RULE-FOLLOWING AND RECURSION:
RETHINKING PROJECTION AND NORMATIVITY

DISSERTATION
Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the
Graduate School of The Ohio State University
By
Adam C. Podlaskowski, B. A., M. A.
* * * * *
The Ohio State University
2006

Dissertation Committee:

Professor Neil Tennant, Adviser

Professor Robert Kraut

Professor Stewart Shapiro

Approved by

Adviser

Graduate Program in
Philosophy
This project develops the general shape for a straight solution to Kripke’s version of meaning skepticism. Kripke’s reading of Wittgenstein’s rule-following considerations still confounds attempts to offer a widely agreed upon solution: if Kripke is right, then there is no fact-of-the-matter regarding the rules we follow. The problem lies in saying how to make sense of a rule that guides our actions for an indefinite number of cases given that we have only finite capabilities—in short, we need to cite the fact that allows us to uniquely project to new cases on the basis of a finite number of applications.

This thesis profoundly affects the prospect of devising any theory of meaning and content: if the meaning skeptic is right, then there is no fact of the matter regarding the meanings of our words or the contents of our thoughts. Figures such as Blackburn, Boghossian, Chomsky, Goldfarb, Katz, McGinn, Millikan, Pettit, and Wright have weighed in on this debate; and part of my aim is to appreciate where other proposed solutions have gone wrong, so as to avoid their errors. Within his larger dialectic, Kripke offers compelling arguments against attempts to reduce rule-following to our dispositions to act. But I agree that we must accept Kripke’s conclusion only if we accept his argument as it stands—yet I deny that we need remain happy with the original shape of the argument.
I argue that we should identify competence with a rule with the dispositional analog of an intension, where operative dispositions determine the extension of a rule. On this basis, I develop the position that a recursive approach to the projectability of rules provides the initial basis for solving the skeptical problem. That is, we can make sense of acting in new cases by appeal to combinations of more basic operations. I argue that we can relocate attributions of competence around our feasible dispositions. By providing an explanation of the productive nature of rules, we can also avoid some key problems in saying how rules are normatively constraining on dispositional treatments employing normal conditions.
I dedicate this dissertation to my friend Chris Groesbeck, without whom I would not have even entertained the possibility of pursuing an academic life.
ACKNOWLEDGMENTS

First and foremost, I thank my adviser, Neil Tennant, for his guidance and support, his willingness to entertain any position, and for providing a model for careful thinking. I cannot imagine how this project could have been completed without his input (or patience). I also thank Robert Kraut, not just for many insightful conversations on all sorts of matters (philosophical and otherwise), but for fundamentally shaping how I think about explanation and justification, as well as appreciating the changes that come to theory-building depending on whether we do so from an internal or external vantage point. I thank Stewart Shapiro for countless helpful suggestions as well as his willingness to meet often to discuss a broad range of topics. His insights regarding the nature of idealizations and his ability to find new bending points on the skeptic’s behalf has provided constant (and fruitful) challenges to my account.

A number of other faculty less directly involved with the writing of this dissertation have had an impact on it. I thank George Pappas and George Schumm for their attention and advice to this project in its early and intermediate stages. Finally, I thank Bob Batterman and William Taschek for influencing my thinking on a number of issues that found their way into this project.

I am thankful for the countless conversations I have had with my peers over the years, especially Steve James, Nick Jones, Mike Jaworski, Josh Smith, Melissa Ebbers, Eric Carter and Makoto Suzuki. I would also like to thank (and perhaps apologize
to) everyone who commented on drafts in the dissertation writing seminars leading up to the completion of this piece.

Finally, I thank my friends and family for their love and support (and aid in keeping me sane) throughout this entire process.
VITA

2000-2006 Ph.D. Philosophy (expected)
The Ohio State University

1996-2000 B.A. Philosophy and History
University of Michigan

June 30, 1978 Born, Rochester, Michigan

FIELDS OF STUDY

Major Field: Philosophy
# TABLE OF CONTENTS

Abstract ....................................................... ii
Dedication ...................................................... iv
Acknowledgments ................................................. v
Vita ............................................................... vii

Chapters:

1. THE SKEPTICAL PROBLEM ........................................ 1
   1.1 Introduction ................................................ 1
   1.2 Rule-Following And Normativity .............................. 2
   1.3 The Skeptic’s Argument ...................................... 4
   1.4 The Skeptic’s Demands ...................................... 14
   1.5 Skepticism Without Bent Rules .............................. 17
   1.6 Successful Explanatory Strategies ......................... 20
      1.6.1 Rules And Reduction .................................. 22
      1.6.2 Rules Without Reduction ............................... 27
   1.7 The Skeptical Solution ..................................... 28
   1.8 The Road Ahead ............................................. 32

2. RULES, INTENTIONS AND SUI GENERIS FACTS .................. 35
   2.1 Rules And Other Semantic Facts ............................ 35
   2.2 A Rule For Interpreting A Rule ............................. 36
   2.3 Holism And Reinterpretation ................................ 38
   2.4 Intending To Follow A Rule ................................ 46
   2.5 Sui Generis Meaning Facts ................................. 52
CHAPTER 1

THE SKEPTICAL PROBLEM

1.1 Introduction

Kripke’s reading of Wittgenstein’s rule-following considerations—offering a species of meaning skepticism based on §§138 - 242 of the *Philosophical Investigations*—still confounds attempts to offer a widely agreed upon solution. The problem lies in saying how to make sense of a rule that guides our actions for an indefinite (or infinite) number of cases given that we have only finite capabilities (and have acted only a finite number of times)—in short, we need to cite the fact that allows us to uniquely project to new cases on the basis of a finite number of performances.

This dissertation, in part, is an attempt to appreciate the depth of that problem\(^1\). The content of Chapters 1 through 4 will largely focus on this matter, slowly providing the basis for appreciating that the paradox has mistakenly arisen. Ultimately, I am interested in closely examining—and revising—some of the assumptions motivating the paradox in the first place, using these moves as the basis for resolving the paradox.

\(^1\)Whether or not Kripke’s Wittgenstein is a faithful interpretation or a separate character altogether is of no concern to us here. Similarly, I am not interested in the interpretations offered by such figures as Crispin Wright or John McDowell.
Within his larger dialectic, Kripke offers compelling arguments against attempts to reduce rule-following to our dispositions to act. But I agree that we must accept Kripke’s conclusion only if we accept his argument as it stands—yet I deny that we need remain happy with the original shape of the argument. Instead, I argue that the basis for providing a successful dispositional account depends on rethinking the projective nature of rules, thereby providing a framework for devising a successful solution.

I argue that, instead of accepting a conception of rules whereby meaning requires that an extension be determined in advance, we should shift to the dispositional analog of an intension, where operative dispositions determine the extension of a rule. On this basis, I develop the position that a recursive approach to the projectability of rules provides the initial basis for solving the skeptical problem. I argue that we can relocate attributions of competence around our feasible dispositions. Chapter 5 is devoted to accomplishing this task. By providing an explanation of the productive nature of rules, we can also avoid some key problems in saying how rules are normatively constraining on a number of dispositional treatments (a matter to be addressed in Chapter 6).

1.2 Rule-Following And Normativity

Though we may expect the expression “rules are meant to be broken” to come out of the mouth of a rogue, it turns out that it highlights a key feature of rules: they are the sorts of things against which we make sense of acting correctly or incorrectly, so that we could not make sense of a rule that we could follow without fail. That is, insofar as we are interested in acting correctly, we cannot escape it (acting incorrectly)
so that the possibility of error is necessary in order to make sense of the very idea of a rule. But what sorts of things are rules?

We are creatures whose actions are normatively constrained, meaning that we may act correctly or incorrectly against whatever standard may be relevant. But there are a variety of senses of normativity. We might say that someone has gone wrong insofar as they have misrepresented a state-of-affairs. Or one might go wrong insofar as one fails to agree with one’s neighbors. Or we might say one has gone wrong by failing to meet some sort of teleological standard (e.g. pleasure, survival, etc.).

Our interest, though, is in following rules, in allowing our actions to be guided by them, so that our acting in accordance with a rule thereby justifies our actions. By appealing to the rule originally settled on (say, in the style of signing a contract), we take rules to be the kinds of things that can guide us in an indefinite number of cases. Wittgenstein did much to enrich (as well as challenge) our understanding of the infinitary nature of rules:

218. Whence comes the idea that the beginning of a series is a visible section of rails invisibly laid to infinity? Well, we might imagine rails instead of a rule. And infinitely long rails correspond to the unlimited application of a rule.

219. “All the steps are really already taken” means: I no longer have any choice. The rule, once stamped with a particular meaning, traces the lines along which it is to be followed through the whole of space (Wittgenstein 1958: 85)...

For a rule like PLUS\(^2\), we would say that, for any inputs given, a competent person (in principle) could give an output: namely, the sum of those numbers. That is, we

\(^2\)Through the course of this dissertation, I shall mention words or symbols, such as ‘red’ or ‘+’, in scare quotes. Furthermore, I shall present any rule/concept in small caps, so that a rule like addition will be presented as ADDITION. Finally, I will refer to property (such as the property of being red) and the extension of a concept (such as the set of all red things) without any changes in formatting. These conventions will allow us to distinguish between a word/symbol, the concept governing the use of the word, the property that it picks out, and the extension of a rule/concept.
expect there to be a unique answer for an infinite number of cases. And in the case of a color concept like GREEN, we would say that, even though there are not an infinite number of objects that could be green, we nevertheless expect to be able to apply the concept to an indefinite number of cases without having encountered all of them ahead of time. In short, we expect rules to guide our actions, ‘telling’ us how we ought to act. The stress on projection, or the productive nature of rules, is that which informs the sense of normativity presumed to apply to language.

1.3 The Skeptic’s Argument

The Wittgenstein of the Investigations makes the notion of following a rule highly problematic (in §138 - 242), developing a paradox of sorts:

201. This was our paradox: no course of action could be determined by a rule, because every course of action can be made out to accord with the rule. The answer was: if everything can be made out to accord with the rule, then it can also be made out to conflict with it. And so there would be neither accord nor conflict here. (Wittgenstein 1958: 81)

The problem is to say how to make sense of a rule that guides our actions for an infinite (or indefinite) number of cases given that we only have finite capabilities. Saul Kripke develops this paradox in his highly influential Wittgenstein: On Rules and Private Language. The problem raised by the character popularly known as ‘Kripkenstein’ is directed at a particular picture of normativity: if the meaning skeptic

If one were a Platonist about mathematics, for instance, we would say that addition is an abstract function and agents like us have the concept of addition. But if one were to adopt an ontology where there is no such gap between concept and property—e.g. there is nothing more to addition than an agent being disposed to act in various ways—then my use of the small caps convention is trivial. With an ontology somewhere in between, the adoption of this convention will, presumably, remain helpful. (On a separate note, I will often speak of both rules and concepts interchangeably, insofar as they are equivalent for the purposes of the skeptical argument which will be the focus of this dissertation—more substantial reasons for this move will be offered in §1.3.)
is successful, there is no fact of the matter whether an agent is acting correctly or incorrectly because there is no fact grounding which rule one follows. But how, precisely, does this argument work?

Taking a seemingly arbitrary rule such as the one governing the use of ‘+’, Kripkenstein’s skeptic asks you to consider a time, in the past, when you had not yet used the sign ‘+’ with any number above 57. Since you had not yet had the opportunity to use ‘+’ for any number past 57, it turns out that your actions accorded not only with the familiar rule \textsc{plus} (where one adds together the values offered), but also with another rule \textsc{quus}, defined thus:

\[
x \oplus y = x + y, \text{ if } x, y < 57; \\
= 5 \text{ otherwise}
\]

Now, the skeptic asks us: what fact determines that you meant \textsc{plus} in the past and not \textsc{quus}? You are faced with trying to say which rule justifies your actions: at least at that point in time, all of your performances were equally compatible with both rules—the familiar rules like \textsc{plus}, and their ‘bent’ rule counterparts, the kind of rule that is applied in much the same way as our familiar rules, but varies in some important respect, along the lines of a ‘bending point’ (that is, axes for specifying the divergence between the extensions of the familiar and bent rules). The problem, of course, is that we can interpret our past performances to fit with either rule. Since one is only warranted in acting in relation to rules, and your actions accord with either of these rules, you face a serious problem: there must be some fact of the matter how you ought to act—but which fact is it? If there is no fact of the matter what you meant by ‘+’ in the past, then there is no fact what you now mean. The problem in answering the skeptic, of course, lies in finding a fact that can meet the
skeptic’s demands.

It is well worth pointing out that this problem is not peculiar to a mathematical rule such as PLUS. In a different setting, Nelson Goodman has devised a means of generating bent variations for our traditional color concepts. His original case, the concept GRUE, applies to objects just in case 1) they are examined before January 1, 1987 and are green or 2) they have not been examined before January 1, 1987 and are blue (Goodman 1965). What is important is that the bending point can be placed according to the date—there is no end to the number of bent concepts that can be generated by appealing to different dates. In addition to placing a bending point continually farther beyond the abilities of an agent (like us), we can imagine other axes for placing bending points altogether. After all, the only thing that distinguishes bent rules and familiar ones is that bent rules, though their extensions overlap with familiar rules, diverge at some point(s). With this in mind, the skeptic suggests that we could generate a bent variation for any rule, as well as an unlimited number of them for each familiar rule.

There is one interesting respect in which the bent rules offered by Kripkenstein and Goodman differ. Whereas we understand bent rules such as QUUS in terms of PLUS without being able to understand PLUS in terms of QUUS, rules like GRUE and GREEN are inter-definable. In other words, Kripkenstein’s bent rules asymmetrically relate to familiar ones in a way that Goodman’s bent concepts do not. To formulate GRUE more generally, we would say that:

\[ x \text{ is grue at } t_n \text{ if and only if } \]
\[ (\text{if } t_n < t_m, \text{ then } x \text{ is green}) \text{ and } (\text{if } t_n \geq t_m, \text{ then } x \text{ is blue}) \]
This formulation helps us appreciate how GREEN is definable in terms of GRUE and BLEEN:

\[ x \text{ is green at } t_n \text{ if and only if} \\
(\text{if } t_n < t_m, \text{ then } x \text{ is grue}) \text{ and } (\text{if } t_n \geq t_m, \text{ then } x \text{ is bleen}) \]

Even if one urged that a rule such as QUUS does afford some sense of uniformity in use, our appealing to Goodman’s approach should be able to do so insofar as we can understand GREEN by appeal to a bending point as much as we can with GRUE.

Indeed, the skeptic could push even farther, indicating that we do not have the luxury of claiming that PLUS is relevantly different from QUUS, or GREEN from GRUE, because the former cases involve our acting uniformly, and the latter cases involve a kind of break in prescribed action. This route is closed to us because our notion of uniformity is only understood relative to a rule or concept. So, answering ‘5’ when asked ‘45+67=?’, while a break with the correct use of PLUS, is perfectly uniform with every other application of QUUS because, in each instance, we were doing the same thing: namely, quadding. It is not clear, then, that we can appeal to uniformity to help us out of this jam (Kripke 1982: 59, footnote 45).

The problem that we face, ultimately, is that any finite range of performances on the part of an agent does not appear to uniquely determine how one ought to go on in an indefinite number of cases. We can only secure uniqueness on the condition that we can establish how an agent ought to act for any case. The skeptic gains his foothold because it is not clear how a finite mental state (or mind) could justify indefinite applications in a unique manner. Indeed, it seems outright weird that a finite mind could, in a flash, grasp a rule that is, in some sense, fully worked out in advance.
With these materials in hand, we can reconstruct the meaning skeptic’s argument more carefully:

1. For any rule $F$, and for some range of performances $R$, there are an infinite number of ‘bent’ counterparts to $F$ whose extensions overlap with $F$ (within $R$) but differ from $F$ starting at a ‘bending point’.

2. Take any rule such as the one governing our use of ‘$+$’.

3. Consider a time, in the past, when you had not yet used the sign ‘$+$’ with any number greater than 57. Since you had not yet had the opportunity to use ‘$+$’ for any numbers past 57, it turns out that your actions accorded not only with the familiar rule PLUS (where one adds together the values offered), but also with another rule QUUS (where one adds together the values offered, unless either value is greater than 57, in which case, one ought to answer ‘5’).

4. If there is a fact about me that determines which rule I followed in the past, then by appeal to that fact we must be able to meet the following conditions:

   (a) The fact determines a unique way to act for an indefinite number of cases (meeting what shall be called a ‘productivity demand’), and

   (b) The fact determines that I ought to act in the manner established in (4a) (meeting what shall be called a ‘normativity demand’).

5. Of an exhaustive list of candidates for this fact (comprised by any semantic and non-semantic facts), none of its members can fulfill both the normativity and productivity demands of (4a) and (4b).
6. Since no fact can meet the normativity and productivity demands, there is no fact of the matter as to which rule I followed in the past.

7. If there is no fact determining which rule I followed in the past, then there is no fact determining which rule I follow now.

8. Our choice of the rule governing ‘+’ in (2) was an arbitrary one: we can generate an equivalent bent counterpart for any rule occupying (2), devising an appropriate bending point for such a bent rule in (3).

9. By (8), there is no fact of the matter which rules I follow.

10. Since there is no fact of the matter which rules I follow (by (9)), talk of rule-following has **legitimacy** only if attributions of rule-following are not fact-stating, which is to say that we should adopt an irrealist solution to the problem—a ‘skeptical solution’.

If he is successful, Kripkenstein’s skeptic will have established the **indeterminacy** of meaning, insofar as meaning something by a word brings with it a commitment to use it in a particular way. When we say that meaning is normative, we are not suggesting that all terms are used to express commitments or obligations. Surely, a concept like GOOD behaves this way, but GRASS (as in ‘The grass is green’) does not. Rather, we mean to say that the concept of MEANING implies normative constraint. So, by undermining the normative dimension to meaning—what he takes to be a necessary condition for meaning—he has shown that there is a **no fact of the matter** as to what we mean by our words.

Kripkenstein’s concern is not with our discovering, as an epistemic matter, what someone means by their words (say, in the style of Grice or Searle) but, rather, in
locating, as an ontological matter, that which constitutes our meaning one thing rather than another. Notice that Kripkenstein is not suggesting that there is no fact of the matter how the world affects us. After all, he is not concerned with the causal details relevant to describing why agents act as they do. Rather, Kripkenstein is concerned with some sense of warrant.

Kripkenstein examines whether any fact could fix the rules that we follow. While he does not actually consider an exhaustive list of rule-fixing facts, Kripkenstein attempts to present materials for undermining representatives for any kind of rule-constituting fact. Naturally, his strategy is to pick out that which is essential for each sort of fact to answer the skeptic, and to argue that these elements fail to do so. Representatives of rule-fixing candidates include:

- My intention to follow a particular rule
- My following one rule being fixed by another rule
- My being disposed to act in the way indicative of a particular rule (which may be cashed out by appeal to normal conditions, behavior that has been selected for, etc.)

Each of these candidates suffers from various problems meeting the productivity and normativity demands, a matter which we shall preview in §1.6 (below) and to which we attend, in more detail, in Chapters 2, 3 and 4. David Bloor has questioned whether Kripkenstein has genuinely established the stronger thesis—that no fact about me will answer the skeptic—or merely the weaker one that no fact about...
an individual will suffice to answer the skeptic (Bloor 1997: 63). Not only does much of Kripkenstein’s dialectic focus on rule-fixing candidates featuring facts about me, but he has not clearly established that the dispositions of individuals to interact with one another (comprising a community) could not do the job. Kripkenstein anticipates this worry in passing when he indicates that the sort of strategy applied to facts about individuals can also be applied to “a social, or community-wide, version of the disposition theory” (Kripke 1982: 111). We will address this matter in more detail in §4.2, arguing that Kripkenstein’s stronger thesis is indeed the intended one.

The skeptic’s principal interest is not just in fixing the rules that we follow. Rather, he establishes an argument which is applicable to any semantic episodes to which an interpretation is applicable. So, the skeptic sets his sights on rules, the use of words, meaning, reference, mental contents, concepts, etc. (McGinn 1984: 144). The initial focus on rules is meant to highlight essential features of any such episode. The reason why both meaning and content are targeted, then, is that they are both characterized as possessing (or contributing to) truth conditions—that is, they are subject to an interpretation, intended or unintended. The common failure of grounding both predicates (as items in a language) and concepts (as items of thought) lies in our presumed inability to fix the appropriate extension which, naturally, contributes to the truth conditions of sentences.

I would suggest that the rule-following considerations pick out materials that we require in order to make sense of truth conditions, without supplying sufficient conditions for such an account. This matter becomes evident when considering the

---

4 Throughout this dissertation, I will switch back and forth between talking about rules and concepts (say, as the skeptic’s target or the focus of a particular solution to the paradox); I take it that this move is warranted insofar as they there is no serious difference between them for the skeptic’s purposes.
basic shape of the internalism/externalism debate as it pertains to meaning. As
Putnam has shown with his Twin-Earth thought experiment, the meaning of a term
depends on facts about us and facts about the world which we inhabit. If this is
right, then Kripkenstein threatens meaning by undermining facts about me, so that
we need not even think yet about the world we inhabit. Given that representation
involves the relation between internal states and the world, an account of rules (qua
facts about an agent) is not the same as an account of meaning (which also involves a
relationship to the world). Instead, we are interested in the regularities necessary on
our part in order to match up with any objects in the world whatsoever. This should
be understood as a conceptually prior step to any account of truth conditions or belief
attribution. That is, the skeptic only demands that we say what fact determines that
the manner in which I act is being guided for an indefinite number of cases. So, I take
it that an answer to the skeptical problem faces the more modest task of providing a
(set of) necessary condition(s) for any account of meaning that involves determinacy
for an indefinite number of cases.

At first glance, it appears that the skeptic’s worry depends on establishing a
relationship between an agent’s past and present actions. On this reading, our acting
at present in accordance with rules settled on in the past provides the basis for the
relevant sense of normativity, by holding up our past instructions (to ourselves) as a
standard of correctness. This reading is perfectly plausible when we remember that
Kripkenstein first asks after the fact about me that determines that I was adding in
the past, instead of quadding—determinacy about my present use is only undermined
by first attacking my past usage.
But it must be made clear that the contractual account of normativity does not, as a matter of necessity, rely on a relationship between the past and present selves of an agent. Rather, all that Kripkenstein really requires for our acting correctly is doing so in accordance with the extension of a rule or concept to which one is currently committed. Kripke’s choice to phrase the skeptical argument initially in terms of the rules that I followed in the past is actually used to avoid problems formulating the skeptical problem:

The ground rules of our formulation of the problem should be made clear. For the sceptic to converse with me at all, we must have a common language. So I am supposing that the sceptic, provisionally, is not questioning my present use of the word ‘plus’; he agrees that, according to my present usage, ‘68 plus 57’ denotes 125. Not only does he agree with me on this, he conducts the entire debate with me in my language as I presently use it. He merely questions whether my present usage agrees with my past usage, whether I am presently conforming to my previous linguistic intentions (Kripke 1982: 11).

When Kripke acknowledges that his making this move allows the skeptic to avoid problems initially in formulating the argument, he reminds us that we have to understand PLUS if we are to put forward the argument in the first place. It is only after failing to ground our past performances—and to relate them properly to our present ones—that we are meant to acknowledge that our present performances have no real grounding. The targeted picture of meaning, insofar as it supports the truth-conditional model, does not really require some relationship between an agent and his past rule-intending self; rather, it merely requires that we act in accordance with the extension to which one is currently committed. In order to appreciate that which does the real argumentative work (as well as spell out the relevant sense of normative
constraint), we need to examine the skeptic’s demands on an acceptable solution to
the skeptical problem in more detail.

1.4 The Skeptic’s Demands

Given that all of our performances conform to our familiar rules as well as any
number of bent counterparts, we are faced with the task of fixing which rules we
follow by establishing which extension it is with which our actions are in accord. So,
not only must we identify a unique rule that guides an agent’s actions for an indefinite
number of cases, we must also identify one against which we can make sense of correct
and incorrect performances. We could break this matter into two demands:

1. The fact determines a unique way to act for an indefinite number of cases,
measuring what shall be called a ‘productivity demand’, and

2. The fact determines that I ought to act in the manner established in by the
productivity demand, meeting what shall be called a ‘normativity demand’.

It is no accident that Kripke chose the rule for ‘+’ to make the skeptical paradox
evident: the familiar rule plus, which we usually take to govern the use of the symbol
‘+’, has a unique output for any given inputs; and because there are an infinite
number of numbers that could serve as inputs, there can be an infinite number of
unique outputs. Many other rules/ concepts—especially those that apply to physical
objects, to only finitely many things to which a rule/ concept could apply—can only
be said to be applicable for an indefinite number of cases. Colin McGinn has focused
on Kripke’s choice of plus (and its having an extension with an infinite number
of members), arguing that Kripke has misled us into thinking that the infinitary
nature of rules is one that applies to any rule when, in fact, most concepts are only indefinitely applicable (McGinn 1984). At best, McGinn suggests, Kripke may have raised a worry for mathematical rules. But I take it that McGinn’s observation misses the mark. The subtle shift from ‘infinite’ to ‘indefinite’ is not very important, precisely because the aspect of rule-following being picked out is the projective or productive character of rules. The point is that rules are the sorts of things that guide us in such a way that we are justified in acting under novel circumstances by virtue of the correct applications of the rule in the past. Though McGinn recognizes this point in passing, it deserves special attention precisely because it undermines the thrust of his charge.

This general concern for the productive aspect of rule-following requires an important qualification: not every rule or concept yields a unique output for any given input(s). When faced with a vague concept such as BALD, or a family resemblance concept like GAME, there may be a presumed determinacy (or indeterminacy) of application within certain ranges. With this in mind, it appears that we need only ground the determinacy of a rule insofar as that rule’s extension presumably possesses such determinacy.

