible. This meant that psychiatry was able to produce a truth about autism: it was a syndrome having to do with emotional disturbances. While the discourse regarding autism within psychiatry was struggling, at the same time, the discipline of psychology was also interested in this condition.

In this chapter, I first examine how psychology perceived autism, not from the time of Kanner’s production of autistic children in 1943, but from the time that the term was first introduced. I show through archaeology that at the very same time and in the very same institutional setting that Kanner’s autism appeared, a different range of statements, conceptions, and theories of autism emerged. Second, I provide a genealogy of psychology’s concern with the phenomenon of autism. I use genealogy because I
wanted to demonstrate that psychology was prepared to deploy power onto bodies of autism children. I show that not only did psychology want to produce a new knowledge—a new truth—of autism, it wanted to discipline autistic children into thinking in particular ways that were outside of their very being.

The following archaeology and genealogy of practices in psychology are meant to provide the reader with a historical background that brings into relief the actual experimental practices on autistic children that I reveal in Chapters XIII and XIV. These experimental practices were rooted in a discourse of a particular type of psychological practice: behaviorism. The discourse of behaviorism was that science could change behavior in order to change emotions in people. This discourse ran counter to the discourse in psychoanalysis, which was that through understanding of emotions, psychiatric medicine could change behavior. But the only way this discourse could emerge as having more authority was to show empirically that both behavior and affect could change. Psychology, as I show in the next two chapters, would demonstrate its power through the use of punishment and discipline on young autistic children. Psychology was prepared, in fact, to transform the psyche of autistic children through these means. The effect would be a more authoritative and powerful discourse in autism that would produce a medical problem and thus a widespread social concern. I begin this chapter, though, with a short history of how the term autism emerged around the turn of the last century.

*The Struggle for a Definition of Autism*

There are stories in 19th century Britain of children who had autistic-like tendencies (Feinstein 2010). Accounts from two different British physicians and
accounts in British literature show that there were children and adults who behaved in a manner that, today, we would term autistic (Feinstein 2010). According to Nadesan (2005), these children and adults could not have been diagnosed as having a developmental disorder or a mental illness, much less autism, because the culture at the time was not all that much interested in classifying individuals in such a nuanced manner. Standards of behavior were much broader.

As noted, however, a general concern for children’s development began around the turn of the 20th century. Around this time, psychiatry began to attempt to categorize and define subgroups within childhood psychosis. Cases of dementia infantalis were reported in Italy and Austria. This term was in accordance with Kraepelin’s term, dementia praecox, which was first presented in 1896 as a particular mental disease (Ball and Kidd 1921). This disorder would soon come to be known as schizophrenia (Feinstein 2010). In 1911, the director of the Burgholzli Hospital in Zurich, a Dr. Eugen Bleuler used the term autism to describe a particular symptom of dementia praecox.

In a paper entitled, “Dementia praecox oder Gruppe der Schizophrenien,” Bleuler described the characteristics of autism as being shut in (Ball and Kidd 1921; Hoch 1912). Hoch (1912:253-254, italics added), in the first English review of Bleuler’s (1911) article, wrote the following about Bleuler’s concept of autism:

A difficult subject is autism. By autism Bleuler means that which we have called the shut-in tendency, the more or less complete shutting out of the environment, or, at any rate, all that which does not correspond to the wishes. It may be so marked that the patients even shut out all sensory impressions, close their eyes and ears, make their body as small as possible by crouching. Bleuler regards this autism as a secondary phenomenon, and looks upon it as one of the results of his association disorder, whereas the autistic thinking is the daydreaming, the thinking without reference to reality. This autistic thinking flourishes in schizophrenia. The normal person includes in his logical operations more or less everything of his experience, past and present, which has a bearing, irrespective
of its emotional value. Bleuler thinks that the schizophrenic defect in logic makes the exclusion of a great many external and internal facts possible, and thus gives sway for a tendency which we all have, namely, to live in fancies which suit us, something which we indulge in but do not allow to influence our conduct, but which in the schizophrenic assumes the value or reality.

The distinction that Bleuler makes between autism and autistic thinking is important here. Autism is the body contorting to shut out the external world that does not make sense to the individual with this condition. Autistic thinking is much like dreaming in the sense that the association between what is considered real and the dream is minimal. The body contortions of the autistic or schizophrenic person are abnormal, whereas autistic thinking is something different that has the potential to be seen in non-schizophrenic or autistic people.

Bleuler identified two modes of thinking: logical and autistic (Feinstein 2010). Logical thinking was done by normal persons while autistic thinking was done by both normal people and schizophrenics. Bleuler suggested that all people have a tendency toward autistic thinking. Autistic thinking is defined here as daydreaming and thinking without reference to reality. The difference between the schizophrenic’s autistic thinking and the normal person’s autistic thinking is that normal persons know that autistic thinking is just fantasy, and that one does not behave in accordance with these fantasies. On the other hand, schizophrenics believe that the fantasies that emerge from autistic thinking are real and they behave in accordance with this type of thinking.

Feinstein (2010:6, italics added) added:

For Bleuler, autistic thinking was not a pathology confined to a group of children who exhibited a withdrawal from other people and the external world (as it would be for Leo Kanner in 1943). Bleuler considered autistic thinking a normal mode of thinking in both children and adults. It was evident, he said, in dreams, pretend play and reveries, and in the fantasies and delusions of schizophrenics. Bleuler, unlike Freud, believed that the ability to conceive of alternatives to reality was not
a primitive process *but one which was relatively sophisticated*. For Bleuler, reality-directed thinking came first and autistic thinking later.

Thus, Bleuler considered autistic thinking in some way more complicated and refined than ordinary reality-based thinking that requires logical and rational thought. In addition, Eyal and colleagues (2010:213) noted: “Disconnecting from the world around oneself and breaking into fantasy was something any person did to a certain extent, Bleuler thought.”

It is clear, then, that the term *autism* was originally seen as a matter of contorting the body so as to shut out the sensory world, or at least parts of the sensory world that were illogical to the autistic. Autistic thinking was illogical thinking, but had the potential to be more sophisticated in some ways than logical thinking. Autistic thinking was characteristic of those both with and without pathology of the mind. In fact, there was little consideration that it was harmful to ordinary people, and that it was merely a secondary symptom of those with more serious pathologies.

What *was* considered pathology was an association disorder between the real world and how particular individuals understood the real world. It was clear to psychology at the time why schizophrenics (who already had pathology of the mind) contorted their body to shut out the sensory world. But it was autistic thinking that was potentially dangerous for society, especially if it was experienced by “normal” people.

One text (Ball and Kidd 1921:276) stated that:

The number of abnormal personalities who develop dementia praecox is much larger than is generally supposed. E. Bleuler describes a shut-in type of personality as “autism” as he, with a number of other authors, calls a special form of thinking “autistic.” This autistic thinking may be described as a turning away from reality; a patient sees life in a fantastic manner and his thoughts do not follow the logical laws of thinking.
A child with this type of tendency, the text warns, however, “is often sullen, broods, stays by himself, buries himself in books, and gets nothing out of life as the normal child does. The “shut-in” type of character in a child must be strictly discouraged” (Ball and Kidd 1921: 276). Thus, autistic thinking was potentially dangerous to the future of individual children as they were developing toward adulthood.

But it wasn’t just autistic thinking in children that became a concern within psychology. Autistic thinking in adults was problematic as well. One text (Biddle 1931:493) understood the definition of autistic thinking as ambiguous.

Autistic thinking has been variously defined as uncritical, unreal, emotional, prejudiced, or wishful thinking. It has been one of those generalized concepts, coming from an older psychology, which we have had difficulty in making specific.

But this text (Biddle 1931:493) concerned itself with autistic thinking among those individuals who are considered normal.

Autistic thinking, as it occurs in pathological cases, is easily discernible. But, as we move over from the so-called abnormal, to the normal, it is much more difficult to determine which thinking is realistic and which is not. We are often forced into the position of condemning as autistic those conclusions which do not agree with ours. Undoubtedly, there is much thinking among normal people which is autistic. However, if the term is to have any value for an objective psychology, it must be objectively discernible and, if possible, measurable.

Autistic thinking, for the first time, needed to be able to be recognized and measured by medical science in an “objective” fashion. The text went on to define autistic thinking as “essentially wishful in nature” (Biddle 1931:493).

By saying that the thinking is wishful, we mean that its conclusions are satisfying to the organism. The unreal conclusion is accepted, because it fits in comfortably with certain preconceptions. We more readily believe that which is emotionally satisfying, that which we wish to believe (Biddle 1931:493).
Autistic thinking needed to be examined scientifically so that psychology could understand what exactly autistic thinking was and to be able to recognize this type of wishful thinking upon observation. The theory in this text suggests that thinking pertaining to important social issues is probably quite autistic in nature.

It is probable that a great majority of the widely accepted thinking on topics of general social interest is autistic. Particularly in the realms of social conflict, religion, industrial problems, international relations, and the like, thinking is more than likely to be unreal and uncritical...There is a great need for objective measures of the autistic tendency in the field of social thinking (Biddle 1931:493).

Psychology found as early as 1931 that autistic thinking—that is, thinking that is unreal and uncritical—manifests itself in societal realms such as institutions, the economy, and within politics. Therefore, psychology’s task as a science was to find objective measurements of autistic thinking because of this mode of thinking’s influence in society.

In an experiment, Biddle (1931) found that there was a tendency toward wishful or autistic thinking among “normal” individuals in their response to questions of a controversial nature. Biddle (1931) found that emotion played a role in responding to questions of controversial nature. He concluded that thinking is not always logical; the intellect is strongly influenced by emotion.

If further correlations between knowledge and other types and areas of autistic thinking should prove as low as ours, it would be obvious that other factors than the intellect are involved in the achievement of critical or realistic thinking. Perhaps we shall have to educate the emotions as well as the intellect (Biddle 1931:496).

Psychology concluded that if emotion guided the intellect, then not only would individuals in society have to be taught how to think, they would have to be taught how to emote. If thinking through issues related to social institutions and social systems such as the economy and politics involved emotion, then in order for a well functioning
society to exist, a discipline was needed to discover, through objective measures, the relationship between emotion and intellect. Just as individuals with low intellectually abilities needed to be educated, individuals whose emotions shaped an unreal or uncritical form of thinking had to be educated too.

Autism was being defined by scholars as wishful thinking guided by emotions. There was an unwillingness to face reality and instead escape into a fantasy world. It was a symptom of schizophrenia, but even normal individuals could get caught up in this way of thinking when it suited the individual’s preconceptions of a topic. Thus if autism was being defined as having an overabundance of sheer emotion in thinking, and if psychology’s task was to scientific statements, concepts and theories about how human beings think, then standards had to be developed to measure emotions as well as the intellect. This scientific investigation of human emotion would be a difficult undertaking, as Kanner (1943) noted.

Yet, in the same year of Kanner’s (1943) initial publication declaring that a new syndrome had been discovered, a text emanating from the Department of Psychiatry and the Henry Phipps Psychiatric Clinic at Johns Hopkins University and Hospital (the same institution in which Kanner made observations of particular children), and Harvard University, conceptualized autistic thinking in a different manner. In the examination of letters written by a patient (a certain Helen B) with paranoid schizophrenia, “curious and systematic distortion” of verbalizations not yet seen had been reported (Whitehorn and Zipf 1943:843). It was stated that the patient, in drawing on language, used her “own convenience more highly than that of the auditor” (Whitehorn and Zipf 1943:844). This
led to a different meaning of what it is to be autistic. Being autistic is about being egocentric, unconcerned about how he or she is being received by others.

We shall designate this egocentric condition as autistic. By autistic, however, we do not mean all egocentricity in whatever form it may appear in speech. An egocentric person who wishes to dominate his environment is not necessarily impelled to be autistic in this sense and to sacrifice the auditor’s speech convenience to his own...By autism, then, we do not mean the egocentric attitude of exploiting others, but rather the egocentric tendency to disregard the convenience of others (Whitehorn and Zipf 1943:844).

Further, since the person with an autistic condition is “by definition disposed to sacrifice the auditor’s convenience to his own, then the force of the auditor is diminished in its influence on the speaker’s semantic and linguistic changes” (Whitehorn and Zipf 1943:848). As a consequence of this disregard for the auditor,

the autistic person can save much effort in his speech by using more freely the mechanisms of semantic and linguistic change in which meanings and words are altered, coined, or eliminated. Yet neither the desire to economize in speech nor the use of semantic or linguistic changes are in themselves abnormal. The abnormality of the autistic person lies only in ignoring the other fellow; that is, it lies in his disregard of the social obligation to make only those changes which are socially acceptable in the sense that they are both understandable and serviceable in the group (Whitehorn and Zipf 1943:848).

The auditor, upon hearing the speech of the autistic person, becomes confused. This confusion leads to what appears to the auditor “as a disorder of meanings, or even a disorder of association” (Whitehorn and Zipf 1943:848). The text suggests that any labeling of autism as a disorder is merely a result of a state of confusion on the part of the listener.

In addition, this particular text stated that a characteristic of the autistic person is a drive toward developing a new language with new meanings.

It is not difficult to fathom the impulse of the autistic person toward establishing his own meanings. Standard speech is often enough arbitrary and nonsensical in its symbolization. An odd assortment of meanings is frequently subsumed under
one word, such as “the rose,” “I rose,” “my daughter Rose,” or “I bear,” “the bear,” “bare legs.” To be born into a world in which people use words in this fashion is clearly to be born into a verbally illogical world. But the world is not merely verbally illogical; to the autistic person it is “coercively” so, since he must both accept the verbal nonsense and play ball with it as a prerequisite of participating in society. Illogicality is wasteful of effort; logic is recommended for its economy of mind (Whitehorn and Zipf 1943:848).

The new language of the autistic is, according to the text, logical because there is no waste in the effort of deciphering the illogicality of the meanings of bear and bare, or of the different meanings of rose, for example. This new language, and the meanings that the individual autistic applies to speech, actually frees up the autistic, because the autistic does not have to explain him or herself, as the scientist might have to explain the language of physics or chemistry to others, so that others might understand.

However, in view of the labor of explicit definition, and the like, which is required by the need for a social understandability of language, one can see how an autistic person, in dodging the effort, not only becomes freer but needs to work less in devising his new and more logical language (Whitehorn and Zipf 1943:848).

The text provides an example of language when the speaker pays no attention to the auditor.

Any one can build a new language that is more consistent if he ignores the “other fellow.” For example, given the word “tune,” meaning a “kind of noise,” then “Neptune” is the kind of noise that Nep makes; if this “noise” is the surf, then Nep is the sea. And as with the morpheme tune, so, too, with other morphemes. Given the words “cat” and “catnip,” one can see how catnip may nip the cat. It can be seen that “mother” and “smother” are related, that “smother” may mean “to be nice to babies” or that “it isn’t really catnip, because you can see that cats like it” (Whitehorn and Zipf 1943:849).

The text provides an anecdotal incident of a “secretive paranoid woman” who spoke “with a simile of airplane messages.”

At least that was the way the auditors always understood, or rather misunderstood. The nurses even watched for airplanes flying over to see how she took the messages. One day she condescended to explain her meaning. The term was
“air-plain messages,” meaning “plain as air,” a meaning that was, in fact, not plain at all except to the uninformed, for air signifies to the uninformed practically nothing, and even the existence of air as a substance is only appreciated through subtle and involved experimentation. Hence, “air-plain messages” are the very reverse of “plain” and require extraordinary subtlety for their apprehension (Whitehorn and Zipf 1943:849).

But because extracting meaning from autistic language require “extraordinary subtlety” and effort on part of the auditor, the autistic runs into difficulties when encountering the actual social world.

In thus fabricating a new language, the autistic person is not necessarily confusing the word with reality any more than is the person who coined the words “lockjaw,” “can opener,” or “fireplace.” Nevertheless, to be arbitrary and individualistic in selecting what is to be named in all of experience, and how it is to be named and how it is to be compared generically with other named things, is ineffective if one wants the advantages that accrue to social life. The distortion of meaning represents an economy of mind, but it is an autistic economy that remains radically different from that of normal speech (Whitehorn and Zipf 1943:849).

The concept of the autistic, what defined the autistic, in Whitehorn and Zipf’s (1943) work, emerged from a normalizing judgment. This particular research compared the language use of normal adults to a particular schizophrenic individual. This was done to construct a conceptualization of the autistic in general. The text concluded,

A patient with paranoid schizophrenia showed in her language behavior graph a rigidly systematic deviation from the normal curve in the direction of a consistent, straight, and uniform steepness, interpreted by us as an expression of an autistic speech tendency.

When we interpreted this type of verbal egocentricity as autism, we found that the material of the patient with paranoid schizophrenia was definitely autistic as compared with all the other material presented.

We have further pointed out how an autistic person could go astray into a distortion of meanings by employing the normal mechanism of linguistic and semantic changes for his own ease, without bothering to meet the normal prerequisite of a social serviceability and a social understandability as necessary for all linguistic and semantic innovations, and that he might then find himself thereby verbally and conceptually handicapped in attempting to solve “neutral
problems” set by a tester, and also in dealing with real problems in an actual world (1943:850-851).

The autistic is conceptualized in this text as an individual with a set of rules for language and meaning that is all his or hers. But because these rules are particular to the autistic individual, that individual may have a difficult time engaging with the social world.

More scholarly work needed to be done to investigate autistic thinking, autistic language, and autistic perception.

A Research Agenda for the Study of Autism

Soon after the need for scientific research into autistic children was stated within the domain of child psychiatry (Archives of the History of American Psychology 1954a, 1954b, 1954c, 1954d), a new text emerged that addressed this topic. A lecture was located in the Gardner and Lois B. Murphy papers2 entitled, “A Program of Autism Research” which is believed to be dated no earlier than 1955. The following is a description of this lecture. I highlight several selections from the text in order show how psychology was intending to complete scientific research on autism. I also use the text to show that psychology’s dream of giving, regulating, and controlling life of human beings and the human species was manifested in its desire to examine the autistic child.

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2 According to the Archives of the History of American Psychology website, these papers included “personal and professional correspondence; manuscripts; speeches; lectures; family histories; letters & photos. Lecture notes from Gardner and Lois Murphy's numerous tenures as teaching faculty. Many reports, memos, & other documents reflecting Gardner Murphy's career as Director of Research at Menninger's. A 1917 autobiography, 211 pages long, written by Gardner Murphy for a class taught by Yerkes. Other early classroom work from his "Yale Years"; Documents from WWI including a diary, 1919, Germany. Papers written by students over many years. Among the many topics: APA business (GM president 1943-44); thanatology; parapsychology; ESP; Humanistic Psychology; History of Psychology. Lois B. Murphy's papers reflect her career in child psychology and child development - particularly coping and vulnerability; use of Rorschachs and miniature life toys; observations and filming of children at Sarah Lawrence Nursery School. 1940's correspondence & reports of work with the Hampstead Nurseries (with Anna Freud), Foster care for children uprooted by war; a hostel for children rescued from concentration camps.”
Implied in this text is the notion that humans, up through the 19th century and into the 20th century, were burdened with “many types of pervasive irrationality” (Archives of the History of American Psychology undated:1) that interfered “with ordered and effective thought” (Archives of the History of American Psychology undated:1). The text stated that the implication of Darwin’s ideas about the role of impulse in evolution should not be underestimated. But giving way to impulse, it also suggested, was a hindrance to having the fit survive, because impulse limited the “capacity for clear and orderly understanding and control of the environment and of human nature itself” (Archives of the History of American Psychology undated:1). This is because it is assumed that clear and orderly thinking is vital to the survival of the fittest doctrine. The text states that Freud, given his definition of the unconscious, reaffirmed this pessimism about the future of humankind. In addition, the text cites “Bleuler’s shrewd definition of the realm of autistic or dereistic thought in contrast to reality probing…” (Archives of the History of American Psychology undated:1). The text implies that the great minds of science had become pessimistic about the future given the penchant for humans to act on impulse, resisting and ignoring the reality around them.

But the text states that science also had the ability to correct this type of thinking.

As in Pandora’s liberation of the venomous little creatures from the box, however, there is always one more little creature always released, that of hope; and the same century which has brought pessimism has also suggested orderly devices from the clinic, the field investigation and the experimental laboratory, to throw light upon the basic nature of these impulse-ridden proclivities of humankind (Archives of the History of American Psychology undated:1-2)

There is also optimism. The 20th century has scientific techniques emerging from clinics, in fields of scientific investigation, and the laboratory to examine the troublesome impulses that guide human behavior. The text states that a new program of research was
needed in order to fully understand this problem in humanity in the middle of the 20th century.

The present program is an effort to achieve an integrated view of the magnitude of the problem which faces mankind, with reference to the control of thought and feeling. The bias, the evasion, the distortion that enter into the testing of reality, whether on the part of the scientist, the medical man and the scholar, on the one hand, or the statesman, the business man, the political leader, on the other. The problems are universal. What is new is the hope of understanding and controlling them more fully. It is proposed that a vigorous and extensive investigation be launched into the nature of the control of cognitive functions—perception, learning, remembering, thinking, imagining, valuing—by the life of impulse and wish, and the devices by which man may become at least more aware of the nature of such control and more capable, at least here and there, of making allowances for his bias, and coming into closer contact with the reality which may destroy or may give him life (Archives of the History of American Psychology undated:2 italics, added).

Here, the text states that the societal problem that needs to be examined by science is irrational thought amongst all individuals. Irrational thought characterized by impulse and wish was any thought that did not test the reality of the world as experienced by any individual in any walk of life without bias, evasion, or distortion. Not only was the discipline optimistic that it could understand the problem of biased, distorted testing of reality, but it was optimistic that it could control this type of thought more fully. The scientific examination of all realms of cognitive functions such as learning, thinking, imagining, and valuing were necessary. The discipline was not going to perform these examinations in the service of particular human beings; it would conduct these examinations in service to the human race—for its very survival. In addition, these examinations were necessary so that human beings could more fully understand their impulses and wishes and disallow them from influencing their thinking and coming closer to reality. This scientific examination was being done for the purpose of providing life to human beings and to the human species.
From a Foucauldian point of view, thus text describes a concern among the disciplines for the survival of the human race. The race was at risk due to irrational thought. Scientific specialties had to come together, using their specific methods, for the purpose of examining irrational thought in the service of the species being.

But the task of investigating irrational thought was a monumental one, according to the text. At the same time, the problem of irrational thought was so colossal that the problem could not be ignored. An integrative approach was needed.

How much shall be investigated? Nothing less than the entire realm of the misinterpretation of the world and of oneself which comes from the failure to recognize the role of impulse, ingrained habit, set, bias, rigidity, all that contravenes the fresh and flexible confronting and sifting of reality. How can so big a problem be investigated by so small a segment of the human family, subject to the ridiculous restrictions imposed upon one clinical center at one out-of-way point? (Archives of the History of American Psychology undated:3)

Here then is the problem as psychology sees it. Human beings must not misinterpret the world nor can they be allowed to misinterpret themselves as human beings. Human beings must recognize when their interpretation of the world is being distorted because of impulse, habit, and bias. They must understand that these factors run counter to a sober sifting and confronting of reality. Once realized, human beings can give life not only to themselves as individuals, but give life to the race of human beings.

A Foucauldian analysis would suggest that psychology was determined to subject individuals to disciplinary power, but not just in one clinic with its “ridiculous restrictions.” This subjugation to disciplinary power would produce not only new knowledge of irrationality, but it would produce individuals who no longer “misinterpret” the world. The task then for psychology with regard to children was to root out all autistic irrationalities so that they are unable to misinterpret the external world of reality and the
internal world of the self. In fact, they would be corrected by science to see the world
and themselves through a lens without impulse, bias, habits, and rigidity. Science was set
to transform children and other individuals so that they interpreted the world in a standard
manner. No longer would the idiosyncrasies of personality and the five senses be in
charge of perception of the world or oneself; it risked bias, impulse and set habits that
would misinterpret the world.

Individuals were to be subjected to power that would determine perception and
the interpretation of humanity. This particular section of the text described here is an
analysis of bio-power (Foucault 1984) in autism because this analysis of the text
demonstrates that the discipline of psychology was concerned with the procedures of how
to give, regulate, and control life in modern society. This concern manifested itself with
a focus on autistic children.

The experimental and clinical approaches to these problems are already advanced
to some degree. Indeed, the experimental approach has been heavily stressed in
the studies of perception and in perceptual learning which have gone on for some
years, while the study of autistic children and of borderline and schizophrenic
aspects of the ego psychology of childhood, together with literally dozens of other
projects that deal in one way or another with the failure of patients to assess
reality, may all feed into this central stream of thought and their effort (Archives
of the History of American Psychology undated:3).

But the results of these examinations have contributed to knowledge about autism in a
piece by piece manner. Statements have been made; however, concepts and theories had
yet to be formulated. The text goes on:

The problem is hardly worth undertaking, if it is to be fragmented all over again,
as it is ordinarily fragmented, so much being assigned here to the anthropologists,
so much there to the clinician, and so much here to the experimentalist. It appears
to be time for an integrated view in which a few broad hypotheses about the role
of impulse and affect in the life of thinking may be clearly stated, and evidence to
these hypotheses be drawn from each of the three main types of investigation, and
integrated through the new outlooks which may emerge from the sustained
collaboration of the three groups participating (Archives of the History of American Psychology undated:3-4).

The scientific examination of autistic thinking (the failure to assess reality in a rational manner) was not worth performing unless concepts and theories were developed from a variety of statements from a variety of disciplines and from a variety of types of examinations. These concepts and theories would be useful to a more integrated perspective on how impulse and raw emotion affect logical thinking. Therefore, what psychology was seeking was the development of a singular discourse on autistic thinking that could be supported through the examination of autistic children and those children whose ego was in some way problematic to rational thinking.

The text acknowledges that partnerships between disciplines had already started. Basic methods had emerged. But the concern was not necessarily for establishing precise research methods or how particular methods would be integrated in interdisciplinary study. The focus was on the particular phenomena – autism – that science saw as most problematic.

