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PERCEPTION AND CONTEXT: LANGUAGE ACQUISITION GROUNDED ON ACTIVITY
THEORIES OF LEV VYGOTSKY

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of Ohio State University

By

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* * * * *

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1985

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Grammar translation, audiolingual, and cognitive code approaches in teaching ESL reflect implicitly views about what language and language learning is, in what order specific content should be taught, hierarchically which skills should be taught, and the organization and presentation of a syllabus.

Grammar translation posits, first that movement is directly possible from the native language to the target language. The belief is inherent that words, as isolated static units are primary constructs of a language, and, as such, are memorized. Grammar is explained, in detail, in the native language (this approach is best exemplified, perhaps, as the "traditional" method used for many years for teaching foreign languages in American classrooms). The language is viewed as a set of prescriptive grammar rules and the "legitimate" frame for constructing sentences is so taught. Declension and inflection, as modifications into distinct, discrete meaning units of words, are taught. Texts are translated literally, and isolated sentences or paragraphs, listed out of context are drilled. Vocabulary, memorization, reading and writing skills (in the absence of real use) often the lack of developed oral skills, the ability to grammatically analyze the target texts as representations of the language in terms of the native language, are the skills emphasized. An appropriate methodological organization would center around a text as the source of linguistic material.
The audiolingual method was a method developed during World War II (called "the Army Method" until the late 1940's), modified considerably and added to by 2 factors: a reaction to the "Reading Approach;" a reflection of behaviorism. Language learning consists of viewing the language learners initially as receptacles, witnessing the language presented in dialogue representations, repeated again and again. Syntax patterns are drilled, structures of the language are sequenced, as are skills: listen, speak, (repeat) read, and write. Theoretically, grammar rules are taught inductively (the student will internalize the rules from the repetition of like patterns). Vocabulary is learned contextually and only those words used in the drills are used (which contrasts with the view of Leont'ev, among others, that fluency is also knowing many words that are rarely used). Listening to tapes while reading a dialogue, or responding in writing to cues begun on the tape are part of the program. Successful responses are positively reinforced (reflecting the behaviorist view of native language acquisition). Errors are seen as negative responses, impediments to language learning and are discouraged; contrastive analysis is used, at times, in explaining the behavior of one language in terms of another.

Methods are organized around the sequencing of structures and the sequencing of skills (listening, speaking, reading, writing). Initial contact with the target language is largely aural with elicited, repeated, reinforced responses. Language is, according to this approach, habit.

Cognitive code is an approach (more a theory) that is a reaction to the behaviorism in the audiolingual methods, and it is influenced by its
compatibility with Chomsky's generative-transformational grammar, especially in the area of internalized rule structure for the creation of basic sentences and their correct modification as fluency increases. Competency in a language is seen not so much as the performance of discrete skills, but as the internalization of the interrelation of performance skills and understanding; a sense of communication, with the successful language learner as active in his approach to language. The overlying importance is communicative competence. Pronunciation (and the repetition of the audiolinguai method) is not as important since the view is that the second language learner may become quite competent and communicative in the target language without sounding like a native. It is also the acknowledgement that wide variety in pronunciation exists within any language without impeding communication. Language acquisition is viewed as rule formation; in reading, the increase in understanding by the increase in predictive ability as a result of vocabulary work is recognized. Errors are seen as necessary to language acquisition; they are evidence of linguistic experimentation and the teacher is a facilitator of the learning situation rather than one who externally releases knowledge to the process. Written skills and spoken skills are equally important, and interrelated. Context, as a way of bringing together all aspects of the language, is utilized, and the importance of attitude (of all the participants, towards the activity, towards one another, towards themselves) is stressed.

A belief of this approach is that one can become bilingual and bicultural, that one can eventually acquire empathy with the native speakers, and add to the culture groups he moves within.
A syllabus would have to be organized around the equal emphasis of speaking and writing skills, be geared toward language competency (and as such recognize linguistic ability and direct the needs), and respond to the motives and objectives of the language learners.

The approach to second-language learning based on the cognitive code theory recognizes native language rule internalization as a source of interference to the target language, the student's need to transform his perception of mistakes, the inaccessibility of the positivistic view of the teacher as the purveyor of knowledge, and the need for affective methodology.

It is, in part, a reaction to the rote habituation of audiolingual exercises. Rather than directed repetition as an exterior source of the eventual internalization of language, the cognitive code theory sees language as speaker's recognition and acquisition of a system of rules. The implication, then, is that success (like A.A. Leont'ev notes for whatever success the direct method achieves) is dependent upon the contrasts and comparison the speaker makes with his native language; rather than an internalized linguistic rule serving as interference it may then serve as the source of the speaker recognizing a pattern, for example, indicative of effecting a meaning change (or modification). The speaker might realize that endings on predicates in his native language change tense, and theoretically begin to recognize a similar pattern in the target language.

It follows, then, that an optimum way to begin to see such "patterns" is to see mistakes (as does Shaughnessy, 1977, for example) as
experimentation, a necessary tool for the acquisition of expanded language; mistakes serve to educate then.

The execution of a cognitive code approach is dependent upon the teacher as facilitator rather than as the source of knowledge. The teacher must induce the student to experiment, to recognize patterns of his own language, exteriorize these patterns in order to consciously attribute signification, then, through the intersection of all the language acts, internalize the rules of the target language. This internalization is also predicated upon belief that the student can become bicultural and bilingual.

The teacher as facilitator role is part of a paradigm designed to promote, effectively, the roles and relationships of the teacher and student: the belief that a positive attitude affects skill acquisition and the skill acquisition, in turn, affects attitude.

The cognitive theory is a reaction to behaviorism and at least a beginning perception of language as a manifestation of dynamic social interaction.

There are, though, problems with rejection of habit formation as meaningless exercises, a superficial view, perhaps, of habit exteriorized, rather than a look at the source of the formation and its link from interior to exterior thought. There is also the singular view of techniques, like contrastive analysis as consciously applied, a tool consciously available to the user. There is, too, the view that attitude and skill are part of a cycle and the jumping on point is in the attitude stage ("if he feels positive, he'll learn easier; the learning will affect his attitude which will affect his learning..."), rather than the
activity stage. If there are substantial differences in the view of problems faced by the second language learner (cognitive code view, Leont'ev) it's doubtful any are more disparate than those in the realm of consciousness, activity, and the perception of motive as a link (or even translator). Cognitive code is necessarily dependent upon a static view of language, even if the static is of extremely short duration. Prator posits that cognitive code, when successful, is manifest in speakers who've acquired the ability to precisely capture linguistically their thoughts. (1978, pp. 14-23.)

Leont'ev first establishes levels of consciousness based on refinements (he acknowledges) of the theories of Vygotsky and Gal'perin. Language and thought, though their growth may often parallel each other, or even intersect, develop from independent sources. Later, as Leont'ev notes, language comes under the conscious control of intellect (a consciousness, though, in an interrelated rather than necessarily hierarchical framework). The speaker (i.e. language user). These levels of consciousness affect the perception of the goal of the act within the linguistic activity and the perception of the goal of the activity itself. That is, what Leont'ev calls "echolalic" or imitative speech may have, as the goal of the linguistic act, accoustic experimentation. Acquisition of the word may be communicative, situationally bound, as in initial monosyllabic utterances whose meanings depend entirely upon a time or place, (whose goal perhaps becomes the goal of conceptualizing of a particular time or place. They word may be contextually bound, having meaning entirely defined by past utterances. Linguistic fluency (unlike cognitive code) Leont'ev does not define in terms of absolute precision
to the speaker's intent, rather it is best implied by his discussion on monologue and dialogue, that is, fluency largely defined by the speaker's relative (ever-changing) place.

With the speech act, the speaker may have an awareness that is a focus on the goal of his act within the activity. He may, if the situation warrants, exercise conscious control of the mechanics of the act. This is a stage in linguistic development through which all who become fluent must pass but it is not left behind. Rather, it is returned to from time to time depending upon the speaker's motive and his exercise in linguistic experimentation. The native language speaker is at times cogently aware of a goal or part of a goal of an activity and so directs his strategy; he may exert conscious awareness of the performance of the mechanics of a linguistic operation (syntactic experimentation e.g.).

Towards fluency he necessarily moves through unconscious control, the "performance" of the act within the activity becomes internalized; it becomes, as it were, part of his repertoire, the source of the process, internalized spawns unconscious re-emergence of that process. Finally, language, produced through no cognized awareness is a stage through which the speaker, in linguistic activity, passes. This too, is substantially at variance with the cognitive code theory for it means language as the dynamic realization of the individual.

The relationship indicated may perhaps be most concretely explained in terms of the speaker's use of monologue and dialogue. To lay the groundwork, as mentioned earlier, the source for the development of native language is different from the source for the development of second language. As one acquires his native language he performs acts,
the intellectual bases of which are, at best, obscure. However, (though Leont'ev says that Vygotsky's view of learning as movement down to one language, the other, movement up to another language, is true only in a general sense) when one is learning a second language, his basis is no longer prelinguistic; his basis (unlike the source of his native language) is an intellectual one.