To whatever extent we can secure the indefinite applicability of rules, we must still indicate how such a fact can constitute a correctness condition. We need to say how a fact could place unique normative constraints on our actions. It appears that Kripkenstein has in mind the same sort of worry that G.E. Moore raised for an analysis of moral facts: any such fact is subject to an ‘open question’ argument. His idea was to place doubt on any analysis of GOOD in terms of some facts x in order to account for the normative punch by asking the question of x: “what makes x good?”
If the analysis of good in terms of x were successful, then we could not ask such a question and expect to make any sense, precisely because x would be constitutive of being good. But this question always appears open to us to ask, which suggests that any analysis of ‘good’ in other terms x will fail. Similarly, the skeptic could ask of any fact grounding our use of a rule, “while I see that you would give some output for two given inputs, is that what you ought to do?” But if we have given a proper account of rule-following, then we should be able to answer that question.

In a critical notice of Kripke’s book, Paul Horwich claims that Kripkenstein’s attack on the truth-conditional approach to language depends, in part, on an assumption of an “artificial conception of meaning” (Horwich 1984). His worry is that Kripkenstein’s argument only works as an attempt to undermine a conjunction of conditions—what I have characterized as the productivity and normativity demands—which do not describe the notion of truth-conditions that we genuinely use. But I argue that we should reject Horwich’s claim on the grounds that the conjunction of the productivity and normativity demands is meant to express the projective nature of rules, which seems constitutive of the very idea of a rule. Insofar as our interest in rules lies in the notion of acting well or badly relative to some standard, where that standard plays a guiding role—that is, a prescriptive role for novel cases—the skeptic’s demands appear to be perfectly reasonable. Horwich is left with the burden of either painting a different picture of rule-following—one that dissuades us from thinking it has any prescriptive power (an unlikely approach)—or indicating how Kripkenstein’s characterization of truth-conditions leaves something out of the picture with which we could solve the skeptical problem. Though Horwich’s charge may not entirely stick, our response helps highlight a crucial element of the skeptic’s
argument: the skeptical argument targets a particular sense of normativity, one that depends on projection. This related worry draws our attention to the fact that the skeptical argument has a tighter focus than some may think. Still, we will assume, for the sake of argument, that Kripkenstein’s assessment of the phenomenology of rule-following is accurate.

Finally, we should recognize that the productivity and normativity demands are intimately related. As mentioned in §1.2, there are a number of senses of normative constraint: we might be interested in coordinating our efforts successfully with others, acting with some goal in mind, or representing the world accurately. But these are not—at least in any obvious sense—the sort of thing that the meaning skeptic targets. Rather, the skeptic targets our acting correctly or incorrectly in both familiar and novel cases. The normativity demand, then, cannot be understood without also appreciating the heart of the productivity demand. These two demands really comprise an organic whole—the specification of separate demands is really meant for the sake of clarification.

1.5 Skepticism Without Bent Rules

I take it that we can better understand the thrust of the skeptic’s strategy by indicating the relationship between bent rules on the one hand, and the productivity and normativity demands on the other. In §1.3 we presented a reconstruction of Kripkenstein’s reasoning, where it was made clear that facing the possibility of bent counterparts to our familiar rules opens us to considering the nature of rule-following and, with it, the productivity and normativity demands that any account must meet. But I take it that Kripkenstein’s entertaining of the possibility of bent rules plays a
largely rhetorical role. Notice that the skeptic challenges us to say what fact about me constitutes my following any rule at all. Whether he intended this strategy or not, his raising the possibility that our actions accord with a number of different rules merely alerts us to the idea that we cannot rely too easily on a presumed notion of determinate meaning. That is, I am suggesting that the possibility of bent rules, though it occupies a prominent role in Kripkenstein’s argument, is not argumentatively essential. Rather, the crucial work is done by the conjunction of the productivity and normativity demands that we must meet.

The rhetorical role of bent-rules becomes more evident when we reconsider the following reconfigured argument. Taking the argument from §1.3, we can get the same conclusion by ignoring premises (1) and (3) (where bent rules are featured), and making slight adjustments to the rest of the original argument’s premises. Relying instead on a general curiosity about the nature of rule-following—and the skeptic’s characteristic demand for a reduction—we can put the argument thus:

1. Take any rule such as the one governing our use of ‘+’.

2. If there is a fact about me that determines which rule I followed in the past, then that fact must meet the following conditions:

   (a) The fact determines a unique way to act for an indefinite number of cases (meeting what shall be called a ‘productivity demand’), and

   (b) The fact determines that I ought to act in the manner established in (4a) (meeting what shall be called a ‘normativity demand’).
3. Of an exhaustive list of candidates for this fact (comprised of any semantic and non-semantic facts), none of its members can fulfill both the normativity and productivity demands of (2a) and (2b).

4. Since no fact can meet the normativity and productivity demands, there is no fact of the matter which rule I followed in the past.

5. By (4), there is no fact of the matter which rules I follow.

6. Since there is no fact of the matter which rules I follow (by (5)), talk of rule-following has legitimacy only if attributions of rule-following are not fact-stating, which is to say that we should adopt an irrealist solution to the problem—a ‘skeptical solution’.

One could argue that all I have done with the above argument is suppress any mention of bent rules. But the possibility of the existence of bent rules to which our performances accord is essential to drawing out the possibility of indeterminacy. After all, the skeptic’s challenge is to make sense of rules uniquely guiding our actions, and doing so could be a problem only if there existed the possibility that we could act otherwise. But such a charge fails to appreciate the nature of the above variation on Kripkenstein’s argument. The challenge raised by the above argument is to find a fact that normatively binds us to act in a unique manner for an indefinite number of cases. Even if there were only one way that we could act (thereby rejecting the possibility of bent rules), the question remains whether we are the sorts of creatures for whom this is a possibility. Blackburn makes a similar suggestion when he points out that:
A skeptic might just doubt whether there was, yesterday or today, any principle at all behind my application of “+”. Perhaps all that happened was that I would look at things, such as triples or numbers, and after a process that was phenomenologically just like one of guided by a rule, declare ‘\(z = x + y\)’ or the reverse. I would be in the same case as a lunatic who thinks he is doing sums, when all that is happening is that he is covering pages with symbols (Blackburn 1984a: 34).

In other words, the above argument can be seen as an attempt to make sense of our status as potential rule-followers: we have a basic idea about that in which rule following consists, so now we need to say what facts about us make it the case that we are rule-followers at all. If there are no facts at all that can be cited, it may be that our being genuine rule-followers is merely illusory (requiring some sort of skeptical solution).

Despite the above argument’s departure from Kripkenstein’s original formulation, we can still call it a skeptical argument for the same reason that we can do so for the one presented in §1.3: it yields the conclusion that there are no facts constituting my following any rule at all. If I am right, we can still make use of the device of a bent rule to help focus our thoughts on the matter of rule-following, while recognizing that the major argumentative work is done by the productivity and normativity demands: they are the true stars of the show. The exercise in this section has helped us to recognize what is doing the major work for Kripkenstein, while also providing the materials for clarifying that in which a successful solution to the problem consists.

1.6 Successful Explanatory Strategies

The skeptic demands that we say what fact about an agent fixes that he is following one rule instead of another. Kripkenstein calls any such successful attempt a ‘straight
solution’ to the skeptical problem. That is, a straight solution is one that attributions of rule-following are fact-stating. But what facts need we cite, and what are doing when we make such a move? Before we look at the details of supplying facts about the rules we follow, we shall look at the approach to philosophy that backs the need to cite a fact.

Wittgenstein originally raised his paradox, in part, to help motivate a move away from the *Tractatus* picture of meaning in favor of the ‘meaning as use’ approach introduced in the *Philosophical Investigations*. His strategy is clearly motivated by his general approach to philosophy, one that clearly conflicts with, say, the view offered by Quine. Whereas Quine maintains that philosophy is continuous with the sciences, Wittgenstein suggests that philosophical problems are ultimately rooted in misunderstandings of the use of language. In an attempt to clarify the nature in Wittgenstein’s meta-philosophical views, K.T. Fann observes that Wittgenstein holds that:

Philosophy is not science. The philosopher is neither a theoretical scientist who gives us explanatory theories, nor an empirical scientist who discovers new facts (Fann 1969: 99).

There is a sense, then, in which a successful solution—insofar as it is meant to say something new or informative about rule-following—is the sort of thing running against the grain of Wittgenstein’s meta-philosophical stance. That is, any attempt to provide such a solution involves moving in the direction of Quine’s program (at least more than Wittgenstein’s): we are interested in saying something about the world (that is, the part of the world involving rule-following); we are not merely clearing up some confusions.
With this insight in mind, I take it that we can regard our search for a solution to the paradox not as the sort of armchair philosophy meant to trample on the feet of linguists and cognitive scientists, but rather as an attempt to offer a hypothesis about rule-constituting facts that meets the *a priori* demands of the meaning skeptic. The process of devising a successful solution need not be regarded as a flight of imagination without motivated arguments; instead, we are interested in constructing what, according to the skeptic, could be regarded as a viable hypothesis worthy of further investigation. We are in the business of constructing an internally consistent theory of rule-following.

So, we might say that ‘citing a fact’ about the rules we follow comes to specifying that which features in an explanation about projective normativity. Various explanatory strategies require different things when ‘citing a fact’. If we are interested in offering some sort of reduction (a matter to be addressed in §1.6.1), we might say that something counts as a fact only if it can be appropriately related to some other set of facts (say, the facts featured in explicit physical theory). Yet if we devise some other sort of explanation—what might be broadly construed as a non-reductionist approach—we can ‘cite facts’ with less demanding, though no less interesting, constraints (a matter to be addressed in §1.6.2).

### 1.6.1 Rules And Reduction

Any attempt to directly meet the normativity and productivity demands of the skeptic requires specifying a rule-constituting fact. Taken together, the skeptic’s demands are necessary and sufficient for rule-following. Kripkenstein suggests that we can arrive at a straight solution only if we *ground* the rules that we follow by
appeal to some other fact. He claims that we can make sense of the objectivity of rule-following (and hence its place in a realist framework) only on the condition that we can specify a fact the citing of which is sufficient for following a rule. This insistence on providing a reduction of rules is the sort of explanatory strategy thought to meet all of the skeptic’s demands. But before we can say whether a reductionist position could even work, we must get clear on what counts as giving a successful reduction.

We can be said to have provided a reduction of one theory (or discourse) $T_1$ to another one $T_2$ only if $T_2$ can be used to provide necessary and sufficient conditions for $T_1$. The basic idea is that we can say all there is to say about rule-following, without remainder, by citing some other sets of facts (or theory). We regard this sort of move as relating facts about rule-following to some more primitive (and presumably less controversial) ontological basis. This is the sort of thing we have in mind when saying that reduction tells a story about how rule-following is constituted by other facts: there is nothing more to following a rule than having some set of (more) basic facts being true of an agent.

When going about devising a straight solution, we might wonder: what materials can we help ourselves to when answering the skeptic? Someone like Quine, who argues in favor of a species of indeterminacy by adopting a behavioristic approach to

\[5\] There are a number of styles of reduction found in the literature, but the most common position taken here is to stress ‘reductionism’—the attempt to supply necessary and sufficient conditions for semantic facts by appeal to another, more fundamental theory. This approach has been given serious attention in the last several years, most notably by Fodor, Dretske and Millikan. This is placed in contrast to what might called ‘reductivism’ or ‘Nagelian Reduction’, the attempt to supply ‘bridge laws’ between the terms picking out natural kinds within a theory of rule-following and those of a more fundamental physical theory, allowing for some sort of derivation of the reduced theory to the reducing theory (Nagel 1961). Clearly, this approach has been discredited since the multiple realizability of mental types was properly recognized by Fodor (Fodor 1974). See Kim 2000 for an interesting discussion of these issues.
language, would maintain that only behavior and, perhaps, dispositions to behave, should count as the relevant facts. Goldfarb maintains that Kripkenstein assumes a broader physicalistic approach, allowing any sort of physical fact to act as a rule-fixing candidate: Kripkenstein (on Goldfarb’s view) is starting with the background assumption that there are only explicitly physical facts such as those featured in physics, chemistry and biology. On such a view, we can only say of some subject matter that it is fact-stating on the condition that it picks out these physical facts or can be reduced to such facts.

According to Goldfarb, this background assumption becomes clearer when we notice that Kripkenstein does not admit various senses of ‘fact’ that might stop his argument in its tracks. One might construe the notion of a ‘fact’, for instance, in such a way that we could preclude the possibility of formulating the skeptical problem in the first place. Such an account of facts was arguably held by Frege:

Frege holds that we have no notion of objective fact apart from our ability to reason, our mastery of logic. It is only against the backdrop of logic that questions of any kind can be intelligibly raised. Now, our mastery of logic presupposes our understanding of language, or, as Frege terms it, our immediate access to the realm of sense. Consequently, we can never be in a position to question generally whether our words and statements have sense. Frege’s notion of fact, in short, precludes any perspective from which to challenge our immediate access to the realm of sense, that is, to challenge the existence of semantic facts (Goldfarb 1985).

Because Kripkenstein’s skeptical paradox does not even address the above sense of ‘fact’, Goldfarb maintains that Kripke’s Wittgenstein is not directly attacking the Fregean account in a way that the actual Wittgenstein is thought to have—at least insofar as it was related to the approach to language offered in the *Tractatus* (Goldfarb 1985: 99).
I take it, though, that Goldfarb is only partially right in attributing this assumption of physicalism: Kripkenstein holds that, if any facts could ultimately ground rule-following (and none can do so), they must be physical facts. But we should not mistake Kripke’s move as a kind of unexamined ontological imperialism (where matter is Emperor). Kripkenstein is far more generous than Goldfarb leads one to imagine: indeed, he appears willing to offer us the use of any facts we like. We may suppose that we have perfect memory, that we have intentions to follow rules, that we behave in various ways, that (as a causal matter) we are disposed to act in various ways, that there are ‘raw feels’ that accompany following rules, and so on. Indeed, Kripkenstein is happy to even let Platonists about mathematics claim that the addition function exists in some abstract sense. Yet he nevertheless argues that, though abstract objects may very well be self-interpreting, those agents who have access to these abstract objects must have some sort of mental episode (or there must be a corresponding mental state within the presumed ADDITION-committed agent). It is this sort of mental state that the skeptical argument targets; and reducing rules to other semantic facts (such as mental contents, concepts, or even other rules) does not supply an illuminating explanation. It seems as though such a strategy amounts to our just ‘passing the buck’ to some other representative medium. We will address the precise faults with these approaches in Chapter 2. Supplying a reduction is only helpful here when it involves non-semantic (e.g. causal) facts. When we examine Kripkenstein’s claim that no fact, of any kind, could do the work characteristic of being guided by a rule, we gain a deeper appreciation for what this means: if any fact could do so, only non-semantic facts could be specified to ground rule-following and, sadly, no physical facts could do that which we expect of rules. Yet we must
still understand, in detail, why Kripkenstein maintains that reducing rules to other semantic facts will fail.

If any attempt to reduce rule-following to other semantic facts appears to fail, it seems that we ought to turn our attention to non-semantic facts. With the focus on non-semantic facts, appealing to our behavioral dispositions (of one kind or another) seems a natural candidate for fixing the rules we follow. But Kripkenstein argues that a dispositional treatment of rule-following fails to meet both the normativity and productivity demands. First, it fails to satisfy the normativity demand insofar as our dispositions have to do with how we actually act, whereas rule-following requires saying how we ought to act. Though we may be disposed to act one way rather than another, we are not thereby justified in acting as we do, which is what we require of an account of rule-following: in short, we cannot derive an ‘ought’ from an ‘is’. Secondly, such a dispositional account of rules cannot meet the productivity demand because, for cases outpacing our actual capabilities, we have no dispositions to act whatsoever. Appealing to our dispositions does not fix the rules that we follow for extreme cases precisely because our dispositions are themselves finite. We are not disposed one way or another, for instance, to add together 100,000 digit numbers, simply because we would not live long enough to finish witnessing the raising of such a problem (much less finish the calculation). Insofar as our dispositions are meant to constitute following an indefinitely applicable rule, our dispositions do not do the work expected of such rules. Since no non-semantic fact can meet the normativity and productivity demands, we cannot achieve a successful reduction and, with it, a solution to the skeptic’s problem. (We will address this kind of solution in much more detail in Chapters 3 and 4.)
1.6.2 Rules Without Reduction

If we agree with the skeptic’s methodological move to require a reduction of rules to other facts and we can find no such fact, then it seems as though all is lost. But what if we were to reject this stress on reduction? Alternatively, we could attempt to give a non-reductionist answer to the skeptic. This sort of strategy can be cashed out in a variety of ways, but they have the following trait in common: they reject the skeptic’s demand for a reductionist explanation. We might still regard a non-reductionist approach as a straight solution insofar as it purports to establish the facts that fix the rules that we follow. But such an approach points out that Kripkenstein’s skeptical problem only shows that we cannot reduce semantic facts to non-semantic ones and that we can still maintain the objectivity of rule-following by appeal to a sui generis fact. We need not appeal to some other fact in order to provide a straight solution. In short, the non-reductionist questions Kripke’s assumed sense of ‘fact’.

The literature surrounding the Kripkenstein problem focuses on two different ways of rejecting reductionism. First, there is the kind of position championed by figures such as McGinn and Wright, where rules are taken to be sui generis to the extent that we need not appeal to non-semantic facts to ground the semantic ones (see §1.6.2). Secondly, there is the sort of approach offered by Pettit, where a different sort of (genealogical) explanation is offered, one that offers a story about what we take ourselves to be doing when making rule-following attributions (starting with §4.3).

The problem with such a non-reductionist approach is that our denying the need for a reduction still faces us with a deep mystery: namely, how a finite mind could grasp an indefinitely applicable rule that is normatively constraining. Indeed, drawing
a parallel to Mackie’s ‘argument from queerness’ regarding objective moral properties (Mackie 1977: 41), it is not at all clear how there could be such a weird fact that did what we expect of a rule. Kripkenstein suggests that leaving us with such a mystery is unacceptable: only a reduction could give us a sufficiently illuminating story. So, denying the need for a reduction leaves us with a big question mark. A proponent of non-reductionism, then, still owes us some sort of explanation of rule-following. By setting what they take to be more appropriate constraints on a theory of rule-following, they seek to give some sort of answer to the skeptic.

1.7 The Skeptical Solution

If we can provide neither a reduction nor an illuminating non-reductionist explanation to the skeptic, we must admit that there is no fact fixing which rules we follow. Kripkenstein suggests that, if the skeptical problem cannot be solved, we are left with one final option: his skeptical solution is that we accept an irrealist construal of rules, where our talk of rule-following is not fact-stating. While a non-reductionist questions the sort of explanation employed, an irrealist questions the ontological status of rule-following. The irrealist maintains we could grant the skeptic’s point and provide a different sort of story to explain rule-following despite the fact that there are no facts grounding normative constraint, thus giving a skeptical solution. On this view, rule-following attributions may involve something along the lines of the affective attitudes (on the part of members of a community) influencing individuals.

Wittgenstein was famously opposed to any form of skepticism, so Kripke’s reading of Wittgenstein has come under fire because it appears to commit Wittgenstein to some sort of skeptical thesis. Whether or not Kripke’s Wittgenstein is the real one,
even Kripkenstein is not suggesting that we deny that we follow rules. The point of suggesting a skeptical solution is to indicate that the skeptical argument’s strategic role (in the broader dialectic) was to reject a particular picture of rule-following, one that clearly can bring us all sorts of problems. The non-factualist approach offered by the skeptical solution is meant to serve as a description of what we actually do, without any regard for actually justifying what we do. This description involves a story about what we take ourselves to be doing when we speak of rules and, presumably, offers some sort of explanation for what we are actually doing: namely, holding one another accountable by expressing affective attitudes about our actions (drawing a picture parallel to emotivism in ethics).

By adopting an irrealist approach to rule-following, Kripkenstein can grant the point of the skeptical argument while still maintaining that there is something to our attributions of rule-following. But instead of suggesting that rule-following talk is fact stating, Kripkenstein suggests that it plays a different kind of role. It helps to appreciate what he has in mind by recognizing that the meaning skeptic draws a distinction between truth conditions and assertability conditions. While truth conditions serve a fact-stating function, assertability conditions do not, instead playing some other role such as expressing the approval of the community to act in a particular fashion. Instead of stressing the idea that normativity is best understood by appeal to truth-conditions, by accurately representing a rule, the skeptic claims that we gain a sense for going wrong—that is, for establishing a standard for correctness independent of an agent—by associating assertability conditions with the leanings of members of one’s community. Our acting correctly comes to our acting in agreement with our neighbors.
What do we typically mean when we speak of a ‘community’? Kripkenstein suggests that we understand a community as a group of people who share a *form of life*. Even though the notion of a ‘form of life’ is a bit murky, it seems that the idea, roughly speaking, is that we engage in the same activities, have the same needs, and share the same judgements. Since there are no facts about me that determine what I mean by ‘+’, we are left with the option that I am regarded by my community as employing *plus* when I use ‘+’ so long as I perform as they do. That is, there is a fact of the matter whether I perform one action rather than another; but it is a subjective matter (or perhaps an inter-subjective matter) whether my fellow community members regard me as acting as they do. If we resist the seduction of the picture of rule-following that prompted the skeptical problem, we are in a position to realize that my following a particular rule just comes to be counted as a member of the community.

With this in mind, it appears that we do not share a form of life *because* we share the same rules; rather, we follow the same rules *because* we share a form of life (that is, we agree in our judgments). And since we can be said to be sharing in the same form of life only if a community takes us to be doing so, surely there are some means available for a community to make such decisions. We gain a sense for the kind of projectivism that Kripkenstein recommends when he writes:

> Wittgenstein’s skeptical solution to his problem depends on agreement, and on checkability—on one person’s ability to test whether another uses a term as he does (Kripke 1982: 99).

Kripkenstein’s emphasis on checkability is important because it provides part of a description of what we are actually doing when we attribute rules to others. Consider how we train children in the use of common terms: we judge a child as proficient
with TABLE once she uses the term in appropriate cases. That is, we have various criteria in mind that we expect to be fulfilled (e.g. sitting at the table, placing things on the table, not regarding the table itself as food, etc.), and a student’s fulfillment of these criteria is usually enough to satisfy teachers. The fact that she does what we do is taken to be sufficient (as a pragmatic matter) for attributing mastery of the concept. In short, a teacher’s judgment that a student has acted in accord with his own performance is entirely subjective and unjustified, but since a skeptical solution admits that no justification can be given, this is an acceptable move to make—again, our task (on the irrealist’s account) is not to justify attributions of rule-following but, rather, to describe such a practice. The skeptical solution is meant to explain normative constraint in light of there being no facts to ground our rule-following attributions.

A great deal of attention has been given to the character and adequacy of the skeptical solution, but I will not visit those issues in any real depth in this dissertation (outside of this chapter). Since my interest is largely in the steps in the skeptic’s argument leading up to the skeptical problem, where we are interested in the reasoning for thinking that no fact can satisfy the skeptic, I shall keep my focus on the logical space open for understanding and ultimately devising a straight solution. For our purposes, the role of the skeptical solution in Kripke’s wider dialectic suggests an important methodological constraint on a straight solution: we can appeal to either public or private facts about individuals. Given Wittgenstein’s stress on the impossibility of private language, this may seem strange. To see why this is so, we need to remember that Kripke regards Wittgenstein’s skeptical solution as doing more than just explaining our linguistic practices. He sees the skeptical paradox as dialectically
prior to the ‘Private Language Argument’. As Wittgenstein famously (and elusively) argues, we cannot make sense of the possibility of a language which is accessible, as a matter of principle, only to a single agent. The idea here is that the skeptical paradox is meant to show that no fact about me in isolation can fix which rules I follow. But if we appeal to a community (on a non-factualist model), we can provide an approach to meaning which is essentially public. The location of the skeptical argument within the larger dialectic suggests that, since the primacy of a public language is established only after developing the skeptical paradox, and we are still wrestling with the paradox itself, we may help ourselves to facts about isolated individuals. Such a move sharply distinguishes our task from Quine’s appeal to a radical interpreter making sense of the publicly exhibited behavior of a native. (Note that, though we may help ourselves to individualistic elements in order to ground meaning, we may also appeal to publicly available materials.)

1.8 The Road Ahead

Since an essential move in Kripke’s argument is specifying an exhaustive list of rule-constituting candidates, and knocking them off the list one-by-one, we have three strategies available for answering the skeptic:

a. Rehabilitate one of the candidates already attacked by Kripke,

b. Devise an entirely novel candidate for a straight solution, or

c. Challenge one or more of the skeptic’s basic assumptions (paving the way for accepting some rule-constituting fact).
Chapters 2, 3 and 4 will serve, in part, as the opening steps in establishing a new straight solution. In these chapters, we shall examine interesting solutions (and challenges to key assumptions) that have failed, and try to figure out what, if anything, we can pull from the wreckage. I will argue that, given Kripkenstein’s characterization of the productivity and normativity demands, neither semantic nor non-semantic facts can meet them: reducing rules to semantic facts is hopeless for a number of reasons (see much of Chapter 2), and non-semantic candidates, as they have often been handled in the literature, appear to be ineffective as well (see much of Chapter 3). More specifically, in §1.6.2, §2.6 and §4.3 we will consider attempts to reject the need for a reduction. We examine an attempt to reject the normativity demand in §3.6. And we will consider attempts to rehabilitate a non-semantic solution to meet the normativity demand by considering the *interactions* between dispositions; but doing so requires distorting the productivity demand beyond recognition (see Chapter 4).