Not that the integration of these three fields is a new thought, as of 1955. The integration of ethnological and psychoanalytic methods has been going on apace for some 25 years. The integration of psychoanalytic and experimental approaches has been well defined since World War II, and in a few instances there have even been furtive and sketchy efforts at the integration of all three. It is believed, however, that the basic groundwork of methods has advanced sufficiently to permit, without apology, an integral approach in which one system of hypotheses is defined which is to be pursued by all three methods, and with emphasis not upon interdisciplinary work or integration of method, as such, but rather upon the subject matter itself; that is, upon the basic nature of autism, the basic processes involved in the denial or escape from the testing or reality (Archives of the History of American Psychology undated:4-5).

The basic nature of autism was to be studied, and the processes that led to escaping from the testing of reality among human beings in day to day life. Autism was becoming more
and more of a discreet, bewildering, and non-conforming way of thinking. Autistic thinking did not conform to logical, scientific thinking, and medical science had to discover the processes of how and why autistic thinking could emerge. These discoveries could be made in clinics, but the clinic was not enough. It was a pervasive problem; or rather, it was a potential problem for children, adults, and populations. In short, autistic thinking, especially autistic thinking by the scientist, the politician, the scholar, the business person, the statesman, and the physician was potentially dangerous to society.

While the psychiatric discourse up to this point had been about autism as a unique syndrome – that is to say a mental disease or disorder – around 1956, a new concept of autism emerged. In a document entitled, “At the Center of the Web,” autism is conceptualized as more than just a syndrome which a person embodies. Autism is a basic orientation to which some individuals adhere to perceive the world. In this section, I provide a transcription of the entire text.

Most of the current discussions of autism are anchored upon a cross section view of the person in which a drive or two, and a deep-seated personal characteristic or two, are brought into relation to some ambiguous stimulus situation. If, as is often the case, the drive, the set, the attitude, or the deep-seated personality attribute, limits to some degree the possible interpretation so that there is some misinterpretation and some individual differences, we are usually satisfied with our experimental demonstration (Archives of the History of American Psychology 1954-1957:1).

It is suggested that the perception of autism as an attribute of a person’s personality is quite restricting when trying to understand autism.

From a broader biological and cultural viewpoint, this approach, while containing a little truth, seems somewhat artificial and very limiting. It would appear to be worthwhile to consider some of the broader predisposing factors from which autism springs (Archives of the History of American Psychology 1954-1957:1).

From an evolutionary point of view, individuals of any species are equipped with sensory central and affecter processes relevant to their adaptive needs. One
selects, by the very virtue of being an ant, a robin, or a man. In addition to selecting, there is the process of grouping, and if this term be used broadly, the process of interpreting. Interpretations are relevant to intrinsic biological nature. Individuality in biological make-up can produce corresponding variations in thresholds, processes of selection, processes of grouping, and interpretation, as well as different action tendencies (Archives of the History of American Psychology 1954-1957:1).

Any discussion of autism, therefore, must consider processes of interpretation because like any other biological organism, a person “with autism” has an individual way of interpreting the world. The individual who perceives the world through an autistic lens then selects, groups, interprets and acts based on individually generated perceptions. But there is an important process which structures any orientation to the world, including an autistic one.

The learning process, further, limits and shapes the special orientation of each individual. By virtue of past successes and failures, one learns what has to be attended to in order to achieve success. Sometimes this means attending to what has been satisfying. One may, however, at times overshoot the mark and attend too long to that which is satisfying, engaging in sheer fantasy or even self-deception. At other times, of course, in order to adapt, one must attend to that which is or has been frustrating. In all these instances, however, one is guided to a considerable degree by the consequences of past, attentive, and perceptual habits in all their phases, that is, involving selection, grouping, and interpretation (Archives of the History of American Psychology 1954-1957:1-2).

For all individuals, including those with autism, learning processes shape the individual’s orientation. Individuals strive to succeed, and they do so by recalling their past successes and failures. This means attending to both that which is satisfying and that which is frustrating. There is a danger in engaging too long in that which is satisfying because it means engaging in fantasy (non-reality) and hence, self-deception. Individuals are guided by a learning process that teaches them to understand the consequences of past attentive and perceptual habits.

But learning processes vary from group to group.
Now this learning process is different for members of different species, different for the two sexes within any one species, different in accordance with the degree of maturity, strength, and endurance, and many other physiological attributes. The learning process is, moreover, somewhat stylized, both as regards content and form, by the social situation which is defined. In their limits, worker bees learn different things from those learned by drones or queen bees. Members of different racial and cultural groups find themselves required to solve different types of problems. Both the things learned and the manner of learning are appropriate to the individual in his situation (Archives of the History of American Psychology 1954-1957:2).

Here, it is acknowledged that what an individual learns and the way in which the individual learns is appropriate to the particular individual’s or particular group’s situation. This situation involves not only the social, but physiological attributes as well.

From this follows the special stance maintained by members of each specifiable subgroup. One sees in terms of the requirements of the group as determined by predisposing conditions and the specific learning process which has been characteristic of the stance in life which must be maintained by the individual (Archives of the History of American Psychology 1954-1957:2).

We have, then, a series of both internal and external parameters defining the special outlook, and it is entirely pointless to dream of a “leaning over backwards” process by which one could achieve a viewpoint without a center. The best that could be hoped is to learn flexibility to work from one center to another to consider alternative stances. One’s own basically real stance, however, always remains (Archives of the History of American Psychology 1954-1957:2-3).

Any examination of an individual’s point of view must regard the central stance of the individual. Individuals cannot maintain a particular perspective without a core or a center to hold it together. An individual has a basic stance that one must consider. It is part of one’s very self.

Since this is true, the self is, in a profound sense, always right. The multidimensional axis of giving is given by the tissues, their place in the physical environment, their place in the cultural environment. Studies of autism must ultimately consider not merely cross sections or momentary processes, but the basic stance, the basic reference frame which constitutes selfhood (Archives of the History of American Psychology 1954-1957:3).
This means that any study of autism must consider that the individual does not have some characteristic that defines him or her as having autism, but that autism is the very nature of the person’s self. The person *is* autistic. Any therapeutic attempt at eradicating autism, therefore, was not an attempt to eradicate a syndrome, or a personality characteristic. It was an attempt at eradicating the self. Future therapies in autism necessarily meant that the therapy was intended to negate the very self of the autistic. It would be a negation of the very persona of the individual. It would be an attempt at altering the very personal psyche of the individual. In Foucault’s words, therapeutic endeavors in autism would now involve altering and transforming the very soul of the autistic.
CHAPTER XIII

THE EMERGENCE OF DISCIPLINARY PRACTICES IN THE CASE OF AUTISM: POWER DEPLOYED ON TO INDIVIDUAL BODIES

The previous four chapters of my dissertation addressed the second research question, “What is the history of both discursive and non-discursive practices that precipitated the deployment of medical power onto the bodies of autistic children?” I found that before power was deployed onto autistic bodies, four events occurred: (1) a medical domain – child psychiatry – was established within which a medical gaze could be employed on children and mark particular children as deviant (Chapter IX); (2) the autistic child was established as an object that medicine could observe, judge, and examine, that is to say, it produced an object on to which it could utilize its medical gaze to make the autistic child visible (Chapter X); (3) the knowledge that medicine gained about the autistic child from the employment of the gaze was translated into the foundation of a discourse on autism—a discourse that focused on understanding defects in affect (Chapter XI); and (4) a scientific discipline – psychology – had already been prepared to apply its scientific practices on autistic children for the purpose of controlling the body, and therefore transforming the psyche, the very soul of these children (Chapter XII).

In fact, a comparison between the results in Chapter XI and Chapter XII shows that the objectives of psychiatric medicine and the discipline of psychology were
different. Chapter XI outlines psychiatry’s modest dream of understanding the autistic child and treating the child’s emotional disturbances through a lengthy process of psychoanalysis. Psychology’s perspective on autism was not the same. Chapter XII specifically outlines psychology’s dream of eradicating autistic thought and autistic reasoning from the individual and from the social world. Therefore, an analysis of the procedures and practices in psychology that aimed to put an end to autism, I believed, was necessary.

In this chapter, I show how psychology’s dream was to be realized. Psychology needed a particular therapeutic practice that could show that it could eradicate autistic thought and autistic reasoning. In Foucauldian terms, it needed to deploy power onto the bodies of autistic children to demonstrate that it could eradicate fantasy and induce reason into the thought of young, developing human beings.

Below, I examine psychology’s concern for the autistic body and the birth of a behavioral treatment for autism. First, I provide a description of the archive on the medical discourse in autism from 1961 [the year when psychology began its practices in autism] to 1986 [the year before psychology produced quantitative evidence that a particular treatment could effectively improve the capabilities of autistic children (Lovaas 1987)]. Second, I provide a brief outline of the principals of behaviorism within psychology according to those who practiced it in regard to autism. Third, I unearth, describe, and analyze the therapeutic practices of behavioral psychology from the early 1960s to the time just before Lovaas (1987) was able to show through scientific evidence that a successful therapeutic treatment in autism was possible.
The analysis of historical data in this chapter begins to answer my third research question: “How is medical power deployed on to the social body with regard to autism?” This is an important question as it will help address my overarching question of, “How did autism become a fast growing medical problem?” In addressing this third research question in this chapter, I use genealogy to explain how power is used in behavioral research and behavioral therapeutic practices in autism. My analysis of power in the case of early behavioral practices in autism is an analysis of power as a chain, as exercised through a net-like organization (Foucault 1980). I do not see power as being possessed by an organization of psychiatrists here and organization of psychologists there but as being exercised through this net-like organization and through a scientific discourse that needed to show that treatment could change autistic children’s behavior. In order to better understand this net-like organization, I first provide a description of the archive of medical knowledge about autism during an era when psychology was deploying its power onto autistic children.

*The Breadth of the Medical Archive in Autism, 1961 to 1986*

The expansion of the medical archive in autism exploded during the time that behavioral psychology subjected autistic children to its experimental treatments. For example, from 1943 to 1960, the era when psychiatry’s discourse defined the object of the autistic child, the total number of articles on the subject of autism within medicine was 46. The average number of articles written about autistic children per year was 2.55 (see Table 11.1, p. 297). In contrast, during the period from 1961 to 1986 when behavioral psychology subjected autistic children to its scientific experiments, the total amount of article produced on the topic of autism was 2,002. The average number of
articles on these children per year in English language journals was 77 (see Table 13.1).

This amounted to a 3,000% increase in the average number of articles published in medical journals per year. These statistics provide some evidence of an association between the moment that discipline was used on autistic children in scientific experiments beginning in 1961 (as I demonstrate in the next section of this chapter) and the rise in the quantity of articles produced within medicine about autism.

Table 13.1. Search of Medline via Web of Knowledge. Number of Articles from 1961 to 1986 on the Topic of Autism. (Topic = Autism) or (Topic = Autistic) and Language = English.

<table>
<thead>
<tr>
<th>Year</th>
<th># of Articles</th>
<th>Year</th>
<th># of Articles</th>
<th>Year</th>
<th># of Articles</th>
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</thead>
<tbody>
<tr>
<td>1962</td>
<td>7</td>
<td>1972</td>
<td>71</td>
<td>1981</td>
<td>94</td>
</tr>
<tr>
<td>1964</td>
<td>36</td>
<td>1974</td>
<td>75</td>
<td>1983</td>
<td>112</td>
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<tr>
<td>1965</td>
<td>26</td>
<td>1975</td>
<td>109</td>
<td>1984</td>
<td>151</td>
</tr>
<tr>
<td>1966</td>
<td>28</td>
<td>1976</td>
<td>85</td>
<td>1985</td>
<td>147</td>
</tr>
<tr>
<td>1967</td>
<td>32</td>
<td>1977</td>
<td>100</td>
<td>1986</td>
<td>160</td>
</tr>
<tr>
<td>1968</td>
<td>57</td>
<td>1978</td>
<td>107</td>
<td>n = 2002</td>
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</tr>
<tr>
<td>1969</td>
<td>58</td>
<td>1979</td>
<td>112</td>
<td>Mean = 77</td>
<td></td>
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<tr>
<td>1970</td>
<td>61</td>
<td></td>
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As I demonstrated in Chapter X, psychiatry dominated what could and could not be stated about autism within medicine in the 1940s and 1950s. Psychiatry continued its dominance in the production of a discourse about autism in the 1960s and 1970s up through the early 1980s. For example, it can be seen from Table 13.2 that the *Journal of the American Academy of Child Psychiatry*, *Archives of General Psychiatry*, *Journal of Child Psychology and Psychiatry and Allied Disciplines*, *The American Journal of Psychiatry*, and *The British Journal of Psychiatry* and *The Journal of Mental Science* all were leading sources of medical discourse about autism during this time.
Table 13.2. The Top Ten Medical Journals That Have Published More than One Article on the Topic of Autism, 1961-1986. Source: Web of Knowledge (Medline)

<table>
<thead>
<tr>
<th>Journal Titles</th>
<th>Number of Articles</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Journal of Autism and Developmental Disorders</em></td>
<td>249</td>
</tr>
<tr>
<td><em>Journal of Autism and Childhood Schizophrenia</em></td>
<td>191</td>
</tr>
<tr>
<td><em>Journal of the American Academy of Child Psychiatry</em></td>
<td>72</td>
</tr>
<tr>
<td><em>Journal of Applied Behavioral Analysis</em></td>
<td>60</td>
</tr>
<tr>
<td><em>Archives of General Psychiatry</em></td>
<td>54</td>
</tr>
<tr>
<td><em>Journal of Child Psychology and Psychiatry and Allied Disciplines</em></td>
<td>53</td>
</tr>
<tr>
<td><em>The American Journal of Psychiatry</em></td>
<td>45</td>
</tr>
<tr>
<td><em>The British Journal of Psychiatry The Journal of Mental Science</em></td>
<td>38</td>
</tr>
<tr>
<td><em>The Journal of Speech and Hearing Disorders</em></td>
<td>27</td>
</tr>
<tr>
<td><em>Developmental Medicine and Child Neurology</em></td>
<td>25</td>
</tr>
</tbody>
</table>

In addition, two new journals emerged within medicine that expressly addressed the “disorder” of autism: The *Journal of Autism and Childhood Schizophrenia* and the *Journal of Autism and Developmental Disorders*. The *Journal of Autism and Childhood Schizophrenia* was founded by child psychiatry (as I show in Chapter XV) in 1971 and became the *Journal of Autism and Developmental Disorders*. The emergence of these medical journals reflected the growing concern about all types of “disabilities” in children (an issue which I address in Chapter XV).

However, by the 1960s, a discourse produced by behavioral psychology began to emerge. This can be seen through an analysis of the sudden increase in the number of articles published in the *Journal of Applied Behavioral Analysis* (see Table 13.2). Further, it can be seen from Table 13.2 that the scope of the medical discourse about autism and autistic children began to widen. For example, *The Journal of Speech and Hearing Disorders* and *Developmental Medicine and Child Neurology* became important sources of the medical discourse.
The breadth of the discourse was spreading out during this time. Here is other quantitative evidence that disciplinary practices used on autistic children were correlated to the emergence of disciplinary power in the case of autism. From 1943 to 1960, the amount of medical journals that published at least one article on the topic of autism was 28. From 1961 when discipline was first used on autistic children to 1986, the year before science showed that discipline could normalize autistic children, a search on the Medline database showed that the total number of medical journals that published at least one article on autism was 346. This amounted to a 12-fold increase in the number of journals publishing on the topic of autism from the previous era when psychoanalysis dominated the discourse.

At the moment when autistic children were disciplined by science (not by their parents), a new sort of knowledge about autistic children began to emerge. It was disciplinary power, in fact, that could be seen as being associated with a new discourse within medicine. When behavioral psychology’s particular deployment of power was used on autistic children, it allowed for a new space for a discourse related to treatment and rehabilitation—in short, a discourse of the possibility of normalization. I provide a description and examination of this discourse in this chapter. It was power that changed the discourse in autism. This surfacing of power/knowledge in autism manifested itself in a broader medical discourse about autistic children.

More importantly than the increased breadth of the discourse in autism is the shift from a psychoanalytic discourse focused on affect to a psychological discourse focused on behavior. In what follows, I show when, how, and where the deployment of power by behavioral psychology in the case of autism first surfaced.
The Emergence of Behaviorism in Autism

In the course of my initial research into the history of medical practices in the case of autism, I found the moment where power was deployed at its most transparent—the Life magazine article (Moser and Grant 1965). This article showed that it was behavioral psychology that first produced a dramatic new technique to treat autistic children. Because of this, I focused my literature search on identifying the document(s) whose text reveals the moment when psychology first experimented with behaviorism as a practice that would treat autism in children. These documents were produced by Ferster and DeMyer (1961, 1962). In fact, a “dedication” found in a later document reviewing the scientific research on autism in the 1970s, confirmed that these texts were critical to the emergence of a behavioral treatment of autism. The dedication reads:

This review article is dedicated to the memory of two recently deceased pioneers in the study of infantile autism: Leo Kanner, the famed child psychiatrist, who in 1954 was the first to describe and name infantile autism as a specific syndrome; and Charles B. Ferster, the equally prominent research psychologist, who in 1961 collaborated on a report that subsequently led to the current predominance of behavioral techniques in the treatment of autistic children (DeMyer, Hingtgen, and Jackson 1981, emphasis added).

This is first an acknowledgement of the indebtedness that medical science owes to child psychiatry’s production of a truth about the autistic child as an object to be examined (i.e., Kanner’s work). However, it is also an acknowledgement of the indebtedness medical science owes to behavioral psychology for producing a truth about practices in the treatment of autistic children. I have already described in preceding chapters the practices and procedures in psychiatry that produced the truth of the autistic child. This next section examines how behavioral psychology produced a new truth about not only the autistic child, but about the potential capabilities of this child.
A genealogical analysis of behavioral psychology’s first therapeutic practices with autistic children. It should be noted from the outset that behavioral psychology did not see the children that they experimented on (i.e., autistic children) as human beings with personhood. Lovaas stated in an interview for Psychology Today:

You see, you pretty much start from scratch when you work with an autistic child. You have a person in the physical sense; they have hair, a nose and a mouth, but they are not people in the psychological sense. One way to look at the job of helping autistic kids is to see it as a matter of constructing a person. You have the raw materials, but you have to build the person (Chance 1974:2).

Behavioral psychology’s job, in fact, was to deploy power on to autistic children not for treatment, but to produce individuals in a psychological sense. That is, by using the techniques available to it, psychology would gain the knowledge to be able to produce children in its own image.

By the early 1960s, behavioral psychology joined psychiatric medicine in the scientific investigation of autistic children. The investigation of autistic children would no longer observe, judge, and examine these children for the purpose of understanding how their emotional disturbances may have resulted from poor parenting, as psychiatry had done. Rather, these children were going to be observed according to the scientific methods of psychology, not the theoretical assumptions of psychiatry. There would be certain procedures to follow – scientific procedures that could produce verifiable, empirical results. In other words, new practices would be organized on to bodies of autistic children to produce real effects. These effects would have little to do with the emotional, since at this point emotion could not be measured with reliability or validity. Nor would these effects be about producing a healthier, happier child. These real effects would have to do with a characteristic that could be measured: behavior. By cataloging
and documenting changes in behavior, psychology would accumulate knowledge about autistic children to the point where, in 1987, it could claim that particular procedures improved behavior and thinking (in the eyes of science) of a group of autistic children.

Documentation of the first deployment of these procedures emerged in 1961. (I will refer to individuals in this section only to point out, as genealogy requires, that they are not actors, but vehicles of power).³ C.B. Ferster, representing psychology, and Marian K. DeMyer, representing psychiatry, were the first to allow for the possibility that a specific technique within psychology could be used on autistic children for the purpose of therapy and knowledge. This technique was a research study, a scientific experiment, and a therapeutic procedure. The technique that would be deployed on to children was known as operant reinforcement (Ferster and DeMyer 1961, 1962). A general description is provided:

The focus of the experimental method is on the consequence of the behavior as the factor which maintains it. Reinforcement is the major concept and refers to a technique for increasing the frequency of an activity by following it with a special consequence (Ferster and DeMyer 1962:89).

Data would be collected “from a technique for producing behavior in autistic children under an automatically controlled environment” (Ferster and DeMyer 1961:312).

The experiment is an explicit attempt to develop techniques for enlarging the very narrow range of performances generally present in these children’s repertoires (Ferster and DeMyer 1961:312).

³ In a lecture given on January 14, 1976 Foucault suggests that in the analysis of power, individuals are not the points where power is originally applied. Rather, individuals are the means through which power is deployed. This means that individuals are not actors with original notions of how, when, and where to deploy a power that they might possess. Individuals do not even perform a role where they deploy power onto other individuals as the symbolic interactionists might suggest. Individual psychologists or individual physicians do not play a role in power; they are a medium through which power is deployed as a result of being subjected themselves to a scientific discourse. This discourse is one about the importance of gaining knowledge about human beings and humanity in general.
The heart of the experiment was to isolate and pinpoint the exact features of particular stimuli that would produce certain behavior in autistic children. These approaches would increase the frequency of desired behaviors through the use of reinforcements. Within a controlled environment, the goal was not to cure autistic children, but to discover new scientific techniques with which to control behavior.

These experimental techniques were performed at the Indiana University Medical Center in Indianapolis. Here is a description of the physical environment that some autistic children were subjected to within these experiments:

The experimental room contains a large number of devices which operated either by a coin or direct key provide some rewarding consequence for the child. These devices include: a pinball machine; a pigeon and trained monkey both trained to perform only when the animals’ compartments are lighted; a color wheel giving a kaleidoscopic effect; a television set; a phonograph; an electric train whose speed and direction that child can vary; an eight column candy vending machine with a separate light and coin slot in each column so that the child can choose the particular candy; a second vending machine which can deliver small trinkets or small packages containing parts of the child’s lunch (both the trinkets and the food were varied from day to day and from subject to subject depending upon the subject’s preference); a telephone handset with music through the earpiece; an electric organ; and a 35 mm. slide viewer (Ferster and DeMyer 1962:91).

In addition to a physical environment that provided various rewards, schedules of reinforcement were used (Ferster and DeMyer 1961). Thus, power was applied to autistic children’s bodies through conditioning, reinforcements, and schedules that would dictate their every move during the experimental period. These movements would be meticulously noted by behavioral psychology:

What were the precise details of the experiment?

The experiment involved pressing a key. This simple arbitrary act was chosen because:

(1) The response took little time or effort to execute, and it left the child in a position to respond again. The frequency with which the child pressed the key
could therefore vary over a wide range, from a few responses per hour to several thousand…

(2) A performance such as pressing a key actuates an electrical contact and hence can be objectively and automatically recorded. It also permits the automatic programming of the entire experiment, so that all experimental procedures can be arranged precisely without error…

(3) The frequency of key pressing is intuitively analogous to the major problem in the measurement of human behavior: measuring the child’s disposition to behave: the probability of his acting. A simple recording of whether the child acted or not gives little information about his general tendency to behave…the level of motivation is best determined by examining the frequency of key pressing; the child’s disposition to engage in the experimental behavior is recorded as the frequency of occurrence of the key press.

(4) The use of an arbitrary response such as pressing a key, has been used extensively in animal experiments dealing with general problems in maintaining behavior of the organisms. Many of the processes discovered have proved to be phylogenetically general among a wide range of mammals, including man; and this information may be used to determine when we have established normal control over the child’s behavior (Ferster and DeMyer 1961:312-313).

Through these types of procedures, psychology and psychiatry had developed technologies to produce certain behaviors in autistic children that were measureable; a feat which psychotherapy alone could not claim. These behaviors were easy to measure because of their simplicity. The splendor of this technology was that it was a matter of counting the responses of the child, and the counting was done automatically by machines. The child’s propensity to behave (press a key) could be measured not by getting into the psyche of the child, but by counting how often the child would press the key. Further, this procedure had already been tested with laboratory animals and, given the “non-person” discourse within psychology, there would be no reason why science could not compare the results of experiments with autistic children with those from similar experiments with other mammals (Ferster and DeMyer 1961). Or as Bettelheim
remarked about the use of operant conditioning in autism, “…autistic children are reduced to the level of Pavlovian dogs” (1967:410).

A method for observing autistic children was now emerging from the psychological discourse rather than the psychoanalytic one. Power, psychological power, was coming to the fore as a force in the treatment of autistic children. While psychiatric power could do little to reduce autistic tendencies in children, the dream of producing real effects in autistic children emerged with the advent of psychological power in the early 1960s. Furthermore, methods of observations were no longer in the hands of the psychoanalyst, who freely interpreted behavior based on emotive discord (Despert 1951; Kanner 1943, 1944, 1946, 1949) or between theoretical constructs of the id and the ego (Bettelheim 1967; Betz 1947; Kestenberg 1954). Through the use of psychological experimentation, behavior could now be recorded in an objective fashion. But it wasn’t the method that was new. Psychiatry noted in the 1940s and 1950s that some parents were actually acting like amateur behavioral psychologists with their methods of raising their children (Eisenberg 1957; Eisenberg and Kanner 1956; Kanner 1949). Now, however, instead of these methods being criticized by psychiatry for being too scientific, they were being deployed within behavioral psychology. No longer was objectivity criticized in regard to observing and recording the behaviors of autistic children. Such objective methods were now to be praised – because they were deployed in the name of science.

To repeat, behavioral psychology was very open about its intention in using these experiments. These experiments were not about the value of therapy; it was rather about
the value of producing new knowledge about autistic children and new practices for autistic children that behavioral psychology could bring to society.