His intellect must then provide him with a way to realize an experience that for him in the past resulted only from a non-intellectual beginning. He, in a sense, has to look at himself as he was, but the person he was was one who could never do this. In this, cognitive code does not go far enough. It is not the internalization of a rule that enables second language learning; it is the movement from conscious to unconscious realization that there are sources for the process of rule performance, and that this process is introduced to the speaker externally as social activity within the framework of meaning.

Dialogue is often stressed in ESL instruction. It is an eventual focus of the direct method. It is validated (often over monologue) in the assumption that it is more "realistic" than monologue and even Leont'ev exploits the notion that reaction has more presence in dialogue than monologue.

That is, in dialogue, the speaker may rely heavily on non-linguistic material (gestures, for example) which nonetheless have the content of language. He can respond to the non-linguistic material offered by his audience. While he is talking he is getting feedback from his listener; he is, in a sense conversing on at least two levels (he is really conversing on a dynamic level). His linguistic ability is affected. He
edits; he changes; he adds. As his linguistic ability increases, as he increases the dynamics of his discourse, he is, linguistically ever changing; the better he becomes, the better he will become. The pedagogical implications of this observation are enormous. If nothing else, it validates the cultural immersion of language, and the need, if one is to realistically teach a language, of teaching the bases for internalization of the quality of language.

Monologue is not the absence of these qualities. The speaker who has internalized the language may often modify his speech (and here speech might, too, reflect writing, and the concept "audience") based on predictions of reaction. While participants in a dialogue can begin to force more sophisticated audience reaction as they themselves become more sophisticated, the "monologuist" can both feed back to himself memories of past reactions to similar things said in dialogue as well as use the form that his anticipated reaction assumes, to refine his monologue as it's delivered. That is, the qualities of dialogue are not discrete from those in monologue.

Now, how to address an important problem in the instruction of each. In dialogue a speaker may be reacting silently "I can tell I should add this, he looks puzzled." Indeed, as he sorts a question he may weigh various answers. "Fine" becomes a fairly standard answer to "How are you?" because you realize the questioner is exchanging an amenity, recognizing you, fulfilling an obligation of socialization. When role playing in the ESL classroom, though, the thought becomes "What am I supposed to say? What does the teacher want?" No matter how one tries, as long as the classroom is just that, the classroom, the exchange will
be structured. Like the emphasis of cognitive code on facilitation within the classroom, a class that acknowledges its spatial and temporal realities and encourages the exchange of the histories of the students within the medium of the language of the foreign language classroom will serve the acquisition of that language.

Finally, Leont'ev's suggestion that the literature of the language studied is a better facilitator of reading proficiency, tying the reading in with audience reaction, i.e. linguistic production, is an excellent case that, philosophically, the language learning begins when the language is seen as a dynamic whole.
CHAPTER II

Facts are always examined in the light of some theory and therefore cannot be disentangled from Philosophy.

-Vygotsky-

The study of second language acquisition is essentially the study of language. This study begins with an attempt to see what language is, how we acquire it, and an effort to develop a methodology for the study of how humans successfully acquire languages subsequent to their first. Some of the strategies people use in learning language seem apparent. Others are more abstruse. How do we chart processes of acquiring language? There are limitations to what the child can tell us with the tool he is trying to learn how to use, as well as restrictions on how we, from our perspective, can interpret what we see.

In objectifying language for analysis, we sometimes fail to see that it is a tool that shapes and reshapes itself by its use at every level.

Thought and language are distinct in that their sources are different and in that they act upon one another in the creation of higher levels of consciousness. It is the internalization of the world outside one that is the genesis of each, and for this reason, and since human activity is our operation in the world, the study of activity is germane to understanding language and thought. Even though the unity of
consciousness and the interrelation of all psychological functions are recognized as an essential precept of human activity, one needs to see these relations between given functions as dynamic and flexible, giving rise to new relationships.

ii

"The whole of language is a continuous process of metaphor, and the history of semantics is an aspect of the history of culture; language is at the same time a living thing and a museum of fossils and civilizations."

- Gramsci -

One path among the network that constitutes language is reflection on the concepts it describes. The study of language entails the study of the laws of the physical world because the language we use expresses the world we see, and indeed reshapes it. Perception is the mind set of a view of reality and the language that both grows from that view and reinforces it. A valid theory of language can result only when theories of perception are examined because language is its own use and everything its use describes. Every way it functions must be examined. One would benefit greatly from being able to free himself from his history to the degree that he could at least recognize that his reality is a particular set of historical and cultural symbols.

iii

"...we conceive of life as always revolutionary, and consequently tomorrow we shall not declare as definite a world realized by us, but we shall always leave the door open for betterment and for superior harmonies."

- Gramsci -
The harmonies to which Gramsci refers are the harmonies of inquiry. The search for a better method is the process of a search as well as the search for a new process. Perceptions and the beliefs they engender are the results of processes of flux, and any products of these processes function best as stages in the search for technique. Although we may recognize the illusion of product as a theoretical truth, we operate from a historical perspective that objectifies the world in order to study it and this stasis is difficult to escape.

Although infants are born with mechanisms that function as tools of perception, what they perceive is culturally shaped and defined. Vygotsky held the view that intelligence is a matter of how well one responds to instruction, one's capacity to benefit from it. It is the way the infant's tools of perception are shaped by his culture, including instruction that establishes his development. The relationship between instruction and development obviates the notion that cognitive development is a gradual accumulation of distinct changes. There are, rather, points in one's development when significant jumps are made to higher stages. This is true in the development of thought and language, just as the process has been observed in the biological world by paleontologists like Gould who counter theories of protracted gradual physical evolution with hypotheses positing spurts in the development of a species.

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Trying to understand the growth of conceptualization skills is important to understanding language. It is, like language acquisition
itself, the development of a synthetic skill. New, higher concepts transform the meaning of the lower ones. Tasks in which one is engaged at any point are a link to higher psychological processes, to higher activity. The present has meaning in a future context. Future activities will define it in reflection. Future activities will give meaning to current ones. Any study that measures the effects of instruction directed towards language acquisition should mirror the natural flow of learning. As one learns he is an instrument of learning. As he learns, the instrument changes. It is forever being transformed so that the learning is always being done by a new instrument.

This study is directed toward applying the thoughts of L.S. Vygotsky to the development of a philosophy for the teaching of a second language to adults. Vygotsky's own work, and part of the inspiration for this effort, is the systematic view of the genetic analysis of the relationship between thought and oral speech. This relationship offers evidence that word meanings undergo evolution during childhood, that the evolution consists of systematic steps, and that word meanings persist in being dynamic and are shaped by the context of their use.

In studying how one acquires a second language, one naturally reflects on how a first language is acquired. It is evident that while some parallels exist between the two, the sources of each necessarily destine them to distinct developments. Vygotsky defines the singular way in which the child's scientific concepts develop, compared with the development of his spontaneous concepts. The laws governing the developing of each are relevant to both types of language acquisition.
The kinds of speech that constitute the broad category Speech are also part of this study, particularly since the subjects of this study are adult second-language learners, and a demonstration of the "specific psychological nature" and linguistic function of written speech in its relation to thinking. Vygotsky arrives at the concept of inner speech by first noting (1965, p. 131) that it is "speech for oneself; external speech is speech for others." The intended recipient of the message in inner speech is the self. This is not to liken it to thought. It falls within the realm of thought. The difference in the natures of inner speech and external speech distinctly colors the structure of each. As one develops the most significant growth in the manifestation of inner speech is the disappearance of its vocalization. Vygotsky notes that compared with external speech, the syntax of inner speech appears "disjointed, disconnected and incomplete." Its purpose, then is entirely different from external speech, and its emergence, after the gradual disappearance of egocentric speech, is internalized linguistic activity, a basis for turning thought into language. It is the linguistic tool of consciousness and is with its users all the time. It need not function in social situations, but it is a result of the speech growth from social situations to the individual, the internalization of the socially-originated tool.

The study is also built on an understanding of the concept of inner speech, in which thought and language merge.

In a phrase, Vygotsky's most significant contribution to science was a goal of which he was well aware..."a new theory of consciousness" (Vygotsky, 1979, p. 23). This theory needs elucidation as the predicate of a language study.
The interrelation of functions is the structure of consciousness, and consciousness is the particular unity of thought and language. Vygotsky observes that "as long as we do not understand the interrelation of thought and word, we cannot answer, or even correctly pose, any of the more specific questions in this area. Included in these questions are ones regarding how one assumes language. The very essence of psychic development is the change of the "interfunctional structure of consciousness" (Vygotsky, 1979, p. 26). Different human capacities develop and work together to create activity, and the study of the activity is not accessible through the study of its parts because it would be impossible to identify all these parts or to locate a point at which the parts stop reaching out. Like the circles in a pool that has been disturbed, there is no end point, but rather a blending into expanding contexts. Vygotsky denies the example of word viewed as consisting of sound and meaning, parts assumed to be held together merely by "mechanical associative connections." Speech sounds are not merely sounds. They are tied to meaning in significant patterns of historical development. Although total distinctions between sound and meaning are no longer assumed, Western psychology is still far from free of its historical limitations. Early in 1985, Peter D. Eimas proposed that the underlying perceptual mechanisms by which infants distinguish discrete phonemic categories and "ignore much of the acoustic variation in the speech signal" are innate. In addition to discovering that language acquisition through these mechanisms uncover "not underlying simplicity
but increasing complexity" Eimas stresses the emergence of sound distinction as the determiner of language for infants:

The interval between the release of air and the onset of vocal-cord vibration, or voicing, is known as voice-onset time; it holds the crucial acoustic information that enables a hearer to distinguish bin from pin. No single value of voice-onset time defines each phoneme, however. Instead hearers typically perceive a range of values, reflecting different speakers, different instances of speech, and differences in the surrounding phonemic environment, as examples of the same phoneme.