It is worth noting that there are a number of different means of grouping solutions to the skeptical problem. We might consider the sorts of facts being cited; or the explanatory strategy being employed; or even the basic assumptions (made by the skeptic) that are rejected or revised. Many of the positions taken on rule-following, as well as how they conceive of the shape of the problem—in terms of meeting the skeptic’s demands and the need for a reduction (where an item struck-through indicates that it has been rejected)—are represented in the following diagram:

By Chapter 5, I intend to take these salvaged materials and forge a new solution to the skeptical problem, one which 1) revises the shape of the productivity demand (without losing its intuitive appeal), and 2) employs important elements from
positions offered in previous chapters. I shall argue that we can take a recursive approach to the productivity demand—thereby making sense of projection by appeal to finitely-specifiable materials—and combine this insight (in Chapter 6) with a revived appeal to normal conditions, meeting the normativity demand without sacrificing its distinctive projective nature.
2.1 Rules And Other Semantic Facts

When trying to determine which rules we follow, it seems perfectly natural to consider many of our rule-attributing practices. For a broad range of cases, we follow particular rules because of how they relate to the other rules that we follow. Our use of PLUS instead of QUUS depends, in part, on our practice of counting which, in turn, relies on our use of a successor operation. The basic strategy is to appeal to some other intentional facts in order to fix the rules at hand being challenged. Indeed, it seems that this is an initially appealing strategy because, in our usual practice of attributing rules/concepts to one another, we make such moves. In addition to appealing to the relationships between rules, we might speak of semantic intentions, sui generis meaning facts or Fregean senses. In this chapter, we will examine the inadequacy of these sorts of attempts to answer the skeptic. Recognizing the weaknesses of this family of strategies will prompt our adopting an appeal to non-semantic materials.
2.2 A Rule For Interpreting A Rule

There are many cases where we understand one rule in terms of another. We might say that we understand PLUS, for instance, in terms of COUNTING; similarly, we understand COUNTING in terms of the exercise of NUMBER, and NUMBER in terms of a SUCCESSOR RELATION. What is stopping us from fixing one rule’s extension by appeal to another one? The problem with this approach, of course, is that each rule to which one might appeal is itself subject to reinterpretation. So, the skeptical problem applies to SUCCESSOR RELATION just as it does to PLUS; and any rule used to fix SUCCESSOR RELATION is itself subject to reinterpretation, and so on. On pain of infinite regress, we cannot appeal to a rule F₂ in an effort to fix another one, F₁, in that doing so requires relying on the intended interpretation of F₂—which assumes that we have already solved the skeptical paradox. All we do, on such an approach, is ‘pass the buck’ to some other kind of fact without making real progress.

We run into a similar problem if we attempt to ground the linguistic rule PLUS by appeal to some other representative medium such as having a mental state whose content is PLUS. A PLUS-directed thought, for instance, fails to answer the skeptic because such a contentful mental state, insofar as it has truth conditions, it is vulnerable to the prospect of reinterpretation. Or, to put the matter more precisely, we require a story about how a semantic fact (such as a rule) could meet the normativity and productivity demands, so relying on another semantic fact just pushes off the problem for a moment.

Even if we gesture towards a ‘general thought’ that we have in mind when adding, we will fail to adequately answer the skeptic. The idea is that when adding we have in mind something like an algorithm, which helps solve the mystery of a finite mind
having an infinitely applicable content because we could appeal to some basis for
deriving appropriate performances of a rule. But this very state is itself comprised
of concepts (namely, those that comprise the steps of such an algorithm), and these
constituting bits are themselves subject to reinterpretation.

Though it initially appears that no representative medium can be used in order
to meet the skeptic’s challenge, McGinn suggests that we can spell out a significant
difference with mastery of word usage and the possession of concepts. He argues that
the skeptical argument, as it presently relies on the relation between past and present
usage, does not apply to concepts in the way that it does for word usage (McGinn
1984: 146). There is an asymmetry between the use of words and concepts: we do
not have, in the case of concepts, a divide between a concept and its meaning as we
do with the use of a symbol and its meaning. A concept, in some sense, is its content.
Unless the skeptic adopts a view of concept possession that denies this identity—a
move that would remove the element of generality of the skeptical problem in that it
applies to any semantic episode—the argument does not apply to concepts. This does
not mean that we could not devise an analogous skeptical argument that applies to
concepts (given this asymmetry between word and concept use): instead, we should
shift the emphasis from constancy of use in favor of merely asking about the fact that
determines that we use one concept instead of another (McGinn 1984: 148).

It appears, though, that McGinn fails to appreciate that the gap between word us-
age and concept usage is not significantly different insofar as the skeptic is concerned:
because we are interested in the normatively constrained uses of semantic items, our
task in answering the skeptic is to say how a semantic item (be it a word, concept,
etc.) could guide our actions for an indefinite number of cases. McGinn can only
claim that there is an asymmetry between word and concept usage on the condition that the latter is not normatively constrained (so that we need not account for the possibility of error)—an unlikely feat to accomplish. (But even if we conceded to McGinn on this point, his suggestion for reformulating the skeptic’s argument would not seriously detract from its appeal as a philosophical problem.)

So much for imbuing some semantic facts with immunity to the skeptic’s attack. We shall offer an initial diagnosis of the failure to fix rules by appeal to other semantic materials: the infinite regress generated, regardless of the type of semantic fact cited, is due to the linear ordering of rules in supplying some sort of grounding relation.

But what if we were to adopt a different model for fixing rules, one which relied on a network or a circle in order to fix any given rule? The task in §2.3 is to entertain this ignored option.

2.3 Holism And Reinterpretation

Even if we accept that we cannot appeal to one rule to fix another, as Neil Tennant suggests, there is a subtly different candidate that could be entertained: namely, a holistic view of concepts. According to such a view, the content of any given concept is determined by its location within a network of concepts. The relational properties within a system of concepts fix the intension/extension of its members. However you cash-out the relations between the members of network of concepts (e.g. inferential role), concepts are interdependent insofar as their contents are determined.

One could argue that the skeptic begs the question of concept-determination against the holist altogether: if such a theorist maintains that the concepts we use are determined by their role or place within a network of concepts—where they hold
one another together, without need for a foundation—then the meaning skeptic, with his insistence on providing a reduction (that is, establishing a foundation) just denies the holist’s position without further argument. The threat of infinite regress depends on a hierarchal relationship between concepts, so that then we require some sort of bedrock or foundation in order to determine the whole string of concepts (from the bottom on up)—something that we cannot successfully acquire.

Instead, the holist maintains that the picture we should entertain is one of a network, where the interpretation of one rule by appeal to another is maintained by a sufficiently robust system of nodes. The skeptic’s strategy of generating an infinite regress when appealing to one rule in order to fix another, then, is inadequate.

If sufficiently pressed, the skeptic would have to apply his strategy of reinterpretation to an entire language. This strategy, taken to such an extreme degree, is one that Tennant believes cannot be maintained in the long run. If the meaning skeptic cannot support the possibility of reinterpreting an entire language, then we must admit the possibility of using some rules (or groups of them) to ground other ones, hence rendering the reinterpretation move ineffective.

Tennant suggests that Kripkenstein has not actually provided a possibility proof to the effect that, for any rule, we can provide it with a bent counterpart. Surely, the skeptic has indicated a number of concepts that might need to be reinterpreted in order to sustain the attribution of QUUS to an agent, but the path taken has been too short to demonstrate that we can be content with a wide ranging effort to reinterpret our concepts. At best, we have been satisfied with vague hand-waving toward cases such as QUUS and GRUE—it has yet to be demonstrated that the same strategy can be applied to an entire language. Without having produced a possibility
proof, Kripkenstein leans on nothing more than a new dogma of post-empiricism: that we can easily accept the reinterpretation of an entire language, presupposing a mechanism for establishing indeterminacy without sufficient supporting argument (what Tennant calls the ‘Π₁-dogma’ because of its ∀∃ form (Tennant 1997a: 115)). To help get our minds around Tennant’s suggestion, we will trace the reinterpretation of PLUS and its fellow concepts a little further to get a sense for just how bizarre such efforts turn out.

Consider the rule PLUS: in an effort to ground this rule, we might appeal to our commitment to COUNTING. Tennant suggests that we could account for our use of COUNTING in terms of what he calls ‘Schema C’:

For every natural number n
there are n F’s
if and only if
the number of F’s = n

The skeptic’s worry, at this point in the dialectic, turns on the fact that COUNTING is fixed by appeal to other rules: namely, basic logical notions such as RECURSION, SYNTAX, LOGICAL CONSEQUENCE, and UNIVERSAL QUANTIFICATION. We can only fix what we mean by COUNTING if we presuppose the intended interpretations of its constitutive terms. So, when pressed to apply Schema C, the quadder will produce the result expected of a counter—not a quounter—which will require re-interpreting yet more concepts:

Thus the skeptic is faced with a very difficult logical gerrymander indeed. Either recursive definition goes haywire when the bound gets big enough, so that we are dealing with requursions (but how, exactly?); or the syntactic properties of formulae change suddenly upon over-accretion of quantifiers—and we have to develop a theory of quyntax (but how, exactly?); or logic gets fitted out with a quonsequence relation (but how, exactly?) (Tennant 1997a).
Tennant’s point is that the skeptic’s re-interpretation strategy can only be maintained by ultimately re-interpreting one’s *entire* system of concepts. This globalizing element of the re-interpretation strategy makes the skeptic’s job harder precisely because it requires re-interpreting even fundamental concepts such as *syntax*, *universal quantification*, *recursion* and *logical consequence* which, it turns out, are much more friendly to *addition* than *quaddition*. Not only do these sorts of concepts fail to have extensions that can be sequentially arranged—from which a bending point could be set—they are not ordinarily construed as having extensions in the style of first-order concepts. Unless the meaning skeptic can show how to generate a bent-concept for any of these all-to-familiar concepts—or, more to the point, how to generate an entire system of bent-predicates—we need not buy the global re-interpretation that he requires.

The skeptic could respond to Tennant by suggesting some bending point for our fundamental logical notions along a number of different axes. In order to see how we could devise bent counterparts to these concepts, let us take the ‘⊢’ of logical consequence as an example. For the sake of the example, we will use ‘→’ as the operator allowing us to make sense of some sentence following from a set of premises. Three suggested ways of devising bent-counterparts to ‘⊢’ are:

- **Appeal to a cut-off date (in Goodmanian style):** e.g. for any problem of the form ‘p → q, p ⊢ ?’, answer ‘q’, unless the rule for ‘⊢’ is used after March 1, 2007, in which case answer ‘r’

- **Appeal to the number of symbols that occur within a problem:** e.g. for any problem of the form ‘p₁ ∨ p₂ ∨ … pₙ → q, p₁…ₙ ⊢ ?’, answer ‘q’, unless n ≥ 1000, in which case answer ‘r’

- **Appeal to the number of performances of the rule:** e.g. for any problem of the form ‘p → q, p ⊢ ?’, answer ‘q’, unless you have used the rule for ‘⊢’ 2,000,000+ times, in which case answer ‘r’
Notice that a performance that would have counted as a breakdown for a familiar rule counts as correct for its bent counterpart. The heart of the strategy is to appreciate the fact that, for any rule, we can make sense of different ways in which one could fall into error. Taking any of these pitfalls as a starting point, we can generate a bent counterpart to the original rule. Using the kind of error as the basis for establishing an axis for distinguishing the bent concept from the familiar one, it is then only a matter of taking a particular value as the precise bending point. We can generalize the matter thus:

For any rule F, take any axis along which a deviant performance is possible as a bending point; and at this bending point, stipulate that a performance that deviates from the extension of F counts as correct answer for bent-F.

Presumably, we can use these bending points (as well as others) to apply to other logical concepts like SYNTAX and RECURSION as well as any other rule insofar as every rule is subject to misfiring. The fact that we can use any of a number of axes for generating bent concepts, at first glance, might give Kripkenstein the ‘wiggle room’ needed to reinterpret an entire language one concept at a time. Since we can provide a bent counterpart for any concept, it seems obvious to the skeptic that we could reinterpret an entire language.

Yet Tennant’s deeper point seems to be that the disfiguring character of the skeptic’s reinterpretation strategy itself is unstable. With each step in the process of reinterpreting our rules, the skeptic raise worries about one of the rules that we follow; and once we start digging into fundamental logical concepts we might start to wonder whether the skeptic has recognized the fact that we take our system of concepts to fit together in various interesting, uniform ways. As Tennant points out:
What we do not have from Kripke is a satisfyingly uniform way of sustaining the original reinterpretation on the very first word on which the skeptic tried to ring the charges (Tennant 1997a).

Even if we can make a great many bizarre adjustments to the reinterpretation of one’s linguistic performances, such a radical reinterpretation of our conceptual scheme, Tennant claims, is untenable. In light of the conceptual controls that our basic logical concepts hold over COUNTING or ADDITION, we can only maintain the appearance of uniformity by adopting increasingly bizarre interpretations of these fundamental concepts. It appears that we could accept it as a genuine possibility only if we relied on the $\Pi_1$-dogma (see above). Tennant can still maintain, then, that the skeptic has not offered a possibility proof—at best, the skeptic has become better at hand-waving. It has yet to be demonstrated that we can reinterpret an entire language.

Though I have been willing, on the skeptic’s behalf, to play through the dialectic to what Tennant takes to be its natural terminating point—ending in his favor—I argue that this line of thought involves a fundamental misstep. I would suggest that Tennant’s point remains persuasive only if we construe ourselves as applying the reinterpretation as a necessary step in establishing the Kripkenstein’s brand of indeterminacy. As argued in §1.5, though, raising the possibility of bent-rules is meant to play a largely rhetorical role. While the skeptic begins his argument by challenging us to settle on an interpretation of the use of our words, this does not get at the heart of the argument. We can fix an interpretation of someone’s use of words only if there is a fact of the matter what we mean. And there is a fact of the matter what we mean only if such a fact meets the productivity and normativity demands. The skeptic argues that there is no fact that meets the productivity and normativity
demands, so there is no fact of the matter what we mean. On this basis, the skeptic argues that we cannot fix an interpretation of what someone means by their words.

Notice that Tennant’s insistence on work being done by the $\Pi_1$-dogma is in line with demands for Quine to actually produce an alternative translation manual; and when it applies to Quine’s project, his claim might take hold. We might regard a translation manual as a theory about the behavior of speakers of that language in the sense that, in understanding such behavior, we are really just understanding the behavioristically defined inputs and outputs (and relating that information by means of mapping that language onto our own). Tennant’s point makes sense here because Quine maintains that any of a number of empirically adequate translation manuals might fit with the native’s behavior and, given the (unsupported) suggestion of utterly bizarre translation manuals, we can only maintain that these are genuine possibilities by relying on the $\Pi_1$-dogma.

But Kripkenstein differs from Quine regarding the role of bent rules in his argument: the appeal to bent rules is meant, within Kripkenstein’s dialectic, to help us focus on what we require for normative constraint. Though it acts as the initial step

---

6The work of explaining linguistic behavior—i.e. constructing a theory with the aim of making communication possible—is accomplished by mapping the explanandum language onto a language familiar to the field linguist (e.g. his mother-tongue) such that, with the help of his translation manual, an answer to the question, ‘What did the native mean by $p$?’ can be provided. We need not go far to find strong analogies with typical scientific practices. With batteries of tests, hypotheses and the like, the field linguist constructs a theory about the linguistic behavior of his test subjects and the success of the theory is measured not only by its systematic handling of the language but also its ability to explain and predict linguistic behavior (e.g. if one produces a red swatch and asks, ‘Rot?’ the subject will give assent). In short, the continuing test for any translation manual is its ability to facilitate communication and this test can be understood, at least to a significant degree, by appeal to the concepts of explanation and prediction.

7I am not making a strong stand here on the matter of Quine’s genuinely relying on the $\Pi_1$-dogma. Rather, I am provisionally granting Tennant the possibility that Quine has done so for the sake of recognizing the relevant contrast between Kripke and Quine—whether or not Quine can evade Tennant’s charge, I mean to show that it misses Kripke altogether.
in his argument, it is one that we could do without. The primary worry that the skeptic means to raise is this: what fact about me determines that my actions are normatively constrained for an indefinite number of cases? Raising the possibility that our actions accord equally well with a whole range of different rules is meant to turn us on to the idea that we cannot lazily rely on some presumed sense of determinacy. If there is a fact-of-the-matter which rule I follow, then I qua theorizer should be able to cite it. The problem, of course, is that doing so is not such an easy thing to do, given what we expect of anything that counts as a rule: the skeptic’s productivity and normativity demands are interesting and require an account that meets them. We can establish indeterminacy without even raising the possibility of bent rules. As I read the genuine argumentative structure generating the skeptical problem, then, the skeptic is not playing the game that Tennant attributes to him, thereby side-stepping Tennant’s charge.

Nevertheless, Tennant could shift his argumentative strategy, asking how the skeptic means to undermine the holist’s position qua straight solution. At first glance, the meaning skeptic has not given us any reason to think that the holist could not meet the productivity and normativity demands. Facing the productivity demand, the holist might urge that there is nothing more to our using a rule in new cases than our using it in ways fixed by its relations to other concepts within a network. Insofar as we can rely on the relations between concepts to fix the extension of a concept, we can supply some standard of correctness against which to evaluate our actions. Indeed, if we have such a standard in hand, there is reason to think that we can also meet the normativity demand: by suggesting that a concept is used incorrectly just in case it is used in a way that fails to respect its role in the network of which it is
a part, we can supply a gap between an agent’s competence with a concept and her performance with that concept gap.

The strategy here is to make sense of the productive nature of rules and use that as the basis for establishing normative constraint, but the appeal to holism fails to get at the heart of the productivity demand: namely, making sense of a finite mind being guided by an infinitary concept. The holist may have given us some sense for how the extension of a concept is determined, but we have yet to see how such a (infinitary) concept could guide the actions of an agent with a finite mind. Unless we can say how a single concept can bear the right sort of (normatively constraining) relation to an agent, we do not have any sense for how an entire network of concepts could do such a thing. The appeal to holism does not provide any additional resources to addressing this matter.

2.4 Intending To Follow A Rule

If asked which rule one follows, a natural answer to offer is, “I follow rule F because I intend to act in accordance with F.” To the extent that intentions are semantically relevant, they allow agents to make choices to act this or that way, to use this rule or that one. Surely, I understand both PLUS and QUUS, and under different circumstances I may find it preferable to opt for the latter over the former. But in most cases, I choose to add instead of quadd. My choice to employ one function instead of another is all that is required to count me as an adder. My intention plays the deciding factor whether I choose to play one game or another. The driving thought here is that first-person avowals of meaning have some sort of privileged role.
But as intuitively appealing as this answer may be, there are a number of reasons for thinking that intentions alone cannot determine which rules I follow. Kripkenstein points out that intentions will not satisfy the skeptic’s demands because thinking that one is following a rule does not entail actually doing so. One may intend to add together two numbers, for instance, but because there are counterfactuals where one could intend to do such a thing without succeeding (e.g., being under the influence of mind-altering drugs, just making a mistake, etc.) we come to the realization that intending to follow a rule, while potentially necessary for rule-following, is not sufficient. So, there are cases where our intentions and actions do not match up, but an appeal solely to our intentions does explain this gap. It becomes clear that we require something more in the picture to distinguish between genuinely following a rule and merely seeming to do so. In short, an appeal to the intention, on the part of an agent, to follow a rule fails to secure the normativity demand.

Crispin Wright attempts to meet Kripke’s challenge by rehabilitating the concept of INTENTION. As we traditionally think of them, our semantic intentions are the sorts of mental particulars that are 1) non-inferentially accessible, and 2) are infinitely realizable with normative force. In short, “the skeptical argument is powerless against [intention]” (Wright 1984). Instead of being required to specify that in virtue of which you intended one rule rather than another, Wright would say that, by appeal to our intentions, we understand a specification of the rule that we meant to employ.

More specifically, Wright fleshes out the concept of INTENTION by exploiting a distinction regarding the relationship between our judgements and concepts: namely, those concepts that are extension-reflecting and those that are extension-determining. To sharpen this point, consider the following biconditional, expressing a relationship
between the use of a concept $F$ (or an object $x$ falling under $F$) on the left side, and our judgments (or responses) on the right:

$$x \text{ is an } F \text{ if and only if } [\text{agents}] \text{ are disposed to } [\text{react } F\text{-ly to } x] \text{ under } [\text{circumstances}]$$

To put some flesh on these bones, we must fill-in ‘persons’, ‘reaction’ and ‘circumstances’. A number of candidates for each place-holder are:

[agents]: oneself, the community, those of us who are normal, those of us who are well-built, the experts, ideal judges, etc.

[react $F$-ly to $x$]: a disposition, a response, an inclination, a cognitive reaction, a non-cognitive reaction, a private episode, what seems to be the case, a judgment that $x$ is $F$, a judgement that ‘$x$ is $F$’ couched in other terms, etc.

[circumstances]: normal conditions, standard conditions, those conditions that led to the selection of $F$, conditions appropriate for judging that $x$ is an $F$, ideal conditions, favorable conditions, etc.

We can understand the work that this biconditional does for us in two ways, depending on the direction in which we read its constituent sentences. We could try to read it either from left-to-right or from right-to-left, and depending on which way we choose, it will indicate something different about how the extension of $F$ is determined. The point of reading the biconditional one way or the other is that it allows us to locate the order of explanatory priority between a concept $F$ and our responses.

The meaning skeptic would suggest that we should so read the biconditional that the right-hand side is true because the left-hand side is true. If we go with this option, we would say that we come to know whether any given $x$ is an $F$ by tracking some fact. We have a better sense for why we say that $F$ is known by means of what Wright calls a ‘tracking epistemology’ when we consider a concept whose semantic value is
a primary quality such as SQUARE. Surely, x is not square-shaped because we judge
it to be so, but rather we judge that x is square-shaped because we are tracking x’s
shape. Wright suggests that we stress that these concepts are ‘extension-reflecting’
or response-independent.

Or we could flip the order of explanatory priority, as Wright would suggest, and
so read the biconditional that the left-hand side is true because the right-hand side is
true. If we go with this option, we have grounds for saying that we know whether any
given x is an F precisely because our responses (under normal conditions) determine
F’s extension. We understand such a concept by considering our basic responses,
without having to check to see how things stand in the world. This becomes evident
when we think about a color concept like RED: there is nothing more to saying that x
is RED than that a creature built to be appropriately affected by light would honestly
judge in the right lighting conditions that x is red. A judgment of REDNESS, unlike
SQUARENESS, is not determined without appeal to responses of people who can detect
color. For this reason, we call these ‘extension-determining’, ‘judgment-dependent’
(Wright 1994) or ‘response-dependent’ concepts (Johnston 1993).

With this distinction in hand, Wright gives a judgment-dependent account of self-
avowals of which rules we mean to use by appeal to the concept of INTENTION or,
more likely, semantic intentions. Wright makes the bold move of suggesting that
the concept of INTENTION (along with other self avowals) would best be accounted
for as judgement-determining. The idea is that our intention to do one thing rather
than another—or to mean one thing rather than another—is correct under normal
circumstances (what Wright has called ‘C-Conditions’). Unless there is evidence to
the contrary, our present intentions are extension-determining in the sense that those
intentional acts—intending to mean this or that—determine whether we do, in fact, mean to do this or that. The exercise of the concept of intention determines its correct use:

It will be... a perfect answer to Kripke’s skeptic to explain how judgments concerning one’s own meanings, both past and present, are likewise provisionally extension-determining in the most ordinary circumstances. Challenged to justify the claim that I formerly meant addition by ‘plus’, it will not be necessary to locate some meaning-constitutive fact in my former behavior or mental life. A sufficient answer need only advert to my present opinion, that addition is what I formerly meant, and still mean, and to the a priori reasonableness of the supposition, failing evidence to the contrary, that this opinion is best (Wright 1992).

Wright’s move here is to say that our successfully intending to use a particular rule requires our having such intentions under normal conditions. Similarly, we gain a sense for what is involving in failing to act in accordance with one’s intentions—that is, our intention to use a rule can misfire when exercised under non-normal conditions. This move would give us the grounds for making sense of failing in one’s intention that Kripke attempted to reject earlier in the dialectic. Moreover, Wright gives us a reason to think that the act of intending to use a concept F is not something that reflects reality but is, rather, constituted by our own judgments. So, the mechanism for meaning to use one concept (rather than another) is itself response-dependent and, as such, immune to the skeptical problem.

My major worry, inspired by Boghossian (Boghossian 1989), is that the concept of following a rule just is the concept of an intentional action. If this is correct, Wright’s use of intention to answer Kripkenstein ultimately begs the question against the meaning skeptic. Intentional actions are what the so-called ‘rule-following considerations’ really address.
The ordinary concept of following a rule—as opposed to that of merely conforming to one—is the concept of an intentional act: it involves the intentional attempt to bring one’s behavior in line with the dictates of some grasped rule (Boghossian 1989).

At first glance, it appears that Wright may have established that some non-inferentially accessible candidate may have the stuff with which to say which rules we follow. But Wright’s use of semantic intentions fail to strike at the real heart of the skeptic’s puzzle. Even if Wright has supplied some basis for acting correctly or incorrectly, he has not supplied the particular sense of normativity that motivates the skeptic in the first place. Our providing an account of intention that yields normative constraint still requires crucial details for answering the productivity demand. We are left wondering what sort of thing a rule is that it could justify our actions for an indefinite number of cases, a matter that, if not made initially clear, was highlighted in §1.5. Since part of answering the productivity demand involves saying how a rule could guide our actions for an indefinite (if not infinite) number of cases, we are left without an adequate answer to this matter. In short, the projective nature of rule-following is left a mystery on this approach.