We do not consider these techniques as attempts at rehabilitation but rather as experimental analyses of the actual and potential repertoires of these children. Perhaps these analyses can serve as guides for attempts to use the same processes of developing behavior in social situations where the performances sustained and altered would be activities in respect to other persons (social) and where the important consequences sustaining the activities would be the social effects of the performances. If it proves possible to develop and widen behavioral repertoires significantly in the experimental room, then this would seem to indicate the possibility that the same potential for behavioral change would exist in the social milieu if the proper conditions could be generated. In the same vein, systematic deficits in particular areas may indicate deficient areas of control which may be of use in determining techniques for handling these children (Ferster and DeMyer 1962:97-98).

This meant that the exercise of psychological power was not just to take place in the experimental room. Power was to be exercised in social situations more generally. Because the rewards provided within these experiments (e.g., candy, music, etc.) would not always be feasible in social situations, social rewards were needed.

It still may be possible, however, to develop social behavior outside of the experimental room. Social reinforcers would be used instead of candy, and social responses reinforced instead of key presses. The general plan in developing social behavior would be to manipulate social reinforcers (consequences of the child’s performances supplied by other individuals), with the use of the same general principles applied in the artificial environment (Ferster and DeMyer 1961:343).

Thus, networks of power had to be broadened so that the individuals closest to the autistic child would be included in any technique that promised to broaden the behavioral performance of the child. Because parents were in a position to provide social rewards, they would have to be enmeshed in the network of power relations linked with the autistic child. No longer would parents receive blame for their child’s autistic condition and excluded from therapeutic practices on their autistic child as in the era of psychiatry.
Under the aegis of behavioral psychology, parents would have to be *enlisted to join* in the therapeutic endeavor.

*The role of parents in early therapeutic practices.* Whereas psychiatry believed that the autistic condition of a child was related to close, unemotional, obsessive monitoring of the child (Darr and Worden 1951; Despert 1951; Kanner 1943, 1949; Kanner and Eisenberg 1956; Kestenberg 1954) psychology believed that indifference and irregular monitoring of the child resulted in further autistic-like behaviors. *This is a complete reversal in the way of thinking about the association between parents and the root of autism in the child.* Thus, parents were brought in to the process as “therapists” who were to closely monitor and regulate the behaviors of their autistic child.

In fact, parents were determined by behavioral psychology to be important potential therapists not because of some biological, natural, or emotional bond with their child, but because they just happen to be the adult that the child relies on and interacts with most often. So, in addition to psychology being interested in the behavior of autistic children, it was also interested in the behavior of their parents. As adults who may or may not reinforce children’s behaviors, it was necessary to determine the factors that influence parents’ behavior so that they could become better reinforcers of autistic children’s behaviors.

To find the conditions under which the child’s repertoire will be weakened, therefore, we must look for conditions influencing the parents’ behavior, which will alter the parental performances, in turn providing reinforcement of the child’s performances (Ferster 1961:444).

There are three conditions listed by psychology regarding parents’ performances that must be taken into consideration:
(1) The general disruption of the parental repertoire. Any severe disruption of the parental repertoire will severely affect the frequency with which the parent reinforces the behavior of the child. Consider, for example, the depressed parent whose general level of behavior is very low. One consequence of this low level of behaving will be a lessened frequency of reacting to the child. Therefore, many items in the child’s repertoire will be less frequently reinforced in the depressed than the normal parent. The verbal responses, “May I have some bread” or “I want to go outside,” might go unreinforced or be emitted many times without reinforcement. Various kinds of somatic disturbances, such as alcoholic “hangover,” drug addiction, severe headache, somatic diseases, etc, could also produce large changes in the over-all reactivity of the parent to a child. To the extent that the child’s performances occur because of their effect on the parent, the severely weakened parental repertoire may correspondingly weaken the child’s behavior. If the parental extinction of the child’s behavior is systematic and periodic, much of a child’s behavior could be eliminated (Ferster 1961:444).

Based on this approach, there could be no disruption in the parental repertoire. Any inconsistency in the frequency of reinforcement, no matter the reason, would have an adverse affect on the autistic child. Parental reinforcements needed to be systematic and periodic in schedules consistent with behavioral psychology guidelines.

One potential problem, however, was that parents might find other activities more rewarding than reinforcing behavior in a child.

(2) Prepotency of other performances. Whether or not a parent reinforces a child’s performance also depends upon the alternative repertoire available to the parent. For example, the parent who is absorbed in various kinds of activities such as housecleaning, a home business, social activities and clubs, active telephoning, and so forth, may at various times allow many unusually reinforced performances to go unreinforced. In general, the likelihood of omitting reinforcement would depend upon the strength of the prepotent repertoire. As an example of a prepotent repertoire, the housewife absorbed in a telephone conversation will not be inclined to answer a child or comply with a request. Housecleaning might be another repertoire controlling some parents’ behavior so strongly that it is prepotent over behavior in respect to the child. In both cases, the essential result is the nonreinforcement of the child’s behavior in competition with the prepotent parental repertoire. Mothers of autistic children often appear to have strong repertoires prepotent over the child. This may be at least a partial reason why mothers of autistic children are so often well-educated, verbal, and at least superficially adequate people (Ferster 1961:445).
Here, psychiatry and psychology come together to state that parents who attend to other activities that are more interesting than rearing their autistic child are a problem. If autistic children were to be transformed toward normalcy, parents had to focus on to their child. For psychiatry, parents had to show more affection and emotion toward the child. For psychology, parents had to put aside other distractions to consistently and systematically reinforce particular behaviors in the autistic child. By not doing so, parents are cutting off the positive reinforcements that lead to the repertoires of behavior in the child.

(3) A third factor producing intermittent reinforcement of the child’s behavior is related to the first two factors listed above. If the parent finds other reinforcers outside of the home more rewarding than dealing with the child, the child becomes an occasion on which the significant elements of the parental repertoire cannot be reinforced. A parent changing diapers, or otherwise taking care of a child, cannot telephone a friend, be out socializing, be on a job, or doing whatever the autistic mother finds rewarding. The child acquires the properties of a conditioned aversive stimulus because it is an occasion which is incompatible with the parents’ normal repertoire. This is of course the major method of aversive control in human behavior—the discontinuation of positive reinforcement. Another basis for establishing the child as a conditioned aversive stimulus to the parent is the emergence of atavisms and a large degree of aversive control of the parent by the child because of his conditioned aversive properties, the frequency of the parental reinforcement of the child’s behavior is further reduced (Ferster 1961:455).

Behavioral psychology suggests here that the socially unacceptable behaviors of the child work may operate as an aversive stimulus for parents to the point that they avoid dealing with their child. Worse, they may become unavailable as vehicles for operant conditioning and reinforcement.

As suggested earlier, psychology understood therapy in autism as a way of consistently and periodically reinforcing the behavior of autistic children; not just within the experimental lab, but in the wider society itself. Psychology therefore sought to
specifically assign parents the role of therapist. The experience of acting as therapists, however, had to be rewarding as well for parents. First, parents had to be trained to be therapists for their own children. In this particular procedure, autistic children are at first trained to mimic behavior of the experimenter. Then, parents are trained to mimic the behavior of the experimenter, so that their children in effect perform as the experimenter (behavioral psychology) expects them to perform.

The mother had periodically observed three sessions from behind a one-way screen. After the child was brought to the point where the imitative paradigm was effective in establishing new verbal behavior, the mother was trained to take over the job of rehabilitating her child.

First she was given the relatively easy task of teaching her child to put puzzles together. A series of large plywood puzzles each with four or five isolated figures were used. Sessions were held in home in the late afternoon, with bites of ice cream as the reinforcer. The mother was instructed on the general procedure and coached by the experimenter during the first session. After this the experimenter would observe occasional sessions. The mother recorded the number of puzzle pieces completed and total time of each session (Risley and Wolf 1964).

The mother here was instructed to stop using her maternal, emotional instincts that, according to psychiatry, bonded the child to the mother. Instead, she was advised by psychology to rely on the reward of food to get the child to do as told. Not only that, she was instructed to record her child’s behaviors as she was conducting her objective experiment on her child.

As the experimental procedure progressed, it was the mother who learned to internalize the directives of behavioral psychology.

Through this experience the mother learned to rely on the reinforcer, rather than urging or prompting, to increase the child’s behavior. She learned that the procedure was effective in establishing general classes of behavior in addition to those specific behaviors which were reinforced. And she learned that the effects of the procedures would generalize to new tasks and new situations (Risley and Wolf 1964).
Here, the mother learns that behavioral therapy can be conducted in all social situations. She learns that a scientific way of raising her child is preferable to other ways. Rather than emotion and affect, mothers would now be taught to use objective analysis in raising their autistic children. A clean break with the vision and power of psychiatry was emerging. The dream was to have parents become like behavioral therapists.

Instead of blaming the parents, excluding them from treatment, and alienating them from their children, we bring the parents in on the treatment process. We show the parents how to reward appropriate behavior, how to punish inappropriate behavior, how to shape up speech, and so on. The parents become the principal therapists and we become consultants to the parents. When they have a problem that they can’t solve for themselves, we try to work out a solution. But in a real sense the parent becomes a child psychologist (Lovaas 1974 in an interview).

In addition, while parents were being scolded by psychiatry for teaching their children through rote memorization, psychology embraced this method of treating the autistic child.

The mother was given a series of pictures, and, using the same procedures as had been used in the experimental sessions, she began teaching the child to recognize and name pictures. She would introduce new pictures when he was consistently naming all the pictures used during that session. A picture was considered learned when the child correctly named it the first time it was presented, three days in a row. Then it would be retired until ten subsequent pictures had been learned, at which time it would be represented to test for recall (Risley and Wolf 1964).

During the era of a psychiatric discourse about autism, parents would have been vilified for teaching their children to memorize words and their corresponding pictures. Only a scant two decades after being subjected to psychiatry’s admonishments and being excluded from being a part of the treatment process for their child, parents were now seen as vital to therapy in autism.
The idea that parents were to be part of the therapeutic procedures used on their autistic children was a rupture in the discourse about autism. Whereas psychiatry included parents as potential patients in the psychotherapeutic process in the treatment of autism, psychology included parents as the therapists themselves. But, as shown in Chapter XI, psychiatry had begun to state that psychotherapy had failed as a treatment for autistic children. In the historical research done for this dissertation, no evidence was found that psychology was aware of psychiatry’s determination that psychotherapeutic practices on autistic children did not change the child in any significant way. The documents of the 1950s did not refute psychiatry’s attempt at rehabilitation of the autistic child. Rather, psychology followed its own discourse about the potential dangers of autistic misperception of reality, and developed a treatment consistent with its concern about autistic misperception.

Further, parents became subjected to a discourse not of blame and shame, but to a new, emerging discourse in the discipline of psychology. This discourse encouraged the very same acts for which psychiatry had previously admonished them. Psychology was unequivocal in their approval of parents closely monitoring their children, recording their behaviors, and teaching them to memorize pictures and facts.

The explicitness and effectiveness of operant conditioning procedures enables parents to contribute significantly to the rehabilitation of their deviant children with only a minimum of training. Of the seven sets of parents with which we have attempted similar programs, all have been effective and all are now conducting the major part of the rehabilitation of their children (Risley and Wolf 1964:6).

Psychiatry’s nightmare, that parents were treating their autistic children like subjects in a behavioral experiment, finally came true at the same time that psychology’s dream of reducing children to subjects of scientific discourse emerged. Once parents became
subject to a discourse of behavioral treatment for their autistic children, they became ensconced in a network of power with regard to autistic children. It was not long after this that punishment became a feature of power relations and therapeutic practices in autism.

*Introducing Punishment into Therapeutic Procedures*

In Chapter VIII, I provided a genealogical account of the moment when the human sciences believed that autism could be treated. I showed both the procedures of reward and the procedures of punishment as coercive measures that were believed to be needed in the treatment of autistic children. In the section above, I provided a deeper analysis of rewards and reinforcement in the therapeutic practices of behavioral psychology. In the current section, I provide a deeper genealogical analysis of punishment used in the treatment of autistic children. I believe that a serious deconstruction of the texts that support the use of punishment is necessary in order to expose the how behavior modification as a method to treat autistic children emerged. By exposing these techniques of punishment, I hope that this study will play a role in the demise of practices that were and are built on the knowledge gained by applying bodily punishment on to children.

The punishment technique used on autistic children during the 1960s was electric shock (Baroff and Tate 1968; Birnbrauer 1968; Bucher and Lovaas 1968; Lovaas and Simmons 1969; Risley 1968; Simmons and Lovaas 1969; Tate and Baroff 1966). This of course involved pain. Behavioral psychology outlines “three ways pain can be used therapeutically.”

First, it can be used directly as punishment, i.e., it can be presented contingent upon certain undesirable behaviors, so as to suppress them. This is perhaps the
The most obvious uses of pain. Second, pain can be removed or withheld contingent upon certain behaviors…The third way in which pain can be used is the least well known, and perhaps the most intriguing. Any stimulus which is associated with or discriminative of pain reduction acquires positive reinforcing (rewarding) properties (Bijou and Baer, 1961), i.e., an organism will work to “obtain” those stimuli which have been associated with pain reduction (Lovaas, Schaeffer, and Simmons 1965:99).

These researchers were interested in the third way of using pain therapeutically. Little research had been done using this third approach; therefore it was their responsibility as scientists to use this method in their pursuit of knowledge about autism. Such an experimental approach was further substantiated by using it on children who were not considered human in the psychological sense (Lovaas 1974, in an interview with Paul Chance); but they could be considered organisms.

Behavioral psychology also described how pain and punishment will be applied to children by their parents.

The first two are obvious; a parent will punish his child to suppress specific behaviors, and his child will learn to behave so as to escape or avoid punishment. The third aspect of the use of pain is more subtle, but more typical. In this case, a parent “rescues” his child from discomfort. In reinforcement theory terms, the parent becomes discriminative for the reduction or removal of negative reinforcers or noxious stimuli…Such situations must contribute a basis for subsequent meaningful relationships between people; individuals are seen as important to each other if they have faced and worked through a stressful experience together (Lovaas, Schaeffer, and Simmons 1965:99-100).

Thus, behavioral psychology makes assumptions about the use of pain in parent-child relations. Nowhere in the complete passage do the researchers cite other studies that show that this use of pain (or any use of pain) is beneficial in parent-child relations. Thus, they rely on reinforcement theory as a basis for the use of electric shock. Yet, the following paragraph reads:

In view of these considerations, it was considered appropriate to investigate the usefulness of pain in modifying the behavior of autistic children. Autistic
children were selected for two reasons: (1) because they show no improvement with conventional psychiatric treatment; and (2) because they are largely unresponsive to everyday interpersonal events (Lovaas, Schaeffer, and Simmons 1965:100).

But there had been no empirical evidence that autistic children would respond to pain in much the same way as non-autistic children. In addition, their supposed unresponsiveness to everyday interpersonal events has little to do with the specifics of the parent-child relationship that these researchers had just reviewed.

However, studies during this time did show increased behavioral repertoires among autistic children using rewards. Thus, punishment through electric shock could only be justified on the basis of a psychological theory of behavior. Pain and punishment were necessary in order to gain a deeper scientific knowledge of how and why human beings behave the way that they do. As evidence, Baer wrote of the necessity of pain and punishment in scientific research and to avoid moral traps that inhibit science from attaining knowledge:

I have suggested that we know what we can demonstrate. I have also suggested that we think we know that punishment is inherently a bad technique for accomplishing desirable behavioral changes. But the Risley, Lovaas, and Kushner demonstrations, and others, suggest the opposite: that punishment may be a very desirable technique for accomplishing certain behavioral changes. If there is a moral point here, it is the one familiar to all scientists and practitioners alike: we had better get what we think we know in line with what we can demonstrate. That leads in a very straightforward way to a deduction: we had better continue a careful and extensive study of the punishment of human behavior. But if I read the feeling of the field correctly, there will objections to continuing these demonstrations, as there have been objections in the past, and are today. It will be a shame if, consequently, the demonstrations are not pursued as extensively as our current curiosity and ignorance press us (Baer 1968:474).

Here, the text states that the scientific imperative of obtaining knowledge about human behavior supersedes the pain that subjects in experiments might feel during the research itself. In fact, the reference to “shame” indicated that this is the moral imperative: the
gaining of knowledge of human beings by science at the “cost” of the pain a child might experience in the acquisition of this knowledge. It is of little concern to behavioral science that subjects may feel pain during a research project, especially if the abnormal behavior of a child can be eliminated in favor of normal behavior. Previous studies of autistic children showed that punishment did indeed evoke change in their behavior (Baroff and Tate 1968; Birnbrauer 1968; Bucher and King 1971; Bucher and Lovaas 1968; Lovaas and Simmons 1969; Merbaum 1973; Risley 1968; Simmons and Lovaas 1969; Tate and Baroff 1966). From these texts, it can be seen that the discourse within behavioral science promoted continued research into punishment, especially on the least fortunate, those who ended up in institutions.

…the behavior therapist is also knocking at doors other than those of the institutions, and he is asking about behaviors other than those that are clearly self-destructive. The moral formula, as best I can discern with training only in psychology, is much the same in any case: Is not a small number of brief but painful experiences a reasonable exchange for escape from a life indefinitely distorted by some durable form of adjustment? (Baer 1968:475)

Here the text states that the behavioral scientist absorbs knowledge of not only self-destructive behavior but other behaviors too in applying punishment to those already institutionalized. It is excused by the supposition that perhaps a lifetime of self-destructive behavior can be avoided by a few sessions of electric shock therapy. “As many as twenty shocks over a few sessions might be greatly preferred to a lifetime of social handicap…” (Baer 1968:475).

Further, it was believed that punishment was effective in eliminating behavior. Baer (1968:476-477) stated that

Punishment works, I submit. There is too much in the way of careful laboratory demonstration to resist that conclusion. Consequently, punishers should succeed often in eliminating the behavior they mean to eliminate…it should be
remembered that punishment is most effective as a behavior-removing technique. Some of the problems of clinical practices are exactly that, but I suspect that they are typically combined with more extensive problems of behavior building, if a good and thorough outcome is to be achieved. But punishment is not an efficient technique of behavior building. In principle, it can be used: one can specify a behavior to be acquired, and punish all responses other than that.

Finally, punishment had to be used in conjunction with positive reinforcement. Baer cited those who used these techniques on children.

Clearly, anyone using punishment should look to his total stimulus function with great care. This care is very apparent in those of Ivar Lovaas: a very limited use of punishment is combined with quite extensive programs of positive reinforcement of others behaviors, and care again is taken to see that these positive reinforcers are indeed encountered in abundance. In Lovaas’s work particularly, positive reinforcement programs surpass “extensive” and approach “monumental” (Baer 1968:477).

In sum, punishment is defended within the discourse of behavioral psychology. It is a moral imperative that if behavioral psychology was to make statements about whether punishment should be used, knowledge about the effects of punishment had to be gained by deploying punishing techniques on to subjects. Since the issue is pain, these punishing techniques would be applied to the body.

What was to be gained in the context of the discourse within behavioral psychology was not knowledge of the pain threshold of autistic children; instead, it was about understanding the efficiency with which punishment works to control behaviors of autistic children. From Lovaas et al (1965:100):

In the present study, pain was induced by means of an electrified grid on the floor upon which the children stood. The shock was turned on immediately following pathological behaviors. It was turned off or withheld when the children came to the adults who were present. Thus, these adults “saved” the children from a dangerous situation; they were the only “safe” objects in a painful environment.

Here, a more in-depth description of the procedures of the study presented in Chapter VIII is given:
The Ss’ (subjects’) behavior and the experimental events were recorded...The observer could reliably record both frequency and duration of several behaviors simultaneously on a panel of push buttons...

Pre-shock Sessions. The Ss were placed barefoot in the experimental room (laden with metal strips hooked up to an electric circuit) with two Es (experimenters), but were not shocked. There were two such pre-experimental sessions, each lasting for about 20 minutes. The Es would invite the Ss to “come here” about five times a minute, giving a total of approximately 100 trials per session. The observers recorded the amount of physical contact (defined as S’s touching E with his hands), self-stimulatory and tantrum behavior, the verbal command “come here,” and positive responses to the command (coming to within one foot of E within five seconds).

First Shock Sessions. The two pre-experimental sessions were followed by three shock sessions distributed over three consecutive days during which Ss were trained, in an escape-avoidance paradigm, to avoid shock by responding to E’s verbal command according to the pre-established criterion. In the escape phase of the training, consisting of fifty trials, the two Es faced each other, about three feet apart, with S standing (held, if necessary) between them so that he faced one of the Es who would lean forward, stretched his arms out, and say “come here. At the same time shock was turned on and remained on until S moved in the direction of this E, or, if S had not moved within three seconds, until the second E pushed S in the direction of the inviting E. Either type of movement of S toward the inviting E immediately terminated the shock. The S had to walk alternatively from one E to the other.

In the avoidance sessions which followed, shock was withheld provided S approached E within five seconds. If S did not start his approach to the inviting E within five seconds, or if he was not within one foot of E within seven seconds, the shock was turned on and the escape procedure was reinstated for that trial...

Shock was also turned on if S at any time engaged in self-stimulatory and/or tantrum behaviors. Whenever possible, shock was administered at the onset of such behaviors. Shock was never given except on the feet; no shock was given if S touched the floor with other parts of his body. In order to keep S on his feet, shock was given for any behavior which might have enabled him to avoid shock, such as beginning to sit down, moving toward the window to climb on the ledge, etc...

Procedure for Establishing and Testing “No” as a Secondary Negative Reinforcer. During the first shock sessions, shock had been delivered contingent upon self-stimulatory and/or tantrum behaviors. Simultaneous with the onset of shock Es would say “no,” thereby pairing the word “no” and shock (Lovaas et al 1965:101).

Other procedures were outlined by Lovaas in a 1974 interview with Psychology Today.

Chance (Interviewer): How do you get rid of behaviors like that—biting a teacher?
Lovaas: Spank them, and spank them good. They bite you and you just turn them over your knee and give them one good whack on the rear and that pretty well does it. This is what we do best; we are very good at controlling these kinds of behaviors.

…

Lovaas: …So then we sort of specialized in treating self-mutilative kids. We took in some of the worst cases that the state hospitals could provide. We used electric shock and spanking as punishment. The procedure was simple; we just set up a contingent punishment for self-mutilative behavior (Chance 1974:3).

In fact, the simplicity of punishment was one reason why it was used. The last paragraph of the study reads:

…the necessary conditions for the acquisition of social reinforcers by the use of food were both time-consuming and laborious, and by no means as simple as the conditions which were necessary when we employed shock reduction (Lovaas et al 1965:108).

Interviewer: When you say “contingent punishment” you mean that you shock them only when they self-mutilate?

Lovaas: Right. We stay close to them and when they hurt themselves we scream “no” as loud as we can and we look furious and at the same time we shock them…

Lovaas: We know that the shocks are painful; we have tried them on ourselves and we know that they hurt. But it is stressful for the person who does the shocking too. You may have used shock successfully with a hundred kids, but you are still apprehensive about it; you always think that maybe this kid will be the exception; maybe you will hurt him and it won’t do any good. But then you shock him and you see the self-destructive behavior stop, it is tremendously rewarding (Chance 1974:4).

Thus, behavioral psychology applied particular techniques to the bodies of autistic children for the production of real effects. While some techniques relied on rewards, other techniques relied on punishment to arrest certain behavior. These techniques included electric shock, slapping, spanking, and screaming in the faces of autistic children (Baroff and Tate 1968; Birnbrauer 1968; Bucher and King 1971; Bucher and
Lovaas 1968; Grant 1965; Lovaas and Simmons 1969; Merbaum 1973; Risley 1968; Simmons and Lovaas 1969; Tate and Baroff 1966). The behaviors that were to be stopped included self-injury. This of course was acceptable because it was science that was performing the injurious behavior through these techniques. Behavioral psychology observed self-injurious behavior and determined it to be abnormal. The discourse in behavioral psychology was a simple one: either behavior was normal or abnormal. Had behavioral psychology expanded its investigation to understanding the bodily condition of autistic people, it would have found that in some autistic people, this sort of behavior is “facilitated by excessive fearfulness and a high pain threshold” (Favazza 1996:238).

Psychology would then deny and negate the rights of autistic children to their own bodies. Behavioral science at this time was not interested in understanding the bodily condition of autistic children. It wanted to collect data on these children to understand how they could manipulate and control their behaviors. Furthermore, psychology could not be bothered with the experiences of its subjects—in fact, given the statement above; it was more concerned with the feelings of the researchers.

In punishment, it is clear that an objective, unfeeling, unemotional method is more important to the scientific discovery of how to control the bodies and minds of autistic children than an understanding of the bodily experiences of autistic children. A genealogical analysis of early treatments in autism applied by behavioral psychology show that power is deployed on to bodies for the purpose of real effects and the gaining of scientific knowledge of autistic behavior. Lovaas (1974) acknowledges this:

What is different about our clinic is that while we are treating children we are also collecting data. We don’t rely on subjective impressions of what our results are; we record the child’s behavior accurately and objectively so that we know what effect the treatment has.
Trust your data; go where it takes you. Skinner’s contribution is chiefly methodological; he asks that we find out what effect something has and act accordingly, rather than assume that it works because a theory says it ought to.

The use of punishment was needed by psychology to accumulate data on what works to control the behaviors of autistic children and what does not.

_A Wider Network of Power_

It is tempting to see the punishment methods and the electric shock used by psychology on autistic children as performed by a couple of rogue behaviorists. This is not the case.

After the initial use of electric shocks by Lovaas and colleagues in the early to mid-1960s, nine more studies emerged that used electric shocks on autistic children (Lichstein and Schreibman 1976). These studies took place between 1966 and 1973. Below, Table 13.3 provides the authors, the year of the published results, and the publication. Here, it can be seen that research on the effects of electric shock took part within both psychiatry, as evidenced by the two journals within psychiatry (Journal of the American Academy of Child Psychiatry and American Journal of Psychotherapy), and behaviorist science, as evidenced by the journal titles of the others in this table.