This means that currently there are researchers studying language as the development of the ability to distinguish sounds, when language is, rather, the ability to construct context. The distinctions in sound are usually significant, not because they are sonically distinct, but because the listener and speaker know, for example, that the context called for bin rather than pin. It is this qualitative context that one learns when one learns language, and phonemic distinctions can vary enormously within any group of speakers.

The view that sound and meaning in words are separate elements leading separate lives, hinders the study of language both in terms of phonetics and semantics. In the field of writing it isolates writing from the integral role in language it occupies, and, in so doing, obscures the importance of recognizing of significant quantitative comprehension, the stages through which the student of language moves as he acquires the language. In acquiring one's first language, one constructs, as he moves into the language, concepts which the language itself helps unfold. Understanding occurs qualitatively and quantitatively. When acquiring a second language the qualitative experience is gone in the sense that it cannot be similarly constructed around the quantity of the learner's
understanding. The ability to focus on quantity in second language acquisition hinders the completeness of one's understanding. When acquiring a second language, one is more dependent upon the degrees of comprehension because a maturity of thought and language already exists in one language and the type of development that was available in the learning of one is unavailable in the other. He has the dialogues of his native language for comparison. The tools for ordering may be biological, but the ordering is contextual, and the context shapes the particular individual's acquisition.

The primary function of all speech is communication, a form of social contact. The earliest form of speech in the development of one's first language is what Vygotsky calls communicative speech. When the child early on utters a word that represents the description of an entire need, he is breaking through to the external world. The next form, egocentric speech, emerges when "the child transfers social, collaborative functions." This is the case in the kind of thinking that language structures. Egocentric speech is the "genetic link in the transition from vocal to inner speech" (Vygotsky, 1965, p. 149).

There are assumptions upon which much of Vygotsky's theory of Thought and Language depend, which are essential to this study:

1) Thought and Speech have different genetic roots.

2) The two develop differently and independently of each other.

3) A correlation between the two is difficult to establish.
4) A "prelinguistic phase" in the development of thought and a "preintellectual phase" in the development of speech are discernable.

The above are the most significant for the purposes of this study, however, to them I would like to add a fifth:

5) The scope of writing is quite distinct from that of oral speech, and although oral speech is its genesis, learning to write has many of the characteristics stimulated by the acquisition of a second language. It is a substantially different kind of representation from that employed in oral speech.

I consider this last postulate important, not only because it is a central focus of adult second language learners, but because it illustrates the kind of freezing in time, the establishment of linear chronology, and the shaping of thought peculiar to literacy.

In learning one's first language, one begins to attribute meaning to representations of the exterior world. This frequently is occurring at the same time one is attributing meaning to the world itself. Language becomes a tool by which one does this as he builds up more meanings. So while thought and language work to construct exterior meaning, when learning a second language, one is learning a different kind of signification. In learning writing, one is not only learning a different kind of signification, one is learning a system that carries him to a different kind of consciousness. The impact of learning writing in a second language is the synthesis of activities into a system of psychological development unique among learning structures. Writing must not be viewed as hierarchically superior to other linguistic forms, nor as a higher level of consciousness. Its employment affords a type of communication, a different type of history. But it is a different mode
of linguistic function, the development of which does not repeat the developmental history of speaking. In Vygotsky's words, writing is "speech in thought and image only, lacking the musical, expressive, intonational qualities of oral speech" (1965, p. 98). The sensory aspect of speech is replaced by a set of conventional images, the learning of which is akin to second language acquisition. It thus establishes different types of context that have neither the lucidness nor socialization of oral speech, but which are, nevertheless, dependent upon a growth of oral speech. Written speech then, is like a node on a linguistic network.

The concept of inner speech is an important step in understanding the development of language, and it may be utilized by the student of second language acquisition.

Vygotsky concludes that egocentric speech is "inner speech in its functions" (1965, pp. 16-17). That is, a major role of egocentric speech, that of ordering the child's behavior, once directed by egocentric speech, eventually is directed by inner speech. The development of speech itself follows three stages: external speech, egocentric speech, and inner speech. Further, the development itself follows the course of developments in any form of signification. It moves first from the most primitive stage, the time of its origin, to the child's experience with objects in the world around him, tool use, and basic memory, to the use of external operations to address problems that have been internalized. That is, the problems have been internalized in order to grasp them, to contemplate them and consequently pose strategies for their solution. Recording an experience to the degree that it
enables solutions to arise when like situations occur is an example of this stage. This stage is the emergence of inner speech. It may or may not, at any time, resemble, phenotypically, the grammar, semantics, or form of external speech. The important point is that it is an intellectualization that has unique form, a mental activity in which most contemplated activities are subsumed. To try to contemplate that we contemplate non-verbally is interesting indeed.

Thought and language both depend upon internalization of exterior contact and this movement to and from, for each of us is the vehicle of reality: "essentially, the development of inner speech depends on outside factors; the development of logic in the child....is a direct function of his socialized speech" (1965, pp. 17-19). Intellectual growth depends upon the mastering of social thought--language.

Language acquisition for the adult occurs after he has gone through the process of complex thinking and acquired the ability to conceptualize. One acquires one's first language during the development of thinking in complexes and indeed, its parallel nature with and because of thinking in complexes gives rise to the ability to conceptualize. This crucial movement is not available to the adult second language learner. There is really nothing else analogous to what he does.

For the process of concept formation to emerge, a situation must occur that can only be understood or addressed through the formation of a concept. This is not the sufficient cause for concept formation, obviously, but it is, nonetheless, a necessary one.
The ability to form concepts and the ability to use language develop in such a way that the use of words as symbols furthers the evolution of concept development. They intertwine, and an impediment to one is an impediment to the other. The use of language by the child furthers the formation of concepts when he is faced with situations that can only be solved by language. Perhaps a fundamental lesson is here for the student of second language situations: place the adult in contexts of problems the solution to which can only be found through the use of a second language. For this context to be real and for these problems to be real, the attempt to solve the problem must be the motive. Further, for motive to emerge, the situation must be social, the setting in which language is most dynamic and most meaningful.

Vygotsky, in his work, found that Ach was on the right track in trying to explain how concepts are formed, and thus what their true nature is. To existing notions of association as a means of reproducing an idea, and the tendency of images formed in the consciousness to "penetrate anew into the flow of images" (perseveration), he added a third, a "determining tendency" (1965, pp. 53-57). This third notion is really the introduction of a goal into the scheme of constructs formed by the other constituents to provide an "aim directed process" as a synthesizing agent to the other two to create the formation of a concept. Taking only these elements as constituents of concept formation there seem to be substantial gaps among the directions towards solving a problem, associations necessary for symbols to have meaning, perseveration, and the actual stage of a new concept. As Vygotsky points out (1965, p. 68), children can master an experimental task long before new concepts can
arise in their own consciousness. What is lacking, ultimately, is the full use of the word, "its use as a means of concept formation" as "the immediate psychological cause of the radical change in the intellectual process" the approximate developmental age at which one structures concepts. The environment for the forming of concepts must provide the adolescent with tasks that make new demands upon him, stimulate his intellect, and provide the options of new goals. The implications here for second language training are that movement towards the language to be acquired, regarding concept formation, has to be a reconstruction to a place parallel to the language learner's first language situation, but, because he is acquiring a second language, he is expanding and moving upward through his own concept of Language. There is truth in the belief that one learns one's native language by learning a second language, and conversely, one learns a second language only by expanding his own concept of what language is. Indeed, it could be argued that one can never see what language is until he can see it in the light of several examples, not just the one of the culture into which he was born.

One ascends to concept formation through phases, the first of which is a syncretic grouping of disparate objects in the solving of a problem. This is quite consistent with the developing child's world, a world of united objects and associations, which appear in the earliest stages of his development. Within the child's earliest history of ordering occurs organizing of the visual field within spatial and elementary temporal references.

The second phase of the movement to concept formation is the establishment of thinking in complexes, in which objects are united into
groups by the child recognizing their genotypic sources. These sources begin to emerge as links among objects. The grouping process moves from the world of syncreticism, which is actually the whole world of the child, to elementary categorization. The bonds at this stage shift the objects of the world into a "concrete grouping of objects connected by factual bonds."