To raise a worry not unrelated to the one raised in §2.2, even if we can devise an account of intention that answers both of the skeptic’s demands, we must still identify that which is required for an agent to intend to follow a rule at all: our intention, being directed toward a rule, must have content. That is, the directed-ness or about-ness of our intention suggests that it can be understood in terms of beliefs and desires. But making sense of beliefs (and potentially desires) requires telling a story about the concepts/mental contents from which our beliefs are comprised. The problem, of course, is that concepts/mental contents are themselves subject to the
skeptic's attack, so the skeptical problem just recurs at this level. By appealing to intentions to fix this content, we face the beginning of an infinite regress. To the extent that intending requires this sort of thing at all, it appears, yet again, to be inadequate on its own to satisfy the skeptic. The only 'out' for the skeptic might involve arguing that intentions do not require any mental content in order to function or, alternatively, meanings are self-interpreting (a matter to be addressed in §2.5). Such a move, though, invites the charge of leaving the directed-ness of intentions very mysterious. If we are to foil the meaning skeptic, then, we must pursue a different route. Wright’s approach fails to solve the mystery of rule-following. At best, he has only given us a better sense for the intuitive picture of meaning which must be defended.

2.5 Sui Generis Meaning Facts

Appeals to other rules in order to fix any given rule have failed. But what if we could make sense of a sui generis meaning fact, a primitive fact that met the skeptic’s demands? We might start to motivate such a candidate for fixing rules by rethinking our reliance on reduction, where the assumption is that no rule-fixing fact could be primitive. Colin McGinn questions whether the skeptic can justifiably assume that we require a reduction of the rules that we follow, to some other facts:

The skeptic thus needs to defend an undefended and undisclosed premise, namely that semantic discourse cannot be regarded as irreducible, this premise being tantamount to the claim that semantic discourse is not factual just as it is (without benefit of translation into other terms) (McGinn 1984).
By helping himself to the assumption that some x is a fact only if it is reducible to another fact y, Kripkenstein creates the appearance that we cannot be realists about rule-following. McGinn suggests that Kripkenstein has only demonstrated that facts about rule-following are not reducible to some more basic set of facts; and the non-reducibility of x to y does not entail that x is not a fact. This extra step requires a motivating argument—something that Kripkenstein has not provided.

While McGinn draws our attention to Kripkenstein’s unearned assumption regarding reduction, Wright accomplishes much the same work by examining the form of the reasoning behind the skeptical problem. First, Wright asks us to remember that:

...it cannot always be possible to justify a presumed genre of knowledge ‘from without’ in the way the skeptic is here demanding (Wright 1984).

By parity of reasoning, we can show that we are without perceptual knowledge—a result that would bring the necessity of reduction into question. Wright begins his demonstration by considering the belief that “yesterday, I saw it raining”. If we suppose that the same ground rules are in place as those found in the meaning skeptic’s case, I may be warranted to bring into the picture any sort of fact, so long as I do not presume to have any knowledge of the kind in question: namely, perceptual knowledge. The problem, of course, is that I am allowed to recall all relevant facts except for my having perceived yesterday that I saw it raining. So, there is no fact of the matter whether I perceived it raining yesterday. It does not take long to see that there is no fact at all regarding what I perceive or perceived. If Wright is right, then the pattern of reasoning that leads to meaning skepticism also leads to skepticism...
about perceptual knowledge—at first glance, an unacceptable result. The problem with this pattern of reasoning, on Wright’s diagnosis, lies in the:

...assumption that knowledge of a former perception has to be inferential, that the ultimate grounds for such knowledge must reside in knowledge of a different sort. That is true only if knowledge of what I am presently perceiving is inferential; otherwise, the skeptic may satisfactorily be answered simply by recalling what one formerly perceived. So, too, Kripke’s skeptic persuades his victim to search for recalled facts from which the character of his former understanding of [a concept or rule] may be derived (Wright 1984).

The strategy employed by the meaning skeptic, then, is only appropriate in cases where the putative kind of knowledge is essentially inferential. We can make a distinction between the skeptical problem and the parodied reasoning applied to perceptual knowledge only by accepting that perceptual beliefs/episodes are non-inferential. But the meaning skeptic, it seems, has given us no reason for thinking that we cannot apply the same strategy to the case of meaning and, in so doing, find an escape route from the skeptical problem.

Given the above reasoning, a non-reductionist could suggest that we can answer the skeptic by suggesting that the facts determining which rules one follows are sui generis—that is, somehow primitive, standing on their own without either the need or the possibility of further explanation. Just as private visual episodes play an important role in saying what one sees, we might say that private semantic episodes pick out that we follow one rule rather than another.

If meaning facts are non-inferentially accessible, it seems as though we may need to shift the emphasis regarding our knowledge of rules towards knowledge by acquaintance—a matter of knowing what. Characterizing rule-following by appeal to the feeling of being guided, though, presents a problem. Presumably, an internal
episode of being guided feels like a compulsion (or that one, when acting, is riding on rails). There is a sense in which it feels that one could not act differently. But whatever this feeling may be like, surely it cannot guide our actions for an indefinite number of actions. For anyone convinced by Sellars’ attack on the ‘Given’, it is doubtful that we will find any primitive mental state that can meet *any* justificatory demands whatsoever (Sellars 1956). Indeed, it seems utterly bizarre for us to expect any such state to demand that we act one way rather than another: a feeling cannot uniquely guide our actions on its own. Surely, we can gesture toward such a thing, but pointing is very different from justifying. That is, the ‘raw feel’ of being guided can only play the role of affecting action if an interpretation is applied to it, which brings us right back to the original worry. Any non-reductionist solution to the skeptical problem will succeed only if it can dispel this sense of mystery.

But one could counter this Sellarsian move, arguing that meaning facts should not be understood as something like a feeling or private phenomenal episode. Rather, meaning facts are the sorts of things which are self-interpreting, thereby avoiding the major thrust of the Sellarsian attack. Meaning facts are the sorts of things which intrinsically guide our actions. We can make sense of these facts without the need for a reduction, instead relying on some other sort of story. All that we require is a story that relates talk of rule-following to illuminating explanatory materials. As Stroud puts it:

> If statements of one kind are not equivalent or reducible to statements of another kind, it does not in general follow that the irreducible statements say nothing and are neither true nor false. Mathematical truths, for example, are not reducible to nonmathematical truths, but that is no reason to conclude that there are no mathematical truths. It shows only that they are different from nonmathematical truths in ways that presumably can be described and understood (Stroud 1996: 312).
The worry with this sort of approach is that it is not at all clear that we can explain the productive notion of normativity constitutive of rules in a way that can be helpfully ‘described and understood’. Anticipating something along these lines, Kripke suggests that an irreducible, *sui generis* meaning-fixing mental state is “utterly mysterious”. Kripke’s response to the possibility of *sui generis* facts is reminiscent of Mackie’s ‘argument for queerness’ against objective moral facts. Mackie raises the following worry:

Another way of bringing out this queerness is to ask, about anything that is supposed to have some objective moral property, how this is linked with its natural features. What is the connection between the natural fact that an action is a piece of deliberate cruelty—say, causing pain just for fun—and the moral fact that it is wrong? It cannot be an entailment, a logical or semantic necessity. Yet it is not merely that the two features occur together. The wrongness must somehow be ‘consequential’ or ‘supervenient’; it is wrong because it is a piece of deliberate cruelty. But just what *in the world* is signified by this ‘because’ (Mackie 1977: 41)?

While objective moral facts are queer in the sense that we cannot make sense of an intimate relation between natural facts (occupying the ‘is’ side of the is/ought distinction) and moral ones (clearly occupying the ‘ought’ side of the distinction), meaning facts are queer in the sense that we cannot relate our finite minds (occupying the ‘is’ side of the is/ought distinction) to an infinitary rule (clearly occupying the ‘ought’ side of the distinction). The analogy is meant to spell out the weirdness that arises when uniquely relating a natural fact with a normative one: it is not at all clear how a natural (or causal) matter could relate to normative matters in this way. *Sui generis* meaning facts are mysterious because 1) we can make no sense of such a finite mental episode accounting for the indefinite number of applications of a rule, and 2) we cannot see how such an episode could maintain the normative dimension
of meaning, holding us accountable to some standard of correctness uniquely, for an indefinite number of cases (given our finite capabilities).

One might wonder with Davidson whether this charge of mysteriousness regarding any primitive concept is itself a little strange. After all, a concept like TRUTH might be resistant to definition, but we nevertheless understand how to use it. Indeed, for such concepts the best we may be able to do is relate it to other concepts such as BELIEF and DESIRE (Davidson 2002: 625).

The skeptic might respond that the sense in which we are interested in TRUTH is distinctly different from how we should understand MEANING or RULE. Davidson is interested in TRUTH in order to make sense of the practice of interpretation—something which involves a story about attributions of beliefs, desires, reasons, etc. Yet the meaning skeptic is interested in explaining the indefinite projectability of a rule and how a finite mind could grasp such a thing, which requires a story that the skeptic doubts can be told. At the very least, appealing to a primitive fact that pulls off this sort of feat appears to be nothing more than a cheap trick—if there is any substance to the indefinite projectability of rules, we ought to be able to provide some sort of explanation. In §2.6, we shall consider an attempt to give such an explanation by means of a revised sense/reference distinction.

2.6 Katz’s Intensionalist Platonism

Jerrold Katz defends a non-Fregean intensionalism which he takes, among other things, to directly answer the meaning skeptic’s worries. By combining Platonism with a particular account of intensionalism, he means to avoid problems generated by projectability and thereby secure determinacy. Instead of claiming that, when
following a rule, we have an extension in mind, Katz suggests that we have an inten-
sion in mind—the skeptic has made a simple sense/ reference confusion (Katz 1990: 172). But it is not immediately clear why appealing to an intension helps us out of the skeptical paradox. After all, we might wonder how it could be that a finite sense (that is, a state accessible by a finite mind) could uniquely determine an infinite extension—the heart of the skeptical problem! Typically, we think of a sense/ inten-
sion as a criterion (or description) which determines what falls in its corresponding extension. How can an appeal to an intension helps us face the skeptic’s demands?

Whereas a traditional Fregean maintains that sense determines reference—which raises the usual skeptical worries about finitude and queerness—Katz argues that, by revising the relationship between sense and reference, we can devise an answer to the skeptic. Instead of insisting that sense determines reference, Katz argues that sense mediates reference (where sense, though necessary, is not sufficient for reference). A sense, in Katz’s view, is a finite mental object which acts much as a method would for arriving at an output for any given input. Regarding PLUS, Katz maintains that:

As competent speakers of English, we know the sense of expressions of the form “x plus y”, say (P), and we also know the sense of

(P) The number that is reached from the number m by the process of taking its successor, then the successor of the successor, and so on, repeating this process n times in all.

the numerical terms which can replace “x” and “y”. Thus, the fact about my finite mind which grounds my meaning 125 in literal use of “sixty eighty plus fifty seven” is the fact that, in such uses, my communicative intention reflects my grammatical knowledge of the compositional sense formed from the sense (P) and the sense of those numerical terms (Katz 1993: 151).

That is, Katz argues that the grasping of an intension is a finite mental state which is itself not worked out ahead of time but, when applied, will allow us to work out the
appropriate member of an extension. An intension, in short, provides something like a method for acting in new cases. The driving thought here is that we avoid problems of deviant projections because projection never comes onto the scene. An agent uses a sentence like ‘65 + 57=?’ with the intention to refer to the referent of the sense of the expression. An agent need only be concerned with the sort of practice that the sense provides for working out the appropriate output. But is this entirely possible?

Boghossian gives us reason to think that Katz has misunderstood the strength of Kripkenstein’s worries about unique projectability. He argues that a sense must be the sort of thing that is itself infinitary:

The subtle point that Kripke is relying on here is that it is as hard to explain how a finite mind might grasp an infinite object—such as the addition table—directly, as it is to explain how it might grasp something that uniquely determines such an infinite object. For in the relevant sense, an object that uniquely determines an infinite object itself has an infinite number of individuative conditions, and hence is itself an infinite object. If, then, there is a problem about grasping infinite extensions, that problem simply resurfaces for senses (Boghossian 1993: 140).

Boghossian argues that Katz’s use of sense as a mediating device between an agent and an extension fails to maintain its finite character insofar as a sense, if it is to relate to an infinite extension, must itself have infinite applications. A sense is not the sort of thing that can provide us with access to an infinite extension if it is not itself, in some sense, infinitary—thus reinviting worries about finitude. It is not entirely clear what Boghossian’s charge is. If his worry focuses on making sense of a finite mechanism producing infinite outputs, then there is no serious worry here—Turing has already given us the materials for making sense of how this is accomplished. But if the worry focuses on the fact about an agent, given her finite applications, that
establishes that she means to use one sense instead of another, we have a substantial problem facing Katz’s position.

Katz has suggested that he not need worry about (the more plausible reading of) Boghossian’s charge because he has rejected the assumption that an intension is something that needs to be infinitary in the sense that it is worked out in advance. Instead, he makes sense of interacting with an extension by appeal to compositional arrangements of intensions. It seems that he is suggesting that we make sense of novel judgments, then, by appeal to configurations of basic semantic materials that have already been mastered.

But in what does mastery of basic semantic materials consist? It cannot be one’s intention to employ a particular sense, for reasons already offered in §2.4; and it cannot be the case that other rules fix the one at hand, for reasons given in §2.2. Nor will it help to suggest that we have some faulty that allows us to grasp an intension, because part of how we make sense of understanding is by appeal to rules (thus inviting a charge of circularity). Given that we cannot appeal to other semantic facts without problems of infinite regress, it appears that the mind must have some sort of as yet unexplained ability to fix on one sense instead of another. It appears as though Katz must be committed to the view that senses are self-interpreting and we can grasp these senses. But this only raises new worries about queerness—we are still left with a mystery, at least involving the epistemology of meaning facts. In short, Katz may have accidentally divorced the sense of a term or sentence from the competency of agents to use such things.
2.7 The Need For A Non-Semantic Solution

It seems that, on a reductionist approach, we run into crippling problems of regress; and on a non-reductionist approach, we gain little insight into the nature of being guided by a rule. Katz comes close in giving a finitely-specifiable compositional approach, but it fails to answer the skeptic’s worries about queerness. So, we learn a valuable lesson from the failure of all semantically-based solutions to the skeptical paradox, one that will carry its way across the entire project of answering the skeptic: whatever facts fix the rules that we follow must exist outside of, or external to, a system of rules/concepts if we hope to provide an illuminating explanation. Chapters 3 and 4 will focus on these sorts of approaches. In Chapter 5, I will fuse the driving insight of these dispositional approaches with the potentially fruitful use of compositionally basic materials in order to make sense of projection. Though I am sympathetic to the attempt (on Katz’s part) to relate a finite intension to an infinite extension, it is not sufficiently well-developed as it stands. It involves an element of ‘queerness’ which it may not be able to shed. Part of my task in that chapter will be to provide a finished dispositional analog to that approach, thereby making sense of projection without the worries about finitude or queerness.
CHAPTER 3

RULES, INDIVIDUALS AND DISPOSITIONS

3.1 Reduction And Non-Semantic Facts

Since any appeal to reduce semantic facts appears to fail to adequately meet the skeptic’s demands (see Chapter 2), a number of proposals have been offered with a stress on reducing semantic facts to non-semantic ones, such as our dispositions to act. The driving idea behind this kind of straight solution is that there are causal facts or counterfactuals true of us indicating how we are disposed to act and these facts are sufficient to establish the rules that we follow. There is nothing more to following a rule than our having the appropriate dispositions to act. Consider the following biconditional:

S follows a rule $F$ functionally characterized by inputs $x_1 \ldots x_n$ and outputs $y_1 \ldots y_n$ if and only if S has the disposition such that, if S were prompted with any input $x_i$, then S would give the corresponding output $y_i$.

Whereas the meaning skeptic suggests that rules are independent of our dispositions—so that our finite capacities fail to uniquely fix the rule we follow—the dispositionalist
suggests that we switch the order of priority\textsuperscript{8}, reading the biconditional from right to left instead of left to right. On this view, there is nothing more to an S’s following a rule F than S’s being disposed to act in a particular manner which, \textit{ex hypothesi} yields the extension of F. In the case of ADDITION, for instance, we would say that agents are to be construed much as adding machines.

Now, if we can reduce rules to dispositions (of one kind or another) we will have shown how rules and, with them, semantic facts, fit into a naturalistic world-view. But the attempt to produce a successful reduction inevitably runs into problems. We will need to assess whether a causal account can properly account for rules in non-intentional terms. This requires our fixing the extension of any given rule by appeal to dispositions, where we not only get the extension right, but also indicate how we can construe our dispositions as something against which we can measure correctness or incorrectness. Not surprisingly, the two components of any project to build the extension of a rule from basic dispositions mirror the skeptic’s productivity and normativity demands (see §1.4). We could reformulate them thus:

1. Indicate that we are disposed to act in a unique manner for an \textit{indefinite} (or unlimited) number of cases, thereby getting the extension right (meeting the ‘productivity demand’), and

2. Cite how our dispositions to act determine that we \textit{ought} to act in some fashion, thereby specifying that we are acting in accordance with an \textit{extension} (meeting the ‘normativity demand’).

\textsuperscript{8}We have considered a similar approach of cashing out rules by flipping the direction in which we read the meaning characterizing biconditional in §2.4 (where we looked at Wright’s handling of the matter) and we will do so again in §4.3.1.
In this chapter, we critically assess the reductionist’s claim that we can account for rule-following by appealing to our dispositions to act. Kripke devotes a significant amount of attention to showing how fixing rules by appeal to our dispositions is highly problematic. Starting in §3.2, we will spell out the problem posed by the productivity demand to any dispositionalist approach; and in §3.3, we will give the same sort of treatment to the problem posed by the normativity demand.

It is worth noting that a simple dispositionalist approach—one that argues that there is nothing more to, say, adding than having the dispositions to add—will not survive the worries raised in these two sections. We are instead left with a challenge: any appeal to dispositions to ground rule-following must avoid the problems that lead to the demise of this simple approach. Beginning with §3.4, we shall consider some more sophisticated attempts, indicating how they also fail to meet the skeptic’s demands.

### 3.2 Finite Capabilities And Indefinite Applications

Starting with the first of these attacks (what has been called the ‘finitude objection’), we are faced with the problem of cashing out the metaphor that rules act as rails, guiding our actions in an indefinite number of cases. But how does appeal to a disposition account for our actions being guided for an indefinite number of cases? Consider the rule plus. Presumably, we should all answer ‘5’ to the query, “2+3=” which is just to say that we are disposed to answer ‘5’ in such a case. Similarly, we have dispositions to produce the sum of other combinations of values and many people can do so for reasonably large problems, given enough time and effort. But will the same story account for numbers that reach far beyond our actual abilities?
The dispositional theory attempts to avoid the problem of the finiteness of my actual past performances by appealing to a disposition. But in doing so, it ignores an obvious fact: not only my actual performance, but also the totality of my dispositions, is finite. It is not true, for example, that if queried about the sum of any two numbers, no matter how large, I will reply with their actual sum, for some pairs of numbers are simply too large for my mind—or my brain—to grasp. When given such sums, I may shrug my shoulders for lack of comprehension; I may even, if the numbers are large enough, die of old age before the questioner completes his question (Kripke 1982: 26).

The skeptic draws our attention to the obvious fact that we are not disposed one way or another, for instance, to add together 100,000 digit numbers. At the very least, we simply would not live long enough to finish such a calculation, much less keep our attention on such a problem for the rest of our days. Now, one could oppose the skeptic by indicating that though ‘mere’ biological rule-followers have various limits—such as annoyingly short life-spans—which make us susceptible to the skeptic’s charge of finitude, appropriately sturdy machines might not have as many restrictions. With this insight in mind, it makes some sense to appeal to machines (such as computers) to help us ground the rules that we follow. One might take the following line:

...[T]he rule [that I follow] can be embodied in a machine that computes the relevant function. If I build such a machine, it will simply grind out the right answer, in any particular case, to any particular addition problem. The answer that the machine would give is, then, the answer that I intended (Kripke 1982: 32).

We might say that the rule one follows is that which is embodied by a machine that one could devise (given, of course, the appropriate technical skills). To use an example to help us grasp this approach, consider the role played by computers in solving the Four-Color Theorem. This theorem shows that any plane graph, such as a map divided into regions, can be colored using only four colors, where no two
adjacent regions are the same color. The technical problem presented by this proof is that it requires showing that 1,476 special configurations can all be dealt with using four colors—a step in the proof that no human mathematician can complete. What we have here is a proof that is far too large for any human mathematician to actually prove—in order to finish the proof, computers had to be employed (Thomas 1998). The computational abilities of computers not only far outpace our own but, when running different units in parallel, they have a potential to eliminate errors that we cannot match.

Yet as powerful as a machine may be, it can still only accept finitely many inputs for which it can provide outputs. To make the strength of this finitist worry clearer, let us consider one popular approach, where we cash out dispositions in terms of counterfactuals. For a particular disposition to act on the part of an agent S, we could say that:

S has the disposition such that, if S were prompted with any input $x_i$, then S would give the corresponding output $y_i$ if and only if counterfactuals C are true of S regarding $x_1 \ldots x_n$ and $y_1 \ldots y_n$.

Relating the above definition of dispositions to the biconditional already in hand, we arrive at the following biconditional:

S follows a rule $F$ functionally characterized by inputs $x_1 \ldots x_n$ and outputs $y_1 \ldots y_n$ if and only if counterfactuals C are true of S regarding $x_1 \ldots x_n$ and $y_1 \ldots y_n$.

There are a large number of counterfactuals of which it is entirely inappropriate to attribute to an agent like us precisely because they involve performances far outpacing our actual abilities. It appears that appealing to our finite dispositions does not fix the rules that we follow for these extreme cases. That is, we simply do not have any
dispositions one way or another to act in various cases. Indeed, we might put the matter differently by saying that, insofar as we accept the slogan that ‘ought implies can’, and we cannot handle sufficiently large numbers, there is reason to think that there is no fact of the matter that we ought to handle them one way rather than another.

3.3 Dispositions And Being Guided By A Rule

So far, we have considered the problems presented by the skeptic regarding our finite dispositions and the supposedly indefinite application of rules. But this worry really points to there being a uniquely correct answer that an agent could give for any given inquiry regarding the use of a rule. And now we face the real heart of the issue: even if we can make sense of our dispositions applying to an indefinite number of cases, it still remains to be seen whether these dispositions indicate anything about how we ought to act. The claim made by Hume that we cannot derive an ‘ought’ from an ‘is’ lies at the heart of the skeptic’s ‘normativity objection’ about dispositional solutions to the skeptical problem. The fact that there could be “dispositions that logically co-vary with the extensions of expressions” (Boghossian 1989) does not indicate what we ought to do. That is, the task of showing how dispositions can be used to fix concepts will involve privileging some actions over others. We will need to gain some sense for what it means to have correctness conditions from materials that are not usually construed as ‘correct’ or ‘incorrect’. Ultimately, we are trying to establish a competence/performance distinction by appeal to our dispositions. (For this reason, we cannot no appeal to an independently established competence/performance distinction without begging the question against the skeptic.)
It is not just that we are trying to fix the extensions of our rules; rather we are interested in saying how our dispositions could fix an extension. That is, how could we regard our dispositions as something that *guide* our actions? Kripkenstein maintains that a dispositionalist cannot meet the normativity demand because rules are the sorts of things that *tell* us how we should act, and when we speak of dispositions, we just describe how we do, in fact, act (or would act under the right circumstances). There is no sense of warrant present when we speak of dispositions in this way. Not only must a dispositional account be able to make sense of our following one rule rather than another, it must also be able to say how it is that our dispositions guide our actions.

In our attempt to make sense of dispositions prescribing what we ought to do, we face a closely related worry: the ‘error objection’. Kripke argues that we cannot appeal to dispositions to say which rule we are following because there is no sense to make of correct or incorrect dispositions—there are only *different* dispositions to act. Intuitively, we can mean PLUS by ‘+’ even though we are disposed to make mistakes. The thought behind this objection is that *we cannot make sense of going wrong on a dispositional account*. (Naturally, both the normativity and error objections can be viewed as aiming toward the same point: meeting the normativity demand.)

Any account of rule-following must be able to say what fact determines that an agent is following a rule correctly or incorrectly, or is doing something else altogether. The skeptic’s worry, of course, is that our dispositions, taken on their own, do not settle the matter one way or the other. To illustrate this point, suppose that one built a machine into which one could feed a tape containing inputs and out of which was provided a tape containing an output (in classic ‘Bat-Computer’ style). Moreover,
suppose that this machine was meant to embody **addition**. What would we say if we fed our machine an input tape which, say, due to its length, caused the machine to begin spewing smoke? Ordinarily, one would answer that our machine is broken insofar as an adding machine should not behave in that fashion. But the skeptic could point out that we could only give an answer by appealing to the design plan of the machine. Though there is a fact of the matter how the machine behaves, we can only say how it is *supposed* to run by appealing to its design plan (which designates the function of the machine). The problem, of course, is that this design plan—that which a computer programmer or machine builder has in mind—is a contentful mental state and therefore subject to the reinterpretation strategy. If we were to reinterpret its design plan, the episode at hand (i.e. causing smoke to issue from our machine) could be regarded as perfectly acceptable relative to some other function—it was not that our machine malfunctioned but, rather, it was meant to begin smoking given a sufficiently long tape. Considering a machine in isolation, apart from a plan, we have no basis for saying whether it is a good adder or, say, a terrible quadder—observing a machine’s inputs and outputs does not uniquely decide which rule it embodies. But on a dispositional account of rule-following, the designer is no better off than the artifact designed because we cannot uniquely fix the rules followed by a designer based solely on his (actual or potential) actions. The problem facing the designer (and his artifacts) is that we do not have the materials in hand to say which rules we follow (based solely on our behavior or dispositions) precisely because our rules do not (initially appear to) depend on our performances. Just as empirical evidence cannot disconfirm *a priori* principles, our performances cannot invalidate our attributions of rules (Railton 2000). An agent may have been acting correctly or incorrectly, but we

69
can only make that judgment knowing which rule is being followed. If an agent S does x at time $t_1$ and does y at $t_2$, there are three ways that we could interpret her actions:

1. S was following a rule according to which x and y are both correct performances of the same rule.

2. S was following a rule according to which x is a correct performance and y was an incorrect one.

3. S was following one rule at $t_1$ according to which x is an (in)correct performance, and another rule at $t_2$ to which y is an (in)correct performance.