**Table 13.3. List of Studies Using Electric Shock on Autistic Children (From Lichstein and Schreibman 1976).**

<table>
<thead>
<tr>
<th>Study</th>
<th>Publication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tate and Baroff (1966)</td>
<td>Behavior Research and Therapy</td>
</tr>
<tr>
<td>Baroff and Tate (1968)</td>
<td>Journal of the American Academy of Child Psychiatry</td>
</tr>
<tr>
<td>Birnbauer (1968)</td>
<td>Journal of Applied Behavior Analysis</td>
</tr>
<tr>
<td>Bucher and Lovaas (1968)</td>
<td>Miami Symposium on the Prediction of Behavior</td>
</tr>
<tr>
<td>Risley (1968)</td>
<td>Journal of Applied Behavior Analysis</td>
</tr>
<tr>
<td>Lovaas and Simmons (1969)</td>
<td>Journal of Applied Behavior Analysis</td>
</tr>
<tr>
<td>Bucher and King (1971)</td>
<td>Behavior Therapy</td>
</tr>
<tr>
<td>Merbaum (1973)</td>
<td>Behavior Therapy</td>
</tr>
</tbody>
</table>
In addition, a search of the Web of Science database revealed that two of the top three most cited articles on the topic of autism from 1965 to 1969 were studies of punishment of autistic children. These were Risley (1968) and Lovaas, Schaeffer, and Simmons (1965). Thus, there is evidence that these experiments were influential in the medical discourse about autism at the time and beyond. Further, psychiatry began to accept the methods of behaviorism during the late 1960s. Besides the articles on punishment, several more articles were highly cited that had to do with teaching speech to autistic children through operant-conditioning (Hewett 1965) and conditioning imitation in autistic children (Metz 1965), for example.

Behavioral psychology and its methods used on autistic and other deviant children filtered in to psychiatry. Some of the results of these experiments were presented at annual meetings of the American Psychological Association (in the case of Lovaas et al 1965). But other results of these experiments on schizophrenic children (still thought to be linked with autism) filtered into the domain of psychiatry. For instance, Lovaas and Simmons (1969) presented their findings on their success in treating children with schizophrenia through pain and punishment in the American Journal of Psychotherapy, at the American Psychiatric Association annual meeting in 1967, and at the Wisconsin Psychiatric Association meeting in 1968. This was an early sign that behavioral conditioning through punishment, which was developed by psychology, had begun to be considered by psychiatry. A network of power was beginning to emerge because psychiatry was gaining knowledge on how to apply disciplinary power onto autistic children. Power was spreading from the academy to the clinic in the case of autism. More
to the point, power circulated among psychiatry and psychology, dominating the autistic child and bringing the child’s behavior under control.

Psychiatry and psychology came together to form a network of power. But this was not a grand network of power that they possessed. It was a network of power that they could use. Behavioral therapy, operant conditioning, in a word, discipline, organized by science onto the body would become the accepted means of corrective medical treatment in autism. This network of power would be held together by a new medical discourse in autism: rehabilitation, treatment, normalization.

Psychiatry created the problem of the autistic child, but could not solve it. It needed to adopt a new discourse, a discourse emerging from the use of power (i.e., control of rewards and punishments). At the same time, psychiatry needed to adapt more scientific methods to ingratiate itself into mainstream medicine. During the same post-war era, a discourse of behaviorism had already emerged within psychology. It had already showed through experimentation that it could produce real effects in laboratory animals. Psychiatry was able to provide the domain in which psychology could perform similar experiments on autistic children. While psychiatry thought of autistic children as human beings—they were, after all, patients of theirs—psychology did not think of these children as human beings. Therefore, little thought was given within psychology as to the emotional effects of pain and punishment on to young children.

In its early treatment of autistic children, psychiatry did not deploy power onto autistic children. Psychiatry, however, actually underwent power itself in beginning to reject psychotherapeutic practices in autism. It began to exercise power not directly onto the bodies of autistic children; rather, it exercised power that was already circulating. It
provided the object onto which behavioral psychology could deploy power, and it provided the domain within which behavioral psychology could deploy power onto the object, the autistic child.

*A Wider Social Concern*

Psychology was not just interested in manipulating the behavior of autistic children. It was also interested in how to manipulate the wider environment. In genealogical research, it is necessary to show how the local applications of power (i.e., Lovaas’s and colleagues’ work at the UCLA Neuropsychiatric Institute shown in this chapter and in Chapter VIII) become more global. Below, I show that the technology of behavior modification that was developing for deviant children could be used in all realms of society.

In the preface of a book edited by Lovaas and Bucher, the text reads:

This book brings together a number of recent studies on the treatment of childhood maladaptive behavior. The results of this research are of great practical importance to everyone concerned with the lives of children. The treatment techniques we describe all relate to behavior modification procedures, a form of treatment that appears both powerful and richly instructive. Within a short period of time, behavior modification has produced a technology of considerable social importance (Lovaas and Bucher 1974:xii).

Behavior modification, the applied experimental analysis of human behavior, has produced some impressive gains in the treatment of deviant behavior during the last ten years. It has offered help in alleviating problems traditionally of concern to the helping professions and had shown promise in helping to solve a much broader range of human problems (Lovaas and Bucher 1974:1).

Behavioral psychology understands that the techniques used on deviant children are for the benefit of society. But psychology is not interested in just any behaviors. The behaviors that it manipulates and controls in experimental settings must be socially meaningful. “The term behavior, in the experimental analysis of behavior, refers to
socially meaningful behavior” (Lovaas and Bucher 1974:3). Thus, behavioral psychology is not just interested in manipulating and controlling the body, and hence the mind, of deviant and autistic children. It is interested in developing behaviors that are socially meaningful. In Foucauldian terms, it is interested in behaviors that are politically useful and economically advantageous (1990). Psychology ignores behaviors that are not meaningful to society. For example:

The label applied (in Applied Behavioral Analysis) is not determined by the research procedures used but by the interest which society shows in the problems being studied. In behavioral application, the behavior, stimuli, and/or organism under study are chosen because of their importance to man and society, rather than their importance to theory (Baer, Wolf, and Risley 1974:11).

In fact, the text cites social support for the use of technologies that control human behavior.

A society willing to consider a technology of its own behavior apparently is likely to support that application when it deals with socially important behaviors, such as retardation, crime, mental illness, or education. Such applications have appeared in recent years. Their current number and the interest which they create apparently suffice to generate a journal for their display. That display may well lead to the widespread examination of these applications, their refinement, and eventually their replacement by better applications. Better applications, it is hoped, will lead to a better state of society…” (Baer, Wolf, Risley 1974:9-10).

It is autistic children, because of their behavioral deficiencies and excesses, who provide behavioral psychology with the means to begin to apply their trade for the betterment of both the child’s behavior and the good of society.

Normal kids give you too much for free. They really do. What you can do with a normal child is no test of psychology or of parents. It is only when you run into an autistic child where things don’t happen that you really find out what you know about human behavior. When language doesn’t develop, it forces you to identify just what goes into the development of language. When kids don’t develop warmth for other human beings, it forces you to find out just how emotions are acquired (Lovaas, in an interview, 1974).
The applications deployed onto the bodies of autistic children, then, constitute a key step in the direction of gaining new scientific knowledge about human behavior and human emotion.

In sum, a genealogical analysis of texts produced in the 1960s and 1970s show that disciplinary power was being deployed onto the bodies of autistic children. This was done within a network that included psychiatry, behavioral psychology, and even the parents of autistic children. I have used examples of the procedures used by behavioral psychology to show where power is deployed onto the body of autistic children for the purpose of real effects. Finally, I have shown that these very same applications of power, when applied to autistic children, have the possibility of becoming more global. That is, the consequences of these applications of power have the capability of becoming politically useful and economically advantageous in society. In Chapters XIV and XV, I focus more specifically on this last point to show how the successful treatment of autism became a concern of societal institutions other than medical institutions and the state.

In Foucauldian terms, science used power in its therapeutic practices on autism. Where there is little evidence that psychiatry used power in its practices with autistic children, psychology introduced power and developed a network around its domain with which to deploy this power. This meant that no longer did knowledge (alone) exist about autistic children. It was now a case of power/knowledge. Power/knowledge in autism was used to construct a new discourse in autism. This new discourse was one of treatment and recovery from autism. It opened the door to new scientific pursuits focused on uncovering the etiology of the disorder. But it also affected the social body, so much so that autism became an epidemic in just a few short years.
CHAPTER XIV

A BEHAVIORAL TREATMENT FOR AUTISM IS PRODUCED

In the previous chapter, I outlined behavioral psychology’s methods of observation, techniques, and procedures used in a new treatment of autistic children. I showed how, in fact, power was deployed by behavioral psychology for the purpose of both producing and eliminating particular behaviors in autistic children. I stated that new technologies of treatment and rehabilitation emerged as behavioral psychology applied practices such as behavior modification on to the bodies of children. These technologies, these powers, were explicitly intended to produce real immediate effects on children.

In this chapter, I provide a genealogical description of the document that behavioral psychology produced to show that a method of therapy could in fact treat autistic children. The manner in which the effectiveness of this treatment would be demonstrated is through empirical, observable, measureable, visible events. It was not enough for behavioral psychology to experiment with a few autistic children and measure behavioral changes after treatment to show that treatment worked. It needed to show that a particular treatment could work for a population of autistic children. Psychology’s goal, as I showed in chapter XI, was to put an end to autistic thought and replace it with rational thought and, in so doing, science would produce children who could become individuals in a psychological sense.
Because behavioral psychology was unable to show that its treatment produced healthier, happier, self-actualized people during the decades of the 1960s, 1970s, and early 1980s, but nonetheless needed to show that its treatment worked, it shifted its gaze to the goal of producing improved, *measureable* outcomes. This occurred in 1987.

*A Treatment for Autism*

Lovaas produced a scientific study in 1987 entitled “Behavioral Treatment and Normal Educational and Intellectual Functioning in Young Autistic Children.” In this particular study, after years of rewarding and punishing (through slapping, spanking, and electric shock) young autistic subjects in the laboratory, a particular method was found to improve behavior and raise the IQ scores of autistic children. However, this study was different from the early experiments with autistic children (see Chapter XIII), not only in terms of the types of outcomes, but more importantly, in terms of power deployment. Below, I provide a description and analysis of these differences in the deployment of power.

*Procedures for investigation and research.* Experiments with autistic children before 1987 were not designed to compare the effect of treatment between those who received it and those who did not. Before this time, behavioral science could only behavior was altered after a particular treatment among a small group of autistic children in a controlled environment (see, for example, Birnbrauer 1968; Ferster and DeMyer 1961, 1962; Lovaas et al 1965; Risley 1968; Simmons and Lovaas 1969). For behavioral science to show empirical evidence that a particular intervention had an effect on the autistic child, it had to compare two groups of children with similar qualities: a control.
group that received little or no intervention and an experimental group that received an intervention. This is what Lovaas did in the 1987 study.

Subjects were assigned to one of two groups: an intensive-treatment experimental group (n = 19) that received more than 40 hours of one-to-one treatment per week, or the minimal-treatment Control Group 1 (n = 19) that received 10 hours or less of one-to-one treatment per week. Control Group 1 was used to gain further information about the rate of spontaneous improvement in very young autistic children, especially those selected by the same agency that provided the diagnostic work-up for the intensive-treatment experimental group (Lovaas 1987:4).

Children were enrolled into the Lovaas (1987) study if they met three criteria: (1) Having received an independent diagnosis of autism by a medical doctor or licensed Ph.D. psychologist; (2) chronological age (CA) of less than 40 months if mute and less than 46 months if echolalic; and (3) prorated age of 11 months or more at a CA of 30 months.

All cases, except for two, were diagnosed by staff of the Department of Child Psychiatry, University of California, Los Angeles (UCLA) School of Medicine. Members of that staff have contributed to the writing of the DSM-III and to the diagnosis of autism adopted by the National Society for Children and Adults with Autism (Lovaas 1987:4).

Further,

The clinical diagnosis of autism emphasized emotional detachment, extreme interpersonal isolation, little if any toy or peer play, language disturbance (mutism of echolalia), excessive rituals, and onset in infancy. The diagnosis was based on a structured psychiatric interview with parents, on observations of the child’s free-play behaviors, on psychological testing of intelligence, and on access to pediatric examinations (Lovaas 1987:4).

Therefore, subjects were selected into this particular study by virtue of where they were ranked according to developmental age, and by either a physician’s or a psychologist’s measured determination of autism. Children also were selected into this experiment by who they were as determined by parents, psychological observations of
how these children used their imagination, scientific testing of cognitive skills, and by
prior medical examinations of their bodies.

Lovaas (1987) used an experimental design to determine the effectiveness of
intensive behavioral therapy on autistic children. Whereas traditional experimental
design contains an element of randomness in the selection of subjects, Lovaas stated that
random sampling into these two groups was impossible due “parent protest and ethical
considerations” (Lovaas 1987:4). To determine whether there were significant differences
between the two groups, Lovaas collected data on some other pretreatment measures.

Lovaas and his research team conducted scientific tests using a variety of
psychological scales to assess subjects’ mental age, behavior, and level of pathology at
the pre-treatment stage. Mental age was assessed through the use of the following:
Bayley Scales of Infant Development, the Cattell Infant Intelligence Scale, the Sanford-
Binet Intelligence Scale, the Gesell Infant Development Scale, and the Vineland Social
Maturity Scale, the latter used the mother as informant.

The examiner (graduate students in psychology under supervision) chose the test
that would best accommodate each subject’s developmental level, and this
decision was reached independently of the project staff (Lovaas 1987:4).

Scales that had been previously developed by science to determine deficiencies and
failures in normal development were used to assess these children (Bayley 1969; Cattell
1940; Doll 1945; Gesell 1949; Thorndike 1972).

Behavior was assessed through the observation of videotaped recordings of
children in a playroom equipped with toys. These videotapes were scored for the amount
of self-stimulatory behaviors, appropriate play behaviors, and recognizable words
(Lovaas 1987). Self-stimulatory behaviors were defined as:
prolonged ritualistic, repetitive, and stereotyped behavior such as bodyrocking, prolonged gazing at lights, excessive hand-flapping, twirling the body as a top, spinning or lining up of objects, and licking or smelling of objects or wall surfaces (Lovaas 1987:4).

Appropriate play behaviors were defined as:

. . . those limiting the use of toys in the playroom to their intended purposes, such as pushing the truck on the floor, pushing buttons on the toy cash register, putting a record on the record player, and banging with the toy hammer (Lovaas 1987:4).

And finally, recognizable words were “defined to include any recognizable word, independent of whether the subject used it in a meaningful context or for communicative purposes” (Lovaas 1987:4).

Scores were based on the occurrence and non-occurrence of these particular behaviors. Two experienced observers trained a naïve observer to agree with them on what was being observed. This naïve observer scored all the tapes. Scores were summed and averaged.

Pathology was based on interviews with parents upon intake into the study and the examination of previous neurological examinations (EEGs and CAT scans) “that resulted in findings of pathology” (Lovaas 1987:4).

Subjects received a score of 1 for each of the following variables parents reported: no recognizable words; no toy play (failed to use toys for their intended function); lack of emotional attachment (failed to respond to parents’ affection); apparent sensory deficit (parents had suspected their child to be blind or deaf because the child exhibited no or minimal eye contact and showed an unusually high pain threshold); no peer play (subject did not show interactive play with peers); self-stimulatory behavior; tantrums (aggression toward family members or self; and no toilet training. These 8 measures from parents’ intake interviews were summed to provide a sum pathology score (Lovaas 1987:4).

Language was also quantified at the intake interview with parents:

The intake interview also provided information about abnormal speech (0 = normal and meaningful language, however limited; 1 = echolalic language used
meaningfully [e.g., to express needs]; 2 = echolalia; and 3 = mute) (Lovaas 1987:4).

Finally, control variables such as number of siblings, age of walking, SES of the father, and sex were measured.

Lovaas also described the intellectual capabilities of the children in the study:

A brief clinical description of the experimental group at intake follows (identical to that for Control Group 1): Only 2 of the 19 subjects obtained scores within the normal range of intellectual functioning; 7 scored in the moderately retarded range, and 10 scored in the severely retarded range (Lovaas 1987:5).

Other characteristics of the subjects were that they lacked the ability to play pretend, and that they lacked appropriate responses and they lacked appropriate speech. Lovaas concluded that the subjects in his study, given the literature on the nature of autistic children’s developmental delays, “constituted an average (or below average) sample of such children” (Lovaas 1987:5).

In sum, the two groups were believed to be similar despite the lack of randomness, and based on the variable measures and scales. For years, psychiatry had its young autistic patients complete standardized tests in the attempt to determine these children’s level of intelligence. But after receiving relatively low scores, much of psychiatry was convinced that many of these children were actually more intelligent than the test score revealed. In fact, psychiatry believed that the results of these tests did not accurately reflect their patients’ intelligence (Darr and Worden 1951; Kanner 1943, 1951; Kanner and Lesser 1958; Kestenberg 1954). Psychology, on the other hand, would use standardized tests to measure intelligence (Lovaas 1987). This use of standardized tests to measure autistic children’s intelligence in experimental studies represented a break with psychiatry’s experience with autistic children who had been unable to complete

Another procedural element in Lovaas’ (1987) treatment protocol that differed from past approaches was the amount of time autistic children had to undergo treatment. For example, in previous psychological experiments, children were placed in experimental rooms for several minutes to a couple of hours at a time. The Lovaas study was different in that “both treatment groups received treatment for two or more years” (Lovaas 1987:4).

Each subject in the experimental group was assigned several well-trained student therapists who worked (part-time) with the subject in the subject’s home, school, and community for an average of 40 hr per week for 2 or more years. The parents worked as part of the treatment team throughout the intervention; they were extensively trained in the treatment procedures so that treatment could take place for almost all of the subject’s waking hours, 365 days a year (Lovaas 1987:5).

Thus, treatment was full-time for the children in the experimental group. The children were under constant surveillance by the members of the research network for at least two years. This was not merely a laboratory experiment – it was a constant watchful eye that hovered over the children in the experimental group. Children were observed throughout the day, not just while they were in a psychiatrist’s office. In this way as well, Lovaas’ (1987) experiment broke with techniques applied during previous experiments.

*The production of real effects.* While speech, play, self-stimulation, and pathology were measured to show the similarities between the two groups, the outcome variable was something completely different. In the Lovaas study, two post-treatment measures were used. The first was educational placement and the second was IQ score. Both measures, taken together produced a score from 1-3. Lovaas listed a range of IQ tests that were given, depending on “different developmental levels” of the children
These were: the Wechsler Intelligence Scale for Children-Revised, the Stanford-Binet Intelligence Scale, the Merrill-Palmer Pre-School Performance Test, the Peabody Picture Vocabulary Test, the Wechsler Pre-School Scale, the Bayley Scales of Infant Development, the Cattell Infant Intelligence Scale, and the Leiter International Performance Scale (Lovaas 1987). In describing how outcomes were measured, Lovaas stated:

Subjects received a score of 3 for normal functioning if they received a score on the WISC-R or Stanford-Binet in the normal range, completed first grade in a normal class in a school for normal children, and were advanced to the second grade by the teacher. Subjects received a score of 2 if they were placed in first-grade in a smaller aphasia (language delayed, language handicapped, or learning disabled) class. Placement in the aphasia class implied a higher level of functioning than placement in classes for the autistic/retarded, but the diagnosis of autism was almost always retained. A score of 1 was given if the first-grade placement was in a class for the autistic/retarded and if the child’s IQ score fell within the severely retarded range” (1987:5, italics in original).

For Lovaas, the only outcomes for autistic children that were worth making statements about intelligence as measured by a particular scientific approach (psychology) and whether the children would be accepted into a “normal class in a school for normal children.” This last outcome was structured by assumptions of normal development and an elementary school system that based placement into grade levels upon these assumptions. The real effects that behavioral psychology was looking for were limited to already accepted normative measures: IQ and educational placement. Play, self-stimulation, language, IQ, and pathology were hard to measure as psychology readily admitted:

A number of measurement problems remain to be solved. For example, play communicative speech, and IQ scores define the characteristics of autistic children and are considered predictors of outcome. Yet the measurement of these variables is no easy task (Lovaas 1987:8).
Any statements that claimed success in treating autistic children, therefore, were surely tempered by the limited measures used. For example, approaches to play could not be used as a final outcome since it is difficult to measure along unitary normative guidelines:

Consider play. First, play undoubtedly varies with the kinds of toys provided. Second, it is difficult to distinguish low levels of toy play (simple and repetitive play associated with young, normal children) from high levels of self-stimulatory behavior (a psychotic attribute associated with autistic children). Such problems introduce variability that needs immediate attention before research can proceed in a meaningful manner (Lovaas 1987:8).

Here, the text states that the way a child plays with toys can vary based on the toy itself. Further, it states that it is difficult to distinguish through scientific means the difference between the repetitive play of normal children with the self-stimulatory play of the autistic child. Perhaps the reason it is difficult to distinguish between the two is that play itself stimulates the senses of both the autistic and non-autistic child – suggesting similarity and “normalcy” for both rather than difference and distinction.

Normal functioning, as measured by educational placement, also presented measurement problems. The text states that while several teachers would agree about the educational placement of a child, other psychological issues related to the autistic child were in danger of being undetected.

On the other hand, certain residual deficits may remain in the normal functioning group that cannot be detected by teachers and parents and can only be isolated on closer psychological assessment, particularly as these children grow older (Lovaas 1987:8).

Thus, the tools used in science to assess treatment and psychological characteristics were problematic. And yet, conclusions were nonetheless drawn about the success of behavioral treatment techniques.
The real effects were produced, as the Lovaas (1987) text states, through corporal punishment. For example, although aversives were used “as a last resort” (Lovaas 1987:5), experimenters were permitted to deliver a “loud ‘no’ or a slap on the thigh contingent upon the presence of the undesirable behavior” (Lovaas 1987:5). The experiment found that “introduction of contingent aversives resulted in a sudden and stable reduction in the inappropriate behaviors and a sudden and stable increase in appropriate behaviors” (Lovaas 1987:7).

Such behavioral modification techniques were used even though the study was designed to improve IQ scores and educational placement (Lovaas 1987). Moreover, punishment was not used on the participants in the control group, not because it was deemed irrelevant to the outcomes, but “because inadequate staffing in that group did not allow for adequate teaching of alternative, socially appropriate behaviors” (Lovaas 1987:5). In other words, even though the study was designed to allow the control group to have the same treatment, only with “less intensity” (Lovaas 1987:5), similar less intensive treatment was unavailable because of inadequate staffing. How could an “objective,” “scientific” conclusion be reached under such circumstances?

The borders of legality or bad science? Genealogical research has turned up no evidence that any aspect of the Lovaas (1987) experiment was illegal. Specifically, the use of corporal punishment in this study cannot be considered illegal in regard to the physical punishment of children. In fact, psychology was well aware of this project five years earlier than the publication of the study’s results. As Lovaas (1987) notes in the “Acknowledgement” section:

Aspects of this study were presented at the 1982 convention of the American Psychological Association, Washington, DC, by Andrea Ackerman, Paula

There is no evidence that the scientific network within psychology protested the use of physical aversives on young children who were, at the time, considered disturbed and disabled by the psychiatric and psychological standards of the day. While there may have been protests about the ethics of punishing young children through physical aversives at the 1982 APA convention, those protests did not disallow the continuation of study. Nor did such protests disallow the document from being published. The very fact that such a study was published suggests that science found it to advance its cause as opposed to potentially harm it. The consequence of science’s tacit approval of the physical punishment of children who engage in non-normative behavior yielded a text that would soon constitute the cornerstone of a discourse about normalization in autism.

Nonetheless, the Lovaas experiment did contain elements of bad science. First, as previously stated, experimental groups and control groups could not be selected randomly because of the lack of staff to treat the subjects.

Instead, subjects were assigned to the experimental group unless there was an insufficient number of staff members available to render treatment (an assessment made prior to contact with the family). Two subjects were assigned to Control Group 1 because they lived further away from UCLA than a 1-hr drive, which made sufficient staffing unavailable to those clients. Because fluctuations in staff availability were not associated in any way with client characteristics, it was assumed that this assignment would produce unbiased groups. A large number of pretreatment measures were collected to test this assumption (Lovaas 1987:4). These pretreatment measures are noted above in this chapter. More specifically, the outcome variable, IQ, was not used as a pretreatment measure to show that the control and experimental groups were similar to each other. Thus, the reader has no way of knowing whether the average IQs of these children were statistically similar across the
two groups. This raises serious questions about any conclusions that might have been drawn about the improvement in IQ scores. Yet, Lovaas concluded:

There were substantial increases in the subjects’ level of intellectual functioning after treatment. The experimental group subjects gained on the average of 30 IQ points over Control Group 1 subjects (Lovaas 1987:6).

Additionally, Lovaas divided the experimental and control group participants into three categories: “recovered,” “aphasic,” and “autistic/retarded” (1987:7). Yet again, this differentiation was constructed after the experiment had been completed. The text does not indicate whether these children could have been separated into these categories at the pretest phase. Scientifically speaking, the reader’s ability to judge whether the behavioral treatment affected the outcome is compromised since it is not known whether the “recovered” group had a higher IQ prior to any treatments being administered.

Lovaas states later in the text that the assignment of children into experimental and control groups “apparently” (1987:7) was unbiased. This is not science—this is what passes for science. Psychology’s dream was to eradicate autistic thinking and the details of scientific experimentation “apparently” could not be bothered with. It was time for power and knowledge to join together – with its forms of punishment, networks of power, and disciplinary practices – to deploy its techniques onto the bodies of autistic children.

Based on Lovaas (1987), empirical results mattered in the case of autism, but it didn’t matter how these results were obtained. The results of this study did not show that behavioral psychology had found a treatment that lead to happier, healthier lives of young autistic children. Rather, behavioral psychology demonstrated that it could successfully place children with particular IQ scores in particular educational settings through
empirical means. This is all behavioral psychology had to show, despite the sloppiness of its research design.