There is eventual movement to the level of concept, where the grouping of objects is by a commonality of one attribute, from the level of complex, where "the bonds relating the elements of a complex to the whole and to one another may be as diverse as the contacts and relationships of the elements" in reality. These bonds, however, are discerned from direct experience, making the grouping of objects a concrete one. While syncretic imaging is purely association-based, evolution to complex thinking is the movement to a phase which consists of various levels of experiencing objects actually linked within the visual field, or observable as having the capacity to interfunction. Meaning accrues to these links or bonds as the phase of complex thinking develops through various stages, gradually approaching the level of concepts.

The last and most crucial stage that serves as a link between complex thinking and the actual emergence of concepts is what Vygotsky calls "pseudo-concepts" the catalyst that gives the greatest signification to language. It establishes the line of thinking that enables communication between adults and children.

To explore pseudo-concepts we should first note that a profound result of Vygotsky's method was its ability to determine phenotypic and genotypic differences in the skill development he observed. In observing
the development of pseudo-concepts Vygotsky notes that phenotypically they appear to the observer like the fully-developed concepts of adults, but genotypically they are quite different. The child and the adult can arrive at the same observable conclusion from their thinking, but significant differences in the processes by which they arrived at their conclusions attribute different meaning to their acts.

The transition from complex to concept is made when the adult supplies the word and its meaning, which for the adult and his world is the direct product of a concept (because he has long internalized the functions of concepts) and the child surrounds it with all the material of a complex (his most advanced tool). It is because the child is able to enter the world of the adult at this point that communication is possible. His meanings function like concepts although their genesis was from thinking in complexes. The eventual transition is unnoticed because, as Vygotsky notes, the meanings that appear, the anticipated results, regardless of the genesis, are very much the same. So when expected results, from the utterance of a word, begin to merge, one who has been grounded in complexes begins to acquire the ability to conceptualize. He begins to move upward because the result of one of his processes matches the result of the higher psychological processes. This meeting is a kind of praxis that begins to include the world of the child in that of the adult. An example of this movement might be the use of one piece of wood to measure another. At the most advanced stage of thinking in complexes, the child might realize that moving a shorter piece next to a longer piece gives him some way to measure each relative to the other. The adult, on the other hand, understands the concept of ratio. He understands the reason
why the measuring works, an understanding yet to occur to the child. The focus is on the difference between the child's and the adult's perceptions.

When the word acquires the function of conveying abstractions, when it has for its user concepts inherent in its meaning that enable him to transfer the understanding to different situations, to himself structure new situations, then the user conceptualizes with language as his main tool.

Once one reaches the level of conceptualization, one begins to develop two types of concepts: scientific and spontaneous. Most intriguing for the purposes of this study, are the observations that while spontaneous and scientific concepts are results of the entire concept-language process occurring in the child's first language setting, once adulthood is reached and the learner finds himself in the context of second language learning, he relies heavily on scientific conceptualization in his approach to the target language, while spontaneous conceptualization becomes the truer measure of his qualitative growth within the language.

The child becomes conscious of his spontaneous concepts late. He knows, yet is not conscious of own thought. One "knows" a person considerably before one understands or conceives of the nature of the relationship of the person within the various systems into which all persons fall. Spontaneous concepts occur only when the child can understand concrete situations. Vygotsky offers the example that history, as a concept, can emerge only when the subject can differentiate a personal past.
past ———— now
elsewhere ———— here ———— elsewhere

(note the linear nature of the structure of the concept
in terms of temporal as well as spatial qualities)

In native language, primitive aspects of speech are acquired first. Complex aspects presuppose knowledge of grammatical, phonetic, and syntactic forms. With a foreign language, higher forms develop before spontaneous, fluent speech. Thus, what were the subject's strong points in L₁ become his weakpoints in L₂ and vice-versa.

One is not conscious of form in L₁ until deliberate reflection, a higher mental process of some development, occurs; and even then one is not conscious, not in a detached sense. The concept is always metalinguistic: the tool is used to measure itself. In L₂ one is, from the first, aware of form.

The degree to which success in mastering a foreign language is contingent upon maturity in L₁ is speculative, and clearly the area in which new concepts are acquired might be greater for one than for another, though both may appear to be equal.

A foreign language facilitates mastering, not so much L₁ as the concept of Language itself, a phenomenon apparent to those who speak more than one language. One learns to see his first language as a system among many, a way of generalizing when before he was situation-bound. In learning to generalize, he also learns to focus. Generalization is conceptual movement up or away; focus is movement down or within. This bellows effect enables the generation of other categorical concepts.
Concepts of differing degrees of generality may occur in one and the same generalization structure. For example, "flower" and "rose" may occur within the same paradigm.

The appearance, in one's vocabulary, of a term that defines a generalized concept, in this instance, perhaps "furniture," is significant because verbal thought is "a dependent component of perceptual object-detemined thought". Verbal thought is an early, pre-syncretic stage in developing word meaning. The generalized concept is the grasp of individual objects (or word objects) as examples of a classification relationship, or examples of a group. One discovers that just as objects have distinctions from one another, so do groups. It is at an early level that the child distinguishes a chair from a shoe. But it is at a more significant level that he distinguishes furniture from clothes. At this level begins the synthesizing process necessary for inclusion and exclusion. Conceptualization of abstract and concrete play a role because "shoe" is at the concrete level for the child thinking of a particular item, while the generalization "clothes" moves towards the abstract as it creates the more fluid concept of a class to which examples belong.

Concepts are defined or positioned, according to Vygotsky, relative to the interrelation of two sets of forces. A concept is defined according to its position within the co-ordinates of extremes of maximally generalized abstract conceptualization and the immediate grasp of an object, i.e. the degrees of its concreteness and abstraction. The second set is its location relative to the objective reference of the concept, "the focus within reality to which it applies."
Remembering that this entire development began with syncreticism, we can reflect that objects become classified by the pull of the following facets: abstract concept, immediate grasp of the object (these are two extremes), and the object's reference within reality. In this way the generalized develops from the specified. The child learns "shoe", "shirt", "table", "chair", and eventually "clothes" and "furniture." Even earlier he learns "no" or the reinforcement of "not this." Not surprisingly, he tends to examine the "not this" in ways he does not examine the "this." For one thing, the positive (the "yes") is rarely so clearly defined. Acculturation is the structuring of the system of reality of the culture, beginning with the dichotomous choices. But, importantly, the qualititative nature of this learning begins at a point too early for personal recollection, and possibly at a point too early for easy examination. The connotative nature of "no" is in no way the exact opposite of "yes" (nor parallel to the opposite of yes). "No" has a deeper significance long before "yes." The positive is not examined in the same way. It is the absence of a negation while the negation is an actual proscription. So, initially, our dichotomous, binary world has, through the type of cultural reinforcements, significant qualitative distinctions, and these qualitative distinctions constitute the process by which language imbues context with meaning.

Successful instruction is dependent upon the structuring of the relationships among concepts. Any concept fits within a network. There are other concepts with which it co-ordinates, other concepts it
subordinates, and concepts to which it is subordinate. The subject must successfully establish these relationships.

I remember once reading an essay by a student in which she discussed all the information in the world "we still have to discover." Her perspective is obvious. But students of second language mastery are encouraged to see their goal in the same way. Rather than manufacturing their entry into the community of the target language, they attempt to unlock its secrets. Obviously, though, we do not discover information in the sense that it is there, floating about, awaiting discovery. We manufacture it as a product of our relationship with the world. One can only synthesize (with the language) new perspectives which he ties to the world.

If intelligence is a matter of response to instruction, then exactly what instruction is becomes quite important.

Several of Koffka's observations on maturation processes may illuminate a definition. Maturation of an organ is contingent upon its functioning, its use. Social organs improve through learning and practice, and indeed will not develop at all without these conditions. Maturation provides new opportunities for learning. Things are not simply added to the subject in the learning process. The subject is instead in the position of becoming a new subject, of qualitatively growing; when a subject acquires an operation, it is the subject armed with this operation who acquires new skills. That is, he is never what he was. New skills are not added to the original subject; they transform him. He is in a state of becoming.
Instruction, in Koffka's view, is the formation of new structures and the perfecting of old ones. Instruction is most meaningful in the way that it structures experience, and in so doing frees the structure from its original substance. It enables transference. Truly learned structures are those which the subject can apply in other contexts.

Thorndike offers two kinds of instruction which together work in Vygotsky's scheme (in Vygotsky, 1965, pp. 95-97). One is specialized training in a manipulative skill. Interestingly, this is often a model for second language instruction because language is sometimes seen as purely a kind of motor skill. The second type of instruction is that which is intended "to activate large areas of consciousness," a type that obviously applies to language learning. The entire range of conscious skills are needed in the creation of context.

In teaching a second language, one is teaching a developmental history of speaking and the separate linguistic function of writing, which is speech in "thought and image only." While the child, in learning his first language, undergoes two activities, speech and writing, the student of the second language is undergoing yet a third, which is considerably dependent upon qualitative mastery of the other two. When one learns writing in one's native language, one believes that the written symbols represent what he already does; the one type of language moves vertically from the other; it develops from it. When one learns writing in a second language, he is learning, what must appear to him, a parallel representation of what he is trying to speak. The standard problem instructors of writing have in teaching, students in their native language, that we speak a different form from what we write becomes
increasingly complex when teaching all the forms at once of a second language.