Any successful non-semantic solution must be able to differentiate between these cases. On what basis might we privilege some dispositions as the basis for a standard of correctness? Interested in meeting this challenge head-on, Paul Coates proposes that we should draw attention to some sense of consistency ranging over our dispositions across time. Though he does not offer a fully worked out straight solution, his handling of consistency of action is nevertheless suggestive. The idea here is that there is not only a fact of the matter as to how I am disposed to act at any given time, but also that there is a fact of the matter—indeed, independent of any given disposition—as to whether I am acting consistently over time. It seems that he has some interest in reminding us of the relationship between past and present performances that originally gave shape to the contractual picture of rules. Presumably, Coates means to establish some dispositions as the basis for correctness. By appealing to the fact that the same dispositions that prompted my actions in the past also prompt my actions
now, he wishes to show that we can make sense of constancy of action. The sense of sameness which Coates takes to be primitive, then, is sameness of disposition:

Sameness of disposition is not to be explained in terms of rules. What is relied upon is the notion of absolute sameness which is independent of any interpretative point of view. This notion Kripke explicitly accepts for the purposes of the argument (p. 18 n.). Thus what matters is that there be a sufficient similarity between what a speaker says and does at a later time, and what he was disposed to say and do earlier (Coates 1986: 80).

Coates is right in maintaining that we can make sense of two dispositions being similar, so that answering ‘4’ to the question ‘2+2=?’ now and in the past brings with it a kind of consistency. But it is not the sort of thing that we require in order to answer the skeptic. The kind of consistency over time that we require is that our performances are performances of the same rule—though I may have been disposed to give the same answer (to the same question) at different times, I have not thereby established that I was following the same rule in both instances. It may very well have been the case that I was quadding in the past, even though I may be adding now. The skeptic’s point is that we require the citing of some fact to establish which rule I was following in the past, and appeals to my dispositions will not do the job. The sense of consistency that Coates gestures towards appears to be just the sort of thing that the skeptic brings into question: namely, going on in the same way.

Nevertheless, Coates appears have moved in a promising direction by suggesting that a resemblance between our present dispositions and those of a past self provides some basis of comparison for the sake of evaluating action. Yet it appears that we must introduce something extra into the picture, outside of our dispositions to act in a particular range of cases, to supply us with a sense for which rules we follow. That
is, we require something else in the picture to privilege some of our dispositions as correct and others as incorrect.

In the remaining sections of this chapter we will consider a number of different proposed straight solutions that seek to reduce rules to non-semantic materials. Each candidate attempts to shift our emphasis or add materials to avoid the problems that sink the simple dispositional account of §3.2 and §3.3. We will flesh-out each proposal and critically evaluate its acceptability insofar as it meets both the productivity and normativity demands in a non-circular fashion.

3.4 Normal Conditions And Idealizations

A dispositional account will succeed in answering the skeptic only if it can indicate which dispositions are correct or incorrect without appeal to intentional materials. The task at hand is to say how to privilege some set of dispositions as the correct ones. A popular strategy is to appeal to some set of circumstances which privilege some dispositions as those constitutive of competence. These privileging conditions have been variously referred to as ‘normal’, ‘standard’, ‘favorable’, ‘optimal’ or ‘ideal’. We might say, for instance, that we should understand these conditions as those:

...circumstances that are favorable for detecting how things are
...circumstances under which all things are equal (that which informs _ceteris paribus_ clauses)
...circumstances under which we learn to use a symbol—that is, those conditions present in a ‘learning situation’ (Dretske’s view)
...circumstances under which the judgements of members of a community converge (similar to Pettit’s view—see §4.3.2)
...circumstances under which a disposition was selected for (similar to Millikan’s view—see §3.5)
...circumstances under which any perturbing factors (relative to some event occurring) are not present (similar to Smart’s view—mentioned in passing in §3.6)

According to such a proposal, we may say of someone who uses PLUS that they have the disposition to give a sum of any two numbers when they are performing under appropriate conditions—e.g. that they are paying attention, that they are properly rested, answering truthfully, etc. Acting correctly is a matter of acting under particular circumstances (without appeal to semantic facts)—some conditions, then, are best understood as meaning-bestowing. We understand error on such a dispositional account, then, as our acting in ways other than we would have under the privileging conditions.

Whatever means by which we unpack the idea of normal conditions, we can relate them to an account of dispositions by making the following modification:

S has the disposition such that, if S were prompted with any input $x_i$, then S would give the corresponding output $y_i$ under normal conditions if and only if counterfactuals C (restricted within circumstances N) are true of S regarding $x_1 \ldots x_n$ and $y_1 \ldots y_n$.

With the following change in hand, we can make an adjustment to a dispositionalist account of rule-following:

S follows a rule $F$ functionally characterized by inputs $x_1 \ldots x_n$ and outputs $y_1 \ldots y_n$ if and only if counterfactuals C (restricted within circumstances N) are true of S regarding $x_1 \ldots x_n$ and $y_1 \ldots y_n$.

This formulation of following a rule is meant to highlight the role of a particular set of circumstances in restricting the counterfactuals true of S as those constituting competence. By establishing what we would do under a particular set of circumstances (‘N’), we gain some idea how to meet the productivity demand; and specifying ‘N’
as favorable circumstances is meant to meet the normativity demand. Though it appears promising, this sort of proposal faces a number of charges. Two which are immediately relevant are:

1. It is not clear that we will be able to specify any value for ‘N’ that secures uniqueness for F. Presumably, normal conditions only give us outputs for cases within our capabilities; only by appeal to an idealization could we hope to meet the productivity demand. But appeal to idealizations, it turns out, draws us into circular reasoning.

2. Since we may have different dispositions to act under different conditions, we must specify which set of conditions are the right ones that is, we need to privilege some conditions over others, meeting the normativity demand. There are different circumstances under which we act, but why is one set the sort that privileges some performances over others?

These objections strike at the heart of the ability of any appeal to normal conditions to answer the skeptic. The former targets our ability to answer the productivity demand, while the latter undermines any hope of answering the normativity demand. For simplicity’s sake, these objections will be handled in the order presented above.

### 3.4.1 An Objection From Finitude

We must specify our dispositions under ‘normal conditions’ in a way that uniquely picks outs the rules that we follow. That is, we must specify how we will act in cases well beyond our present capacities. This will answer the finitude worry about
dispositions. But such conditions are not themselves ordinary. How can we hope to meet the skeptic’s finitist worries?

The natural answer to the skeptic is that we have a perfectly legitimate tool for making sense of what we would do in cases that actually outpace our capacities: namely, we can appeal to an idealization of how we would act. If we could specify how we would behave under sufficiently ideal circumstances, it seems that we will be able to meet this kind of worry. Presumably, we would idealize away from such features as an agent’s life-span, attention span, patience, processing capacity, memory and perhaps even the limits of an agent’s sanity. Whatever features we might idealize away from, the idea is to make sense of how we would act when it comes to possible performances that actually outpace our dispositions.

Though the use of idealizations in science and mathematics is extremely helpful, making similar use of them here proves to be disastrous. It appears that we must presuppose that an agent follows a particular rule in order to construct an idealization in the first place, thereby begging the question against the skeptic. But it is not entirely obvious 1) what the content of this objection amounts to, and 2) how this claim is established. In the remainder of this section, then, we will follow the dialectic leading to this conclusion.

An initial problem, Kripkenstein suggests, is that we do not have any idea how to construct such idealizations; that is, we have no idea what would happen under such ideal conditions so as to maintain our grasp on which rules we are following. Even if we were to introduce idealizations such as our having enhanced brain-power or unlimited life spans, so that we could handle extremely large numbers, Kripke would still maintain that we have no real sense for how we would act. It could be that we
are simply not built to be augmented as suggested and any attempt to process such large numbers would drive us insane. Or we could give any number of answers—e.g. ‘4’, the decimal notation equivalent of ‘$4^{1,000,000}$’, or even the Zen-style answer ‘fish’.

Kripkenstein’s point is that we do not have the materials in hand with which to build an idealization for saying how we would be disposed to act since we do not actually possess the indefinitely extendible dispositions subject to idealization. That is, we cannot say how we would be disposed to respond under these idealized circumstances. So, our appeal to idealizations does not help us fix the rules that we follow.

It could be said, however, that Kripkenstein is not giving a fair characterization of idealizations. Fodor suggests that Kripke has asked too much of an idealization of our dispositions. When we consider what idealizations do for us, we do not require having a full sense for what the world would be like if the idealizations were true. This is not a requirement in physics, so why should we impose such a requirement here?

We only need a sense for what would happen on the condition that the idealization described an actual state-of-affairs:

...God only knows what would happen if molecules and containers actually met the conditions specified by the ideal gas laws (molecules are perfectly elastic; containers are infinitely impermeable; etc.)... After all, the satisfaction of these conditions is, presumably, physically impossible and who knows what would happen in physically impossible worlds? But it’s not required, in order that the ideal gas laws should be in scientific good repute, that we know anything like all of what would happen if there really were ideal gases. All that’s required is that we know (e.g.) that if there were ideal gases, then, ceteris paribus, their volume would vary inversely with the pressure upon them. And that counterfactual the theory itself tells us is true. Similarly, if there are psychological laws that idealize to unbounded working memory, it is not required in order for them to be in scientific good repute that we know all of what would happen if working memory really were unbounded. All we need to know is that, if we did have unbounded memory, then, ceteris paribus, we would be
able to compute the value of $m+n$ for arbitrary $m$ and $n$ and that the counterfactual the theory itself tells us is true (Fodor 1992).

Fodor’s suggestion is that idealizations play a valuable role for us in science, one where we may have to suppose states-of-affairs that, for the sake of the idealization, are bizarre or even physically impossible. We use idealizations in physical theory all the time and, unless Kripke can give us reasons to the contrary—which he has yet to do—we are equally well justified in using them when considering rule-fixing dispositions (Boghossian 1989: 166).

Even though Fodor’s characterization initially sounds convincing, its use of a comparison between accounting for rule-following and a physical system in science breaks down. We appeal to idealizations in physics, for instance, when we consider how a system would operate if we abstracted away or otherwise augmented the object within that system. Our interest may involve how a gas would fill an infinite space or how an object would move without worrying about the presence of friction. In these cases, we alter the model of a physical system to highlight particular properties of the system. We assume, throughout, that there are facts about how the system operates and our use of idealizations does some sort of explanatory (or similar) work for us. But in the case of the skeptic’s challenge, we are trying to determine the fact that constitutes our following a rule. We have yet to establish whether there is a fact about how we respond to a question that far outstrips our actual abilities and, if there is, which fact that may be. By assuming that we would naturally give the sum of two values each of which is too large for anyone to actually handle in a lifetime is to assume, from the start, that we are adders instead of, say, quadders (Kripke 1982: 28)—something we cannot just assume, but must instead establish. In short, Fodor
can only maintain his support of idealizations on the condition that he has already solved the skeptical problem. There is an important sense, then, in which the question has been begged against the skeptic.

3.4.2 An Objection From Privileging Conditions

Even if we could establish causal facts about how we would act in cases that actually far outpace our present capabilities (without inviting circular reasoning), we have to establish what we should do in these cases. There are a variety of conditions that may be regarded as ‘favorable’ or ‘normal’ for some rule; and an entirely different set of conditions that may be ‘normal’ for some other rule. The normal conditions for PLUS, for instance, may include having a clear head, judging honestly, and not acting under the influence of a mind-altering drug; the normal conditions for QUUS may require having a clear head, judging honestly, our being sensitive to where the arguments of the function lie on the number line, and not acting under the influence of a mind-altering drug; and the normal conditions for yet another rule BLUS may require our judging honestly, our being under the influence of a mind-altering drug, and its being some time after March 4th, 2005. The point is that different sets of conditions may be perfectly appropriate for different rules. The meaning skeptic could take the strategy to locate the indeterminacy of rule-following in the normal conditions that help to constitute rules.

The proponent of normal conditions may attempt to supply some reason for thinking that dispositions under normal conditions give us some support for acting correctly by appealing to the fact that normal conditions have some sort of special status, being those under which an agent can act infallibly. The thrust of this response is that the
appeal is made to conditions that are favorable for detecting some pattern or acting in some manner.

The problem with this strategy, much as for the objection featured in §3.4.1, is that we can only talk about conditions that are favorable for detecting a pattern or otherwise prevent error given that we already have the relevant rule in hand. But normal conditions have been appealed to in order to forge a straight solution, which appears to flip the relevant order of priority.

A number of contributors to the literature on normal conditions have offered solutions to this sort of problem, indicating that which characterizes some conditions as ‘normal’ or ‘optimal’. One notable example can be found in Fred Dretske’s attempt to offer an information-theoretic approach to mental content. Dretske indicates we should make sense of meaning-bestowing conditions as those under which we learn a concept (Dretske 1981: 224). This sort of story seems plausible insofar as concepts are discriminative capabilities, so it seems fair to say that the conditions under which those capabilities formed have something to do with their contents. That is, the conditions present in a ‘learning situation’ are *prima facie* important because they are tied to the original establishment of the responsive capacity constituting a meaningful term. Even if one could tell a sufficiently rich story in order to meet the objection at hand, we still face the apparently insurmountable objection raised in 3.4.1.

### 3.5 Millikan On Evolution And Proper Functions

Neither an appeal to the function of a machine in (in §3.2 and §3.3) nor to normal conditions (in §3.4) could successfully answer the skeptic. Ruth Millikan, though, offers a significant fusion of these approaches that relies on evolution, and dispositions
that have been selected for, in order to ground rule-following. Standard dispositional
accounts fail, in part, because (inanimate) physical systems do not behave with regard
for success or failure; and it is with this insight in mind that Millikan appeals to the
only part of physical theory where entities act with something at stake (namely,
survival): the theory of evolution. By making use of the teleology of survival, she
intends to make sense of primitive intentionality (and normativity) by appeal to
biological functions. That is, by establishing determinacy regarding basic cognitive
resources, she means to ground more sophisticated rules (such as using ADDITION).

Millikan relates our dispositions to behave to some sense of success and failure by
making a distinction between proximal and distal rules, where the former indicate
our dispositions to act in light of stimuli (say, the scratching of a sensory surface),
and the latter indicate the relationship between a proximal rule and states-of-affairs
in the world. Her strategy is to relate an entity’s dispositions to react to stimuli to
those objects/ events being tracked in the world and hence indicate how an entity’s
dispositions lead toward their survival value. For those familiar with the literature
on mental content, proximal and distal rules appear to correspond to narrow content
(states internal to an entity) and broad content (internal states related to the external
world), respectively; and in the philosophy of language, we have an analog with
intensions and extensions. The driving idea is that we should make sense of rule-
following in terms of an internal state of an entity and how that state relates to the
world (and one’s evolutionary heritage).

In order to appreciate how this distinction plays into the determination of rules
followed by entities, Millikan asks us to consider the biological rule (the HOVERFLY
rule) that governs a male hoverfly’s flight towards a female and why a hoverfly follows this rule instead of another one. To understand how she intends to establish determinacy for this rule, consider first the possibility that a hoverfly follows a bent rule, what we might call the QUOVERFLY rule. In a style reminiscent of Goodman, Millikan introduces the possibility of this bizarre rule:

Suppose it were so that never in history had a male hoverfly spotted a female that happened to approach him at such an angle as to produce an image on his retina with a clockwise angular velocity between 500 and 510 degrees per second. Then the proximal quoverfly rule “If the vector angular velocity of the target’s image is not counterclockwise and between 500 and 510 degrees per second, make a turn that equals the (signed) angle of the image minus 1/10 its vector angular velocity, plus or minus 180 degrees; at ease otherwise” fits all past actual cases of successful female encounters (Millikan 1990).

Millikan shifts the emphasis from the fact that the hoverfly’s actions conform to a variety of rules to the fact that some sort of mechanism played something akin to a (causally) guiding role in its behavior. We gain a more precise sense for this guiding role when we consider how this relates to the selection of one mechanism rather than another:

To say that the hoverfly has as a biological purpose to follow the proximal hoverfly rule is also quite different from saying that this rule is the only rule that fits all past instances of hoverfly turns, say, that resulted in hoverfly procreation (Millikan 1990).

We gain a more precise sense for this guiding role when we consider how this relates to the selection of one mechanism instead of another. Locating the possibility of a bent rule at the proximal level (that is, internal to the organism), she means to eliminate the potential for indeterminacy by appealing to the distal rule that the hoverfly also follows:
But [the hoverfly rule] is not a rule the hoverfly has as a biological purpose to follow. For it is not because their behavior coincided with that rule that the hoverfly’s ancestors managed to catch females, and hence to proliferate (Millikan 1990).

To say that the hoverfly follows a particular distal rule is to stress that a disposition was selected for. In Millikan 1989b, she makes sense of these dispositions (comprising the distal rule) by appeal to the notion of a ‘proper function’: an item x (be it a mechanism, organ, disposition, etc.) has the proper function F only if x’s ancestors behaving F-ly was selected for. The emphasis on proper functions as historically fixed allows us to speak of an x functioning well or malfunctioning by understanding x’s present behavior relative to that which has been selected for. So, a hoverfly follows the distal hoverfly rule just in case the relevant set of dispositions (which were most likely the result of a mutation) contribute to their being passed on to the next generation.

Once we have some sense for a biological notion of function in hand, we can start to appreciate how Millikan plans to make sense of normal conditions. The thought here is that we should think about normal conditions as those that feature in the “normal explanation” of a function—one which explains the performance of a function by appeal to how it historically performed properly, why such a function was selected for, etc. So, the hoverfly rule is properly performed just in case a hoverfly acts under those conditions that feature in a normal explanation of the function—that is, those conditions that contributed to the selection of that function.

Various worries have been raised about this sort of account in the literature on mental content, but I will restrict our attention to those problems that immediately pertain to the rule-following considerations. The stress on survival value as a means
of securing determinacy poses a major problem for Millikan’s approach. Any number of different rules count as equally successful survival strategies. So, if survival value is supposed to fix our concepts, we are still left with indeterminacy. To illustrate this charge, take the rule for PLUS. For cases falling within our actual capabilities, we might be able to make sense of some sort of stability in usage. It may be that the mental processes operative in our capacity to add have proper functions and therefore some sort of determinacy. But what about cases where the inputs of the addition function are too large for agents like us to handle? Faced with such a situation, say, being asked to add together two numbers too long to witness in a typical life span, someone might lose interest and wander off, attempt to work on the problem for the rest of their life, suffer a stroke or just offer a guess. But is an agent’s response indicative of following a bent rule or just a matter of malfunction? The problem is that relying solely on survival value (or one’s evolutionary heritage) in order to say whether it was a matter of design or malfunction does not settle the matter. For this reason, the case exemplified by the Hoverfly rule—where determinacy was fixed for a rule that is well within the capabilities of a hoverfly—is misleading insofar as we must also handle extreme applications of rules in order to make sense of the infinitary nature of rules.

Millikan could counter this charge by stressing that the emphasis on PLUS is misleading precisely because her account is supposed to secure determinacy for concepts which can be used given our finite capabilities. She is interested in basic cognitive mechanisms that allow us to act in an indefinite number of cases (constrained, of course, by life span, memory, etc.), and therefore need not worry about the (infinitary) peculiarities of PLUS. But this move will not satisfy the skeptic precisely because
the use of PLUS is merely meant to clarify the projective element of rule-following and, for cases that have yet to be encountered, our evolutionary heritage cannot settle whether we ought to act one way or another. The dispositions operative in these cases could be indicative of either the proper performance of a proper function or the malfunction of a different proper function, and it seems that we can only take a definite stand on this matter if we presuppose that a particular proper function is in play.

Yet Millikan might still suggest that we have independent reasons for thinking that one proper function is in play instead of another. By assuming that there are natural primitives in terms of behavior, pattern detection, etc., we can say that some proper functions are natural and therefore more likely to be operative in a given situation than a bent counterpart. So, it may be that BLUE and GREEN involve cutting nature at its joints (in some weird sense), while GRUE and BLEEN do not. In short, some natural kind of uniformity does work in the construction of a normal explanation of an agents rule-governed behavior.

It seems, though, that this move only restricts the set of proper functions that could feature in a normal explanation without necessarily securing a unique function. Indeed, it is not at all clear what counts as ‘natural uniformity’. Since uniformity makes sense relative to a rule, it seems that an appeal to uniformity introduces circular reasoning. At the very least, Millikan needs to say much more about this bit of the story—as it stands, the story is inadequate.
3.6 Chomsky On Rules And Description

Whereas Millikan may need some sort of natural sense of uniformity in order to ground rules—something she has not yet fleshed out—Chomsky has developed something similar, taking it to play a leading role in an empirically-based theory of linguistic behavior. Chomsky hypothesizes that humans must have innate abilities (e.g. a universal syntax, tacit knowledge of grammatical rules, etc.) in order to learn a language (quickly) on the basis of a limited number of examples. Similar conclusions have been drawn by theorists working with pattern-recognition and machine learning, indicating that an entity can only learn on the condition that it has various built-in ‘biases’ (or preferences for some functions over others) for discovering a pattern within a data set. These innate abilities give agents a basis for making groupings, category cuts and, over all, provide a built-in basis for uniformity: just the sort of thing that could yield a basic account of rule-following. Given a theory about the initial state of one’s language (which provides the basis for how any human language could develop given appropriate prompts), along with theories about associated cognitive resources (e.g. processors, memory, etc.), Chomsky maintains that we can make sense of humans as (linguistic) rule-followers:

Suppose that our best theory takes the initial state to incorporate as one component the initial state \( S_0 \) of the language faculty (a distinct component of the mind/brain), certain processing mechanisms, a certain organization and size of memory, a theory of random errors and malfunctions (parts wearing out or whatever), and so forth, all of this as a species characteristic. This theory provides an account of the current state of the person as incorporating a particular language \( L \ldots \) (Chomsky 1986:237)
The worry raised by the skeptic is that there is a fundamental tension between Kripkenstein’s skeptical paradox and the basis for empirically-driven linguistics. Insofar as Chomsky appears to be appealing to mechanical materials in order to make sense of using a language, he falls prey to the arguments already presented against dispositional accounts. Even if Chomsky can identify cognitive structures in humans that pick out the right extension for a given concept, he has failed to answer the skeptic because identifying a disposition that logically co-varies with the extension of the concept at hand is not sufficient to establish that a rule is being followed. Chomsky must still provide a complementary account of performance in order to meet the normativity demand. Yet he appears to assume that we can give a theory of malfunctions and errors—something that remains to be established (given the skeptic’s worries about dispositional accounts). Since our interest is in making sense of acting in accordance (or failing to do so) with some standard, we cannot just assume that we already have the distinction in hand. Part of the skeptic’s point in generating the skeptical paradox is that such a distinction must be *earned*—we can no longer easily assume that we have such a thing available to us.

Insofar as Chomsky is seen as directly answering the skeptic, he may do no better than anyone else offering a straight solution. But to construe Chomsky as even being in the business of doing such a thing generates a fundamental methodological confusion. Chomsky makes the move that he does with a different explanatory project in mind altogether. He suggests that:

Kripke argues against a “dispositional” account of rule following and concludes that the account must be “normative”, not descriptive (p. 37)…. But the account of “competence” [offered by Chomsky] is descriptive: it deals with the configuration and structure of the mind/brain and takes
one element of it, the component L, to be an instantiation of a certain general system that is one part of the human biological endowment (Chomsky 1986: 238).

At first glance, this appears to fail to appreciate the is/ought distinction that motivates the skeptical argument against dispositional accounts in the first place: it was just Kripke’s point that a dispositional account cannot meet the normativity demand because it is the sort of thing that occupies the wrong side of the ‘is/ought’ distinction! But this is not what Chomsky has in mind when he contrasts a descriptive and justificatory enterprise. Crispin Wright attempts to clarify Chomsky’s approach further:

[T]he claim... that you formerly followed a certain specified rule, is a theoretical claim, and answerable, therefore, in the context of an appropriate embedding theory... Any fact may seem fugitive if we do not look in the right place (Wright 1992: 235).

The skeptic’s conclusion that, when acting, we do so without justification does not appear to threaten Chomsky’s position. The reason for this lack of concern seems to be that Chomsky regards rules (or at least linguistic ones) as playing a causal instead of a justificatory role, featuring in the theories of linguists instead of in our everyday justificatory practices. Shifting the focus away from the prescriptive force of rules, Chomsky is interested in the role they play in explaining an agent’s linguistic capabilities, being casually efficacious insofar as they relate to other mechanisms in the production of behavior. His interest in matters of an agent’s competence is meant to merely describe why agents act as they do.

It appears that the success of Chomsky’s approach depends on its ability to undermine the role of the normativity demand in the skeptic’s argument. If we do not count rules as the sorts of things that justify our actions, then we can avoid a highly

87
problematic demand on any rule-constituting candidate. Though Chomsky is interested in our knowledge of linguistic rules, he maintains that we should not speak of ‘knowledge’ of rules and ‘justifying’ our linguistic performances as we typically use such terms. Rules are playing a causal role in his view, so that we can speak of our tacit knowledge of grammatical rules as helping to produce an agent’s linguistic behavior—there need be no conscious knowledge or a formation of these rules by some sort of epistemically hygienic process. The rules that generate linguistic behavior do not operate in the same way as our folk justificatory practices.

The skeptic might argue that our present notion of meaning brings with it normative constraints, thereby justifying the inclusion of the normativity demand in the skeptical argument. Chomsky cannot hope to explain rule-following without including its normative dimension. Insofar as correctness is essential to the notion of a rule, and correctness is a normative notion, we cannot talk about rules without also accepting the normativity demand.