When it came to the normalization of autistic children, a way was found to allow for this particular study to surface. Autistic thinking, as was revealed in Chapter XII, had to desist, and it had to desist at a very early age. The emergence of this text would lead to a discourse of recovery from autistic thinking. This text should not be considered a product of Lovaas alone, however. This text emerged from a network of power.

_A network of power in the normalization of autistic children._ As suggested above, the procedures used in this experiment were exercised within a network that involved those in the discipline of psychology and those outside it. The “Acknowledgement” section of the text (Lovaas 1987) outlines this network:

This study was supported by Grant MH-11440 from the National Institute of Mental Health…The author expresses his deep appreciation to the many undergraduate students at the University of California, Los Angeles, who served as student therapists on the project, to the many graduate students who served as clinic supervisors, and to the many parents who trusted their children to our care. Special thanks to Laura Schreibman and Robert Koegel, who collaborated in the early stages of this research project. Donald Baer, Bruce Baker, Bradley Bucher, Arthur Woodward, and Haikang Shen provided statistical advice and help in manuscript preparation (Lovaas 1987:3)

Here, a network of surveillance can be deduced. Government agencies were involved in the monitoring of autistic children and the ability of science to develop practices to rehabilitate and transform these children from autistic to normal. This was a continuation of the government-funded behavioral research on autistic children mentioned in the previous chapter. A network of surveillance and a network of power involving the state and the autistic condition began to intensify during this period.
Parents were also becoming further enmeshed within this network of surveillance by “trusting” (Lovaas 1987:3) psychology in its endeavor to produce empirical results. They trusted science to the point that many insisted that their child be part of the experimental group rather than the control group. This seeking of behavioral treatment on the part of parents continue to the present day, as I will show in the next chapter. This acceptance of a scientific method to treat a bodily condition—not a disease or an illness—entangled parents into a network of surveillance and a network of power that produced a discourse of hope, treatment and recovery for their child.

In addition, college students were integrated into the experience of the deployment of power onto autistic children. Undergraduates served as therapists while graduate students served as supervisors (Lovaas 1987), subjecting themselves to a psychological discourse about autism and autistic children. These students became part of a network not only of surveillance, but a network of disciplinary power that would produce a new knowledge of autistic children: that these children could become normal through behavioral therapy.

Finally, advocates of punishment in behavioral experiments with children (Baer 1968) have become part of a network of power; not just within the realm of a discipline, but now within the realm of autism. Advocates of punishment in scientific experiments had found a new subject for their methods: autistic children. Lovaas’ acknowledgements show that he conducted his study within the context of a network of power that was not expressly concerned with particular children’s physical and emotional health; rather, it was a network that deployed disciplinary power onto the bodies of autistic children for
the purpose of improved test scores and to place its subjects into normal educational systems.

*Power becomes more global.* Lovaas stated that unless intense treatment was provided for these children, they could expect a lifetime of psychological hardship. The urgency for providing this new treatment was clear:

Although serious problems remain for exactly defining autism or identifying its etiology, one encouraging conclusion can be stated: Given a group of children who show the kinds of behavioral deficits and excesses evident in our pretreatment measures, such children will continue to manifest similar severe psychological handicaps later in life unless subjected to intensive behavioral treatment that can indeed significantly alter that outcome (Lovaas 1987:9, italics added).

Not only was it vital for autistic children to be “subjected to intensive behavioral treatment” to improve their outcomes, it was important for society. In fact, intensive behavioral therapy was seen as *economically practical* by behavioral psychology. Its dream was to actually save the economic system from harm because therapy would be less expensive than caring for these children in an institution for the duration of life.

The assignment of one full-time special-education teacher for 2 years would cost an estimated $40,000, in contrast to the nearly $2 million incurred (in direct costs alone) by each client requiring life-long institutionalization (Lovaas 1987:9).

In sum, a new treatment in autism promised improvement in the behavior of autistic children; but this improvement would have to happen early in life so as not to incur costs to the psyche of the child nor to the economic system as a whole.

The production of a text which demonstrated that recovery from autism at an early age was possible was the moment when medical science moved away from a belief that autistic children were untreatable and toward a belief that successful treatment was possible.
Behavioral analysis intervention for children with autism began in the 1960s with the work of Ivar Lovaas and his colleagues at the University of California, Los Angeles. Their classic study (Lovaas, 1987), cited in the surgeon general report, demonstrated that with appropriate intervention children with autism could make intellectual and social gains previously seen as impossible (Rosenwasser and Axelrod 2001:672, italics added).

Lovaas was able to show for the first time that behavioral treatment in autism could improve the outcomes of some children. This was so important that the Lovaas study even received attention in such popular press outlets as the New York Times and The CBS Evening News (Cipani 2008).

This empirical study of treatments that are claimed to lead to particular, measurable outcomes among autistic children required medical science to pay attention. Not surprisingly then, in searching the Web of Science using the words treatment and autism or autistic in the title of a journal article, I found that Lovaas’s (1987) is the most cited article from 1965 through 2010. Using only the words autism or autistic, is was the fourth most cited during this period. And in all databases, using the same key words in the title, the Lovaas piece was the sixth most cited. Thus, from 1987 to the present, science and medicine regarded the Lovaas experiment with autistic children as the moment when autistic children could be treated and normalized. Lovaas’s method of behavioral analysis became the preferred treatment for autistic children, as I show in the next chapter.

To summarize, behavioral psychology, through the work of Lovaas (1987), produced a study that showed that its therapeutic practices could be used on some autistic children to the point where some of them could enter normative educational institutions. Behavioral psychology was able to make normalizing judgments through empirical observation of the effects of these practices. In addition, the educational system was able
to make normalizing judgments of these children post-treatment. Behavioral psychology could lay claim that these techniques that would have to be used constantly in the early stages of life (a techniques that would soon evolve in the form of ABA) in order for some of these autistic children to become normal. These children could be tested like any other children. Some of these children would reach a normal range of intelligence and be placed in the appropriate grade level for young people their own age.

My critique of the Lovaas experiment is not about how bad the science was in showing results. Had the research design been flawless, my criticism of behavioral science’s deployment of disciplinary power on to these autistic children would remain. It is not the design of the experiment that I am concerned about. My critique is about the very idea that this experiment could even be carried out. The idea that behavioral science could adjust the psyche of very young children (subjects) is disturbing. The idea that Lovaas was able to publish his findings in a psychological journal is even more disturbing. One could say that it wasn’t Lovaas who produced a treatment in autism; it was behavioral psychology as a domain that produced a treatment. It produced a treatment in that it allowed for what passed as science to become science. This experiment had to become part of the scientific discourse within autism so that behavioral psychology could make authoritative claims as to the effectiveness of its therapeutic practices on autistic children.

The Lovaas experiment would become central to both the psychological and medical discourse in autism. A recent search on the Web of Science shows that the Lovaas (1987) article is the fourth most cited article on the topic of autism since 1987. Further, of the 26,527 articles on autism in the Web of Science database, the Lovaas
(1987) article is the 11\textsuperscript{th} most cited, with this article being cited 688 times. With the results of this experiment, behavioral psychology opened up the possibility that science could transform a child from being autistic to being what in psychology’s eyes was normal. A discourse of this possibility would follow, reaching not only the academy, but the clinic as well.

In Foucauldian terms, young children were being normalized through the use of a technology of behaviorism deployed by the discipline of psychology. Behavioral psychology, however, produced no scientific evidence that through this technology, autistic children would lead happier and more fulfilling lives. Nowhere in the Lovaas (1987) document does it state that it found evidence (empirical or otherwise) that these children, after being treated to an early form of Applied Behavioral Analysis, would lead physically, mentally, or emotionally contented lives. Rather, it could only show gains in test scores; test scores that were thought previously by psychiatry to be unreliable (Kanner 1943). It could also show that some of these children could be placed in schools serving non-autistic children.

The Lovaas study now represented a complete break from a previous discourse (i.e., psychiatry) that stated that autism was not treatable. Behavioral psychology convinced parents, medicine, governments (as will be shown in the next chapter) and the population that autistic children could in fact be treated and normalized over time. While this experiment showed that behavioral psychology was concerned with normalizing children over the life course of the autistic it was also a step in the direction of regulating the life of populations.
CHAPTER XV
THE MEDICAL SURVEILLANCE OF THE SOCIAL BODY
WITH REGARD TO AUTISM

In the previous chapter, I showed how behavioral psychology was able to produce a new truth claim within medicine about autistic children. Previously, medicine was unable to imagine that autistic children could become normal. Behavioral psychology reversed that thinking through a particular technique that produced quantifiable alterations in the autistic child. These alterations were observable and measurable, and therefore important to medical science. Behavioral psychology made the claim that through this technique, not only could autistic children become normal, but society as a whole would be saved from the inconvenience of the costs of having to institutionalize autistic individuals.

In the case of autism, this discourse in normalization manifested itself through a particular therapeutic practice. In fact, Lovaas’s (1987) experiment legitimized a therapy that is now known as Applied Behavior Analysis (ABA) (Cipani 2008). To illustrate that fact, the Surgeon General has acknowledged the three decades of scientific research on ABA, the positive effects of ABA in treating symptoms of autism, and has recognized ABA as the approved treatment of choice in autism (Autism Articles 2011; Foxx 2008; Rosenwasser and Axelrod 2001; U.S. Department of Health and Human Services 1999).
Not only did ABA lay claim that it could normalize autistic children, it made the case that it could optimize autistic children’s lives. For example, one such institution that used ABA is the Center for Autism and Related Disorders (CARD) established in 1990. Its website outlines the uses of ABA:

ABA methods are used to support persons with autism in at least six ways:

- To increase behaviors (e.g., reinforcement procedures increase on-task behavior, or social interactions);
- To teach new skills (e.g., systematic instruction and reinforcement procedures teach functional life skills, communication skills, or social skills);
- To maintain behaviors (e.g., teaching self control and self-monitoring procedures to maintain and generalize job-related social skills);
- To generalize or to transfer behavior from one situation or response to another (e.g., from completing assignments in the resource room to performing as well in the mainstream classroom);
- To restrict or narrow conditions under which interfering behaviors occur (e.g., modifying the learning environment); and
- To reduce interfering behaviors (e.g., self injury or stereotypy) (Center for Autism and Related Disorders 2011:1).

In terms of the anatomo-politics of the human body (Foucault 1984), procedures of power in ABA optimized capabilities of the autistic body through teaching new skills and increasing behaviors. In addition, ABA integrates the autistic body into systems of efficient and economic control through the teaching of self-control and self-monitoring procedures to be able to generalize to skills needed in the labor market. ABA increases the autistic body’s usefulness through reinforcement procedures that teach functional life, communication, and social skills. These reinforcement procedures induce docility at the same time in reduces self-stimulatory behavior in the autistic child. Further, procedures in ABA are focused on (as Lovaas earlier stated) socially significant behaviors.

“Socially significant behaviors” include reading, academics, social skills, communication, and adaptive living skills. Adaptable living skills include gross and fine motor skills, eating and food preparation, toileting, dressing, personal self-care, domestic skills, time and punctuality, money and value, home and
community orientation, and work skills (Center for Autism and Related Disorders 2011:1).

In sum, the power that the technique of ABA used and the knowledge that it would gain of autistic children provided a discourse focused on the optimization of life of autistic children. Medicine was already in a position to observe and examine individual autistic children to understand how to make them more useful and less of a burden to society. But for medicine to be socially useful, it had to identify autistic children throughout society using more refined surveillance techniques. These surveillance technologies are the focus of this chapter.

In Foucauldian terms, ABA could be considered a technology of power deployed onto bodies of autistic children. This power produced real effects in children. Therefore, this power would allow for a new discourse of recovery and treatment. In turn, this new discourse would not only allow for wider surveillance of children by medicine, this new discourse would require a wider surveillance of children by medicine. In short, the deployment of power onto the individual bodies of a few autistic children—who were subjected to all sorts of scientific experiments using coercion, pain, and punishment—would serve technologies of surveillance of the social body.

In this chapter, I focus on how, after behavioral techniques were shown through scientific means to normalize autistic children, medicine was able to produce technologies of surveillance onto all children. These technologies had as its purpose the identification of autistic children. Once identified, medicine would be able to treat these children, thanks to the disciplinary powers of behavioral science. Further, I show how psychiatric medicine was able to widen its concerns to all sorts of children with all sorts of behavioral, emotional, and cognitive disorders, all under the umbrella of a new
disorder called autism spectrum disorder. Once the characteristics of autism became scientifically quantifiable as a spectrum disorder did autism become a medical problem. This medical problem, in turn, created a wider medical and social concern for behavioral, emotional, and cognitive deviance in children.

Specifically, I provide four examples of this increased medical surveillance of the social body with regard to autism that helped manufacture the medical problem of autism as we know it to be in contemporary society. First, I show that within an ever increasing archive of medical knowledge about autism (as a consequence of the deployment of power by behavioral psychology), a particular leading journal about autism had as its intention the increased medical surveillance of all sorts of potentially deviant children. Second, I trace the history of medicine’s Diagnostic and Statistical Manual with regard to autism. I show how autism was first recognized as a symptom by medicine (not just by a child psychiatrist i.e., Kanner) to how it is recognized today—as a spectrum of pervasive disorders. Third, I provide examples of diagnostic checklists that are intended for use not only by medicine, but by parents as well. The use of these checklists would enable medical science to identify autistic children with more efficiency. Fourth, I show that the medical concern about autism carried over to the state, with the state now providing the means by which medicine could research the etiology of autism as well as a treatment for autism.

To use Foucauldian terms, an interest in the administration of the life of autistic children began to emerge around the time it was shown that autistic children could become normalized. That is to say, once medicine saw that the child could be normalized, it needed to make the lives of autistic children more useful. The central concern was not
about making a healthier and happier life, but a life that could be put to use in service of the social system.

What is meant by the administration of life? Recall that Foucault suggested that regimes in both the classical age and the modern age were concerned about the individual body. But whereas sovereigns in the classical age were concerned about the power over the death of the individual and social body, democratic regimes in the modern age are concerned with the “power that exerts a positive influence on life that endeavors to administer, optimize, and multiply it, subjecting it to precise controls and comprehensive regulations” (Foucault 1984:259). This power is concerned with both the individual and social body. In what follows, I provide an analysis of the specific technologies used to observe the social body for the purpose of identifying autistic children in order to administer life to these children.

But first, I describe the medical archive on the topic of autism from the moment when behavioral psychology claimed that science could normalize autistic children. I show that within this archive, psychiatry, through a particular journal specific to autism, outlined its objectives regarding the future surveillance of autistic children.

*The Medical Archive in Autism from 1987 to 2010*

Following the Lovaas experiment with young autistic children, the breadth of the medical archive in autism continued to grow. In this section, I describe the increase in the breadth of the medical archive at the moment when behavioral psychology produced a normalizing treatment in autism. I provide this description not to show any causal relationships, but to show that the range of what could be stated about autism increased exponentially. This exponential increase in the breadth of the archive was similar to the
exponential increase in the medical archive from 1961 to 1986 as behavioral psychology first experimented on autistic children.

First, a wider range of medical journals published articles on the topic of autism relative to previous years. A recent search on the Web of Knowledge database revealed that 1,486 English language medical journals had published at least one article on the topic of autism from 1987 to 2010. This represented a five-fold increase in the amount of journals that published at least one article on autism over the era from 1961 to 1986 as described in Chapter XIII.

The tables below show that the discourse in autism spread to a variety of publications and domains, all the while, what could and could not be stated about autism and autistic children grew. Table 15.1 shows the number of articles in medical journals on the topic of autism by year. From 1987 to 2010, the number of articles on the topic of autism within medicine increased nine fold, from 183 in 1987 to 1,680 in 2010. While the rate of increase in articles produced within medicine on autism during this time was not as great as the rate of increase from 1961 to 1987, the sheer number of articles produced relative to the previous time period (a time of power being deployed onto bodies of autistic children) is astounding. For example, before ABA treatment was verified as to its usefulness in 1987, the average number of medical articles on the topic of autism per year was about 46.5. The average number of medical articles on the topic of autism per year from 1987 to 2010 was about 547.7, a more than ten-fold increase.

It is clear from Table 15.2 that the Journal of Autism and Developmental Disorders emerged as a large portion of the medical archive on the topic of autism, as it
had in the previous era discussed in Chapter XIII. The sheer number of articles referring
to autism is staggering compared to the other journals in the table.

Table 15.1. Search of Medline via Web of Knowledge. Number of Articles from 1987 to
2010 on the Topic of Autism. (Topic = Autism) or (Topic = Autistic) and Language =
English.

<table>
<thead>
<tr>
<th>Year</th>
<th># of Articles</th>
<th>Year</th>
<th># of Articles</th>
<th>Year</th>
<th># of Articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987</td>
<td>183</td>
<td>1996</td>
<td>256</td>
<td>2005</td>
<td>779</td>
</tr>
<tr>
<td>1988</td>
<td>239</td>
<td>1997</td>
<td>266</td>
<td>2006</td>
<td>953</td>
</tr>
<tr>
<td>1989</td>
<td>245</td>
<td>1998</td>
<td>312</td>
<td>2007</td>
<td>1,132</td>
</tr>
<tr>
<td>1990</td>
<td>213</td>
<td>1999</td>
<td>317</td>
<td>2008</td>
<td>1,333</td>
</tr>
<tr>
<td>1991</td>
<td>231</td>
<td>2000</td>
<td>407</td>
<td>2009</td>
<td>1,437</td>
</tr>
<tr>
<td>1992</td>
<td>262</td>
<td>2001</td>
<td>528</td>
<td>2010</td>
<td>1,680</td>
</tr>
<tr>
<td>1993</td>
<td>248</td>
<td>2002</td>
<td>577</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>254</td>
<td>2003</td>
<td>596</td>
<td>N = 13,144</td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>224</td>
<td>2004</td>
<td>743</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 15.2. The Top Ten Medical Journals That Have Published More than One Article

<table>
<thead>
<tr>
<th>Journal Titles</th>
<th>Number of Articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journal of Autism and Developmental Disorders</td>
<td>1,756</td>
</tr>
<tr>
<td>Journal of Child Psychology and Psychiatry and Allied Disciplines</td>
<td>356</td>
</tr>
<tr>
<td>Autism: The International Journal of Research and Practice</td>
<td>324</td>
</tr>
<tr>
<td>Journal of the American Academy of Child and Adolescent Psychology</td>
<td>280</td>
</tr>
<tr>
<td>Journal of Applied Behavior Analysis</td>
<td>254</td>
</tr>
<tr>
<td>Developmental Medicine and Child Neurology</td>
<td>219</td>
</tr>
<tr>
<td>Journal of Child Neurology</td>
<td>173</td>
</tr>
<tr>
<td>Biological Psychiatry</td>
<td>170</td>
</tr>
<tr>
<td>Research in Developmental Disabilities</td>
<td>164</td>
</tr>
<tr>
<td>American Journal of Medical Genetics</td>
<td>151</td>
</tr>
</tbody>
</table>

As noted in Chapter XIII, The Journal of Autism and Childhood Schizophrenia--
founded by Kanner in 1971 under his editorship--changed its name to the Journal of
Autism and Developmental Disorders in 1979. A short history of this journal is in order
because the stated intention of this journal was to be a sort of clearinghouse for all sorts
of statement, concepts, and theories of autism from many different branches of scientific
medicine. This history of the Journal of Autism and Developmental Disorders is
important because it reveals that psychiatry’s intention was gain knowledge of all types of childhood disorders. The surveillance of deviance in all children, as I show, was its stated objective.

*A short history of the journal.* The goal of this journal, originally called *The Journal of Autism and Childhood Schizophrenia,* was to devote itself to all sorts of deficiencies in childhood. The following text illustrates this point. A note from the editor around 1971 (Archives of the History of American Psychology 1971:1) read:

Our journal is not necessarily limited to autism and childhood schizophrenia. It is devoted to all psychoses and severe disorders of behavior in childhood. We are concerned with every aspect of etiology, clinical course, therapy and prophylaxis. Our curiosity is directed toward issues ethology, genetics, organicity, psychogenicity and psychotherapy, operant conditioning, special education, speech pathology and a variety or related fields of inquiry in medicine, psychology, neuroscience, biochemistry and physiology.

Further, notes of an editorial board of the *Journal of Autism and Schizophrenia* in September of 1972 revealed ways of implementing these objectives in terms of the content of the journal (Archives of the History of American Psychology 1971:2):

There was a consensus that the Journal should print discussions representing a diversity of theoretical viewpoints. Manuscripts would be judged by editorial members familiar with the particular theoretical viewpoint for the importance and accuracy of the concept, as well as for the sophistication of presentation.

There also seemed to be general agreement that we wished to enlarge the degree to which there were articles on severe psychopathologies, other than those named in the Journal title. Some syndromes might be of interest from the point of view of differential diagnosis, others would be of intrinsic interest…

Several ways of implementing this broadening of Journal content were discussed. One involved writing an author who was both knowledgeable in a particular field, who also presented written ideas well, to prepare a critical review of a topic; for example summarizing all behavioral pathologies reported in cases of deviations in X and Y chromosomes…

Still another idea discussed was that of holding meetings organized either around the work of a given research center or around a given topic related to our journal’s
interests, thus stimulating focused discussion which then would result in material for publication.

The stated intention was to examine and gain knowledge of all severe disorders that children might experience. This knowledge included new concepts and theories about autism. Psychiatry became concerned with the processes of several disorders in children, from etiology to therapy to preventative measures. Any related field could contribute to the journal, including those in behaviorist methods, education, medicine, psychology, neuroscience, and genetics. Psychiatric medicine’s goal, through this journal, was to become a clearinghouse of knowledge of autism and other forms of deviance in childhood.

But for knowledge to be produced in this case, autistic children needed to be identified first. One way of identifying these children was through particular diagnostic criteria. These criteria are found in medicine’s Diagnostic and Statistical Manual (the DSM). In the following section, I provide evidence in the text of the DSM that medicine set out to examine all aspects of the child’s emotional, intellectual, cognitive, and behavioral life to determine whether particular children were autistic.

The DSM in the Era of Psychoanalytic Discourse about Autism in Medicine

One example of how power concerned itself with the administration of life of autistic children within the domain of medicine can be found in the diagnostic criteria of autism within in the Diagnostic and Statistical Manuals. In this section, I describe the expansion of the clinical definition of autism vis-à-vis the Diagnostic and Statistical Manuals used in psychiatry. The Diagnostic and Statistical Manuals (DSM) are important to describe here, as they are texts by which medicine, especially psychiatric
medicine, identifies autistic children within the population for the purpose of administering to their lives.

The first Diagnostic and Statistical Manual (DSM-I) published in 1952 listed autism as a particular manifestation of schizophrenia. Schizophrenia was listed under the grand category of “Disorders of Psychogenic Origin or Without Clearly Defined Physical Cause or Structural Change in the Brain” (American Psychiatric Association 1952:5). Under the subcategory of “Schizophrenic reactions,” (American Psychiatric Association 1952:5), autism is referred to within the group of schizophrenic reactions of the childhood type. This is how autism is referred to in the text:

Here will be classified those schizophrenic reactions occurring before puberty. The clinical picture may differ from schizophrenic reactions occurring in other age periods because of the immaturity and plasticity of the patient at the time of the onset of the reaction. Psychotic reactions in children, manifesting primarily autism (my italics), will be classified here. Special symptomatology may be added to the diagnosis as manifestations (American Psychiatric Association 1952:28).

Thus, psychiatry applied what is otherwise considered an adult disorder on to a special group of people early in life: children. The text shows that children are fundamentally different due to their plasticity and that they may experience a disorder differently from adults. Therefore, a keen eye must be kept on children to determine how a disorder of the mind might manifest itself in childhood and into adulthood. In the era of a psychiatric discourse in autism, the medical gaze would suffice to determine the classification of childhood syndromes such as autistic and affective disturbances. That is, making particular emotional features visible through the lens of a psychiatric discourse was the method of indicating a disturbance in the normal development of the autistic child.
In 1968, the year of the second edition of the DSM (the DSM-II), descriptions of autistic disturbances changed very little. Autistic behavior was still categorized in the DSM-II under the group of psychoses labeled as schizophrenia (American Psychiatric Association 1968). Under the subgroup, “Schizophrenia, childhood type,” the text reads:

This category is for cases in which schizophrenic symptoms appear before puberty. The condition may be manifested by *autistic* (my italics), atypical, and withdrawn behavior; failure to develop identity separate from the mother’s; and general unevenness, gross immaturity and inadequacy in development. These developmental defects may result in mental retardation, which should also be diagnosed (American Psychiatric Association 1968:35).

The diagnostic criteria here reflect the dominant discourse, one of psychoanalysis, in autism. Here, the mother is implicated for not adequately separating herself from the child. In addition, the text reflects a growing concern for normal development, as the DSM-I hinted at 16 years earlier. Finally, a concern for intellectual development is revealed in the text, showing that psychiatry was beginning to become concerned about other characteristics of children than affect. While this was a break with previous notions that autistic children showed few signs of low cognitive ability, it is nevertheless consistent with the assertion that psychiatry needed to regulate several aspects of the child’s development, not just their emotional life. But these diagnostic criteria emerged near the end of the era of a psychiatric discourse in autism. The era of psychological, disciplinary power was emerging at this time, as I have shown. The diagnostic criteria of autism in the third incarnation of the DSM reflected this era.

*The DSM in the Era of a Behavioral Psychological Discourse about Autism in Medicine*

The DSM-III was published in 1980. It represented a break in the diagnostic medical criteria of determining autism in a child. In this era, the behaviorists were developing a new discourse around autism. And armed with the knowledge that
disciplinary practices supplied, psychiatry reshaped what could be stated about autism.