The degree, in both quality and quantity, with which the subjects who may come from a myriad of cultures, are fluent in their first language has a profound effect on the second language classroom; but somehow these differences must be overcome if instruction is to take place. It is evident that for learners who are not literate in their native language, the abstract nature of written language is its main difficulty.

Although the movement to acquisition of higher psychological processes is not purely sequential in the linear sense, instruction must be. Instruction is necessarily chronological; it imparts qualities which, among other things, can be reflected upon. The relationship could not adequately be illustrated on a graph because of the multi-dimensional nature of a process which from the instructor's perspective is temporal, but from the subject's perspective occurs in a interweaving of time and space. The fact that the instructor controls or orchestrates is his limitation. He has not the same freedom the subject has.

Conceiving of the process means escaping the limits of two-dimensional representation.

Culturally-based paradigms do not explain or adequately illustrate cultural processes; they illustrate the need to constantly add to current conceptualizations. Children are not taught concepts but examples of a context which they synthesize into an internal conceptualization. Curriculae cannot per se temporally prescribe the acquisition of principles. They can, though, prescribe the acquisition of operations which will lead to the principles. We learn to write numbers, for
example; we learn how to memorize multiplication tables. It is quite another thing to begin to understand the concept of Number.

A premise of this study is that in order for instruction to take place it must eventually generate developmental influence beyond the confines of the subject which is the original focus of the instruction. This transference is crucial to second language instruction, because language is the medium of all but a few types of instruction. It thus follows that for our premise to operate, the psychic functions involved in studying subjects are interdependent. Networking is thus a paradigm.

There is an area in which the subject operates when instruction takes place. Vygotsky calls it the Zone of Proximal Development. It is the discrepancy between the learner's mental age and the level he reaches in solving problems with assistance:

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mental age  Zone of Proximal Development
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The learning of another language for the adult does not occur in the same zone as does the learning of the first language, but something analogous to it stays with us as social animals throughout life. Language cannot be mastered in isolation. While it is true that symbolic systems and forms can be adequately learned for specific purposes by individuals, language in its truest sense, in its contextual sense is only accessible in socially constructed settings.
Instruction in writing is not focusing on an area within the target language. Writing takes place at a different level of consciousness; it is a different system. It is, for one thing, movement from the dialogic nature of oral speech to the monologic nature of written speech, a characteristic writing shares with inner speech. This analogy must be developed.

Inner speech is solitary and reflective, devoid of vocalization, and directed towards inward thought. Its basic syntactic form is predication, a link it in turn shares with writing since tonal aspects and socialization with the subject recede within the form peculiar to writing. This form is the more complete development of predication; it is "the most elaborate form of speech." Its use calls for precision at its most abstract level. In writing we are not seeking to be effective in the way that speech is, but in its (that of writing) own way. Writing illustrates the inseparability of form from content, of Yeats' "dancer from the dance."

As Vygotsky observes, dialogue is not the highest form nor is it the latest form of speech. Since the subject is external to his original language contact, dialogue develops prior to monologue. However, the historical path is (1) exterior —— (2) interior —— (3) exterior in the form of dialogue; dialogue is only a higher form due to the transformational properties of (2).

There is a model in the relationship between first language acquisition and second language acquisition on the one hand, and the dynamics of the development of scientific and spontaneous thought.
Although the two processes follow separate development,

...both suggest a single answer to the question of how new systems are formed that are structurally analogous to earlier ones: written speech, foreign language, verbal thought in general...analogous systems develop in reverse direction at the higher and at the lower levels, each...influencing the other.

Concepts are interrelated and fit within a system in one's consciousness. Concepts are generalizations; therefore, the relationship among them is a relationship of generalities. The senses of words influence and flow into one another....earlier ones are contained in and modified by later ones. A word repeated in one context can come to mean the entire context. Initially one nominalizes, but in an attempt to predicate an idea. "Mom" can be a child's plea for his mother to come, or to bring him something, for example. Eventually one uses his predicates in a nominative sense as conceptualization grows. "She is petting the dog," for example, which appears much later, is a unified, singular idea. So the lines between the two principle classes of communication disappear, not on paper, but in our thinking, and the circle is made.

Vygotsky notes that a word in inner speech is saturated with sense. It is one of the properties of inner speech that all of the psychological events are aroused by our consciousness about the word, to accrue context to it. In written speech contextual meaning must be carefully manufactured. Writing must fully explain a situation to be intelligible. Deliberate structuring of meaning and fully developed intentions are necessary for the movement from the condensed, abbreviated inner speech to writing.
Oral speech precedes inner speech in the course of development since the first contact with speech is exposure to it as a tool outside our experience. It becomes internalized and eventually is transformed to inner speech with all its developmental functions. The act of writing can follow since it "implies" a translation of inner speech. Ideally, then, in writing in a second language, one should not translate from the idea expressed in $L_1$ to $L_2$, but emerge from inner speech to a written form. In inner speech then, lies one of the keys to second language acquisition.

The external and the semantic aspects of speech develop in opposite directions, one from the particular to the whole, the other from the whole to the particular. The child begins the mastery of external pieces and then connects them. In terms of semantics, the concept he uses the word to represent is usually much broader than the word and only subsequently does he develop differentiating powers to express context. Frequently in second language acquisition the dearth of acquired external material in the target language forces the user to conceive beyond his ability to express.

In learning how to voice a second language, the constituent skills are learned outside of the sequential synthesis of the sounds of the native language. No doubt the order of skill acquisition among individuals must vary. One is learning ranges of acceptable sounds (perhaps the real goal of Eimas). In writing, however, the boundaries are at least theoretically quantifiable measurable in terms of possible combinations at syntactic levels although the only accurate measuring devices appear to be the members of any cultural-linguistic group.
In strategies for learning a second language theories change or emerge, not just because the workings of the consciousness begin to unravel, but because the world in which the language is used changes and acquires new attributes. The world of our predecessors was a world in which language was used to describe and communicate a technology significantly closer to its inhabitants. Our world is indeed broader in many senses, but narrower in the sense that the technology that affects us lies further from us, and at best, most of us can grasp underlying theoretical principles without knowing, to any significant degree, the particulars.

The implication here is that, exactly counter to the widespread notion that a plethora of fundamental differences of philosophy and belief can inhabit the minds of those charged with instruction; but philosophical elements as important as those which are the bases upon which perspectives of reality are built need to be re-examined. An adequate understanding of the nature of instruction, the nature of social activity, the nature of reality, and the nature of humanity, to be co-ordinated into fruitful contexts, must spring from a perspective that is the denial of many current beliefs. It is inescapable that what we do must have political implications; the question is rather how we shape them.

The work that follows this introduction is an attempt to lay out a theoretical framework for the teaching of a second language. Specific techniques for a given situation will be determined by the dynamics of that situation, shaped by the perspective that both subject and
instructor bring to the context. From the point of view of the instructor, a shaped perspective is important in allowing him/her to see the subjects' needs and goals, and functions must precede the particulars and must indeed be the foundation upon which any program is built.

There are basically three observations that the study seeks to pose:

**Function Creates Organ**

This is predicated upon the views of Vygotsky, Luria, Markova, Leontiev among others. One of the purposes of the present work is to stress the belief that activity, clearly defined, is necessary for a theory of any kind of instruction to operate, not only a theory of second language instruction. The activity must consist of dynamic, multi-dimensional goals and clear motivation. Rather than the practice of oral or written structure, actual employment of the structures must be obtained. Essentially, the goal will begin to emerge when the tools the instruction seeks to teach become the only means for solving real problems in a real context.

**New, Higher Concepts Transform Lower Ones**

This kind of movement is innate to the developmental processes of children. It is not available in the same form to adult language learners subjects, but a learning model based on this observation does structure a valid learning situation for subjects regardless of the developmental age they bring to the task. I specify this kind of learning because in fact this movement does take place with adults learning skills for which they have not already developed analogs. While the child would be moving from complexes to concepts, the adult would not; but he can expand his conceptual structure to include the tools of
the target language. And for an instructor to recognize what processes
are truly part of $L_1$ can aid in what same elements do not belong, in the
same form, to $L_2$. He may get a better picture of what $L_1$ and $L_2$ really
are.

An Historical View

The last is the broadest. It is, to find a means by which we really
see the world in which we live, a world not so much of objectivist
reality, but a dynamic, interrelated world. The problem is a
metaphysical one, but perhaps the liberation necessary for such a view
begins with the acceptance that quite possibly what we think is real is
incomplete, that perceptions are shaped, and that we can sharpen these
perceptions.
CHAPTER III

A Total View

We may say that our world-picture is an actualizing of an infinite space in which things visible appear nearly as realities of a lower order, limited in the presence of the illimitable.

(Spengler, 1918)

What is crucial is that there should be an aspiration towards totality.

(Lukacs)

A fundamental need for coherence and totality... characterizes all human, social life.