Yet we might answer the skeptic by drawing attention to Avishai Margalit’s suggestion that Smart introduced an ‘innovation’ into the rule-following literature by proposing an empirical notion of correctness (Margalit 1992: 140). As Smart puts it:

I think we can elucidate a nonnormative notion of correctness that could be applied to a computer. . . . Suppose that the program of a computer is such that the computer will enumerate 2, 4, 6, . . . 1000, 1002, 1004, . . . but it misses 1002 because of a burst of cosmic rays, or a lightning strike or some other random outside interference. Correct behavior, in this case, is what it will do if it remains an effectively closed system, so that there are no outside influences that either reprogram or alter its hardware. . . . A similar explanatory, nonjustificatory, use of the concept of correctly following a rule can apply to a machine, where the notion of correctness is concerned with absence of random external or internal influences (Smart 1992: 130).
There is a sense of ‘correctness’ which could still be explanatorily helpful, one which might serve Chomsky’s purposes well. We might sharpen this change in explanatory strategy by recognizing that, even if Kripkenstein’s assumed picture were correct, it could be the case that a future, more mature notion of meaning—one that is scientifically respectable—may not be vulnerable to the skeptic’s attack. As Paul Horwich claims:

For...[the skeptic’s] argument is concerned to identify features of our present conceptions of meaning and the kind of rule-following involved in meaning. It certainly does not entail that any future (perhaps scientific) concepts would have to possess those features in order to be properly regarded as concepts of meaning or of rule-following (Horwich 1984).

Horwich’s suggestion falls in line with independent claims made by Quine and Smart that our folk characterizations of language are too sloppy to provide an accurate account. What we require is a reform of our present folk semantic notion of meaning in order to engage in a more fruitful scientific investigation of language. It may be that Chomsky is interested in a notion of rule which can do some serious explanatory work for us.

Yet it is not clear that a successor to the notion of rule-following could be regarded as a proper successor unless it involved the prescriptive character of rules—just the sort of thing expressed by the skeptic’s demands. Quine, for instance, seeks to explain language use by appeal to a behavioristic methodology but, in doing so, he seems to undertake a different sort of enterprise than that of holding one another accountable. His interest is in telling a causal story about what is involved with language use—the sort of thing best done from a third-person perspective. But Kripkenstein is trying to make sense of how a rule guides our actions, how it obligates us to do something—in short, how we relate to rules from a first-person perspective. In order
for an appeal to some future notion of RULE-FOLLOWING to avoid the skeptical argument, we must shift from a focus on the normative approach to a causal-explanatory one. In short, we require a shift in project. So, why should we think that Chomsky can dispense with the normativity demand? It seems as though doing so distorts the very idea of a RULE, prompting a change in subject matter—without the normativity demand in hand, it is not at all clear that we are talking about rules in the traditional sense.

3.7 The Need For A Different Dispositional Account

Appealing to our dispositions, on the present model, appears to fail when answering the meaning skeptic. In Chapter 4, we will consider a family of approaches that mean to solve the skeptical problem by considering not only our dispositions but how they relate to one another or other facts—e.g. how our present dispositions relate to those of one’s fellow community members. The driving idea is that the extra interactive element (between agents) adds an ingredient that has gone missing thus far.
4.1 Rethinking Rules And Non-Semantic Facts

As the failures of the solutions offered in Chapter 3 have shown, an appeal to our dispositions—even introducing some notion of normal conditions into the picture—does not meet either of the skeptic’s demands. In this chapter, we will consider various attempts to rethink the dispositional approach in order to resolve the skeptical paradox. We want to secure the result that when there is not a perfect fit between one’s dispositions and one’s actions—explaining error and accountability—and thereby meeting the normativity demand. Instead of relying on the dispositions of individuals, we will consider how interaction between agents (or even an agent and their past-selves) can help us out of the skeptic’s trap. Instead of relying on a particular set of circumstances to do the work of bestowing meaning on some of our dispositions, we expect the privileged dispositions to fall out of a network of interactions among individuals. So, extensions are determined through dispositions to defer to others, modify one’s behavior, etc. Part of the aim of this chapter is to argue that this interactive approach requires replacing the productive or projective nature of
rules with something like patterns of persuasion or negotiation between agents. Co-
ordination of actions becomes the primary emphasis of rule-following attributions—a
move which, though initially appealing, is ultimately unacceptable.

4.2 Community Membership And Agreement

A number of commentators (e.g. Bloor 1997, Tennant 1997a) have criticized
Kripke for failing to consider dispositions to interact with members of their linguistic
community (what might be called the ‘Community View’) in order meet the skeptical
argument. But Kripke anticipates this charge, indicating that the strategy applied
to facts about individuals can also be applied to “a social, or community-wide, ver-
sion of the disposition theory” (Kripke 1982: 111). The trick is saying whether an
account relying on the dispositions of individuals to interaction with one another,
thereby forming a community, can present a sufficiently different departure from an
individualistic account in order to avoid the skeptical problem.

We might start to explain the community’s role in rule-following by appealing to
a democratic model whereby correctness of action is established by the actions of the
majority. Being in agreement with enough people appears to establish some standard
of correctness. The problem with such an approach, though, is that, insofar as there
is no fact of the matter how any given individual ought to act (given that we have not
yet solved the skeptical problem), it is not at all clear how appealing to a group of
people will help matters—democracy does not establish determinacy. As David Bloor
puts it, this approach threatens to rely on ‘mere aggregation’ instead of ‘interaction’
between community members. He characterizes a community-based solution thus:
An institution, which arises from the interaction of individual dispositions, does provide a normative basis for the actions of the individuals who are within it. The important theme here is that of interaction. It is interaction, not mere aggregation, that makes a group a group (Bloor 1997:68).

How should we understand Bloor’s characterization of a community-based account of rule-following? We need to gain sense for what is involved with interactions between members of a community. Initially, we could understand ‘interaction’ in terms of patterns of agreement, convergence and deference: agents act and react to one another, altering their actions in response to the actions of others. A standard of correctness supposedly falls out of a network of such interactions. In short, the normativity demand is satisfied by the fact that we hold one another accountable.

But we still require some basis for agent interaction in order to avoid the worries facing the democratic model (above). Instead of relying on the voice of the majority to establish some standard of correctness, we could instead stress the fact that we are social creatures and we hold some people in a certain regard. We respond to their corrective measures as we make our own as well which, in part, determines the meaning of our terms. Part of learning how we ought to act involves our trying to act as our instructors do; and we are willing to change the rules that we follow when commands are made by the right people (e.g. athletes changing the way they play a sport in accordance with newly adopted or altered rules). So, it seems perfectly plausible that we regard the praise or blame of our teachers or experts as supplying the extra materials needed to regard some performances as correct or incorrect. It may be a matter of hard-wiring (or, alternatively, the need for coordinated action) that we relate to people in ways indicative of accountability and it is this fact about entities like us that helps to meet the normativity demand. On such a picture, there
is no agent-independent sense to what we ought to do. The normative punch of rule-following consists in our interest in acting in the same way as experts. So, how ought I to act when faced with the question ‘4+57=?’? On this account, I should give the answer that has been approved by the relevant members of my community. But who are these ‘relevant members’? We would say that we take seriously the advice of experts, of people recognized for their abilities within a given field. If you find yourself trying to add, you might take seriously the praise of mathematicians; and in any learning situation, you might take seriously the praise of your instructor.

Yet it remains unclear what the traits are in virtue of which we regard them as experts. After all, we pre-theoretically regard people as experts on the condition that they have mastered the appropriate set of skills. But such skills, it seems, ultimately require our speaking of rules, where experts are the folks who have mastered the right rules. Our making such a move invites an infinite regress. After all, we say that an agent acts well if they do so in a way that would gain praise from an expert, and an expert is someone who has mastered some rules, which means that they act in a praiseworthy fashion relative to some other expert, and that expert is regarded as such because he acts in a praiseworthy fashion relative to yet another expert, and so on. At the end of the day, our appealing to experts as those who have mastered the relevant skills will not help to ground rule-following. So, we must take some other route.

It could be that we are best served by a Kuhn-style approach to experts, where they are the people who win something akin to a political struggle to act one way rather than another. Kuhn famously suggests that scientific revolutions involve scientists working under competing paradigms and the winners are those scientists whose
ways of handling a problem are accepted by the scientific community after a kind of political battle. By means of replacing older problems with newer, more elegant ones, by offering compelling paradigms for conducting research and by persuading the scientific community that this is the most fruitful way to proceed, the winner of such a contest sets the tone for normal science. Could it be that we should regard all experts along these lines? On this account, we would say that an expert is a person who acts in a praiseworthy manner relative to the winners of such a battle. It seems that being an expert or, say, the head-expert in a community, gives a great amount of power insofar as the word of an expert dictates what is correct or incorrect. Tyler Burge appears to be moving in this direction when he comments on linguistic competence:

Let us turn to “competence.” The language does not present a standard of competence independent of individuals’ activity. Minimal competence consists in conformity to the practice of others. “Greatest competence” consists in abilities to draw distinctions, to produce precisifications, to use numerous linguistic resources, to offer counterexamples to proposed equivalences—that elicit the reflective agreement of other competent speakers. We may imagine a vast, ragged network of interdependence, established by patterns of deference which lead back to people who would elicit the assent of others. . . . The point about persuasion is fundamental (Burge 1986: 702).

Before continuing, we should not be read as directly engaging Burge’s argumentative aims. After all, Burge offers his characterization of the relationship between competence and persuasion in order to establish anti-individualism about meaning. I take it, though, that he articulates an interesting view of meaning which can be imported into the present debate. Having made this exegetical point clear, it appears that some rules/concepts may be subject to the style of normative constraint suggested by Burge. After all, the concepts of being HIP (or COOL) operate according to the taste and style of those people who are regarded as sufficiently hip (or cool).
What is to be hip? Just the sort of thing that the hip crowd says is hip. Moreover, an outsider to the hip crowd can influence them by convincing these folks that the outsider is herself quite hip and, as such, worthy of imitation.

But should we supply such an account for a concept such as addition? After all, we would not say that a top-notch mathematician is regarded as such merely because he is found to be sufficiently charming or impressive by other mathematicians. Instead, we would appeal to his mathematical chops, imagination and ability to apply the tools of the mathematician. To make this point vivid, consider the case of Smith, a recognized mathematical genius who, though despised for how he treats his fellow mathematicians, is nevertheless respected for his ability to navigate through all manner of proofs. One day, Smith has an unfortunate accident (e.g. hit by a car, zapped with Z-rays, altered by aliens, etc.) which significantly alters his cognitive capabilities. No longer is Smith a master proof-smith, but he has become very persuasive when it comes to other mathematicians. While he can no longer conduct himself in the ways that originally earned him respect, his fellows are accepting of his present flights of fancy as legitimate proof due to the manner in which they are ‘sold’. Indeed, Smith is so successful in his dealings with his new friends that they regard him as a greater genius than before (and quite a likable one at that), entirely due to his new powers of persuasion. Now, the point of this little story is that, intuitively, we would say that Smith has not become a better mathematician—indeed, he appears to have become a bit of a charlatan—and he has, at best, charmed other mathematicians. By hypothesis, he has lost his mathematical abilities and this story makes transparent the fact that his new-found ability to persuade others is not an apt substitute.
Our little tale about Smith has illustrated the point that, at the very least, a concept such as ADDITION is different from, say, HIP or COOL. We have not established that all concepts should fit the mold of ADDITION, nor have we established that we should take HIP or COOL as exemplars. Rather, we have shown that the objective, productive picture of normativity (at least) applies to some concepts (such as ADDITION). The stress on persuasion and on deference to experts fails to account for the guiding nature of rules.

But Philip Pettit, at least at first glance, gives us reason to think that this sort of picture can be sufficiently supplemented to provide a satisfactory solution. Starting with §4.3, we will consider his approach, exploring whether it is a significant departure from the ones addressed thus far.

4.3 Pettit On Convergence

Starting with this section, we will address the solution offered by Pettit, who focuses on answering Kripkenstein by appeal to a different sort of explanatory strategy. Instead of providing a reduction, he provide us with an explanation of what we take ourselves to be doing when following rules. Through the course of developing this explanation, Pettit secures an answer to the normativity demand by severing its relation to projection in favor of negotiation. (It may be, though, that he had no such intention of severing this connection.) Furthermore, he offers a potential deflection of the charge that rule-following is left a mystery on a non-reductionist view (see §1.6.2). I will argue that, though an interesting position, Pettit’s focus on converging responses ultimately fails to provide an illuminating explanation of rule-following.
Pettit places the stress on our dispositions to act as well as intra- and interpersonal interaction—that is, the interactions between an agent and her past and present time-slices, and between different agents. Pettit introduces a way to understand a unique inclination on the part of an agent to act, and fixes the normal conditions under which these inclinations arise by appeal to the convergence of agents’ judgments.

In order to help fix precisely what sense of explanation is in play here, we should consider how Pettit makes use of our inclinations to explain rule-following. Pettit writes:

Rule-following is possible, I argue, under two conditions. The first is that on being presented with certain examples the rule-follower develops an inclination to carry on in a particular fashion, an inclination in virtue of which the examples exemplify a particular rule for the agent. The second condition is that the agent is able to explain any intertemporal or interpersonal discrepancies in spontaneous application by appeal to perturbing factors, so that the rule exemplified—though she will not think of it this way—is the rule which dictates those responses that the corrected or standardized inclination supports, not the inclination neat (Pettit 1990a).

Pettit develops two key elements. First, he focuses on our inclinations to find some patterns salient based on a finite number of examples—what Pettit calls the ‘exemplification’ of a rule for an agent (a matter to be developed in §4.3.1). Second, Pettit considers the ability of an agent to identify ‘perturbing factors’ in the absence of normal conditions—a story that involves recognizing constancy of use inter- and intra-personally. I will clarify this second element in §4.3.2.
4.3.1 Instantiation And Exemplification

The intuitive picture of rule-following which motivates Kripkenstein’s skeptical challenge relies on a particular understanding of rules whereby our actions are considered correct or incorrect by comparing them to rules that are independent of any particular action. I am justified in acting in a particular manner only if I do so in accordance with the appropriate rule. The problem, of course, is that our actions accord with an infinite number of rules; so, depending on which rule it is against which we compare our actions, the same action may be justified or unjustified. Kripkenstein is working on the assumption that our deciding how to act is settled by tracking the correct applications of a rule. Let us revisit the concept-constituting biconditional encountered which Wright focuses on, as presented in §2.4:

\[ x \text{ is an F if and only if } \text{[agents] are disposed to [react F-ly to x] under [circumstances]} \]

The meaning skeptic suggests that we should so read the biconditional that ‘[agents] are disposed to [react F-ly to x] under [circumstances]’ is true because ‘x is an F’ is true. In this case we would say that we come to know whether any given x is an F by tracking some fact. Now, the meaning skeptic exploits this response-independent construal of rules to stress that any given performance on the part of an agent accords with, or instantiates, an infinite number of rules. Thus, we are posed the problem of fixing which is the rule that an agent actually follows.

Pettit relies heavily on the relation of exemplification that holds between a pattern and a set of examples for an agent. A set of examples exemplify a single rule for someone only if they create a unique inclination on the part of the agent to go on one particular way rather than another. This three-place relationship between a set of
examples, a rule and an agent is definitely more robust than the notion of instantiation (a two-place relation) that Kripkenstein allows us. The idea here is that there are facts about how we group things, actions, etc.—the sort of thing that amounts to regarding different objects as belonging to the same concept—which the skeptic has ignored. These facts are self-interpreting in the sense that we have inclinations which pick out the extension of a concept. We are the kinds of creatures who pick out some features of the world instead of others. (This sort of suggestion is very much in line with Chomsky’s hypothesis of a universal syntax (see §3.6.))

Whereas the meaning skeptic favors the relationship of instantiation between a set of examples and a rule, Pettit champions the response-dependent analog: exemplification. The crucial distinction being made is between a) the response-independent approach whereby a set of examples merely instantiates a rule or, for that matter, many rules, and b) the response-dependent approach whereby a set of examples exemplifies a unique rule for an agent (Pettit 1990a).

Like Wright, Pettit intends to solve the skeptical problem by shifting the emphasis to reading the above biconditional from right-to-left; but unlike Wright, who appeals to a key concept (namely, INTENTION) to do the necessary work, Pettit pushes the response-dependence model to understand concepts globally (Pettit and Jackson 2002):

\[\ldots I\ have\ argued\ that\ if\ we\ are\ to\ \ldots\ resolve\ Kripke’s\ version\ of\ the\ Wittgenstein\ problem\ of\ rule-following,\ then\ we\ must\ acknowledge\ a\ global\ form\ of\ response-dependence\ (Pettit\ 1991).\]

But how should we regard the stress on exemplification as a global thesis? It appears that Pettit take either of two options. First, he could argue that all concepts are best understood on a response-dependence model, so that concepts such as RED
and SQUARE are similar insofar as they both depend, *qua* concepts, on our discriminative capabilities—that is, how we find salient patterns amongst sets of examples. Secondly, Pettit might argue that all of our basic concepts, to which all others may be appropriately related, are of the response-dependent variety (Pettit and Jackson 2002). Whichever reading one adopts, the stress is placed exemplification as supplying a crucial ingredient for establishing determinacy (either directly or indirectly) for all of our concepts.

### 4.3.2 Normal Conditions And Convergence

Since Pettit is giving a response-dependence account, he must still say something about how he means to specify normal conditions. If Pettit cannot successfully provide a means of specifying normal conditions, then indeterminacy may creep back into the picture. When we speak of ‘normal’ or ‘favorable’ conditions, we are interested in those conditions where what seems to be the case corresponds with what which is the case; or, to apply this to the case of exemplified rules, we are interested in those conditions under which the inclination that seems salient corresponds to the one that is, in fact, salient. Pettit suggests that we:

Let ‘normal’ be defined... by reference to ethnocentric practices. Let normality be the property pertaining to those individuals and circumstances that are not of a kind with those that are discounted—discounted as unreliable—in the course of resolving discrepancies; let normality be the property, in this sense, of being fit to survive practices of resolving discrepancies (Pettit 1998).

Pettit suggests that we focus on our practices of reconciling discrepancies in our performances. We would best understand this claim by seeing why Pettit does not think that an agent, considered by herself (in the strictest sense), can support a
characterization of normal conditions. Pettit claims that, if we considered an agent
S’s actions without reference to anything else, we could make no sense of S’s acting
incorrectly—there would be a perfect fit between S’s actions and the rules that she
follows. But part of our interest in raising the skeptical problem is making sense
of our acting improperly. With this in mind, Pettit attempts to put some distance
between an individual’s actions and the rule she follows by suggesting that:

[Rule-following] requires that the rule-following subject be in a position to
interact with other bearers of the inclination—or a counterpart—at work
in her: herself at later times or other people (Pettit 1990a).

We achieve a sense of ‘normality’ (and hence normal conditions) by comparing our
present actions to 1) our own past actions, and 2) the actions of others. If S judges
that x is an F at time $t_1$, but at a later point, $t_2$, judges that x is not an F, then S is
faced with a divergence in his performance that must be resolved. With this in mind,
Pettit suggests that:

Authorizing past selves and other persons, they baulk in the face of
discrepancy—at least discrepancy with those who share relevant back-
ground beliefs—allowing it to raise a question about their own current
inclination (Pettit 1999: 34).

Similarly, when we consider inclinations along the social line of comparison, we are
willing to grant that the normal conditions for using a rule are given by privileging
the judgments of, say an agent $S_1$ over those of another agent, $S_2$, in some cases
of divergence. So $S_1$ and $S_2$ may have inclinations to behave one way rather than
another toward a common object x—which, by itself does not yield normativity—but
when we contrast the judgments of $S_1$ and $S_2$ in cases where they disagree we start to
gain a sense of what it means to make a mistake. It is $S_2$’s interaction with $S_1$—his
recognition of divergences in behavior and willingness to defer to $S_2$’s example—that
gives $S_1$ reason to think that he could be wrong. Through such social transactions as negotiating, compromising, and persuading, $S_1$ and $S_2$ can come to an agreement over what counts as an adequate set of normal conditions. That is, they can agree to do things *this way* rather than *that way*. So, when faced with divergent inclinations regarding the way to, say, calculate a probability, $S_1$ and $S_2$ can determine what to count as correct.

...[T]he ethnocentric story goes on to describe what we are allegedly inclined to do when the inhibiting disposition cuts in and we are left in a state of suspended judgment. The claim is that, assuming the term has the same semantic value on all sides, we look for an explanation of the discrepancy.... It is not surprising that we look for an explanation of such discrepancy, given the assumption that the term has constant semantic value across the discrepant sides... (Pettit 1999: 31).

The main point is that an agent’s interest is in maintaining *stability* or *constancy* in her performances—both across time, and relative to her fellow community member—which supplies her with a basis for attributing error to some of her actions. So, the conditions of proper use of $F$ are determined by $S$’s privileging some performances over others. We understand normal conditions, then, by comparing our present actions to past ones in light of what seems to an agent to be a sense of stability.

Since an essential part of Pettit’s position is that agents are interested in maintaining constancy of performance over time and relative to fellow members of his/her community, we should consider whether this is an assumption that he can make. After all, the fact that we may follow rules does not entail that we always follow the same rules at all times. We could follow one rule at one time and another rule at other times; and surely there are many cases where an agent follows the same rule at different times. While we do not usually (if ever) decide to quadd instead of add,
it is logically possible. There are even cases where we have reason to use some sort of bent function—cases where we might have imposed ‘caps’ on our possible actions, such as admitting people into a night club until they reach capacity, after which one must block people from entering. The fact that we have the choice to use some rules instead of others deserves an explanation. So, the possibility of following any rule is not sufficient for following the same rule at different times. We require an account of what constitutes following the same rule or different ones, so that we can make the distinction. We cannot merely assume that there is continuity in the rules that we use precisely because our interest lies in that in which this continuity consists.

Pettit may think that I am being unfair to his position. He does suggest, after all, that our assumption of continuity of rules followed is understood by appeal to a higher-level disposition to withhold judgment in cases where we encounter divergent judgments. The crucial disposition does not commit Pettit to easily assuming that we are following the same rule in each case but, rather, opens the possibility of this continuity. Furthermore, Pettit could respond that his interest, at least at this point in the dialectic, is to address an agent’s expectation that her responses should remain consistent over time. So, if asked the question ‘2+2=?’, an agent may have reason to doubt whether she has acted correctly if, at one time, she answers ‘4’ and, at another time to the same question, ‘6’. That is, Pettit could place his focus on our divergent responses to the same basic inquiry at different times. If we can understand the expectation of continuity (or lack thereof) as somehow basic to the very possibility of rule-following, we have in hand a reason for thinking that Pettit is not really begging the question against the skeptic.
Yet it appears that Pettit can only use such a response to push off the original question for a moment. After all, an agent’s recognizing that there is a divergence between his past and present performances could indicate that either a) he has made a mistake, now or in the past, or b) that he is not using the same rule now that he was using in the past, and that both of his performances were, in fact, correctly executed. Pettit has not supplied the kind of temporal continuity between our performances to earn the right to option (a).

I take it that Pettit could mount a defense by stressing that I have misunderstood precisely how to understand his account of normal conditions. On Pettit’s interactive account, there is nothing more to following a rule than our responding as we would under normal conditions—namely, those that contribute to convergence in judgments:

Under the practices described in the ethnocentric story, unfavorable factors are those whose identification as unfavorable would maximize expected, long-term agreement about the judgments at issue among relevant individuals (Pettit 1999: 35).

Pettit’s point is that normal conditions are something that we arrive at out of interactions with one another—a unique set of conditions falls out of the network of negotiations, persuasive gestures and acts of deference that help to constitute social reality. Normal conditions, in short, are those under which we reach long-standing convergence in our performances. With this in mind, Pettit may suggest that my charge is, at best, illusory: our interest is in the disposition of agents to suspend judgment in cases of divergent performances, and these crises are resolved by accepting those performances that maximize convergence between your past selves and your fellows. Rule-following, on such a picture, appears to be largely a matter of coordinating our actions. Pettit could suggest that he has not, in fact, begged the question
against the meaning skeptic because 1) his postulation of a higher-order disposition to suspend judgment in cases of divergence is not as strong as the disposition to assume that one is using the same rule across time, and 2) he can settle the matter whether an agent is following the same rule at different times by appeal to taking the path of greatest agreement with others.

4.3.3 A Different Style Of Explanation

It is important to notice that Pettit is not offering a reductionist explanation, one that explains a set of regularities (or facts) in terms of another, more primitive set. Rather, he has a different strategy in mind:

Suppose that this commonly asserted biconditional is true: x is red if and only if it looks red to normal observers in normal conditions. The biconditional is not a reductive analysis of what it is to be red, or at least not a successful reductive analysis, since it employs the concept of redness on the right hand side: it is blatantly circular. But still the biconditional can figure in an interesting account of the concept of redness, an account which illustrates what I mean by providing conceptual explanation or genealogy (Pettit 1990a).

The crucial stress here is on our inclination, say, for the concept RED, to judge under normal conditions that something is red. The idea is just that, insofar as a rule is something like a pattern, we can invoke that pattern in explaining the behavior of an agent because it is, after all, the pattern that is doing all the work here. Just as Wright argued (in §1.6.2) that we cannot make sense of perceptual knowledge without appeal to our perceptions, Pettit appears to hold that we cannot make sense of a pattern without actually appealing to the pattern itself. Pettit marshals these materials in an effort to explain how it is that we make sense of an agent following
a unique rule. With what he calls an *ethnocentric* account—one that stresses our 
practices—Pettit offers us a genealogy of the idea of following a rule:

This explanation of how rule-following is possible...nowhere says what 
rule-following is, reductively characterized. It tells a story about how 
rule-following might get going; it offers a genealogy of rule-following on a 
par with Hume’s genealogy of causal talk or, more notoriously, Nietzsche’s 
genealogy of morals (Pettit 1990a: 203).