Psychiatry reconceptualized autism in three ways in the DSM-III.

First, psychiatry officially produced a new syndrome that would be known as *Infantile Autism* (American Psychiatric Association 1980). No longer was autistic behavior a symptom of schizophrenia, but it stood apart from all other psychoses and disorders. “However, there is apparently no increased incidence of Schizophrenia in the families of children with Infantile Autism, which supports the hypothesis that the two orders are unrelated” (American Psychiatric Association 1980:87). It took 37 years of psychiatric discourse in autism following Kanner for a unique syndrome of *autism* to be established. From 1980 onward, psychiatry established an exclusive condition over which it had to be vigilant.

Second, autism was categorized not as a childhood type of schizophrenia, but was placed within a category of “Disorders Usually First Evident in Infancy, Childhood or Adolescence” under the subcategory of “Pervasive Developmental Disorders” (American Psychiatric Association 1980:15). This meant that, as far as psychiatry was concerned, the characteristics of autism had to do with much more than affect and intellect in the developing child. It had to do with deformations in all sorts of characteristics of the growing child.

The disorders in the subclass are characterized by *distortions* in the development of multiple basic psychological functions that are involved in the development of social skills and language, such as attention, perception, reality testing, and motor movement (American Psychiatric Association 1980:86).

As the text acknowledges, these children were thought previously to have disorders described as atypical, psychotic, or schizophrenic, childhood type (American Psychiatric
Association 1980). But because, according to the text, these pervasive disorders bared no resemblance to psychosis, a new class of disorders had to be established.

The term Pervasive Developmental Disorder has been selected because it describes most accurately the core clinical disturbance: many basic areas of psychological development are affected at the same time and to a severe degree (American Psychiatric Association 1980:86).

The text states that pervasive developmental disorders have to do with defects in any characteristic of the developing child. One of these pervasive developmental disorders was infantile autism. The categorization of infantile autism under the group of these particular disorders was the first documented time when autism was seen as a disorder that should be purely isolated as occurring in the developmental stage rather than a psychological stage as in psychoanalysis.

Third, the breadth of the description of infantile autism in the DSM-III is vaster than in the previous two DSMs. While the DSM-I and the DSM-II mention autism or autistic behavior inside of a paragraph, the DSM-III characterizes the condition in about five pages. The text addresses several issues, some of which I describe below.

First, the text describes the qualities of the child that psychiatrists need to be aware of to diagnose the child. There are five noted:

The failure to develop interpersonal relationships (my italics) is characterized by a lack of responsiveness to and a lack of interest in people, with a concomitant failure to develop normal attachment behavior…

In early childhood there is invariably failure to develop cooperative play (my italics) and friendships…

Impairment in communication (my italics) included both verbal and nonverbal skills. Language (my italics) may be totally absent. When it develops, it is often characterized by: immature grammatical structure…inability to use abstract terms, metaphorical language (utterances whose usage is idiosyncratic and whose meaning is not clear…Appropriate nonverbal communication, such as socially appropriate facial expressions and gestures, is often lacking.
Bizarre responses to the environment may take several forms…There is often attachment to odd objects…Ritualistic behavior (my italics) may involve motor acts…or insisting that fixed sequences of events precede going to bed…The fascination with movement…music of all kinds may hold special interest…The child may be extremely interested in…peculiar rote topics…Tasks involving long-term memory…may be performed remarkably well.

Associated features. Mood (my italics) may be labile…There is often underresponsiveness or overresponsiveness to sensory (my italics) stimuli, such as light, pain, or sound…

These children show extreme variability in intellectual functioning; they are often untestable on verbal tasks, and when testable, performance is worst on tasks demanding symbolic or abstract thought and sequential logic. However, tasks requiring manipulative or visual-spatial skills or immediate memory may be performed well (American Psychiatric Association 1980:87-88, italics added).

Thus, the text demonstrates that psychiatry has developed an overall concern for life processes in the developing child: First, emotional life in terms of relationships, friendships, and bonding with others, in addition to mood; and the control over emotions is pointed out. Second, the development of language is a concern. Communication on part of the child, both verbal and nonverbal, needed to be clear and socially acceptable.

Third, behaviors were seen as bizarre or ritualistic. Fourth, cognitive abilities needed to be paid attention to. Fifth, sensory issues should be scrutinized.

The breadth of the description of autism not only increased in terms of text, but it increased in terms of the characteristics used to constitute autism. Failures in developing socially meaningful relationships, impairments and communication, ritualistic and bizarre behaviors, extreme affect in social situations, over and under- responsiveness to stimuli, and the failure to perform testable tasks were all now characteristics of autism and had to be identified and rooted out. This speaks to what Foucault (1984) refers to as bio-power: the administration of the optimization of life. This administration of the optimization of life would need to be performed throughout the life of autistic person:
The disorder is chronic…Overall, one child in six makes an adequate social adjustment and is able to do some kind of regular work by adulthood; another one in six makes only a fair adjustment; and two-thirds remain severely handicapped and unable to lead independent lives. Factors related to long-term prognosis include IQ and development of language skills (American Psychiatric Association 1980:88, italics added).

Psychiatry, as can be seen above, was concerned that only about one-sixth of the autistic population would become useful in the world of work. The task of psychiatry was to make these children, as all children, useful within the world of work in adulthood. One way in which to do this would be to raise IQ scores and develop communication skills.

The DSM-III represented a break with the past two DSMs in that now, a concern for managing the whole life of the child emerged. The autistic child is a person with a chronic syndrome. This syndrome actually defines who the autistic person is and what his or her capabilities are. It is clear in the text of the DSM-III that psychiatry believed that the autistic child has capabilities—there is no reason that the child should not lead a productive life—but this productive life would need to be administered by psychiatry. Psychiatry’s authority would allow it to administer to all the particulars of affect, behavior, language, physical sensation, and intellect in the life stage of childhood.

Now that it was established that the life of an autistic child needed to be administered by psychiatry, it needed a more focused gaze in order to identify and make visible this particular child. The DSM-IV would lay out specific clinical measures for identifying the autistic child.

In 1994, the DSM-IV was produced. Infantile autism had been transformed to “Autistic Disorder” (American Psychiatric Association 1994:70-71). The diagnostic criteria for identifying children with autistic disorder are seen in Figure 15.1. These diagnostic criteria mark for the first time that psychiatry could quantify the autistic
condition in an official manner. Note that psychiatry concerned itself with behaviors, bodily movements and bodily states, gestures, spontaneity, appropriate peer relationships, emotional reciprocity in interactions, speech and the ability to sustain a conversation, idiosyncratic language, make-believe and imitative play, preoccupations, inflexibility to routines, repetitive motor mannerisms, and a preoccupation with objects. An overall concern for the body and the psyche is evident in this text. Psychiatry wanted to make visible all these aspects of a child’s life, so that the autistic child could be identified.

In sum, while the medical discourse in autism in the 1940s and 1950s reflected a general concern for the autistic child, its own initial diagnostic criteria did not imply that the child needed to be managed for a lifetime. The diagnostic criteria reflected the medical discourse at that time in that it centered only on affect and the desire to be alone (or what was referred to as withdrawal), consistent with what Kanner had documented back in 1943. Even as a psychological discourse began to emerge in the early 1960s, psychiatry was able to stand its ground and perceive autistic behavior as rooted in the problem of affect and the relationship with the parents, as evidenced in the DSM-II (American Psychiatric Association 1968).

Figure 15.1. Diagnostic Criteria for Autism in the DSM-IV (1994).

<table>
<thead>
<tr>
<th>Diagnostic criteria for 299.00 Autistic Disorder</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. A total of six (or more) items from (1), (2), and (3), with at least two from (1), and one each from (2) and (3):</td>
</tr>
<tr>
<td>(1) qualitative impairment in social interaction, as manifested by at least two of the following:</td>
</tr>
<tr>
<td>(a) marked impairment in the use of multiple nonverbal behaviors such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction</td>
</tr>
<tr>
<td>(b) failure to develop peer relationships appropriate to developmental level</td>
</tr>
<tr>
<td>(c) a lack of spontaneous seeking to share enjoyment, interests, or achievements with</td>
</tr>
</tbody>
</table>
Figure 15.1. Diagnostic Criteria for Autism in the DSM-IV (1994) (Continued).

other people (e.g., by a lack of showing, bringing, or pointing out objects of interest)
(d) lack of social or emotional reciprocity

(2) qualitative impairments in communication as manifested by at least one of the following:

(a) delay in, or total lack of, the development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime)
(b) in individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others
(c) stereotyped and repetitive use of language or idiosyncratic language
(d) lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level

(3) restricted repetitive and stereotyped patterns of behavior, interests, and activities, as manifested by at least one of the following:

(a) encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus
(b) apparently inflexible adherence to specific, nonfunctional routines or rituals
(c) stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting, or complex whole-body movements)
(d) persistent preoccupation with parts of objects

B. Delays or abnormal functioning in at least one of the following areas, with onset prior to age 3 years: (1) social interaction, (2) language as used in social communication, or (3) symbolic or imaginative play.

C. The disturbance is not better accounted for by Rett's Disorder or Childhood Disintegrative Disorder. (http://www.behavenet.com/capsules/disorders/childdisintdis)

For the two decades after the autistic child was produced as an object for medical examination (1940s and 1950s), psychiatry was concerned with returning an emotional life to the child. This was for the purpose of re-integrating the child to the family. The way that psychiatry would return the child to the family for its proper functioning was through psychotherapy. This form of therapy would be applied not to the individual body of the child, but applied to the entire family. The direct administration of the life of the
child by psychiatry alone could not be accomplished. Psychiatry was to attend to the relationship between the child and the parents. During the era of psychiatry in autism, psychiatry was not in a position to administer to the life of the autistic child. It did, however, endeavor to administer to the life of the family.

It was not until the era of a behaviorism in autism that psychiatry could call for the control and administration of the life of the individual child. More to the point, it was psychological power, in the form of behaviorism, that allowed for the possibility of the optimization of life for the autistic child. Psychological power provided a discourse where the possibility that the diagnostic criteria in autism could change. Psychological power made possible the general administration of life for the autistic child within psychiatric medicine. Psychological power (i.e. practices of rehabilitation and recovery from autism) also provided for the possibility of a technique of surveillance that would involve parents into a wider network of surveillance: diagnostic checklists that those outside medicine could use.

**Diagnostic Checklists for the Population**

Recently, Lord and Corsello (2005) reviewed 19 diagnostic instruments in autism that had been developed over the past 30 years. Of these 19, one used Kanner’s 1943 study as a basis for the construct of the diagnostic interview (Rimland’s E-2 Form). Of the other 18, 11 used either the DSM-III or the DSM-IV. Thus, the examination of the autistic body was strongly correlated with a psychiatric discourse that expanded the characteristics of autism. This examination of the autistic body would become a technique of surveillance of the social body because these checklists would be used for the purpose of diagnosing any child that would enter the doctor’s office.
In addition, the examination of the autistic body was appropriate for a variety of reasons. The text (Lord and Corsello 2005) lists 12 uses for these diagnostic instruments:

1. Screening
2. Targeted screening (in the case of mental retardation)
3. Current observation
4. Symptom severity/Response to treatment
5. Current symptoms
6. Measuring maladaptive behaviors
7. Symptoms for research
8. Diagnostic clinics/research across developmental level
9. Educational planning
10. Research and clinical diagnosis
11. Intervention recommendations
12. Identifying pragmatic difficulties

Thus, these instruments were used in medicine not only within the clinic for the purpose of research, but for screening and identifying the autistic child as apart from children with other conditions, how well treatment was working, measuring the severity of symptoms, measuring behaviors already determined to be maladaptive, placement into the educational system, and to be in a position to make recommendation on therapeutic interventions. Medicine focused its gaze onto autistic children for these purposes. But the gaze could not be accomplished alone. Checklists were produced by science, medicine, and psychology for parents to use as they observed their child.

One of the first checklists designed for parental use was Rimland’s (1965) E-1 form. The 75 questions were consistent with Kanner’s concerns when he produced the syndrome of autism in 1943. Concerns included birth and birth order, blood relatives of mother and father (whether they had been known to have a mental illness), personality characteristics of parents, educational level of parents, elimination, intelligence, unusual food fads, interest in music, suspicion of child’s abnormality by parents, early periods of normal behavior, interest in objects and mechanical things, staring into space, treating
people impersonally, parental suspicions of deafness, bodily movements that seem to have no purpose, desire for orderliness, physical pliability of the child, understandability of child’s language, memory, using the wrong personal pronoun when referring to him or herself.

In 1986, the E-2 form emerged. While the questions for the parents were quite similar to those in the E-1 form, a new section was added. This section asked questions regarding the effectiveness of particular treatments. The types of treatment were divided into four groups: drugs, supplements, diets, and miscellaneous. Thus, in the era of behavioral psychology, parents were being asked to not only closely monitor their child, but to closely monitor the effectiveness of treatment. Parents became part of a technology of surveillance of the autistic body and further entrenched in power relations in autism.

Other technologies of surveillance have since emerged for parents to use. The Modified Checklist for Autism in Toddlers (M-CHAT) is a questionnaire designed for parents. It consists of 23 questions. The Autism Spectrum Disorder Foundation (2007) describes its purpose and uses for parents:

Are you worried that a child you know may have autism? If your child or family member is between the ages of 18-24 months and you suspect they may have autism, please view the M-CHAT and M-CHAT Scoring Guides below. Several screening instruments have been developed to quickly gather information about a child's social and communicative development within medical settings and at home.

If the child fails the M-CHAT, and you live in the United States, then make a special education referral to the Early Intervention program at the school district in which the child lives. You should also take the results of the M-CHAT to the child’s pediatrician for a referral for a full assessment to a multi-disciplinary team at a Children’s Hospital or an autism unit at a university near you.

The scoring of the parent questionnaire takes about two minutes (Robins 2008).
Thus new technologies have recently been produced where parents, working in conjunction with their doctors, can determine, or hope to determine, whether a child is autistic. Whereas before, parents had to observe and apply their own recall to help determine whether their child was autistic, a more efficient manner with which to identify autism in a child has been produced. The speed and convenience with which parents use to scrutinize a child to determine whether the child is autistic is the epitome of efficiency that regimes need in being able to closely watch the population.

In sum, from the time child psychiatry produced the autistic child as an object for medical examination in 1943 to the time that this object was subjected to psychological power for the purpose of producing scientific evidence of the effectiveness of a particular therapeutic practice in 1987, autism was a problem of the individual body. From 1987 to the present day, autism became a problem for the social body. Before 1987, medical science and psychology could only regulate the lives of a few autistic children within the psychiatrist’s office and later the behaviorist’s experimental room. Moreover, this regulation of life could only last during the hours in which the autistic child (and family) was in contact with the therapisit of the experimenter. After 1987, the disciplines were able to show that disciplinary procedures administer life to autistic children in the far reaches of society and for longer periods of time.

Surveillance of the Social Body in the Case of Autism

By the 1990s, autism, or Autism Spectrum Disorder (ASD), had become a public health concern (Newschaffer and Curran 2003). As evidence, the U.S. Department of Health and Human Services increased funding for autism research from 1995 to 2001 fivefold—from $11 million to $56 million (Khoury et al 2002; U.S. Department of
Health and Human Services 2001). In addition, and as a result of the Children’s Health Act of 2000, funding from the National Institutes of Health for autism research, according to NIH estimates, had doubled from $51.5 million in fiscal year 2000 to $101.6 million in fiscal year 2005. In part, these funds were distributed to the National Institute of Mental Health, National Institute of Child Health and Human Development, National Institute of Neurological Disorders and Stroke, National Institute on Deafness and Other Communication Disorders, National Institute on Environmental Health Sciences, National Human Genome Research Institute, and National Institute on Aging. The funding to these centers represent a concern—consistent with bio-power—for the administration of life (in terms of mental health, development, genetics, nervous system, over the life course) of a population.

Similarly, the Center for Disease Control increased its funding of medical research on autism eight-fold over the same time period (United States Government Accountability Office 2006).

Catalyzed by the Children’s Health Act of 2000, the CDC is supporting the development of population-based ASD surveillance projects in eight states and has funded five centers of excellence in autism and developmental disabilities epidemiology to conduct surveillance and to begin a large, multi-centered autism case-control study. These CDC projects should provide more accurate ASD prevalence estimates and, it is hoped, lead to the discovery of modifiable risk factors. The Children’s Health Act also charged the NIH to fund at least five centers of excellence in clinical and basic science research on autism and so form an Autism Coordinating Committee where representatives from five NIH institutes, the CDC, the FDA, and the U.S. Department of Education. Through a federal mandate under the Individuals with Disabilities Education Act, states can secure federal funding to provide developmental screening and early intervention to infants and toddlers. These programs, while not exclusively focused on autism, have been an important means of raising early warning signs that can lead to diagnosis of ASDs and have been available in all states since 1994 (Children’s Health Act, cited in Newschaffer and Curran 2003).
At the start of the current century, federal funding for research into autism grew dramatically. In addition, centers and clinics devoted entirely to research on autism and other developmental disorders were emerging, sponsored by the state. State-supported funding of screening for autism, treatment of very young children, and early warning signs began to emerge around this time.

In the middle of the last decade, the Combating Autism Act of 2006 was passed. It read, in part:

The Director of NIH (in this section referred to as the “Director”) shall, subject to the availability of appropriations, expand, intensify, and coordinate the activities of the National Institutes of Health with respect to research on autistic spectrum disorder, including basic and clinical research in the fields including pathology, developmental neurobiology, genetics, epigenetics, pharmacology, nutrition, immunology, neuroimmunology, neurobehavioral development, endocrinology, gastroenterology, and toxicology. Such research shall investigate the cause (including possible environmental factors), diagnosis or rule out, early detection, prevention, services, support, intervention, and treatment of autism spectrum disorder (Combating Autism Act 2006).

Here, a regime orders its health agency to investigate all aspects of autism.

As noted above, one of the early warning signs could be found in the genetic code. Recent testimony in Congress suggests that present scientific research in autism is focusing on the relationship between genetics and autism. Here, I highlight several excerpts of testimony to show this and analyze the text. It is the testimony of the Director of the National Institute of Mental Health, National Institutes of Health, Department of Health and Human Services.

The definition of autism, or what characterizes autism, is stated from the outset.

To get you, sort of, on track here, let me just make sure we're all on the same page in what we're talking about. Autism, by definition, starts by age 3. We're talking about three different kinds of symptoms that characterize autism: reduced social
behavior, abnormal language, and, as we've talked about before, repetitive, restrictive behaviors that often are called stereotypes; they have many other names (U.S. Senate 2009).

The emphasis in this statement is on social behavior and restrictive behavior, not on affect and emotion that Kanner (1943) insisted was the main feature of autism. It is clear that original definitions of autism are being expanded, consistent with the DSM-IV’s (1994) version of autism. No longer would autism be seen by medicine as a single syndrome, but a confluence of many syndromes.

…we increasingly talk, not about ‘‘autism,’’ but about ‘‘autisms,’’ and we really think about this as many different disorders. And in some ways, we're prisoners of our own language, here, by thinking about it as a single syndrome (U.S. Senate 2009).

The very truth of autism is being expanded in this statement. The truth of autism has become the truth of autisms. This truth involves collection of children, from those who are defined as autistic because they are severely limited in their repertoire of behavior, to those who have the potential to make important contributions to society, as can be seen in the following statement:

The term that has now been most widely accepted, and that you'll hear about most of all this morning, is called the ‘‘autism spectrum,’’ or ‘‘autism spectrum disorder.’’ And all that really means is that we're talking about a range within the syndrome. At one end are those children who really have very limited functioning, often have no language whatsoever, may have severe intellectual disability, show no interest in social interaction, and have lots of motor abnormalities, including the most common and what we call ‘‘diagnostic one’’ is hand flapping, and they're the ones that often have these dysmorphic facial features.

At the other end of the spectrum are children who are going to grow up to be, often, highly successful. I mean, they may, in fact, have social awkwardness, they may be called ‘‘geeky,’’ or ‘‘nerdy,’’ or something like that. They may be more interested in numbers than in people. But, they may be tremendously useful and tremendously successful and make huge contributions as engineers, as computer scientists, in areas that probably aren't going to tap so much into their social awkwardness, but allow them to really use what they do best, which is to be able
to think about the mechanical, numerical, and less social aspects of the world…(U.S. Senate 2009).

By defining autism in this manner meant that any investigation into how the bodies and psyches of autistics operated would be an investigation necessarily seeking how bodies can be made useful. By examining “successful” autistic adults, science could understand what part of the autistic self made them successful. Therefore, any understanding of successful autistic children would be an understanding of how autistic individuals could be made more useful to the social system.

Yet, at the same time, medicine clearly aims to understand the reasons why autistic children—from both ends of the spectrum—are not the social beings that science wants them to be. This means that scientific examinations, research, papers, in a word, discourse will focus on how best to eliminate non-normative social behaviors. At the same time science will seek to understand the usefulness of these children as they age.

Medical science presently sees the problem of autism as a problem of social interaction. The problem resides in the brain and its inability to process information that would enable the autistic individual to be successful at interaction, as seen in this statement.

First of all, I think there is wide recognition that this is a developmental brain disorder. We don't know yet where in the brain, or what in the brain, or even when in the brain, things go off track, but the most recent research would suggest that what we're talking about here isn't a specific lesion in a particular area, but it may be more likely what we call a synaptic disorder. It's a problem of brain connections. And that may be very diffuse, and it's quite possible that the reason you see problems in language and problems in social interaction is that those are functions that require the greatest number of synapses. And if you're not able to process information as quickly as you need to, or if you process information in a way that is too quick and isn't filtered, you're going to see deficits. If your connections aren't working, you're going to see deficits in just those kinds of functions (U.S. Senate 2009).
There is evidence in this portion of the text that suggests that medicine is making an attempt to get to the root cause of deficits in interaction among autistic human beings. Dysfunctional brain synapses are theorized to be the cause of autism and autistic behavior. In medicine’s way of thinking, information needs to be processed by human beings. In fact, the text suggests that information processing is the characteristic that science aims to fix in autistic human beings.

This concern for information processing reflects the social system’s need for individuals in society to be able to process information correctly. It is no accident that medical science is focusing on the autistic individual’s deficit in processing information. In order for all individuals to be useful in modern society, they need to be able to process and comprehend the myriad of data that is being thrown their way. Again, medical science at present is not showing concern for the well-being of autistic children and adults. Instead, it is interested in correcting the manner in which the outside world is received by and then understood by autistic individuals ranging from those with minimal abilities (in the eyes of science) to those with maximum abilities. This concern does not stop at childhood; it extends throughout the life course into the adult stage.

How then could the problem of processing and understanding the external world be approached by science so that this problem could be fixed permanently starting in childhood? Science aims at present to examine genes and environmental factors. Science is looking at these factors because the examination of these factors has shown results in other illnesses and disorders. Further, just as psychiatric medicine expanded the characteristics of autism until it became a spectrum disorder, i.e., several autisms,
genomics, the science of gene structure, believes that the etiology of autism is increasingly rooted in human genes.

In the last 2 years, we've discovered a range of other rare, but apparently highly significant, mutations that are in the form of structural lesions within the genome, that also seem to contribute. And so, where 2 years ago I might have said 2, 4, perhaps 5 percent of any population of children with autism would have one of these syndromes, I think now we can say that number's going to be considerably higher, perhaps more than 10 percent. We don't have names for all of these syndromes, but we have, in the last couple of years--and I must say it's changing almost every 2 months--there are new reports out about rare mutations that may explain another 1 or 2 percent of the children who have this disorder (U.S. Senate 2009).

Medical science acknowledges within the text that studying the genetic makeup of individuals is nothing new, as science has been studying the genetic influence in “asthma” as an example. But science is comparing a chronic illness such as asthma to the manner in which individuals process their experience with the outside world of objects and people. Further, it dreams of fixing autistic individuals in the same way it dreams of curing asthma.

Statements produced by medical science today represent another break in the discourse about autism. Not only is autism no longer a problem of affect originating—at least partly—from cold, unemotional relationships with the child’s parents. Science now believes that autism has more to do with genetic makeup of individuals. One can say a new scientific discourse is emerging about autism.

Further evidence that the medical discourse about autism is breaking with the past can be found in these statements from medical science. First, medical science is presently stating that, similar to degenerative diseases of the brain, autism usually is not detected until unusual social behaviors start to emerge.
The point of all this is to be able to develop ways of detecting this disorder much earlier. We know, in general, that for brain disorders, behavior is one of the last features to change. That's true for Alzheimer's, it's true for Parkinson's, it's true for Huntington's. That is why it will be most important to have a biomarker that will allow us to detect risk and detect the disorder much earlier (U.S. Senate 2009).

There is a need now among medical science to detect autism in a child before unusual social behaviors start to emerge. But childhood is about that stage in human life when individuals learn normative social behaviors. Small children are still learning how to behave. This means that science will search for particular biomarkers that will detect a possibility that a child, even before he or she understands normative social behavior, is autistic. The way to reduce risk is to seek out biological markers that would identify autistic children. Science is not willing to wait until particular social behaviors emerge that could signify that the child is autistic. This means that science needs a technology at present to screen all children for autism. New medical practices in autism would efficiently identify autistic children and treat them at the same time for their genetic disorder.

This combination of identification and treatment would be so efficient that behavioral therapy would become a thing of the past. While behavioral psychology saw the value in ABA as an efficient and inexpensive means to normalize autistic children, a new genomic discourse suggests that behavioral techniques are not efficient enough.

We want to have interventions that are more effective. Behavioral interventions are effective for many children, but they're expensive, they're extensive, they take a long time to work, and we're not yet where we want to be at the end of the day. We want to be able to offer much more than just the behavioral interventions (U.S. Senate 2009).