(Goldmann)

A theoretical base, stated or implied, upon which any theory is grounded, is a particular view of reality, even if that view is of a reality in pieces. Though perhaps we are not conscious of it, the tools we have from this view, construct and reconstruct reality for us as our experience expands. Within this view, man quite naturally builds the frameworks that he uses to systematize knowledge and learning. The primary tool of this system is language. A valid base for a theory of language acquisition is one which generates a theory of totality of the material world. It is the view of the concept of totality that directs human interaction, not the accomplished totality, for the accomplishment is unrealized, as it must remain within a system that sets objects as goals rather than processes.
Determining the role of language in the concept is determining how language organizes and structures totality, reflects it, comprehends it, and is used as the primary tool to relate it to human existence. This includes perceiving the intertwining of totalities within the symbols of language. In seeing what one does as part of a total picture, in linking it to the total picture, the emphasis is on how the fitting is done, not the solid, final picture. The product of where one fits is not relevant as is the how. That is, a role is defined by its operation, its function, and the function has meaning, a movement within the whole of which it is a part.

In terms of totality: one must learn to see what one does in a total sense...that is, what are the properties that make it a totality and how does this extend and evolve into the totality of reality? In teaching, for example, how do my activity and that of the subjects relate to totality, become a true part of it and not a fragmented experience?

In total view, a view of dynamic, fluid processes, objects serve not as ends, but as means of realizing motives of processes. The reality of objects (or place/goals that are objectified) is their service to movement. The moving is real. The concretization of goals is illusory. This truth will only emerge, though, in realizing why we establish goals to begin with. It is one thing to try to view objects in a total sense, interrelated, or people and objects within a visual field or within a theoretical visual field. It is quite another, though, to remove the linear, sequential view of history because the sociocultural origins of that ordering are truly buried and certainly not perceivable from within the system itself: Knowledge that a system is such does not amount to
knowledge of that system because you are still within it. Knowing that it is such is the first step, though, to movement from within the system to without (to knowledge of other systems), and that can lead to knowing the system of which you were a part. It is the knowledge that allows you to conceive of discussing and of the fact that the discussing itself can be a topic not contextually limited to the content of discussion.

Modern physics can confirm that the linear-time sequence that serves as the Western model for history is faulty, but that Newtonian base now lies deep and irretrievable within the culture. We are judging a source we cannot see by the appearance of an evolutionary stage of that source. It is only by the illusion that history progresses linearly that we see the era of a Napoleon in more substantive terms than a Chinese or Egyptian era. The process, of course, lends itself to reflecting and perpetuating ethnocentrism.

Constructing a paradigm based on a total view is difficult because we are bound to the illusion that reality conforms to our preconceptions. We are prevented from seeing the whole, particularly if we are part of a system, the purpose of which is prevention of experiencing the whole. We see the pieces but actually we see the wrong ones because the only real pieces are those that construct a reality the model of which does not seem to be conceivable. A key to discovering that there is a reality which we cannot now see is the realization that prevailing notions of physics are inadequate to explain the universe, and that there is an inadequacy is known. We can process the conceptualizing of a representative model (as we shall see in the Paradigm chapter) though we need not feel limited by the elusiveness of a model that we cannot fully
realize. That there is a reality with physical properties, the scale model of which we cannot construct is a profound realization, because in realizing this we move to a higher plane and reveal the intertwining of the biological source (the physical parts of our perception) with the socio/cultural source (the powers of reflection we've acquired).

Empiricism does not describe the totality of existence, nor does it direct experiencing totality, although the West has evolved a system of empirically re-structuring perspective and interpreting that structure as reality.

The notion that history is the become, the "potential actualized," the present the becoming, and the future the possible is more dynamic a view than positivism, but it still develops from the idea that a new view can be offered from existing frameworks; and the question of sensing totality is not so much a search for new views as for new ways. Whatever new views one hopes to construct, when based on existing Western frameworks, they are still discrete, and really ideas and values of a dominant class.

What are the mechanisms by which culture becomes part of humankind? What is this totality? How do we overcome the illusion of phenotypic, apparent reality, and discover a source? How do we move from parts defining the whole to the whole defined by the totality of the function of its parts? This is Hirsch's hermeneutic circle, the paradox that we must know the whole in a general way before we can know its parts; and we can only know a whole through knowledge of its parts.

For Vygotsky, the more valid concept of reality is realized in seeing language in its qualitative history. Elementary psychological processes gradually transform to complex ones. Man changes himself. The means for
this are tool use and labor. Man changes nature. Vygotsky cites Engels: "The specialization of the hand \textit{implies} tools." The tool implies specific human activity...the transforming reaction of man on nature. Sign systems are like tool systems. They change over the course of history. They are created by societies. They change; they change societies; societies change them. Man develops motive- and culturally-based, internalized sign systems which bring about behavioral transformations and form the "bridge between early and later forms of individual development." Thus, if someone is to acquire language, he is to bring about a change rooted in society and culture.

The problem of how man views himself within a total picture is partly addressed when he reckons himself an organism. His physical structure and natural functions, "the whole phenomenal conception of it, all belong to a more comprehensive unity" (Spengler). Only in the "form language" of human history, its structure, its "organic logic," is it validly regarded differently. We are not, as we might believe, limitlessly tending upward and onward towards present ideals. Any ideals like any values, are culturally defined and are potentials never realized.

The use of idioms, euphemisms, and metaphor, which are the root of signification in language, is the attempt to quickly express and then quickly transfer a grasp of totality or smaller totalities of the real world. They are attempts to transcend the normal bounds of context and load sayings with their own contexts.

The idea of \textit{time}, which becomes \textit{tense} in some language systems, is a description of totality. Movement or becoming (progression) is particularized and frozen in simplifying degrees. The \textit{time} of the
occurrence of any phenomenon is relevant to its description, and while we may concur, in studying behavior by means of an experiment, practice often denies time a significant role. The time of the observations is part of the internalization of a skill that is the experiment is helping to internalize what it is instead intended to measure. Experience follows a pattern of returning to positions we have already passed, experientially, to internalized new data in the context of previously acquired data. In adding, though, the circle is elongated, so we progress circularly and upward. That is, in knowing, we move circularly, not to where we were before, but spirally, to a higher plane.

Tay (1984) contraposes the "chaos of life and the search for form." The tension between the two is mediated and that mediation is the base upon which is structured a valid paradigm for learning. That is, the barrier we ordinarily erect between disciplines is purely a contrived one. The search for form, the tension that results from the search, what we perceive as the physical world, the search for totality, and the notion of becoming are the parts by which we can know the whole, the physics of totality.

Assuming that language and culture are inseparable, is culture to be defined as Lukacs' "ensemble of valuable products and abilities which are indispensible in relation to the immediate maintenance of life?" Are we trying to discover the source of an observable phenomenon, or are we rather trying to intuit a noumenon that is the higher process itself? A view of totality that is reflective or genetic, or self-activating draws its validity from a link to the source, because the whole is understood as a reflection of its own genesis, the product of its own praxis. This
counters the isolation of cause and effect, or the belief that reality is
reachable through apparent manifestations.

Further complicating a search for a total view is the process of
reification, that is, the treatment of abstractions as substantially
existing, the "petrification of living processes into dead things." This
is perhaps illustrated by the inevitability that people feel about
"pre-ordained" actions and consequences, e.g. the notion that supply and
demand is a natural process, that economic laws are not socially
constructed, and that social "interference" is an artificial impediment
to some natural force.

The phenotypic exercise is the path only to distinctions between
phenomena, or appearances, which may or may not truly reveal the noumena,
or essential "things in themselves" that genotypes reveal.

This search for the form of totality is the search to mediate the
antimonies Jay notices in Lukacs: the separation of facts and values;
distinctions between appearances and noumena; opposition between free
will and necessity; form and content, and subject and object; relative
moral judgements which somehow seem "contemporary" and the more direct
involvement of past moral judgements which have about them the epic or
mythological quality; the seeming opposition of time and space, of
contraction and extension.

The search for the form of totality is beset with problems because
searching for form, is automatically a structuring, an internal
concretizing of totality into form, at the level with which we are
prepared to deal with form. That is, at this level, the concept of form
contradicts the concept of totality.
In the developmental stages of Vygotsky, visual perception, while limiting, has the encompassing characteristics that imply a reality. Speech, because it is necessarily sequential, forces the analytical. Speech and writing sequence thought and experience. That is why we can never return to our pre-verbal stage, nor can we, once we are literate, ever return to our pre-literate stage. It also breaks up the totality of the visual perception because it relates one’s visual perception to another’s, or to one’s self in reflection and thus distinguishes one perception from another. So at this level, the tension between the segmented and the whole is the relationship of speech to vision. The visual field, through speech, becomes many visual fields, which in turn unite to form out totalities, or a larger reflective visual field:

```
visual field "A"    speech    visual field "B"
```

Obviously "B" could be another field (which could also mean that it is a larger field of which "A" is a part), or it could be a contextual return to "A", so that all visual fields potentially exist in all of the stages. So the figures represent both stages as a result of speech, as well as the restructuring of conceived visual field as a result of speech. The ease with which one ordinarily separates reality into concreteness and time begins to shake quite a bit at this point.