The idea, it appears, is that Pettit is willing to tell us a story about how we came 
to be interested in acting correctly or incorrectly. He is supplying a possible origin 
for the idea of a rule itself, based on our basic inclinations. Pettit’s non-reductionist 
strategy is meant, in part, to answer the skeptic’s charge (considered in Chapter 3) 
that any appeal to dispositions will fail to explain why it is that such dispositions 
count as correctness conditions. That is, even a law-like co-variance between our 
performances and our rules, one that properly fixes the extension of a concept, still 
has not said why we should regard this co-variance as an extension, as something 
with which we ought to abide. Pettit means to answer this charge by suggesting 
that he has not given a set of sufficient conditions for acting correctly, nor need he 
do so. All he owes us is an explanation for why we, as agents, regard ourselves as 
acting correctly or incorrectly. Pettit is taking up some sort of external standpoint 
in order to explain the practice of rule-following, one that, to some extent, matches 
up with facts about agents. Like Chomsky (§3.6), Pettit appears to describe rule-
following instead of justifying it, but unlike Chomsky, Pettit clearly maintains that 
rules have a normative dimension. Whereas Chomsky appears to neglect meeting 
the normativity demand altogether, Pettit accepts the demand, meaning merely to 
describe why we think ourselves to be bound to act one way instead of another. The 
fact that some patterns are salient for us, along with our interest in maintaining
constancy of performance over time (see §4.3.2 below), yields a story that accounts for much of our practice of following rules.

Pettit is not always as explicit on his preferred style of explanation as one would like, and has been misunderstood because of it. Donna Summerfield, for instance, has serious doubts whether this notion of exemplification can even secure for Pettit the kind of determinacy that he desires. It may be, after all, that exemplification is itself subject to reinterpretation. She suggests that we:

Notice... that the inclination to which Pettit appeals to solve the problem of uniquely determining which rule is the rule being followed will itself be capable of various interpretations.... [A]s Pettit himself recognizes, the inclination generated by the set of examples (and not just the set of examples themselves) serves as a description: ‘...notice that the sort of inclination in question serves like a description of the rule, so far as it gives putative information about the rule: the putative information that the rule requires those responses, those ways of going on, which the inclination supports’ (Pettit 1990a). Note also that the disposition, as description, has to do more than merely convey the information to the agent that the rule requires these responses; it has to succeed in picking out a determinate rule. Given that the inclination has the status of a description, it functions as part of our system of representation, not as that which is represented: it takes on the status of a sign which is itself supposed to point to a particular rule (Summerfield 1990).

Summerfield suggests that the inclinations of which Pettit speaks act as descriptions for an agent, telling him how to proceed. Instead of acting as a rule-fixing factor outside of the system of representations, it stands within the system and therefore reopens the possibility of reinterpretation (Kripke 1982). Her charge is that Pettit’s claim—that there is a fact of the matter which rule is being exemplified by a set of examples—is a description of the rule that S uses (that is, the description helps to guide the agent) and, to that extent, is itself subject to the reinterpretation strategy.
The problem with Summerfield’s charge, Pettit suggests, is that she appears to entirely miss the point of his approach (Pettit 1990b). He is not establishing inclinations as playing a descriptive role for an agent, to guide her actions. Indeed, Pettit points out that an agent may not be entirely conscious of the inclination that she exhibits. Inclinations are being used here to explain what we take ourselves to be doing when following rules. That is, inclinations are not acting as descriptions that guide agents’ actions but, rather, as descriptions (from an external viewpoint) of what they are doing or take themselves to be doing.

Now, the meaning skeptic could argue that our descriptions of agents’ inclinations, qua explanations of rule-following, are themselves vulnerable to reinterpretation. That is, the descriptions of an agent’s inclinations are, after all, descriptions within a language (or theory), and these linguistic items are vulnerable to the skeptic’s attack. An agent’s inclination to act, say, in a PLUS manner, may not be reinterpreted by the meaning skeptic (if Pettit’s point about exemplification holds). But on what grounds can we say that our description of this agent’s inclination picks out PLUS or QUUS? The basic strategy is to retreat to a meta-language from which we can reapply the reinterpretation strategy—as Putnam would put it, these descriptions are just more theory (Putnam 1980).

Luckily, this sort of strategy will not work for the meaning skeptic. The inclinations of which Pettit speaks are causal features of the world and will remain intact regardless of how we describe them. Whether or not we regard an agent as using PLUS or QUUS, an agent will do as she is inclined to do—and these inclinations, on Pettit’s view, are all there are to the rules that we follow. Retreat to a meta-language does not help the skeptic here—indeed, it fails to latch onto a response-dependence
account altogether.

Summerfield is right to think there is a crack in Pettit’s armor large enough to let indeterminacy back into the picture, but she did not locate it. Even though Pettit’s solution appears to be safe from Summerfield’s attack, he is not yet out of danger. Though he has given us an explanation of normative constraint, he still owes us an explanation to meet the productivity demand, a matter to be addressed in §4.3.4.

4.3.4 Replacing The Productivity Demand

Pettit attempts to avoid the problems which sank the ‘community view’ in §4.2, but it appears that, in order for his position to make sense, he must make the same sort of move, thereby replacing the productivity demand. That is, though Pettit may be able to supply some sort of story about the normative dimension that falls out of interactions among agents, this story presents problems for meeting the productivity demand. Not only does Pettit’s position rely on our inclinations, but also the convergence of our actions—all of which are finite. Pettit anticipates something like a response to this worry when he asks us to:

Suppose that for some relevant decision-type, the standardized inclination goes awry; now it dictates this response, now that, without any evidence of perturbing influences. In that case I will have to conclude that the decision-type is not relevant or that there never was a unique rule on which I was targeted (Pettit 1990a).

I take it that the above passage can be construed as a response to the skeptic’s finitist objection insofar as the heart of the objection is that there is no fact of the matter how we are inclined to act—just the sort of thing that we would encounter if we found ourselves in a situation where we were inclined to act one way, then another,
without any steady course of action in hand. Applying this worry about potential breakdowns of our inclinations to the finitist worry gains further support when Pettit continues to write:

The latter possibility is the threatening one and it remains ever present, so far as I cannot at any time be sure that there will not be a future breakdown of the kind envisaged. In order to aspire to follow a rule I must assume that the standardized inclination picks out a unique rule for me to follow. But I can never redeem that assumption fully. The enterprise of rule-following, and all that goes with it, then, is precarious. It rests on the contingency that certain responses can be corrected so as reliably to yield convergence (Pettit 1990a).

I presume that Pettit’s take on this matter is that, though we may not encounter various cases, if we were to do so, then we could arrive—through intra- and interpersonal negotiations—at some sort of convergence of response which, according to Pettit, secures a sense for our acting correctly. There is a certain amount of faith bound up with the practice of rule-following, and any precariousness that we experience is, hopefully, merely epistemic in nature (though this is by no means guaranteed). Pettit suggests that, for the extreme cases motivating the charge of finitude, our only option is to have faith that our responses will come out as we would expect.

If I am right in thinking that this sort of response applies to the skeptic’s objection from finitude, then Pettit’s position has a rough road ahead: the extreme performances to which the finitude objection appeals (say, adding together numbers too long for us to handle in our lifetime) are entirely outside of the range of our forming inclinations or, for that matter, reaching convergence of response. Simply put, these cases are not at all accessible to us. Since Pettit’s position relies on our inclinations (instead of a response-independent semantic entity), there is no fact of
the matter which rule we are following, at least insofar as these extreme cases are involved.

At best, Pettit can maintain that the full extent of the skeptic’s productivity demand is mistaken: all that we have, when it comes to novel performances, is our ability to achieve convergence of response with ourselves across time and with our fellow community members. There is a sense, then, in which Pettit can be seen to be *replacing* the productivity demand. The worry, of course, is that this insistence on convergence fails to explain how rules *guide* our actions for an indefinite number of cases. On Pettit’s picture, it seems that quite the opposite is the case—instead, negotiation is key. Pettit’s reliance on convergence, then, raises the same sort of worry that made simpler community-based accounts problematic (in §4.2).

### 4.4 Toward Revising The Productivity Demand

The worry that we face in this chapter is that accounts relying on interaction in order to secure the rules we follow require a different sense of normativity, one that does not rely on productivity/projection. Though we have given reasons for thinking that we should retain the productivity demand, we still have made a subtle gain: we now have reason to think that there is hope in answering the skeptic so long as we change the shape of the productivity demand. Interaction-based accounts appear to *replace* the demand with a new one, giving different content to the normativity demand. But I take it that we can revise the productivity demand (without replacing it outright) in order to 1) avoid distorting an essential part of the intuitive picture of rule-following, and 2) provide a framework for devising a successful straight solution. In Chapter 5, we attempt to do just this.
5.1 Toward A New Straight Solution

The finiteness problem (and hence much of the motivation for the skeptical problem) arises because it is not clear how a finite mental state (or mind) could yield indefinite applications in a unique manner. The (non-semantic) reductionist cannot cite any fact that accounts for the infinitary nature of rule-following in light of our finite capabilities; and the skeptic’s argument from queerness, targeted at non-reductionist strategies, springs from the presumption that some fact about an agent with finite abilities puts her directly into contact with the entire extension of a rule—an utterly mysterious matter. If we were to leave things where they stand, all would be lost.

In order to salvage the situation and, ultimately, devise a successful straight solution, I suggest that we diagnose the problem of finiteness as arising out of a flawed model of competency with rules. I argue that the the skeptic wrongly assumes that competence with a rule involves a rule’s extension being determined in advance and
that this assumption allows the skeptic to generate the problematic form of the productivity demand that motivates the skeptical problem. In order to provide a framework for solving the skeptical problem, we must revise an implicit assumption on the skeptic’s part, one involving the scope of competence with a rule, in order to make sense of our uniquely projecting to new cases on the basis of a limited number of examples.

I argue that, instead of accepting a conception of rules whereby meaning requires that an extension be read off of our dispositions, we should shift to the dispositional analog of an intension, where the operative dispositions in any performance constitute competence. On this basis, I argue that a recursive approach to the projectability of rules provides the initial step for solving the skeptical problem. I suggest that we understand the matter of acting in novel cases (where rules, by hypothesis, guide our actions in these cases) as nothing more than a special case of acting in ways that we have already mastered. In order to implement this insight, I introduce the idea of ‘subroutines’ from computer science to serve as a model for understanding dispositions that feature in recursion, thereby establishing a sense for uniformity of action.

So, the straight solution offered here occupies a strange intersection of logical space. On the one hand, I make use of the idea of an algorithm generating outputs for any input(s), and on the other hand I make use of the thought that rules are tied to our dispositions to act. The former sort of solution fails because algorithms are sets of sentences (specifying actions to take, step-by-step), meaning that the words that comprise each sentence are subject to reinterpretation. And the latter approach fails, in part, because our finite dispositions cannot account for the infinitary nature
of rules. In this chapter, I reconfigure our talk of rule-constituting dispositions on the model of algorithms with the intent to exploit features of each sort of solution while avoiding the usual problems that they face.

In addition to accounting for agent’s following familiar rules like PLUS, we will be in a position to say whether an agent genuinely follows a bent rule such as QUUS. In cases where we ought to attribute a bent rule to an agent, we find that the sense of uniformity that I establish renders bending points the sorts of things that must feature in an agent’s feasible dispositions. In short, an agent could only be said to follow a bent rule on the condition that she were actually sensitive to the appropriate bending point.

We cannot start to appreciate the projective sense of normativity that motivates the skeptical problem unless we can first make sense of projection to new cases. If we construe the skeptical problem as making demands about both the causally efficacious and the regulative nature of rules, then this chapter can best be understood as removing worries about the former concern. That is, this chapter is focused on characterizing competence, while the next chapter will offer the shape for an account of performance. In order to make the execution of this task clearer, I will put matters of normativity aside for the moment. The hope, though, is that, by providing an explanation of the productive nature of rules, we can also avoid some key problems in saying how rules are normatively constraining on a dispositional treatment—a matter to be addressed in Chapter 6.
5.2 Revising The Productivity Demand

The problem with the skeptic’s presumed notion of competence is that it demands someone being capable, as a matter of principle, to produce a unique output for any given input. This is evidenced by the queer qualities attached to *sui generis* meaning facts on the one hand (§1.6.2), and the (disastrous) need for idealizations for dispositional accounts on the other (§3.2). But we have reason to weaken this requirement, shifting our emphasis to another conception: competence with *plus* is tied to being able to determine *how* to answer a posed question, rather than actually answer any question posed. When thinking about the means by which we actually judge competence, it is not as though an agent using *plus*, for instance, requires knowing that the answer to ‘96,711+21,511=?’ is ‘118,222’. Instead, we would say that an agent’s ability to handle any two columns of such a problem would be sufficient to display competence\(^9\). Think about the following fragment of the addition problem posed:

\[
\begin{array}{c}
1 \\
\ldots6\ 7\ldots \\
+\ldots1\ 5\ldots \\
\ldots8\ 2\ldots \\
\end{array}
\]

So long as one can add together ‘7’ and ‘5’, carry the ‘1’, and add together ‘6’, ‘1’ and the carried over ‘1’—without regard to the particular place that these columns occupy within a larger addition problem—we can say the relevant competencies are in place. So long as these basic steps have been mastered, and matters are in order

\(^9\)Similarly, we should regard the ability to handle any two arbitrary rows within such a problem to be minimally necessary for competence with *plus*. 

116
up to the point in the problem that we encounter, we can demonstrate that we are competent with ADD. Supplying a solution for any addition problem, then, is not necessary for following that rule.

Whether or not the above case serves as a perfect example for spelling out the basic materials for competence with PLUS, it adequately gestures toward a picture of competence different from that presupposed by the skeptic. We are interested in the basic steps necessary in order to handle any given problem. Something like a method, technique, or operative dispositions appear to be playing the starring role in our story about PLUS. Instead of saying that there is a direct relationship between an agent’s dispositions and the extension of a rule, we should say that an agent has dispositions which, if manifested, are intermediaries between the agent and an extension. As witnessed in §2.6, the Fregean tradition suggests such a relationship: namely, that between an intension and an extension. We understand an intension as something along the lines of a description or criterion for determining the members of the corresponding extension. Similarly, we could understand the relationship between a disposition and a correct performance in much the same way. By no means am I suggesting that dispositions are intensions. After all, intensions are traditionally understood as abstract entities. Rather, I claim that, just as an intensional approach to meaning identifies intensions with meaning (where intensions determine extensions), we should shift the emphasis of a dispositional account of meaning towards those dispositions which determine an extension (instead of just reading the extension off of the dispositions themselves). In short, we should shift how we think about the relationship between our dispositions and extensions.
As our story about PLUS hinted, we should explain competence by appeal to the feasible dispositions which are operative in answering of any addition problem. In §2.6, we find a similar suggestion made by Katz, where he appeals to just the kind of finite intensions that we require; but his appeal to *sui generis* facts left us unsatisfied in fully meeting worries about queerness. And in §3.2, we gained a sense for why dispositions will not help us make sense of the infinitary nature of rules insofar as we do not have the dispositions to give a corresponding output for any of an infinite number of inputs, in actuality or by appeal to an idealization. The approach offered here is meant to succeed where both of these accounts fail: by appealing to a finite set of dispositions to serve as an intermediary between an agent and an extension without making use of idealizations, we can establish a sense of competence that relies on our actual dispositions. The push here is to make sense of the dispositional analog to intensions, and use this as the basis for making sense of projection. In §5.3, we will develop an account of how a finite set of dispositions could play this intermediary role between an agent and an extension.

### 5.3 Dispositions, Recursion And Projection

Instead of basing our competence with a rule on the ability to actually provide an output for any possible input (as the skeptic seems to suggest), I propose that we focus on the basic dispositions necessary to handle any basic fragment of the performance at hand. It seems that the only way to avoid worries about queerness and the need for idealizations is to focus on our feasible dispositions—that is, our actual dispositions to act to handle manageable tasks. We might wonder: how could we make sense of acting in new cases by appeal to materials already worked out? I take it that we
can make use of the idea of *recursion* to provide the necessary element. A function is understood as ‘recursive’ if and only if it can be built from more basic functions by means of a particular set of operations. The idea is that we can execute complex operations through combinations of simpler ones. But how does talk of recursion help us to devise a successful dispositional account of competence?

In order to make sense of the dispositions involved in rule-following, then, we shall make use of a tool regularly used by computer programmers: namely, subroutines. A subroutine is an independent segment (of computer code) of a larger computer program which it can use (or ‘call’) repeatedly. The fact that one can write a subroutine once and instruct the larger program to use it as often as needed, lends to its merit as a means of programming efficiently. Subroutines, in addition to operating and terminating on their own (that is, completing the task for which they were called), can call other subroutines as well as themselves. (This latter sort of subroutine is commonly called a ‘recursive subroutine’, not to be confused with the more general notion of ‘recursion’. For the sake of clarity, we will use ‘recursion’ in the more general sense unless the term ‘recursive subroutine’ is specifically used.)

We can use the notion of a subroutine in order to supply a model for properly understanding (rule-constituting) dispositions as the sorts of things related to one another in the way indicative of recursion. I shall call dispositions understood on this model ‘dispositional subroutines’. The idea is that, just as subroutines can be used to accomplish complex tasks by appeal to simpler operations, rule-constituting dispositions are those to which any complex performance can be reduced. They are the basic constituents which recur within any performance of a rule. That is, they
are context-independent dispositions which could give an output for a correspond-
ing input as well as trigger other dispositions or even themselves. This last point,
that dispositional subroutines are capable of triggering the manifestation of other
dispositional subroutines, gives us some purchase on the idea that they interact and
combine in various ways in order to produce more complicated outputs. We shall
offer the following characterization of rules:

\[ F \text{ is a rule if and only if the performance of } F \text{ is manifestable by disposi-
tional subroutines } \phi. \]

Notice that the above biconditional, which employs dispositional subroutines, has
suppressed any mention of agent. This might seem strange, given that some entity
(namely, an agent) must have the dispositions characterizing F. But this was meant
merely as an intermediate step. Finally, we shall relate the dispositions of an agent
\( S \) to a projectable rule thus:

\[ S \text{ follows a rule } F \text{ if and only if the performance of } F \text{ is manifestable by dispo-
tional subroutines } \phi \text{ and } S \text{ has } \phi. \]

The thought here is that an agent, in order to count as having the dispositions
indicative of a particular rule, need only possess the operative dispositions for any
representative fragment of a performance posed to her. There is no requirement to
give an output for \( \text{any} \) input—just that she has mastered the basic steps present
in any operation from inputs to outputs. In other words, the tools are the same
regardless of where you use them.

For a rule like \( \text{PLUS} \), then, we could imagine a teacher instructing his student
to approach a wall upon which an addition problem is presented whose number of
columns (say, with two rows apiece) stretches the length of the wall. The instructor’s
The task is to teach the student to act in the same manner, adding together any numbers present in a column, regardless of the column. Indeed, we also could imagine our instructor pointing out that, “It does not matter which column you approach—for any column that you handle, so long as everything is in order up to that point, act in this way.”

Using a different example from the world of music, we could think about mastering musical scales on a stringed instrument’s neck: in order to learn a scale on such an instrument, one could learn several configurations of finger-positions where, once one learns these operations, they can play in different ‘keys’ by transposing the same configuration of finger-positions to other parts of the neck. Regardless of the key being played in, the basic finger-positions are the same. The basic operative dispositions are understood quite separately from the place on an instrument’s neck where they are manifested. Uniformity of action, in short, involves some degree of context-insensitivity.

The skeptic might voice the suspicion that not every rule could be specified recursively. We might wonder whether this reliance on projection via our feasible dispositions is too cheaply won. Though PLUS can be given a recursive characterization, it might be misleading to think that all other rules can be handled in a similar manner. In short, we require some sort of possibility proof in order to establish that recursion can be so widely applied.

We can begin to answer this worry by focusing on Church’s Thesis and its relation to recursion. Church’s Thesis states that a function is computable if and only if it is recursive. A ‘computable function’ is understood here as an effective operation from numbers to numbers; and, as already mentioned, a function is understood as
‘recursive’ if and only if it can be built from more basic functions by means of a particular set of operations.

Though no proof has been provided for Church’s Thesis, it has very strong inductive support. Establishing an analogy between Church’s thesis and our dispositional account of projection provides some warrant for our taking advantage of similar inductive support. There is a certain sense in which the recursively characterized operations of numbers on numbers closely resemble how we manipulate other symbols, organize information and manipulate physical objects. Just as recursive functions are executed on the basis of combinations of primitive operations (e.g. identity, succession, etc.), our attempts to arrange and handle other (more concrete) objects appear to follow a similar pattern. In short, we engage in practices which exhibit some sense of uniformity, on the basis of which we act in new cases. If the relevant resemblance between effective methods and projectible rules holds, and any effective method is recursive, there is reason to think that the recursive characterization of any projectible rule holds as well.

Now, the skeptic might grant the analogy, and exploit a peculiar feature of Church’s Thesis to re-invite finist worries back into the picture. Though Church’s Thesis establishes that any computable function is recursive, it does not guarantee that they are feasibly so. To use the language of our account, there could be rules, for instance, whose constitutive dispositional subroutines far outpace our actual capabilities. The real thrust of this charge is that Church’s Thesis does not take into account our actual capabilities; indeed, it idealizes over such things as time, processing power, etc.—just the sort of move we have attempted to avoid!
But this charge, though initially worrisome, really does less to threaten our po-
position and more to focus it. We may grant that there are rules that could only be
followed by a more advanced entity, but we would also have reason to think that
we do not (nor could we) follow those rules. The sorts of problematic cases that the
skeptic could raise here just fall outside of the scope of rules that we could even follow.
Indeed, this move makes it more apparent that we do not know how one could follow
a rule that did not involve feasible dispositions recursively characterized. What at
first appeared to be a problem for our account now looks like a means of reaffirming
that we could only follow rules where their characteristic senses of uniformity were
feasible. In §5.4, this initial insight will help us to make sense, not only of following
familiar rules, but also the prospect of following bent ones.

5.4 Dispositional Subroutines And Bending Points

Let us take a moment to review what we have accomplished before going forward.
In §5.2, we argued that we should shift the attribution of competence away from an
extensional approach in favor of a quasi-intensional one, where we gestured towards
the basic dispositions operative in our conceptual performances to do this work. In-
stead of reading the rule that an agent follows directly off her dispositions, we urged
that the rule being following be identified with her dispositions qua quasi-intensions,
assigning these rule-constituting dispositions an intermediate role between an agent
and the extension of a rule. In §5.3, we gave a more careful characterization of these
dispositions, initially taking cues from Church’s thesis in order to make sense of dispo-
sitions that featured in recursion (what we have termed ‘dispositional subroutines’).
Now that we have a clearer sense for the recursive nature of projection, we might
wonder whether we can further flesh out the relationship between the dispositional subroutines of an agent with finite capabilities and an infinite extension.

As a preparatory matter, it is worth stressing that the proposed account of competence only requires that we teach a student the basic operations for any rule as well as the means for combining them. So, for a case such as plus, we could say that, for any arbitrary column, to manipulate numbers in a particular way (that is, in the manner indicative of addition). In this sense, we could say that someone’s ability to add together large numbers is largely parasitic on our ability to manipulate 0 through 9 as well as coordinate numbers across columns, assuming that everything is in order up to the column being handled. The combination of these basic dispositions gives us a sense for competence with plus: for any representative fragment of an addition problem, an agent (so-constituted) will be able to give the unique (segment of an) output for any (segment of an) input. Not only are there a finite number of operations that we employ, but they are the same ones in each segment of a performance. The only difference lies in the place along an axis of replication where these basic dispositions are situated (in this case, the column being handled). If we manifest the same basic dispositions, where the only difference is the place on the axis of replication where we execute them, we could generate any given (fragment of an) output\textsuperscript{10}. So, the manifestation of basic dispositions determine, bit-by-bit, the extension of plus—that is, we determine the extension recursively.

Because the emphasis has been shifted toward feasible dispositional subroutines,

\textsuperscript{10}Notice that not all rules can be recursively understood in precisely the way that we grasp plus using decimal notation. The rule multiply, for instance, does not behave in this way. But there is still an algorithm governing its use and, so long as we can give a dispositional account of that algorithm, we can (recursively) specify the operative dispositions constituting competence with that rule.
we can make sense of the cases where agents genuinely follow bent rules. In order for QUUS to be projectable on the present account, its characteristic bending point must feature in the appropriate dispositional subroutines: one follows QUUS just in case they have two dispositional subroutines—one subroutine for answering with the sum of x and y, and another for answering ‘5’ come what may—which manifest themselves relative to a bending point (e.g. when x or y < 57). The coordination of these two subroutines, in turn, requires (in some cases) the postulation of higher-order subroutines which trigger either of its first-order subroutines, given the inputs at hand. Any given rule might involve a hierarchy of dispositional subroutines. Alternatively, we might find that various dispositional subroutines call others which in turn call others, establishing a sort of network. Whatever the means of implementation, this move gains support insofar as it provides a means to explain how a number of different rules may involve the coordination of various kinds of actions (for basic rules as well as more complex ones).

Insofar as competence with a rule depends on an agent’s dispositional subroutines, the skeptic cannot easily suggest that an agent’s actions accord with both a familiar rule and a bent one. For cases well within an agent’s capabilities, we have some basis for establishing the kind of uniformity needed to eliminate the possibility of following a bent rule. If the skeptic attempts to place the bending point beyond her capabilities, we have reason to think that she could not even follow that rule, much less have it attributed to her. Yet one might wonder why I would make this claim. After all, the skeptic could argue that we just do not have the resources, given our finite capabilities, to say whether an agent follows a familiar rule or one with a bending point far out of reach. I oppose the skeptic on this point on the following grounds: given how we
actually attribute rules to agents, one can only be said to follow a particular rule on the condition that she has the abilities necessary to use the rule. That is to say, we would not say of someone insensitive to the manipulation of numbers that they follow PLUS; nor would we say of someone, insensitive to the experience of color, that they could truly use GREEN. Similarly, we would not attribute QUUS to a person who had no sense whatsoever for an upcoming bending point—such an agent just does not have the sensitivities required for competency with such a rule. My reliance on dispositional subroutines in making sense of competence gives us an idea how to attribute bent-rules to an agent: namely, just in those cases where it features in the sense of uniformity established by her dispositional subroutines.