In contemporary society, medical science readily acknowledges the benefits of behavioral therapy, yet at the same time, medical science now states that behavioral therapy is
fraught with problems. Expense, extent, length of treatment—these were the very same complaints that behavioral psychology had about previous treatments of psychotherapy and institutionalization of autistic children. This new genomic medical discourse in a treatment for autism is making claims, as did a previous medical discourse guided by behavioral psychology, of better and more efficient means of transforming autistic children in its image. But these treatments, like other scientifically produced treatments, did not state whether children would become healthier and happier, only that these treatments eradicate autism in the child.

How will research proceed in order to produce treatments specifically designed to the repair the synapses in the neurological system of autistic children? It will proceed through a network of power, power that is diffuse enough that research would be quick and expedient.

Finally, I will just mention that we've also tried to jumpstart much of this progress by creating the National Database for Autism Research, which will be essentially a meeting ground, electronically, for scientists around the world to be able to share data and to share the tools that are necessary to accelerate progress in this area…

And I can't emphasize enough the importance of, now, attention to adults and soon-to-become adults with autism. This plan will not only provide the road map for research, but also set the standard for public-private cooperation and for engaging the broad community, who will be so invested in trying to make sure we expedite research progress (U.S. Senate 2009).

Databases of the results of examinations of children, such as neuroimaging and serum samples (U.S. Senate 2009) will be shared by scientists worldwide. This is intended to accelerate scientific research in autism. This acceleration of research is important to science because autistic children are becoming autistic adults, and the problems that autistic adults bring are inconveniences that need to be avoided. Therefore a network of
power between public and private domains that could engage broader communities is now needed for scientific research to be performed. This again is a break with the discourse as old networks of power were confined to academic departments and private clinics. Now, in the case of autism, power is becoming more global. A wider network of power involving private enterprise, public institutions, and local communities are forming to eradicate autism from the individual body.

An example of how power would be deployed onto the social body is provided in the statement.

About 1,200 mothers of children with ASD will be followed as soon as they become pregnant again and throughout the early life of the new baby. Through extensive data collection on a number of possible ASD environmental risk factors and biomarkers, the study holds great promise in advancing understanding of the causes and progression of ASD (U.S. Senate 2009).

Surveillance methods will be used on mothers who have already given birth to an autistic child. Large amounts of data will be collected on risk factors, including particular biomarkers for autism. Medical power will no longer be deployed onto the bodies of autistic children; rather, medical power will invade the bodies of mothers of autistic children for the purpose of eradicating autism.

The use of technologies of surveillance of autistic bodies has served technologies of surveillance of the social body. Autistic bodies (and when I speak of autistic bodies, I include the psyche as well), were identified through the examination of particular children, not through the examination of adults. Psychiatry and psychology examined, and then deployed power, on to all characteristics of the body and the psyche of these children as they developed their manner of reasoning, thinking, emoting, behaving, moving, and experiencing the sensory world. That is, these characteristics were all examined in the developing body of a child and then manipulated. These manipulations,
these coercions (i.e., power) would be done for the production of real effects. Moreover, power was deployed on to developing autistic bodies for the production of permanent effects throughout a lifetime. The dream of science, as Lovaas clearly stated (Chance 1974), must necessarily be one therefore of producing the individual.

In the present day, the medical discourse about autism is being ruptured once again. This time, a discourse guided by genomics is emerging. No longer will therapeutic practices have to wait until a medical gaze makes autistic behaviors visible. The medical gaze will make the gene that causes autism to be visible, not the behavior. In fact, new therapeutic practices in autism are beginning to be deployed not as particular social behaviors are being noticed and made visible by medicine. They are being deployed when there is merely a risk of autism and deployed into the body of the mother. The purpose of this deployment of power is to produce a human being in the genetic sense, since medical science now sees something wrong with the autistic individual at the level of genetics. Power is being deployed for the purpose of real effects—the effects being the transformation of the autistic child at the genetic level. Power is now being deployed by a network of science, private enterprise, public institutions, and the state. Power has gone global in the case of autism with the objective being the prevention of autism in the individual body and in the social body.
CHAPTER XVI

DISCUSSION

In the beginning of this dissertation, I stated that over the past 20 years the childhood disorder of autism had grown from a little-known condition to a societal phenomenon. My central question was: How did autism become a disorder with which nearly everyone has some familiarity in contemporary society? I suggested that, despite all of the available treatments and all of the available science, autism has not been eradicated. I also suggested that medical science has done little to alleviate the problem of autism. I stated that it was my belief that medicine actually produced the problem of autism, even though it purported to be attempting to treat it. Finally, I went even further to propose that medical science actually produced a truth regarding autism. I suggested that once science produced this truth, the problem of autism was created and the social concern for autism soon followed.

Summary of Results

Building on these more general ideas, my first research question was: “At what moment in history did medicine believe that it could successfully treat the autistic child?” In answering that question, my research has shown that at one point in the early 1960s, behavioral psychology believed it could successfully treat the autistic child. Through scientific experiments conducted in the halls and laboratories of the Psychology Department at UCLA, behaviorists attempted to change the conduct of four autistic
children. They did this through a system of meager rewards and painful punishments. Rewards were the allowance of physical and emotional gratification such as food and hugs supplied by behavioral psychologists. Punishments came in the forms of shouts at the children, slaps to the faces and thighs of the children, and electroshocks onto the bodies of these children.

This scientific experiment on four autistic children was a clear example of discipline as a technique of power. Recall that for Foucault (1995), discipline is a “technique of power which provides procedures for training or for coercing bodies (individual and collective)” (Smart 2002:85). This research has shown that procedures of discipline (i.e., pain, punishment, and rewards) were used to coerce autistic children into adhering to behavioral psychology’s objectives (see Chapter VIII).

The importance of this result is that the use of discipline as a technique of power was the moment when a new medical discourse about autistic children could emerge. In clinical terms, this new discourse focused on rehabilitation, recovery, and the treatability of autism. In Foucauldian terms, a new discourse had opened up about the possibility of the normalization of the body of autistic children and the transformation of the psyche of the autistic child in service to the social system. Yet this new medical discourse needed to be set into relief with the previous medical discourse about autism to show why and how this new medical discourse emerged as it did.

Therefore, my second research question was: “What is the history of both discursive and non-discursive practices that precipitated this deployment of disciplinary power onto bodies of particular children?” To answer that question, my research focused on the point when discursive practices in medicine in autism first emerged. This research
has shown that discursive practices within medicine in the case of autism first emerged in
1943. This was described in Chapter X with an archaeology of Kanner’s (1943)
description of a new syndrome that he labeled *autistic disturbance of affective contact*.

But, the current project has also shown that Kanner’s work was an effect of an
emerging domain within psychiatric medicine that focused its clinical practices onto
children (i.e., child psychiatry), especially those children labeled as deviants and those
children who were institutionalized or abandoned (see Chapter IX). Therefore, the results
of this dissertation project suggest that the birth of the medical discourse around autism
should be seen as emanating from the domain of child psychiatry, instead of emanating
from one particular child psychiatrist.

As evidence of this assertion, I showed that Kanner’s (1943) article focused on
the lack of emotional attachment which the children studied seemed to have. Emotional
attachment was a central concern in the psychoanalytic movement within psychiatry at
the time. Kanner’s interpretation of the obsessive aloneness of the children that he
observed was that the relationship between the mother and the child lacked an emotional
bond. Therefore, the etiology of autism, as written about by Kanner (1943) was
consistent with psychoanalysis at the time. That is, emotional problems and an obsessive
desire to be alone were somehow linked to, at least in part, the lack of parental bonding,
particularly on the part of the mother.

Finally, Kanner (1943) focused on the probability that these autistic disturbances
emerged early in life, suggesting that autism was really an inborn and innate inability to
form emotional attachments to others. His suggestion that autism was inherent in these
children at birth was consistent with the predominant discourse in psychiatry. I have
shown evidence that American Psychiatry at the time did not disagree with the notion that emotional, mental, physical, and cognitive disturbances could also be rooted in the genetic makeup of the parents. While Kanner suggested that autism was an innate inability to form affective relationships with others, he did not explain how it was that parents’ lack of emotion in their relationship was also somehow associated with their child’s autism. Statements that autism was innate and at the same time rooted in parents’ own inability to form emotional attachments with their child were contradictory statements. Despite this contradiction, both statements became part of the medical discourse.

Kanner (1943) was guided by a psychoanalytic and psychiatric discourse in the determination of the roots of the disorder. He was guided by the prevalent discourse rather than by himself as an autonomous actor. As evidence, he personally probably would not have wanted to suggest that these children had something genetically defective about them. This would risk the pro-eugenics psychiatrists calling for euthanasia for these children. Kanner was adamantly opposed to this idea. Thus, Kanner was not following his own conscience in stating that the possibility of genetics playing a role in autism. He was following a discourse that went against his own conscience. Yet the text that he produced in 1943 stated that parents were directly involved in their children’s autism through their unemotional relationships with their children. The text also suggested that parents were involved by way of their genetic makeup, stating that autism was inborn in nature.

Foucault’s theory suggests that medical discourse about an object cannot emerge until that object is made visible through the clinical gaze. The current research has
shown that the medical discourse about autism could not emerge until a particular object was subjected to a psychiatric, psychoanalytic gaze. The object of the autistic child was formed through the subjugation of that gaze. Statements, concepts, and theories about the characteristics of the object of the autistic child were produced by psychiatry about autistic children. This dissertation has demonstrated that these children were not autistic until psychiatric medicine stated in text that they were autistic. That is, by making a change in the text, they actually changed particular children’s very being and potential.

Once stated, a medical discourse, grounded in psychiatric and psychoanalytic knowledge at the time, could rise to the surface. Within the realm of child psychiatry and within its clinical setting, particular behaviors and emotions of autistic children were judged as abnormal, deviant, and pathological. Further, parents’ cold, unemotional, almost scientific-like manner of raising their child was thought by psychiatry to be exacerbating, if not causing, the autistic thoughts and behaviors of the child. But as quickly as this particular medical discourse was being constructed, this discourse was beginning to break apart, giving way to the construction of a different medical discourse in autism. This new medical discourse about autism was dominated by behaviorist thought within the discipline of psychology.

The current project has shown that during the 1950s, child psychiatry believed that it needed more scientific research into autistic children. It believed that new knowledge about autism was needed and that it was science which could provide this knowledge. Further, it was demonstrated that behavioral psychology provided this scientific knowledge (see Chapters VIII, XIII and XIV). In so doing, it was also shown that behavioral psychology’s power provided the means through which a new knowledge
would be gained about autism and autistic children. This power subjected autistic children to a discourse of behavioral conditioning. The idea of conditioning is simply that individuals, all individuals, are subject to change their behavior if certain coercive techniques are applied to their bodies.

Further, as I have shown in Chapter XI, it was psychology’s dream to correct irrational, overly emotional, dreamy, and fanciful thought in individual human beings. It was necessary, according to psychology, that human thought be rational and accurately represents the world. This type of thought was crucial to societal productivity and to the continued evolution of the human race. Therefore, psychology set out to root out what they defined as threatening to the body social – that is, the existence of autistic thought.

Scientific efforts within the clinic and through experimentation were needed to perform this task. The current research has shown that it was behavioral psychology that heeded this call for the extinction of autistic thinking through the use of disciplinary practices on autistic children in scientific experiments. The goal of ending autistic thought would begin through disciplining children through scientific knowledge of how behaviorism works in practice and in discipline.

Later results chapters described and analyzed text to show how psychology was pursuing its goals through the deployment of disciplinary practices (i.e., power) onto the bodies of autistic children in the middle to late 1960s. These practices were designed to control behaviors, control expression of emotions, and alter ways of thinking in autistic children. These practices included electro-shocks to children’s bodies. As the research presented here as shown, by 1987, behavioral psychology was able to provide empirical evidence that it could actually normalize some autistic children through the use of such
techniques. For behavioral psychology, normalization meant producing a child in the psychological sense of being human and attending standard formal educational institutions. The effect of this knowledge produced a medical discourse about the possibility of successful treatment.

The central finding in answering my second research question was that operant conditioning, the practices used by behavioral psychology in autism, were the same techniques that parents of autistic children were chided for by psychiatry in the raising of their own children. Medicine at first deplored the practice of operant conditioning when it was used by parents. But medicine embraced the practice when it was used, not by parents, but by the science of human psychology.

Finally, my third research question was, “In the history of medical practices in autism, how is power deployed onto the social body in general with regard to autism?” I have shown how behavioral psychology’s practices fulfilled psychiatry’s dream of the need for a more applied science in the case of autism. Behavioral psychology provided psychiatry (and medicine more generally) with scientific evidence that treatment could normalize autistic children. The effect of this scientific evidence was the emergence of a medical problem. Once a medical problem was established, closer surveillance of the social body was in order. The evidence that I provided to show that there was increased surveillance of the population was: the expansion of the medical definition of autism in the DSM; the emergence of diagnostic checklists that both parents and medical personnel could use to judge whether a child was autistic; and the sudden interest in autism by government health agencies such as the National Institutes of Health (see Chapter XV). The fact that surveillance went from the individual body of the autistic child to the wider
surveillance of the social body demonstrates how autism became the social concern that it is today.

In sum, I was able to show that psychiatric medicine used the clinical gaze to produce what we know today as “the autistic child.” Statements, concepts, and theories were formed to produce a discourse around these particular children. This psychiatric discourse could not produce a medical therapy for these children. Instead, it took psychology to produce what it believed to be an effective therapy for autistic children, even though parents were the first to use behavioral techniques on their autistic children. But psychology used much harsher methods. The current project demonstrated that the use of discipline and power applied to the bodies of autistic children through a scientific theory of behaviorism, produced autism as we know it in contemporary society.

**Limitations**

There are several limitations of the current study. First, I used the historical methods of archaeology and genealogy to examine cultural artifacts. These artifacts were medical texts, meeting notes, images, editorial board meeting notes, drafts of papers, speech notes, and a statement from the head of NIMH. The study of artifacts can in no way help to understand how individuals respond to these artifacts. In using these methods, I was unable to discern how human beings actually reacted to or thought about these artifacts, these artifacts being representative of the medical discourse about autism and the medical power used in autism. Further research should examine how medical personnel reacted to these artifacts. This type of research could provide clues as to any other mechanisms besides power that allowed discourses to emerge.
Second, in the current project I was unable to show how particular medical practices, both discursive and non-discursive caused later events. The historical methods that I used could merely describe the structural elements of discourse (i.e., the formation of the object, statements, concepts, and theories). These methods could also only analyze the use of power onto bodies. It also showed at what point in history discursive and non-discursive practices emerged. Using this type of methodology limited my ability to provide evidence that one particular practice caused another practice to emerge later in history. Future research should seek the mechanisms by which medical practices in autism influenced future practices. This would provide a more nuanced look at how practices become favored.

Third, there were countless historical documents that I could have examined. It is probable that in the accumulation of historical documents, which were the data that drove my results, I have overlooked documents that could have enriched the story of the history of medical practices in autism. In fact, the number of documents that provided the data to be able to answer my third research question was small in quantity. Future research will need a more thorough examination of medical documents pertaining to autism published (or unpublished), especially since 1987. For example, a more thorough accumulation of text might reveal why the psychoanalytic discourse within medicine declined. Another example would be to more fully understand how psychology understood autism before Kanner changed a condition to a disorder in 1943. Finally, one would be able to describe in more detail the discourse of treatment, rehabilitation, and normalization that came after 1987.
Fourth, because this was a sociological study of a medical case history, the ability to generalize my findings to other medical cases is limited. Any contributions that I may have made to the field (see below) should be tempered by the knowledge that future research needs to investigate other medical cases to provide more evidence of my conclusions. For example, investigations into cases having to do with conditions unique to adults rather than children might show different kinds of concerns for medicine. Also, investigations into purely physical ailments might suggest a different range of what could and could not be stated. Finally, investigations into the medical discourse about autism in non-Western countries could shed light on how culture plays a role in the development of medical practices.

**Contributions**

In choosing to employ Foucault’s theory, concepts, and methodology for this dissertation, I hope to have contributed to the sociology of medicine. I believe that in applying a Foucauldian perspective on a particular bodily condition, I was able to demonstrate that:

1) Bodily conditions are interpreted not by medical knowledge, but by discursive medical practices;

2) Discursive practices can frame the possibilities of what medicine can and cannot state about a particular bodily condition;

3) Medically-related discursive practices about a bodily condition can be shaped by the non-discursive practices (power) that is applied to bodies, no matter through which domain;
4) Power is not always used by large institutions. Power can be discovered in out of the way places (domains) such as the halls of an academic department of a university;

5) Bodily conditions are transformed into disorders through a clinical gaze that makes that condition visible, thus making it a medical reality;

6) It is not the disorder that is constructed, but it is the truth of the disorder that is constructed;

7) Ideology has little to do with the construction of a truth of a medical disorder, but the gaze, discipline, power, and discourse have much to do with the construction of a truth of a medical disorder;

8) Theories of the social construction of medical knowledge and disease should include the actual bodily condition of individuals as one of the elements of this construction.

*Psychiatric Medicine, Behavioral Psychology, and the Autistic Condition*

The main findings of this study with regard to the relationship between autism and the medical practices in autism were that the medical discourse did not accurately describe the autistic condition; and the disciplinary practices applied to autistic children did not actually help these children lead healthier, happier lives. In fact, some of these practices may have actually hurt them. In what follows, I provide one characteristic that medicine has cited as key facet of autism and compare this to the actual lived experience of autistic individuals. This feature was part of a medical discourse about autism for several decades.
The early medical discourse about autism stated that the central characteristic was an *obsessive desire to be alone* (Kanner 1943). This characteristic was deemed obsessive because it was rooted in the failure of normal emotional attachments with the mother. That is, if the very first contact with the most important adult in the child’s life was aloof and lacking in emotion, the child was unable or unwilling to come into affective contact with other people.

But autistic individuals themselves have now explained why they prefer to be alone. As my description in Chapter II of the lived experience of autistic people has shown, the psychiatric and psychoanalytical explanations as to why individuals with this condition prefer to be alone has little to do with obsessiveness. It has more to do with the bodily characteristics of the condition, not any emotional disturbance caused by their mothers. Below, I select examples from the autobiographies of these individuals (that I used in Chapter II) to demonstrate that the medical, psychiatric discourse had very little understanding of the autistic condition.

A major reason why individuals with the condition of autism prefer to be alone has to do with how their bodies respond to stimuli from the environment and from other human beings. That is, it appears that the bodies of autistic individuals are highly sensitive to stimuli. For example, autistic individuals appear to be sensitive to eye contact. In fact, for some autistic individuals, eyes contact with others actually hurt. The examples of Crocus and Dawn Prince-Hughes are telling:

(My third-grade teacher) would scream at me in class and I would disassociate, totally leave my body, and I was literally unable to see my surroundings. She would force me to look at her by clutching my face with both hands. The memory still makes me feel sick (Prince-Hughes 2002:111).
It was physically painful for me to make eye contact—why did people look at each other so casually? It seemed like such a callous invasion (Crocus 2002:54).

It is understandable why a person would prefer to be alone when eye contact with others had the potential of being painful.

In terms of treatment practices invented by behavioral psychology, one practice in ABA is to force autistic children to look at the therapist in the eye (see Figure 8.7, page 205). It is difficult to believe that forcing young children to look another person in the eye could be effective treatment of this condition.

Another possible reason that autistic individuals prefer to be alone might have to do with a physical sensitivity to sound. The autobiographies of some autistic individuals suggest that sound can be painful and some sounds had to be avoided.

When I was little, loud noises were also a problem, often feeling like a dentist’s drill hitting a nerve. They actually caused pain. I was scared to death of balloons popping, because the sound was like an explosion in my ear. Minor noises that most people can tune out drove me to distraction. When I was in college, my roommate’s hair dryer sounded like a jet plane taking off (Grandin 1995:67).

Certain noises and the pitch of some sounds cause me a lot of discomfort. The buzzer on the microwave oven, children’s voices, car horns, the bus bell people activate to tell the driver they want to get off, a kettle whistling…these are just some of the sounds I find unbearable (Lawson 1998:4).

It is understandable why autistic individuals would desire aloneness when everyday noises in the environment were physically hurtful. The medical discourse suggested that children withdrew into a shell and that this was a pathological way of behaving. It did not consider that sounds and noises could be physically painful for the young people that it was observing. Therefore, behavioral psychology, thinking that autistic children need stimulation to draw them out, used screams to stimulate them. One can imagine the excruciating pain that the four autistic children in the Life Magazine article may have
endured as behaviorists, armed with the knowledge of the nature of human beings, yelled loudly at these children at close range. One cannot imagine the excruciating pain that countless autistic children have had to go through since this therapeutic practice began.

In addition, autistic individuals seem sensitive to the touch of other human beings. As the following statement from Donna Williams suggests, human touch was something that needed to be avoided.

I never hugged either of (my parents); neither was I hugged. I didn’t like anyone coming too close to me, let alone touching me. I felt that all touching was pain, and I was frightened (Williams 1992:8).

While psychiatry was stating that a key characteristic of autistic children was that they had an obsessive desire to be alone, it could not consider the possibility that the autistic child wanted to be alone to avoid being touched because it was agonizing.

Again, because behavioral psychology believed that autistic children were avoiding the world or were unaware of the world based on the abnormality of their behaviors, the science of human psychology needed to bring them into the world. For behavioral psychology, techniques of punishment directed onto the bodies of autistic children were meant to draw the autistic child into the world. Instead, because of the extraordinary amount of pain they had to endure, it was probable that these children either further withdrew from the world or agonized over what the behavioral psychologists wanted of them to avoid being slapped and shocked with a bolt of electricity. The fact they were able to do as they were told by psychology is testament to the resiliency of these children in the face of great pain. It also shows that that while these disciplinary techniques were cruel, they were especially cruel to children with the unique sensitivities that they already had.
But when it all is just too much, some autistic individuals experience sensory overload. This experience seems to lead to a desire to withdraw from the world. Wendy Lawson’s experience illustrates the quandary that some autistic individuals find themselves in.

If things became really bad and I suffer what I call sensory overload, then I close out all the sounds and noises of the world. I could sit somewhere quietly or put my hands over my ears and enjoy the quieter sounds of life. Somehow to just sit and close off gives me space and time to recover from being anxious. It helps me to calm down (Lawson 1998:101).

Further, when the sensory overload is experienced, many autistic individuals need to find a space to calm themselves down. The following autobiographical statements illustrate this point.

There is a need; a drive to hide, to retreat, to get away from it all. To find a place quiet and tranquil. I never knew where I was going, but I knew I was there when I arrived (McKean 1994:49).

I like really little spaces, so long as there is no one else in them with me. Sometimes when I want to be on my own I get into the airing cupboard outside the bathroom and slide in beside the boiler plate and pull the door closed behind me and sit there and think for hours and it makes me feel very calm (Haddon 2003:50).

I liked squeezing myself up tight in a tiny ball when I was little, hiding where no one could see me. I still like the feeling of lying under things and having them press on me (Robison 2007:16).

These statements suggest that when young autistic children are alone, there is probably a very good reason for it. They prefer it that way. Their bodies may not be able to absorb all the sensory stimuli headed in their direction; therefore hiding away from and getting away from people is a soothing, calming experience. In terms of therapeutic practices, one can imagine the feeling that autistic children may have experienced being subjected to scientific experiments where there was no escape. Both the *Life* (1965) article and the
(1987) Lovaas article that suggested autistic children could be normalized, stated that autistic children were confined to spaces where they could be observed by scientists. Any escape from the experiment, from subjugation, would be most likely seen by science as abnormal behavior.

In sum, I have provided an example of how the medically-related discursive and non-discursive practices and the lived experiences of autistic individuals can be placed in juxtaposition. My aim was to show that medicine and psychology may have misjudged autistic children’s bodily conditions in their drive to produce, respectively, the autistic child as an object examination so that later it could be subjected to the deployment of scientific discipline and scientific power. In revealing this contradiction between medical practices in autism and the bodily experiences of actual individuals with the autistic condition, I hope to have played a role in opening up a new space for a discourse rooted in the body of the autistic, not in scientific examinations, observations, and judgments of autistic individuals.
CHAPTER XVII

CONCLUSION

In this dissertation, I traced the history of medical practices in autism to show that using the medical model of disease and disorder in the examination of the human psyche may mislead medicine and psychiatry when it comes to decisions about diagnostic and therapeutic practices. In the previous chapter, I provided a summary of the evidence that I brought to bear on my overarching goal. I also provided a list of the strengths and limitations of my research design, and a comparison between the lived experiences of autistic individuals and the medical interpretations of the autistic condition. I suggested that the medical interpretations of this condition that were rooted within psychiatry and behavioral psychology were really misinterpretations. I have provided historical evidence that this misinterpretation of the autistic condition is rooted in an overall discourse that is guided by a medical model of disorders of the psyche. Further, such misinterpretations proved to be harmful to autistic children, as was seen in the case of the physical abuse that was fostered by behavioral psychology beginning in the 1960s. For this reason, I have sought to construct a discourse that enables a space to be created which allows for more complete consideration of a non-medical discourse about autism.

I have shown in this dissertation that the medical discourse dominated what could and could not be stated about autism. At one point it was dominated by psychoanalytic thought. At another point, it was dominated by the thought that autistic children could be...
normalized through behavioral techniques. Today, there are signs that the medical discourse will be dominated by the geneticists (Lord 2011; Miles 2011; State and Levitt 2011; Waters 2011), which may hint at an emerging new type of eugenics movement designed to arrest autism. Given the potential dangers resurfacing in the medical discourse in the case of autism, a space for a new discourse based on the bodily experiences of autistic individuals, and voiced by autistic individuals, is crucial.

The individuals and their experiences that I noted in Chapter II of this dissertation suggest that, given what is now known about medical practices in autism, medicine actually played a role in harming these people. In addition, I also researched the lived experiences of autistic individuals and their dealing with medicine, psychiatry and psychology. The statements from autistic individuals below illustrate the misguided attempts by medicine and psychology at understanding and treating these individuals when they were children. These statements reveal that medical discursive and non-discursive practices in autism were miserable and even harmful attempts at normalizing these particular individuals.