Speech has the synthesizing nature Vygotsky notes because it synthesizes perception. It is spiral movement to a significantly higher
process. It is a means of synthesizing tactile and visual perception and, through reflection and interaction, creating a new perception:

\[
\text{reflection} \rightarrow \text{visual} \rightarrow \text{interaction} \rightarrow \text{synthesis} \rightarrow \text{speech perception}
\]

Speech perception is real perception: that is, the perception of categories. The restructuring of perception (spatial/visual) through speech creates the "reality" of time, itself a representation of reflection. Thus a new dimension is added to perception. One's focus of attention can be to re-structure the perceptual field into a psychological activity, the primary characteristic of which is temporal.

The purpose of an experiment is to determine "conditions that control behavior." Vygotsky's outline of a methodology that describes experimental psychology assumes:

- the (experimental) hypothesis predicts aspects of the stimulus materials (or task) that will determine particular aspects of the response.

- the experimenter seeks maximum control over materials, task, and response in order to test the hypothesis (the element of prediction).

- quantification of responses provides the basis for comparison across experiments and for drawing inferences about cause and effect relationships.

That is, the experiment is designed (or assumed to be correctly designed) to produce performance from which we can validly interpret and generalize. Each step is open to criticism. How is the hypothesis, as a particle, correctly determined? Are the meanings of all signals, observed and unobserved, isolated so that only the meaning sought is observed? The maximum control is really maximum isolation from reality
...success guarantees a vacuum. Lastly, the quantification of response ignores the learning that takes place (and the internalization) as conscious responses become reflex responses.

The search for context is a search for a totality because it is a means of looking for a "world" in what one observes or reflects upon (understands) as true that can somehow co-exist with contrary views.

Language is an attempt to construct the total view of activity:

\[
\begin{array}{c|c|c}
\text{sounds} & \text{codes} & \text{function} \\
\hline
\text{development} & \text{sign} & \text{language} \\
\text{context} & \text{active (generative)} & \text{passive (receptive)} \\
\text{History} & \text{active (generative)} & \text{passive (receptive)} \\
\end{array}
\]

The interaction of all the above categories is context. The way that these categories are internalized by the individual is the personal construction of context.

How do we define a dynamic system when systems have the appearance of stasis? Consider the problem with Cobal, a computer language of considerable duration. It is criticized as an antiquated system, yet it persists. It persists largely because of the cost of replacing it with a system which, like Cobal, will eventually decay. This illustrates a problem with any of our systems of organizing information. The more elaborate a system is, or the more elaborate it becomes, more deeply it is imbedded in our reality. Its sheer mass, for example, can become its strongest reason for enduring. That system can only engender certain other systems, perhaps none of which are ever new, but merely subsystems.
Problems with the study of language acquisition are problems within the study of learning. We search for ways to study the subject, the student, then the activity. Each is a growth from a preceding step. The growth depends upon movement from one step to the next; often recanting what came before, re-shaping, re-working, yet the movement is an attempt to move towards a static place from which we can study and operate: that is, a perspective upon which we can rely. Yet we seem to be discovering that the perspective is itself a fluid activity, that the problem is that we must move and reject the stasis of before, and yet we need stasis to determine where we are to go, what comes next. We so deeply have the illusion of the security of a fixed point, when, in considering activity, the only security for development is in flux. It is like deciding "on" a computer language which gives you the ability to study, relate, and move, but which also restricts, which is "wrong" in light of what you subsequently discover, which cannot engender infinite perspectives, any of which, if allowed to "live," destroys any uniformity. Only a view of totality, one that does not assume a separateness of the physical world from the world of ideas, or absolute distinctions between time and space can provide ever-growing systematized thought. The conflicts, the dichotomies, are, on one level, illusory, specifically the questions of what is static and what is fluid. The individual interacts with society. Which is static? Which is fluid? Obviously, relative to perspectives, each is both. The individual, especially in his early development, in his process of learning interaction, is more fluid while the culture around him, focused by him, is more static. Yet his role changes as the circle of those near him increases. The increasing is fluid, but he
grasps ideas by envisioning the stages of the increasing circle as static units. And he is viewed by others as static. We traditionally operate in theories from perspectives that are becoming: the view that there must be a point for which we strive, at which we want to be that is the logical end of our progress. It is possible to think in terms of becoming, and it is possible to try to develop a theory that recognizes this flux as more sound a theoretical base than another, as one which recognizes the emerging and submerging bases for viewing.

Each person is at any given moment or stage of development at a point in which particular items in the world are arranged in a particular way. There is some belief that the child's mind contains all stages of future intellectual development (the tradition of neoteny as an explanation for the source of growth, predicated on the belief that all sources are biological), and that the appearance of stages triggers the periods of growth. Stages are produced by the child's biological growth and his growth in tool use, and both produce new behavior. Both form a center of development, from which symbolic activity as an organizing function, "penetrates the process of tool use and produces fundamentally new forms of behavior."

That the origins of systems are external to the individual and to the items ordered is evident in activities that systematize. They reflect the intuition of a particular group, hence these "intuitions" are culturally based. There are within many cultures intuitive centerings in which the individual and nature (which may in some cases be that entirety external to the individual) are ideally in union, a wholeness, the
harmony of unity. The product of Western Europe is discretion from the external; the external is something to be overcome.

"Windows" from a static perspective occasionally open to some experience of totality. The relatively young science of ecology is an example of a unified view that establishes an interrelatedness, a challenge to the atomistic view that subordinates elements within nature and isolates effects.

When we contemplate a man-made object we think of appearance, form, content. Realizing that man's hand implies tool, we discover source and function in defining the object. This union of form and utility is a more complex way of understanding, a search for totality.

Source and definition interrelate directly. When the object is adapted for another purpose, or modified for another purpose it becomes the genesis of new utility and illustrates the process of invention. The entire process may be a specific example of an object and it may also serve as a model of subsequent objects, sometimes sequential, sometimes not. Invention, the process by which one process is adapted to another, is not self-contained (although "invent" is heavily connoted this way), but rather a synthesis of other functions in the creation of a new one.

The search for a total view rather than an atomistic one is a search within ourselves. Lacan posited a "mirror stage" through which all children pass, a stage before language when the self is falsely perceived
"as a coherent and unified whole." The later search for totality was for Lacan an attempt to return to the experience of wholeness. He may have been thinking of evidence that individual growth and knowledge consists of additions to the self, some of which eventually contradict and alienate, and the world, instead of becoming more meaningful, becomes dissonant, and the search then becomes one of dividing, and trying to know what parts to fit with what, all the while knowing that those which one lumps together are somehow different from one another. While I tend to view wholeness and totality as movements away from most current theoretical perspectives, some make distinctions between the two terms.

Wholeness seems to connote an assembly of parts, even quite diversified parts, that enter into a fruitful association and organization. This concept is most strikingly expressed in such terms as wholeheartedness, wholemindedness, and the like. As a Gestalt, then, wholeness emphasizes a sound, organic progressive mutuality between diversified functions and parts within an entirety, the boundaries of which are open and fluent. Totality, on the contrary, evokes a Gestalt in which an absolute boundary is emphasized: given a certain arbitrary delineation, nothing that belongs inside must be left outside, nothing that must be outside can be tolerated inside....

(Erikson, 1964)

This evokes an Aristotlian view of Totality, a contradiction if the universe is a "totality of totalities." Wholeness may be a function of the individual (albeit an unrealized one) realizable within a total view. The kinds of alienation discernable in a positivistic reality are impossible to manufacture in a total reality. Lukac's "aspirations towards totality" are only possible outside the present Western view. But the greatest difficulty is in manufacturing tools operable in a total view from tools and materials in a fragmented world. A necessary stage
in this movement is the dissolution of the reification of the view that man has little control of the social order.

Defining the elements of totality from our perspective is, at the least, frustrating. For Vygotsky, who was familiar with the foundations of total views, it was a matter of extending and applying the intrinsic logic of these views to re-shape his own experiments. They were consistent with a holistic tradition, the Hegelian observation of a "closed yet dynamic totality," of a totality of history with no external boundary, outside of which nothing exists. The value of this view is that it establishes a morphological view of history that opposes the sequential view of arranging ascending categories of implied intent. The "procedure" as Spengler indicates, is "psychological." This procedure is one of the differences from other theoretical concepts based on a fragmented reality. A problem with some learning theories is that they atomize learning; they separate the participants from each other and their activity (the "objects" of their study). Learning theories and teaching theories are presented as if they are somehow discrete. This assumption automatically opposes the participants. The natural world and social world are seen as worlds within the physical world, although each has a different kind of "substance." Psychology sees the object of its study as reactions, which are pieces of the subject's life. The world is characterized by:

1) disparateness (including the separation of the observer from the observed).

2) distinctions between what is known from what is assumed not known (but nevertheless exists).

3) discretions of virtually all facets of human culture: societies, relationships, e.g.
4) distinctions of human phenomena (soul and body; intuition and empiricism).

5) a dichotomy time and space.

This carries down into the fragmentation of language. For example, an atomistic view clearly "sees" language as classes of writing, classes of speech, and on another level, parts of speech, parts of a sentence and so on.