Now, the skeptic might argue that we have overstepped our bounds here, and that, upon examination of other bent concepts (such as GRUE and BLEEN), this privileged sense of uniformity can be undermined. Consider how we use GREEN. Typically, we think of an agent having an episode of greenness in her visual field in the presence of objects that reflect light appropriately—insert the details of your favorite causal/dispositional story here. But appeal to a dispositional story here creates an opening for the skeptic: he could (once again) argue that the causal story available to ground competence with GREEN and BLUE is no different from the one used to ground their bent counterparts GRUE and BLEEN. But how would he execute such a move?

The skeptic might begin by conceding, as an argumentative feint, that my account can properly characterize competence with PLUS (distinguishing it from QUUS). But my victory, so the skeptic might suggest, is short-lived. The success of the solution depends on the asymmetric relationship between PLUS and QUUS: namely, we can define the latter by appeal to the former, but not vice versa. Given the sense of
uniformity of action established by our use of dispositional subroutines, the structural relationship (between asymmetrically definable rules) may have provided the basis for distinguishing between cases of using a familiar rule rather than a bent one. But what if we considered a familiar rule and its bent counterpart that have a symmetrical relationship, where the rules at hand are inter-definable? It may be that this sort of move would rob of us of any privileged account of uniformity, delivering us back into the skeptic’s clutches. Goodman gives the formula for pulling off this trick. Recall how we define GRUE:

\[ x \text{ is grue at } t_n \text{ if and only if} \]
\[ (\text{if } t_n < t_m, \text{ then } x \text{ is green}) \text{ and } (\text{if } t_n \geq t_m, \text{ then } x \text{ is blue}) \]

This formulation helps us appreciate how GREEN is definable in terms of GRUE and BLEEN:

\[ x \text{ is green at } t_n \text{ if and only if} \]
\[ (\text{if } t_n < t_m, \text{ then } x \text{ is grue}) \text{ and } (\text{if } t_n \geq t_m, \text{ then } x \text{ is bleen}) \]

Goodman is interested in the interdefinability of GREEN and BLUE, and GRUE and BLEEN insofar as he wants to push that an object that is green is also grue (prior to \( t_m \)), so that we can find no privileged place from which to establish the familiar basis for induction. We are robbed of our ability to establish an inductive inference based on syntactic criteria. Regardless of the color judgment one makes regarding \( x \) (e.g. ‘\( x \text{ is green} \)’ or ‘\( x \text{ is grue} \)’), all of the dispositional facts are the same. The skeptic could adopt this sort of strategy facing the matter of induction, indicating that, if the dispositional facts do not decide whether one follows GREEN or GRUE, and we are offering a dispositional account, then this account is inadequate to the task of answering the skeptic.
The skeptic’s attack could be pushed further with the stress that we have made unwarranted use of descriptive resources when talking about the relevant dispositions. A gruester could argue that, given his basic descriptive resources, greensters are insensitive to time indexing only as a derivative matter. Such a character has not been offered any reason to think that his way of describing our rule-governed behavior is somehow deficient. That is, from the standpoint of attributing rules to a subject, there is no fact of the matter whether we ought to do so from the standpoint of a gruster or a greenster. The dispositional facts about a subject do not decide the matter at all.

Despite its initial plausibility, the skeptic’s reply (on the behalf of the gruester) is not successful. This sort of move appears to confuse the epistemic and ontological aspects of attributions of rule-following. The skeptical problem is motivated by the intuitive picture of rule-following, where there are facts about an individual determining the rules they follow. If one employs our familiar descriptive resources (which include GREEN and BLUE), our rule-following attributions are picking out a particular set of dispositional facts about an agent; and if one employs the resources available to the gruester, we gesture toward the same facts. The facts remain invariant. Only the attribution of basic or compound concepts vary. Our concern is with the dispositional facts about an agent and not the framework with which we describe (or even discover) those facts. Though we can introduce bending points within any rule (or, more generally, a theory about the world), we cannot introduce bending points within the world itself. Adopting either our usual framework or a GRUE-like one just introduces notational differences in our interpretative practices without adding any serious ontological substance. So, Goodman’s puzzle about induction sneaks its way
into a story about *attributions* of rule-following. We might make a temporary ally with Davidson, who suggests that Quine’s thesis of the indeterminacy of translation is an innocent matter akin to measuring temperature such Fahrenheit or Celsius. My point is that the definitional symmetry that confounds attempts to solve the riddle of induction (an epistemic issue) does not gain a hold on the ontological riddle that the skeptic raises.

So, for the sake of convenience, let us use those concepts which have been sufficiently entrenched in order to say why definitional symmetry among familiar and bent rules will not affect the solution offered here. When it comes to using green or grue (opening up the possibility of the entrenchment of predicates), we shall occupy our familiar conceptual framework. The strategy is to show that, given this standpoint, there is a fact of the matter which rules we follow.

At least intuitively, we can say that there is a significant difference in terms of the ability of, say, a green-user and a grue-user, for in the former case various phenomenal episodes (i.e. the green-seeming ones) prompt a judgment on the part of an agent, while in the latter case the same episode as well as the time of witnessing an object can act as inputs. I argue that those features to which we are sensitive (in contrast, naturally, to those features to which we are insensitive) are bound to competence-constituting dispositions, best understood in terms of the inputs which prompt the manifestation of the disposition at hand (so that it yields a corresponding output). We have many dispositions to act; and there are some cases for which we do not have any dispositions (a point which originally motivated the finitude charge against dispositionalism). We can cash out our insensitivity to various features of the world as our not having any dispositions (in the relevant sense) toward those
features whatsoever. So, I have the disposition to be sensitive to the private episodes relating to green-appearing-objects, but I have no disposition at all to consider the time associated with any such private episode. Now, a gruester is one who would have the dispositional subroutine, on this picture, which involved sensitivity to time. Being a greenster could be construed as being one who has GREEN as a basic concept or, alternatively, as being one who is sensitive to time (and GRUE and BLEEN) and who need not pay attention to the time so long as she uses GREEN. But I would argue that the mastery of a rule requires coordinating all of the characteristic sensitivities, and an agent who does not have the characteristic coupling of private color episodes and time witnessed is not the sort of person who has GRUE as a basic concept. So, whether GREEN and BLUE, or GRUE and BLEEN are among one’s basic concepts, one’s behavior could be the same, but there is a significant difference: the gruester’s dispositions (involved in prompting behavior) are sensitive to time as well as particular phenomenal episodes, indicating that there is a functional difference between the two concepts. The case of induction is insensitive to these recognitional elements of rule application because we are only interested in how a predicate relates to inductive inferences; but the same cannot be true for competency.

The story that we have just told involves the claim that there is a fact of the matter how we are disposed to act, relative to some stock of concepts. But the skeptic might worry that we have begged the question against him precisely because we have distinguished GREEN from GRUE by appeal to their correct performances, even though we have yet to establish the necessary normative ingredient. That is, it may be that we can only fully fix the rule-constituting dispositions that allow us to handle cases like GREEN and GRUE on the condition that we can provide the
normative ground for distinguishing between manifested behavior being regarded as correct or incorrect. In order to say whether we have been using GREEN well or GRUE poorly (where the difference lies in one’s attending to the time at which one observes an object) depends on which dispositions constitute competence. I have assumed, for simplicity’s sake, that we could privilege some dispositions in order to focus on the projective element of rules—that is, of going on in a particular way. Though we have supplied the basis for making sense of acting in new cases, we still need to add that normative punch (a matter to be addressed in Chapter 6).

5.5 Toward An Account Of Performance

Throughout this chapter, we have suppressed mention of the normative aspect of rule-following. The strategy has been to clarify how an agent with finite capabilities could be constituted so as to act in an indefinite number of cases. But we have yet to say how such an agent’s dispositions, construed by their relation to recursion, can provide a standard for correctness. We have the ‘competence’ side of the competence/performance distinction in hand. Now, we need to secure the other side, providing an account of ‘performance’. In Chapter 6, we shall use the materials from this chapter to complete an account of the form of a successful straight solution.
CHAPTER 6

RULES, RECURSION AND PERFORMANCE

6.1 Facing The Normativity Demand

Though our efforts in Chapter 5 yielded a sense for the productive aspect of rule-following, we have yet to say anything substantial to meet the normativity demand. Various options have been offered to establish the normative dimension of rule-following—appealing to normal or ideal conditions, natural selection, community sanctions, and so on—but in each case the mystery of saying how a finite mind could grasp an infinite rule has frustrated efforts to devise a straight solution. Now that we have a better sense for how to make sense of the infinitary nature of rules, we could revisit old solutions and determine whether they might be regarded, once again, as open options. In this chapter, we will only entertain one such option. In Chapter 3, we addressed the problems of appealing to normal conditions in order to formulate a straight solution. In this chapter, I argue that our emphasis on dispositional subroutines qua quasi-intensions allows us to revive an appeal to normal conditions, thereby supplying the ‘performance’ side of the competence/performance distinction.
Recall the final formulation of the projective element of rule-following offered in Chapter 5:

S follows a rule F if and only if the performance of F is manifestable by dispositional subroutines \( \phi \) and S has \( \phi \).

In the original formulation, we specifically suppressed all mention of normative constraint, mainly for the sake of simplicity of presentation. We now require the explicit inclusion of the materials necessary for normative constraint into our biconditional. Given the appeal to normal conditions in order to round out the account, we would expect something like the following formulation:

S follows a rule F if and only if the performance of F is manifestable by dispositional subroutines \( \phi \), and S has \( \phi \), which is manifestable under normal conditions.

As addressed in §3.4, any appeal to normal conditions in order to answer the skeptic brings with it two immediate problems, roughly corresponding to the finitude and normativity charges raised against simpler dispositionalist accounts. To reiterate, these charges are:

1. It is not clear that we will be able to specify conditions that will secure uniqueness for the rule being followed. After all, normal conditions only give us outputs for cases within our capabilities; only by appeal to an idealization could we hope to meet the productivity demand. But an appeal to idealizations, it turns out, draws us into circular reasoning.

2. Since we may have different dispositions to act under different conditions, we must specify which set of conditions are the right ones that is, we need to privilege some conditions over others, meeting the normativity demand. There
are different circumstances under which we act, but why is one set the sort that privileges some performances over others?

A significant portion of this chapter will be devoted to showing how these charges are avoided once we introduce dispositional subroutines into the picture. We will explore the relationship between dispositional subroutines, normal conditions and normativity in the next several sections. Ultimately, we should have the basic form for a successful straight solution in hand.

6.2 Normal Conditions Without Idealizations

An appeal to normal conditions, in order to meet the skeptic’s productivity demand, immediately faces a problem: since our dispositions under normal conditions only give us outputs for inputs within our actual capabilities, we need to idealize away from an agent’s abilities (in order to make sense of the infinitary nature of rules); and this use of idealizations ends with us begging the question against skeptic because we must presuppose the rule an agent follows in order to build the idealization in the first place (see §3.4.1). Luckily, the account started in Chapter 5 is far friendlier to an appeal to normal conditions than those dispositional accounts constructed on an extensional approach. Given the emphasis on recursion and dispositions construed as quasi-intensions, we can dispense with idealizations altogether (so far as competence is involved).

Other accounts have been offered making use of dispositions in a manner similar to the one offered in Chapter 5. We can distinguish our account from its siblings, drawing the contrast by the use (or absence) of idealizations. Anyone who appeals to dispositions under ideal conditions (on the extensional model of meaning) in order
to make sense of the infinitary nature of rules is committed to the view that the extension of a rule is determined in advance. Such straight solutions involve the claim that an infinite (or at least indefinite) number of dispositional conditionals are true of an agent at any given time, identifying those under ideal conditions as being meaning-bestowing. Though these attempts were dispensed with in §3.4.1, one might argue that we can use the recursive account offered here to establish the requisite notion of uniformity in order to rehabilitate the use of idealizations in order to ground rule-following. Blackburn also hints at such an approach:

The answer I would accept is the one that would be given by reiterating procedures I am disposed to use a number of times. . . . The equation would be: By ‘+’, I mean that function F, that accords with my extended dispositions if and only if (i) it is the answer I am disposed to give and retain after investigation, or (ii) it is the answer I would accept if I repeated a number of times procedures I am disposed to use, this being independent of whether I am disposed to repeat those procedures that number of times (Blackburn 1984a: 36).

Though Blackburn appears to be offering an approach to projection invoking compositionality of some sort, he appears to make use of the idea of an idealization, insofar as it involves answers that I would accept given enough repetitions. While Blackburn’s option (i) seems to speak to cases that fall within our actual capabilities, option (ii) appears to make sense of what we would do in extreme cases (which outpace our actual capabilities) by making a distinction between one’s dispositions to use a procedure and the number of times that one could actually repeat it. But Blackburn’s suggestion does not have enough detail to really wrestle with.

Tennant offers a more developed position, maintaining that competence is based on ‘factorizable’ dispositions necessary to handle a localized segment of a proof or calculation (Tennant 1997b: 150). Instead of requiring that an agent be able to
handle any conceptual performance, Tennant suggests that we need only handle the component parts that comprise any given performance. He appears to use these basic dispositions to say how one would act under appropriately ideal conditions. Tennant suggests that by establishing some sense of uniformity in our thinking (recognizing factorizable dispositions), and idealizing over our cognitive capabilities (Tennant 1997b: 147), we can make sense of any proposition being knowable as a matter of principle. Even though we do not actually have the disposition to give an output for any given input, we do have dispositions to act for any localized bit of a particular problem; and if these dispositions are sufficient for competence with a rule, then we can make sense of how to construct idealizations without presupposing the rule to be fixed.

It appears that Tennant uses idealizations (by appeal to basic dispositions) in order to establish the extension of a rule, giving us keen insights into how such idealizations can be constructed. Insofar as Tennant seems to be interested in what we would do under appropriate circumstances (and given that they have tried to specify how this is possible), it seems that he uses them to make sense of some sort of an extension determined in advance. If this reading is right, this is where my account diverges11.

But making this sort of move appears to create an opening for the skeptic to wonder whether the axis of replication (of an agent’s basic dispositions) can provide the basis for introducing a bending point. The question that the skeptic would raise here is: given a sufficient number of iterations of basic dispositions, an agent (without

11There is a slight ambiguity between Tennant 1997a and Tennant 1997b to suggest that Tennant does not take as hard of a line on the extensional model of meaning as Blackburn. If Tennant is ultimately interested in something like quasi-intensions, as I am, our positions appear to be quite similar regarding the big picture, but differ in terms of formulation and argumentative approach: e.g. formulation of rule-defining biconditionals, the use of, the use of the notion of a subroutine as a model for understanding dispositions featured in recursion, the handling of bent rules, etc.
appeal to an idealization) will inevitably act in a manner different from previous iterations—is this change due to a breakdown on the part of the agent or is it a matter of design? The skeptic raises the worry here that no fact about an agent can determine whether she fell into error or whether her change in behavior was part of the rule that she followed. We can only assume that there would be an imagined stability in an agent’s actions on the condition that we assume that she is following a rule F instead of bent-F, thus begging the question against the meaning skeptic. In short, the problem associated with idealizations recurs even here.

The problem, of course, lies with any appeal to idealizations in relation to our dispositions, competence and rule-following, prompting my shift to a quasi-intensional model of meaning from which we can speak of rule-following without any appeal to idealizations. For those suspicious of establishing a sense of uniformity with which to build idealizations, the account offered here provides an alternative: we can rest content with an account of competence which relies on our actual capabilities while still making sense of the productive nature of rules. The shift from an extensional approach to competence to a quasi-intensional one gives us the escape route we need in order to avoid problematic appeals to idealizations. If anything has been determined in advance, it is an agent’s dispositional subroutines qua dispositional analogs to intensions\textsuperscript{12}. Since our account only requires that an agent be in a position to have mastered the basic steps operative in any application of a rule, we need not face an input which is infeasible for agents like us. For this reason, we might have eliminated the danger of inaccessible bending-points (see §6.4 or, perhaps, the remaining charge to be raised regarding this matter).

\textsuperscript{12}If we are to speak of idealizations at all, we might do so in order to make sense of the extension of a rule, where the extension is not that which is used in order to establish competence with a rule.
6.3 Normal Conditions And Privileging Dispositional Subroutines

A separate objection that faces any appeal to normal conditions is that we need a reason to think that one set of conditions should be regarded as meaning-bestowing (instead of other conditions). After all, different rules are correctly used under different conditions. The task at hand is to independently specify normal conditions so that those conditions fix the particular rule being followed.

For those interested in an individualistic account of rule-following, we might think, for instance, that something in line with Dretske’s suggestion is plausible (see §3.4). Dretske characterizes normal conditions as those that were in place when an agent learns to follow a rule. Applying this insight to our account of competence, it seems perfectly plausible that we should privilege those conditions present when dispositional subroutines are acquired. With the emphasis on learning in hand, it is not unreasonable to think that cognitive scientists will discover normal conditions for the development of cognitive structures within humans, and these conditions—what might be regarded as the reductive basis for learning—may best be regarded as meaning-bestowing. These conditions might include being well-rested, attentive, etc. We acquire new capabilities (quite often) and surely there are optimal conditions for our doing so given our constitution, evolutionary niche, etc. In any case, I do not have much more to add to address this second objection than has already been offered on Dretske’s behalf, nor need I do so. And since our focus has been shifted to dispositional subroutines, we no longer need to worry how the dispositions featured in a learning situation could uniquely determine how to act for an indefinite number
of cases—after all, this is the sort of worry that we answered in §6.2.

For those interested in telling a story based within the network of relations between individuals—the interactions that bind individuals into a community—we could revisit Pettit’s view that normal conditions are those which ultimately lead to convergence of judgments amongst individuals. As argued in §4.3.4, such an approach ultimately fails because negotiations and persuasion (used to pick out rule-constituting dispositions) are only finite, leading us back into the skeptic’s clutches. But if we take dispositional subroutines as the basis for such interactions amongst individuals, we can avoid this sort of worry altogether. The idea is that the feasible dispositions from which we can make sense of projection serve as the subject of negotiations, so that we can make sense of people (such as experts) engaging in struggles akin to political battles (portrayed in Kuhn-like style) to determine which way to act, but where the outcome of such conflicts allow for a determinate way of acting in new cases.

Though I have used accounts offered by Dretske and Pettit in order to briefly answer this sort of charge, I have not given a more concentrated effort here precisely because it requires offering a full-fledged theory of normal conditions—a task which, though important, would take us on a bit of a tangent. Presumably, we must offer independent arguments for accepting a particular view of normal conditions. Though it may take some work, it is not implausible that an acceptable story can be provided in order to privilege some dispositions over others. Again, the account of competence

13 The skeptic might argue that, for all of our talk about dispositional subroutines and normal conditions, we could still locate indeterminacy at the level of material constitution. We might consider, for instance, an adding machine that is built out of poor materials. At some point, it will do something that could be construed as breaking down or acting as it should, say, in the manner of quadding. But do the materials in hand help us say whether this is a cleverly built machine—one that relies on its building materials as much as anything else for realizing its bending point—or is it just a poorly built adding machine? I take it that we can answer this worry by suggesting something like a hardware/software distinction, indicating that rule-following is based at the software level,
that I started to develop in Chapter 5 gives us the materials to overcome a major problem with an appeal to normal conditions. In short, I have provided the proper shape for a successful straight solution.

6.4 Bending Points And The Bounds Of Rule-Following

But even this sort of solution might be open to a response from the skeptic’s camp, exploiting this account’s distinctive rejection of idealizations in favor of our actual capabilities—a response which sheds light on the acceptable bounds for any account of rule-following. The skeptic attempt to exploit our reliance of normal conditions, insisting that we can devise bent rules whose characteristic bending points lie far outside of anyone’s capabilities or anything that would count as normal conditions. Taking a rule like plus, the skeptic might argue that all of our actions are perfectly compatible with plus as well as another rule zlus whose bending point is reached when handling numbers larger than $10^{10}$ (or, if devising a grue-style rule, placing the bending point, say, after the sun burns out). Facts about the universe are exploited by the skeptic in order to stop us from demonstrating competence for these extreme cases. All we have done is push back the bending point to a more remote time or place within a series of performances. If this line of argument is right, we have yet to answer the skeptic’s insistence that we uniquely fix the rules we follow.

working on the assumption that the hardware is functionally well. Now, we might say that the hardware in this picture can be counted as working in a determinate manner by appeal to normal conditions. Millikan, for instance, might tell us a story about natural selection and proper functions. By gaining some sense for an organism working properly in a naturalistic sense (say, by appeal to evolutionary theory), we can avoid such worries. Though I have just offered the basic shape of a response in Millikan’s style, we could offer similar stories given other theories of normal conditions as well.
But there is reason to think that, even if we accepted that we cannot indicate whether one uses plus or zlus, our position has not been seriously undermined. After all, our interest in meeting the productivity demand lies in making sense of the guiding nature of rules. Given how far we have pushed the bending point, it seems that we have rendered the possibility of following such a bent rule harmless. We have in hand a basic account of acting in novel cases. If our limits as rule-followers are imposed at the cosmic level, it is not clear that determinacy has been seriously threatened.

Indeed, at that level, we might, qua theorists, apply simplicity considerations, indicating that, given the facts in hand, a simpler hypothesis to adopt is that we are acting in a uniform manner (based on the template of our dispositional subroutines). Now the skeptic has mentioned, in passing, that we cannot apply principles of simplicity to the rule-following considerations because we would have to presuppose that there is a fact of the matter regarding the rules we follow (hence begging the question). But our appeal to simplicity plays a slightly different role. We have established, on independent grounds, the basis for uniformly acting, giving some sense for the infinitary nature of rules. All that we are doing is applying that standard to these ridiculously extreme cases. The real difference lies in the fact that our appeal to simplicity does not help us meet the productivity demand—we have done that quite separately. So, as theorists we might find it simpler (given where we stand) to attribute a familiar rule instead of a bent one to an agent like us.

The skeptic argues that any attempt to answer his demands, which merely results in pushing the bending point of a rule (potentially followed by an agent) farther away, is a failed attempt. But I would suggest that, if you can push the bending point far
enough away from our practices, it loses its bite. After all, our interest lies in making sense of the productive nature of rules, and once we reach extreme points such as the ‘big crunch’ or the sun burning out, rule-following ends anyway. It may be that the universe puts natural bounds on the requirements for an account of rule-following.

The skeptic might still insist that we have failed to make sense of the peculiarities of infinitary rules and that his placing of such extreme bending points was meant to show that the very idea of a rule cannot actually be realized. We have failed to fully account for that problematic element of rule-following. But such a move, at best, only puts us at a stand-off. Whereas the skeptic claims that we cannot fully account for the infinitary nature of rules, Kripkenstein’s skeptical solution remains inadequate as well because, while our account can explain being guided by a rule up to radical extremes, his skeptical solution is incapable of doing the same. Indeed, we might say that this gives us a leg up in terms of explanatory scope: we can explain the practice of being guided by a rule within the limits of our cosmic niche—something that the skeptical solution cannot do. Though my attempts to avoid idealization were meant to even handle these extreme cases at some level, even entertaining this last move (on the part of the skeptic) in the dialectic leaves us in a superior position. Again, the emphasis has always been on explaining projection for an indefinite number of cases, a matter that we have addressed with a reasonable degree of success.

6.5 Conclusion

In essence, I am suggesting a recursive or compositional approach to rule-following. I take it that both terms are useful here insofar as they involve building more complex entities from more basic ones. Whereas Davidson (among others) suggests that we
require our linguistic abilities to be compositional in nature in order to account for our ability to construct an infinite number of sentences (Davidson 1984), I am suggesting that compositionality goes all the way down, so that we must understand our rules/concepts in terms of more basic performances (which account for our consistently using those concepts in different sentences). In short, I am proposing a counterpart to the sententially-focused thesis for rules/concepts; and whereas the original compositionality thesis is formulated so as to account for our generating an infinite number of performances, I am suggesting that we recognize instead that we are only interested in an indefinite number of performances, so that we can make sense of novel applications of a rule or concept within our actual capabilities. It is slightly ironic that I offer a compositional solution to the skeptical problem because, as Kripke sees it, the principle of compositionality is ultimately undermined by the paradox. We reject the skeptic’s implied model of competence in favor of the one offered here for much the same reason that we accept the compositionality thesis in linguistics: for, without this thesis in hand, we cannot explain how it is that we can understand and produce an indefinite number of novel performances governed by rules. Its explanatory value gives us sufficient reason for thinking that we have the proper scope for conceptual competence in mind.

It is important to notice that, coupled with an appeal to normal conditions, our stress on dispositional subroutines has provided a reduction of rule-following—or, perhaps more precisely, the form for any such reduction—but we have not offered a full-fledged theory of concepts, meaning, content, representation or normative constraint. Whether a reduction can be offered for an entire theory is a matter to be settled elsewhere. I take it that our accomplishment has been to make sense of one
element of any such theory: we have offered a means to explain a productive/ pro-
jective sense of normative constraint. In short, we have made sense of a necessary
condition that could be implemented within a broader theory in order to avoid falling
prey to Kripkenstein’s skeptical paradox. For any such theory, there is still plenty of
work to be done.


Jonathan Lear. The Disappearing “We”. In *Open Minded: Working out the Logic of the Soul*. Harvard University Press, 1998.