Some of these individuals were actually fearful of the medical personnel that examined them.

“Now, with Dr. Rossi, my fear and discomfort made me less than optimistic about being in this house. I was examined by this man for God knows what reason—after all, I felt fine, I wasn’t sick! Just the way he looked at me made me think that he could not only exert control over me but that he also had the potential to hurt me physically” (Barron and Barron 1992:53).

Autistic people know that they are not ill. Therefore, they can, and probably should be fearful of individuals who believe that they have a cure for them. It is understandable why an autistic person would be fearful of someone who claims to have a cure for an
illness that is not there. Anyone, autistic or non-autistic, would be hesitant to be with someone who is out to root out a disease that one does not have. Knowing that someone is taking control of your own life and had the potential to hurt you would make anyone fearful and probably act as many autistic people might, with outrage toward the doctor.

In fact most therapies, as I have shown, probably did not even work to alleviate any suffering that autistic individuals might have been experiencing. The medical discourse got in the way, ironically, of actually treating autistic individuals effectively. Moreover, autistic individuals were aware that medicine had no idea what it was doing.

“My mother sent me to therapists, all of whom focused on the wrong things. Mostly, they made me feel worse than I already did, dwelling on my so-called evil and sociopathic thoughts. They were all full of shit. They didn’t make me better. They just made me feel worse” (Robison 2007:30).

“During my entire childhood, I was going to doctors, psychologists and psychiatrists. No one knew what was wrong, and they all did the same tests on me over and over. This did not help me. What it did was leave me angry, frustrated, and more untrusting of the next doctor who came along. I did not want to go through all the same testing again. But I always did. And of course, I had no say in the matter” (McKean 1994:68-69).

Futile treatment after futile treatment—this was what some autistic individuals were experiencing. Instead of developing trust toward physicians and counselors, autistic individuals are left feeling angry and frustrated, further exacerbating their already frustrating experiences with dealing with people. Medicine was actually making their condition more of a problem than it already was. It was doing the exact opposite of what it was supposed to do regarding individuals, which was to do no harm.

Therapy was of no use to these individuals. Medicine could not have been more irrelevant in their lives. Medicine had no solutions, despite its claim that it could manipulate behavior to improve their minds and despite its claims of normalization.
Becoming normal was not the problem, yet that is what medical science believed, based on its discourse.

“Psychiatrists and psychologists were of little help. They were too busy trying to psychoanalyze me and discover my deep dark psychological problems. One psychiatrist thought that if he could find my ‘psychic injury,’ I would be cured. The high school psychologist wanted to stamp out my fixations on things like doors instead of trying to understand them and use them to stimulate learning” (Grandin 1995:98-99).

“In the first sixteen years of my life, my parents took me to at least a dozen so-called mental health professionals. Not one of them came close to figuring out what was wrong with me…Rather than take a close and sympathetic look at me, it proved easier and less controversial for the professionals to say I was just lazy, or angry, or deviant. But none of those words led to a solution for my problems” (Robison 2007:90).

Medical science had its discourse lined up. The problem was that it did not match up with the lived experiences of autistic individuals. Its discourse made complete sense to professionals—so much so that it blinded them to the real problems that their patients were having. Medicine had no solutions to help autistic individuals; it only created a discourse that physicians and psychiatrists could use as a crutch in situations where it had to use its authority to convince others, and probably themselves, that they could in some way treat autism.

Finally, there was an understanding by one autistic individual that she was being subjected to these very ways of thinking about her condition that had nothing to do with the reality of her body and her psyche:

“Professionals were afraid to enter and explore my world, except perhaps to psychoanalyze, pathologize, and ‘fix’ my internal universe. Except for one brief stint for a sleep-deprived EEG to determine the presence of seizures, very few asked questions as to the reasons why I behaved and expressed my feelings like I did. Because answers could not be determined, at least from their point of view, I believe that people decided to avoid the empathetic question, and instead focus on extinguishing those troublesome and mysterious behaviors. And so, when I was in third grade, it was determined that the ‘learning disabled’ label no longer fit
and that for special education purposes I was encoded as ‘emotionally disturbed’ and sent to a special class at another school to have my behavior modified” (Crocus 2002:56).

“There were psychiatrists and psychologists who would write in their reports that I had no capacity for being creative, and not one year later I would begin to write poetry and drawing and showing my capacity for being creative in the most irritable form. They made a naturalistic assumption that because they could not see their version of what ‘creative was,’ it therefore did not exist in me. They construct a religion out of the Stanford-Binet IQ test, and despite the fact that my score showed a wide scatter of abilities, they accepted the final score which was considered ‘borderline mentally retarded’ as the final statement on my ‘mental functioning.’

Years later I would read these evaluations and weep, but even at the time of these evaluations, in some unexplainable way, the negative, ‘spiritually autistic’ attitudes of these people were evident to me. They had made their IQ test a false God and bowed down in deference” (Crocus 2002:55-56).

The experiences of the relationships that these individuals had with representatives of medicine and psychology suggest that therapy made them feel worse, scared, sad, and even manipulated into professionals’ own way of thinking. In the end, professional therapy provided little help for these autistic individuals. Equipped with these experiences, these individuals suggested that medicine does not, and is most likely incapable of, understanding autism. Their voices suggest that given their own experience of the condition, autism is not in any way a disorder or an illness. It is a way of understanding the world that needs understanding by medical personnel and other professionals who treat the autistic individuals.

*Medical Knowledge of Autism is Limited*

The statements of autistic individuals’ suggest that these individuals believe that medical personnel and professionals in clinical psychology have only a limited knowledge of their condition. Further, they believe that this limited knowledge could in
fact threaten the personality of these individuals by taking away their selves—who they truly are.

“(Professionals) must have an understanding of the definition of autism. This does not mean that they have the DSM diagnostic criteria memorized. What is listed does not even scratch the surface of what autism is. No, they must have an understanding that goes deeper than that. They must be aware of the sensory problems, that they must have knowledge on how they are treated and how they may be treated in the future. They must understand the subtle reasons for the lack of communication skills, and have an understanding of the intense fear that people with autism often experience.” (McKean 1994:61)

“(Professionals) must know how to act on that understanding of autism. This is, quite frankly, where many professionals fall short. I want people who are willing to look at a person with autism and see a person. Someone who has value, who can be (must be!) treated with respect and the dignity that all other people are naturally treated with” (McKean 1994:62).

“Believe me, you don’t want to erase the autism gene from the human gene pool. You’d end up with something much worse than having to cope with the occasional autistic person. You’d end up with only neurotypicals. These might be entirely ‘normal,’ but they would also lack most of the skills and talents that make life such a great experience, as I firmly believe these skills are closely tied to things like autism…And always remember: AUTISM ROCKS SOCIETY! And society needs rocking badly (Darius 2002:42).

“Recently, I had another dream. In it a psychologist was seeking to map my soul in order to dissect it. He had a very literal understanding of my internal life—it is pathological and needed to be fixed. Without warning I was taken out to a swimming pool and placed in a group of professionals who were ready to baptize me by immersion. As I woke up I determined that I would cling to my identity as a child of God who adopted me through another water baptism long ago” (Crocus 2002:57).

“I’ve been asked many times if I could somehow be ‘cured’ would I want to be. If I did that, I would no longer be me. I don’t perceive anything wrong with the way I am—the problem is with the way society relates to those like me. To ask if I would want to be ‘cured’ is to suggest that my life now is somehow of less value. This is the way I was born, this is what I am?” (Jim 2002:75).

“I’m a student of anthropology; in a manner of speaking I’m a student of the anthropology of autism. I’m one of the few who are in an inside position to observe and record the emerging ‘autistic culture.’ The Internet has brought many of us together in cyber-space, allowing us to learn from others whom we may never meet IRL—‘in real life.’ The combination of our individual strengths
can show us ways to do things that were considered impossible a generation ago. We are in the best position to understand ourselves, and to help each other regardless of our cognitive abilities” (Jim 2002:75).

The narrative presented here suggests that medical professionals are far from being fully knowledgeable about the condition. To what extent then is medicine really in the best position to treat these individuals? In fact, it is autistic individuals themselves who are truly in the best position to help themselves, and others who have a similar condition. This is so because they have, above anyone else, a more thoroughgoing knowledge of their own condition.

In Chapter II, I highlighted the experience of the autistic condition as experienced by particular individuals themselves. One experience that I highlighted was the experience of being highly sensitive to touch, sight, sound, and even taste. These sensitivities are so strong and painful that it can immobilize these individuals by producing fear, anxiety, and sensory overload. Medicine, instead of attempting to normalize these individuals through psychotherapeutic practices, behavioral treatment, or genetic manipulation, needs to concentrate its efforts on relieving the pain that these individuals are experiencing. In addition, medicine could educate others (i.e., parents, teachers, and people in the community) that autistic people are quite sensitive to the environment and to other people. Medicine could provide understanding to the population about this condition.

Instead, however, medicine has, throughout the past seven decades, systematically neglected the real needs of autistic children and autistic adults. It has subjected autistics to a discourse of pathology, disturbed emotions and disturbed behavior, normalization, adjustment, treatment, and disciplinary practices. In sum, autistics have been subjected to
a discourse that states that these individuals—both children and adults—ought to conform to the discourse of medical and behavioral science.

But there is an irony within autism’s history. This irony reveals that medical practices in autism, as they have been deployed, may have been unnecessary. The life of one particular individual provides an example of why medical treatments that aim to normalize and thus control the autistic child are irresponsible. His life also shows that a new discourse about autism is necessary to replace the current medically oriented discourse in autism.

_A New Discourse for Autism_

In October of 2010, the _Atlantic Monthly_ published an article about a 77 year-old man named Donald Gray Triplett. The article was entitled, _Autism’s First Child_ (Donvan and Zucker 2010), and it focused on the life of Donald T., the very first child that Kanner diagnosed as having an autistic disturbance of affective contact. Donald was Case 1.

Donald was born in Forest, Mississippi in 1934 and was institutionalized in 1937. After a year in a state-run facility for children, Donald’s parents removed him from the institution. His parents had the necessary resources and determination to receive better care for Donald. They had written long letters to Leo Kanner about Donald’s behavior, and Dr. Kanner agreed to see the boy.

Before making a diagnosis, Kanner suggested to his parents that Donald would do well to live in a rural area and that it would be beneficial to his development. Donald’s parents sent him to live with a couple that lived just 10 miles from town and who did not have children of their own. His parents visited often, and even Leo Kanner traveled to rural Mississippi to see how Donald was doing. “He later said he was ‘amazed at the
wisdom of the couple who took care of him”’ (Donvan and Zucker 2010:7). There was little doubt that in a tiny rural area of Mississippi, the boy was well looked after by the family and the community.

Kanner’s final observation on this visit speaks volumes about how Donald was perceived; “He attended a country school where his peculiarities were accepted and were he made good scholastic progress” (Donvan and Zucker 2010:7).

Even during his teenage years, Donald was recognized positively for his academic skills and was interacting with others. “By adolescence, however, it seems he’d already begun working at connecting with people, and had grasped that his math skills were something that others admired” (Donvan and Zucker 2010:7). In fact, he used that reputation, one day, to impress some fellow high-school students into thinking that he knew more about math than he really did when they challenged him to count all the bricks in the county courthouse across the street.

Maybe they were picking on him a little; maybe they were just seeking entertainment. Regardless, Donald says he glanced quickly at the building and tossed out a large number at random. Apparently the other kids bought it on the spot, because the story would be told and retold over the years, with the setting eventually shifting from courthouse to school building—a captivating local legend never, apparently, fact-checked.

… we finally asked him directly why he’d pulled that number out of the air all those years ago. He closed his eyes to answer, and then surprised us a final time. Speaking as abruptly as ever, and with the usual absence of detail, he said simply, and perhaps obviously, “I just wanted for those boys to think well of me.”

During high school, fellow students accepted Donald. One student recalled in the article that

Although he was teased a few times, he was generally regarded as a student who enviably intelligent, even “brilliant”—again a legacy of the famous multiplication skills and brick-counting act. She recalls his sitting with a notebook and filling page after page after page with numbers, and her impression, as well as that of others, that they were seeing evidence of a superior mind at work.
It’s clear in all this that with the passage of time, Donald’s focus gradually turned outward. He increasingly came to terms with how his world was shaped, at the same time that his world was adjusting to him (Donvan and Zucker 2010:7).

In adult life, Donald worked as a teller at the family bank, learned to play golf, and traveled all over the world, visiting different locales once a month, including traveling to several PGA golf tournaments. He still plays golf. He prefers to play alone, but plays in a foursome at club events. He lives alone too, in his parents’ house where he was raised.

But he has his brother—they dine together every Sunday evening, along with Oliver’s wife—and he has a community that has always accepted him, since long before people in town had heard the word autism. Tranquility, familiarity, stability, and security—if we were talking about healing, these would create an ideal environment. Forest provided them all for Donald, who didn’t need to heal. He needed only to grow, and that he did, spectacularly (Donvan and Zucker 2010:8, italics in original).

The article states that Donald’s parents had financial resources and social status in the community, and that this might have encouraged those in the community to accept him. His family may have, by virtue of their standing in the community, strongly discouraged any show of cruelty toward Donald.

Still, it’s clear that Donald reached his potential thanks, in large part, to the world he occupied—the world of Forest, Mississippi—and how it decided to respond to the odd child in its midst. Peter Gerhardt (an educational psychologist) speaks of the importance of any community’s “acceptance” of those who have autism. In Forest, it appears, Donald was showered with acceptance, starting with the mother who defied experts to bring him back home (from being institutionalized), and continuing on to classmates from his childhood and golfing partners today. Donald’s neighbors not only shrugged off his oddities, but openly admired his strengths—while taking a protective stance with any outsider whose intentions toward Donald may not have been sufficiently spelled out. On three occasions, while talking with townspeople who know Donald, we were advised, in strikingly similar language each time: “If what you’re doing hurts Don, I know where to find you.” We took the point: in Forest, Donald is “one of us.”
In sum, this article suggests that the very first child declared to be autistic by medicine actually did receive the treatment that he needed, well before behavioral psychology hooked four small children to electrodes and placed them on a cold metallic floor. This treatment was acceptance and admiration from a community. This was all the treatment that the first autistic child really needed. While science was punishing and disciplining children for the way they understood their selves and their world, a community in rural Mississippi was accepting and appreciating how the first autistic person experienced his self and his world.

While science was out to show the world that it could control the autistic body for the purpose of normalizing the autistic psyche in service to the social system, a community was accommodating a person with the autistic condition in service to humanity. The acceptance and admiration of the townsfolk of a rural community toward the first autistic individual served humanity in that it showed that autistic individuals do not need to be normalized, but rather need to be included in the fabric of a community and in the fabric of society.

Finally, practices that subject individuals to science’s notion of normality must be constantly and continually questioned. These practices can be potentially dangerous to individual human beings and potentially dangerous to humanity. As I have shown in the narrative of autistic individuals in the chapter, and in this particular history of medical practices in autism, clinical practices rooted in scientific discourse only served to harm particular children with a particular condition. Further, had a practice been developed that actually normalized children with this condition, a technology would be in place to normalize all children that are seen as inconvenient to society. This is because, as I have
shown, the dream of scientific medicine was, and still is, to normalize all characteristics of the autistic child. That is, these practices still focus on normalizing behavior, emotions, intellect, thought, and how the child experiences people and the world.

A history of medical practices in autism shows that autistic children were subjected to a discourse that served to limit their humanness. This particular history of medical practices in autism shows that a new discourse can emerge, one that can free autistic individuals from being subjected to such a discourse. A new discourse is waiting to emerge. This new discourse needs to be rooted in the bodily experiences of those with what is now called autism, one that is interested in including the autistic experience as an integral part of the fabric of humanity.
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opening statement of senator tom harkin

Senator Harkin. Good morning. The Subcommittee on Labor, Health and Human Services, and Education will come to order.

Today's hearing is on autism, regarding research, treatments, and interventions. The Centers for Disease Control and Prevention (CDC) estimates that 1 out of every 150 children born this year will be diagnosed with autism. Among boys, the rate is even higher, 1 of every 94. We don't know what causes this disorder. Most researchers agree there is a genetic component, at least in some cases.

Every discovery seems to raise more questions. It now looks as though autism has, not just one genetic cause, but many, and
we still don't know what the triggering mechanisms are. Many experts suspect that environmental factors may also be at play, but, again, we don't know what they are exactly, or whether they take effect during a child's first few months or years, or maybe during gestation.

We know a little bit more about interventions. Some behavioral interventions seem to help, if started early. But, we are nowhere near a cure. The number of people with autism continues to grow; the rate of incidence is growing….

**STATEMENT OF THOMAS R. INSEL, DIRECTOR, NATIONAL INSTITUTE OF MENTAL HEALTH, NATIONAL INSTITUTES OF HEALTH, DEPARTMENT OF HEALTH AND HUMAN SERVICES**

**defining autism**

To get you, sort of, on track here, let me just make sure we're all on the same page in what we're talking about. Autism, by definition, starts by age 3. We're talking about three different kinds of symptoms that characterize autism: reduced social behavior, abnormal language, and, as we've talked about before, repetitive, restrictive behaviors that often are called stereotypes; they have many other names.

It's clear that, though these are the definitions, that many children with autism come in with additional complicating features, and I've just listed a few of them here.

**autism spectrum**

The result of understanding these complicated features, and the fact that this is such a heterogeneous syndrome, is that we increasingly talk, not about ``autism," but about ``autisms," and we really think about this as many different disorders. And in some ways, we're prisoners of our own language, here, by thinking about it as a single syndrome.

The term that has now been most widely accepted, and that you'll hear about most of all this morning, is called the ``autism spectrum," or ``autism spectrum disorder." And all that really means is that we're talking about a range within the syndrome. At one end are those children who really have very limited functioning, often have no language whatsoever,
may have severe intellectual disability, show no interest in social interaction, and have lots of motor abnormalities, including the most common and what we call "diagnostic one" is hand flapping, and they're the ones that often have these dysmorphic facial features.

At the other end of the spectrum are children who are going to grow up to be, often, highly successful. I mean, they may, in fact, have social awkwardness, they may be called "geeky," or "nerdy," or something like that. They may be more interested in numbers than in people. But, they may be tremendously useful and tremendously successful and make huge contributions as engineers, as computer scientists, in areas that probably aren't going to tap so much into their social awkwardness, but allow them to really use what they do best, which is to be able to think about the mechanical, numerical, and less social aspects of the world…

what we know

First of all, I think there is wide recognition that this is a developmental brain disorder. We don't know yet where in the brain, or what in the brain, or even when in the brain, things go off track, but the most recent research would suggest that what we're talking about here isn't a specific lesion in a particular area, but it may be more likely what we call a synaptic disorder. It's a problem of brain connections. And that may be very diffuse, and it's quite possible that the reason you see problems in language and problems in social interaction is that those are functions that require the greatest number of synapses. And if you're not able to process information as quickly as you need to, or if you process information in a way that is too quick and isn't filtered, you're going to see deficits. If your connections aren't working, you're going to see deficits in just those kinds of functions.

genetics

Probably the greatest degree of progress has been in genetics. And that's not surprising. That's true in almost every area of medicine. The last 3 or 4 years has really seen what we're calling an "explosion" of information from genomics. That hasn't necessarily delivered the cures that many
of us were looking for, yet, but it has helped us to understand much more about the heterogeneity of these disorders.

Two years ago, when I spoke to you, I talked to you about how we think genomics will be important. At that point, we would have said that it's important because we know that a couple percent of the children who present with autism have recognized syndromes--Rett syndrome, Fragile X syndrome, tuberous sclerosis--these are single-gene mutations, in which perhaps 50 percent of the children, sometimes more, have a diagnosis of autism, as well.

In the last 2 years, we've discovered a range of other rare, but apparently highly significant, mutations that are in the form of structural lesions within the genome, that also seem to contribute. And so, where 2 years ago I might have said 2, 4, perhaps 5 percent of any population of children with autism would have one of these syndromes, I think now we can say that number's going to be considerably higher, perhaps more than 10 percent. We don't have names for all of these syndromes, but we have, in the last couple of years--and I must say it's changing almost every 2 months--there are new reports out about rare mutations that may explain another 1 or 2 percent of the children who have this disorder.

So, there's clearly a genetic factor at work here. It doesn't explain all of autism. We still need to learn a lot more about how genes and environment interact. And there will be lots more research on that in the near future. But, that is clearly an important area of progress…

behavioral interventions

We know that--and we spoke about this 2 years ago--that, as you said in your opening remarks, behavioral interventions are helpful. And they're especially helpful when they're started early. Now, you'll hear more about this from other panelists. I'm not going to take a lot of time, except I want to flag this, because I think the issue here is making sure that the best behavioral interventions are available to the people who need them. And here, we're not just talking about children, but also about children in transition to adulthood, and adults themselves.

what we need to know
So, if that's what we know, what do we need? Well, part of what we need is to fill in the gaps of what we don't know. And I'll just take you through the kinds of things we're thinking about. Certainly, understanding more about risk. The risk architecture of the whole spectrum is going to be critical. Genes are important, and environmental factors, as you mentioned, will be important, but most important will be how they interact. That's not unique to autism, it's true for asthma, it's true for many other areas of development.

We want to know about molecular targets, to the extent that we can get those, because that's where new therapies are going to come from, and they already have begun to emerge in some aspects of this syndrome. And then we want to understand this heterogeneity far better.

The point of all this is to be able to develop ways of detecting this disorder much earlier. We know, in general, that for brain disorders, behavior is one of the last features to change. That's true for Alzheimer's, it's true for Parkinson's, it's true for Huntington's. That is why it will be most important to have a biomarker that will allow us to detect risk and detect the disorder much earlier.

We want to have interventions that are more effective. Behavioral interventions are effective for many children, but they're expensive, they're extensive, they take a long time to work, and we're not yet where we want to be at the end of the day. We want to be able to offer much more than just the behavioral interventions.

Finally, I will just mention that we've also tried to jumpstart much of this progress by creating the National Database for Autism Research, which will be essentially a meeting ground, electronically, for scientists around the world to be able to share data and to share the tools that are necessary to accelerate progress in this area…

And I can't emphasize enough the importance of, now, attention to adults and soon-to-become adults with autism. This plan will not only provide the road map for research, but also set the standard for public-private cooperation and for engaging the broad community, who will be so invested in trying to make sure we expedite research progress.

Mr. Chairman and members of the subcommittee: I am pleased to
address the state of autism spectrum disorder research and include a brief review of the prevalence of the disorder, research findings, and recent initiatives at the National Institutes of Health (NIH)…

Matching the increasing public health urgency, NIH research funding for ASD has increased progressively over the past decade, reaching $118 million in fiscal year 2008, an increase of nearly sixfold from fiscal year 1998. What has been the yield from this investment? I will summarize the research findings in three areas: diagnosis, causes, and treatment. A fundamental insight and challenge is the heterogeneity of ASD. While we use one diagnostic category, research increasingly demonstrates that ASD covers many disorders, with different causes and possibly requiring different treatments.

Diagnosis.--Early diagnosis is critical because earlier interventions are associated with the best outcomes. Research has found that by age 2 children with ASD show unusual patterns of eye contact compared with typically developing children. Recent studies of children at high risk for ASD indicate the potential for even earlier detection. Simple tests of joint attention or responding to spoken name suggest that diagnosis at 12-14 months of age may be possible for many children. Ongoing research using neuroimaging and serum samples is looking for a biomarker that might permit diagnosis even earlier.

Causes.--Scientists are looking for genetic and environmental causes across the autism spectrum. In the past 2 years, genetic research has proven especially informative, as more than 50 variations in the genome, alone or in combination, have been linked to ASD. Importantly, several new, rare mutations have been discovered. Along with known genetic disorders that cause ASD, such as Fragile X and Rett Syndrome, these new mutations may collectively account for 10 to 15 percent of ASD cases. These rare mutations and the many common variations which confer risk for ASD have one striking thing in common--nearly all of the genes implicated are critical for brain development. In fact, most are closely linked in the developing synapse--the connection between neurons--suggesting that ASD can now be approached as a synaptic disorder and that new treatments can be developed for specific synaptic targets.

Just as with other complex medical disorders, ASD research increasingly focuses on the interaction of environmental factors with genetic vulnerability. For ASD, the research evidence has pointed to prenatal environmental factors as most salient. While there is increasing research into environmental factors that might contribute, thus far no one factor appears to explain the large number of, or apparent increase in, cases of ASD.

Treatment.--In addition to breakthroughs in the diagnosis and causes of ASD, recent research has shed light on the treatment of ASD. NIH-supported randomized, controlled trials of behavioral treatment
approaches have shown positive effects, and early behavioral interventions have been found to improve functional capabilities and reduce the severity of challenging symptoms.

Finally, NIH will continue to build its investment in ASD research via its base budget, which supports a broad range of individual grants for research and training related to ASD, a new intramural program for ASD research, and the Autism Centers of Excellence (ACE) program.

Coordinated by researchers at the Drexel University ACE network, EARLI will explore the impacts and interplay of environmental factors and genetic predisposition in the cause of ASD.

About 1,200 mothers of children with ASD will be followed as soon as they become pregnant again and throughout the early life of the new baby. Through extensive data collection on a number of possible ASD environmental risk factors and biomarkers, the study holds great promise in advancing understanding of the causes and progression of ASD.

In summary, ASD is a developmental disorder that affects too many families; research represents our best hope for making a difference for them. We at NIH are determined to continue to use the best available tools, to fund excellent and innovative science, and to encourage input from--and dialogue with--parents, teachers and individuals with ASD. Only in this way, and only with your continued support, will we be able to continue to fuel the vital research that we believe will reveal the mysteries of ASD and lead to prevention and effective treatments.