We can begin by being skeptical of any position that operates within a theory designed to prove what it already believes; by understanding that totality is movement; and by recalling that while the teacher goes in to teach, a facilitator offers to learn (with instruction as a part of his function) and acknowledges his involvement with the subjects and theirs with him; and that the only thing self-contained about the class as a group is that all members should approach it as ethnographers trying to discover and build on the culture of the group.
CHAPTER IV

A Developmental View

In traditional psychology or in the experimental psychology practiced in America, experimenters seek to recreate the conditions that they imagine control behavior: "quantification of responses provides the basis for comparison across experiments"; that is, they seek to establish the cause-effect relationship. The experiment is designed to replicate. Vygotsky, on the other hand, was interested in experimentation as a window to determining the nature of higher psychological processes. That is, "if higher psychological processes arise and undergo changes during the course of learning" (the subject's "learning", for Vygotsky, included the experiment itself), then the experiment would reveal sources of the processes of links between processes.

Speech is one of the components of the "internalization" of the visual field, Vygotsky's way of describing the arrangement of the exterior world that is a human being. He calls it the "unity of perception, speech, and action," evident in the problem-solving strategies of children.

Speech gives one the power of history, but in its development in children, it gives dimension to planning in problem-solving. In controlling the speaker's behavior (towards the solving of a problem) we can be both subject and object.
"Symbolic activity is a specific organizing function that penetrates the process of tool use and produces fundamentally new forms of behavior." The two activities are not the same, nor even analogous. Symbolic activity exists at a purely representational level, that is, abstract bridges, or links are created to link the symbol with its meaning. Tool use, on the other hand, is more of a system created on the recognition of certain links. If the two, symbolic activity and tool use were really similar, or analogous, higher activities would be impossible. For example, the child, early in his development can mimic his parents act of grasping. He can hold a tool, the handle of a rake. He can move what he is holding across the ground. It, the rake, can move whater lies at its base. All of this can fall within the visual perception of the child and a large part of it can fall within the tactile perception as well. These links are tool-development and tool-use based, and not yet symbolic, not until some representation of one of the stages is created, and that representation linked to some activity which does not fall immediately within the perception of the individual. For example, the same child becomes aware of his parents flipping a switch on the wall, grasping it. He quickly learns to do this and the room becomes illuminated. He cannot experience for himself, though, all the movements which set into motion the physical processes that light the room. He cannot experience what happens in the same way that he can in grasping the rake, nor can he link all the different stages, yet his expectations of a particular result can certainly be as prescribed. The one process is in its essence far removed from the rake.
This negates the idea that the child's mind contains all stages of future intellectual development, triggered by stages. Instead, stages are produced, both by the child's organic growth and his growing knowledge of tool use. And these both produce new relations with the environment and consequently, new behavior.

The alloy of speech and action, the "path from object to child" and from child to object passes through another person. This development process is rooted in social history, that is, the interaction with others. To this is added the integration of visual perception. We perceive independent elements in a visual field independently. By the time this perception becomes speech it is analytical because it is sequentially processed. The framework for this kind of processing is the concept of sign. Though we operate as if signs and sign systems, though uniform within systems, are somehow arbitrarily selected, the social origin of signs is clearly important in individual development.

Sign-using activity is neither simply invented nor passed down (nor discovered); rather, it arises from something that originally is not a sign operation but subsequently becomes one after a series of qualitative transformations. Thus, the learner, for example, must create his own system. The operations, for him, must become sign operations. They are not so prior to his use, nor even during the stages of his early use, but only after transformations. This creating occurs within the social/cultural context, with the tools provided by the context, with the resultant degree of peculiar, or individual identity (no symbol means exactly the same thing twice for the same individual, nor the exact same
thing for two individuals) within the necessary uniformity of the contextual codes.

Each of these transformations provides the conditions for the next one and is conditioned by the preceding one; thus they are linked stages in a process and are historical in nature.

The history of child behavior (learning behavior at certain stages) is born from "the interweaving" of higher psychological functions, which are social in origin, and the elementary processes which are biologically based. The reactions inherent in the development of behavior must be studied as complex intertwining of interactions at different levels. Vygotsky studies the role of memory in development and concludes that at the lower end, the level at which something is remembered, at which the perceived object elicits recollection, contemplation is not at the stage it occupies when one remembers something, when the remembering itself becomes a conscious, controlled, activity and moves in stages and the reconstruction of contexts to stages the conscious control of which is often buried. This interaction can perhaps be illustrated, not by a diagram or scheme, but by diagrams which represent the stages of flux. In figure one, below, we see the representation of the axiom that man changes the world which in turn changes him who in turn changes the world....

\[ \text{Man} \rightarrow \text{World} \rightarrow \text{Man} \]

The real usefulness of the illustration is that it points out the "logical" linear ordering that must necessarily spring from our system. The linear sequence, though, should also illustrate the limitations,
which are not just limitations in the incomplete sense, but limitations in the misrepresentational sense. The connotations in describing "limiting" as opposed to misrepresenting are important.

There is the problem of illustrating something that "to scale" cannot be illustrated. Man in the figure is on the one hand, the collection of things that we have said, the meeting point of various contexts, but he is also a part of the thing that he is acting upon, which sequentially follows. But the notion of acting upon, in most of the systems we daily employ to show action and reaction are illustrated this way, and subsequently conceived of this way (what is culturally learned begins to become immersed in the realm of what is assumed to be an acquired logic, the acquiring being of something, the recognition of a system, perhaps, exterior to the observer, or the discovery of a system that existed neotonically, awaiting discovery. Try to imagine what this does to individuals (or cultures) who think this way. They are able to abide profound contradictions, to see themselves apart from something of which they are a part (indeed of something which is the very meaning, the very essence of their existence). In such a constructed world individuals must of necessity see themselves as subordinating the World or powerlessly being subordinated by the World. The greatest danger of this model is its systematically correct, deceptive, apparent accuracy. A better step in the evolution of viewpoint is figure two below. The primary problem now moves from deciding where to place the "objects" from figure one (Man and the World of which he is a part) to showing the lines illustrating the dynamics of interrelations. Eventually we should be
able to proceed from illustrating the model to experientially realizing the reality the models illustrate.

Some of the limitations (and here, as almost always, "limitations" means misrepresentations, and a miss really is as good as a mile) are apparent. The Copernican view of the universe begins to emerge a bit, or the ethnocentric view that the world of one's distinct group is the real world of substance. The lines are better than in figure one for, contrary to what figure one implies, man is not the cause of the world, nor the world the cause of man. The kind of movement in figure two, movement that is not linear nor casual, seems more accurate, but the placement of the terms is still deceptive. How can man be outside and inside, subject and object? That is, how can this be illustrated?

Perhaps the greatest step that illustration two shows is that neither man nor the world has the boundaries figure one gives. His existence is his activity, not merely his corporeal reality. The world too is its activity, and the points at which they are always meeting is holographic. The concept of a Totality and totalities in praxis begins to form. Additionally, the idea of movement illustrating what happens in higher psychological processes is analogous to man's alteration of nature
altering his own nature. What has become, due to an alteration, begins to be "real," then "natural," then finally the source is gone, after which incorrect sources are identified, and a new "nature" appears; the part of man's "nature" that may have felt powerless, and subordinated before may persist in feeling subordinated and powerless to this new reality that was actually the result of man as subordinator.

Development, at higher stages, proceeds not in a circle, but in a spiral; the spiral is more elongated at certain middle stages (particular learning years). Most limitations to this growth are social rather than organic, something that stimulus-response experiments cannot explain because they operate directly at the biological level, and hence misinterpret changes that are social, do not see changes that are social, or do not see the interaction of the social and biological events.

Stimulus-response cannot explain those peculiarly human psychological functions, the higher ones. It cannot explain the spiral movement as distinguished from the purely circular. The movement, at any point on the spiral does not return to itself, but comes round again to a higher level. This movement cannot be identified by an experiment that analyzes a problem genotypically, that is, that analyzes a problem by explaining a phenomenon on the basis of its outer appearance. This is the danger of a descriptive analysis. But this type of analysis is in keeping with a system of thinking that emphasizes the dangers of viewing anything subjectively, that strives for the reality of something independent of anyone's belief. Most intriguing are explanations of culturally-produced realities. The example of the whale, phenotypically sharing the appearance of fish is obvious. What is not so apparent is what
descriptive analysis must surely miss. For example, if we accept that if one finds a human being who has never seen a photograph, if one photographs this person and immediately shows him the photograph, he will still not be able to make sense of it. That is, not only will he not recognize himself in the photo, he won't even know that it is a representation of a human being. This process of recognizing, in this instance, the assembling of data of a two dimensional piece of paper into a three-dimensional image that becomes more than the sign for the human being, that causes processes to surface and arrange while their sources remain buried, clearly shows that we are not conscious of the steps in producing much (if not most) of the reality that we perceive. This unconsciousness is neither due to a biological origin nor a purely external origin. Rather:

...what is also has become, that the natural and cognizable is rooted in the historic, that the World as the actual is founded on an Ego as the potential actualized, that the "when" and the "how long" hold as deep a secret as the "what" leads to the fact that everything, whatever else it may be, must at any rate be the expression of something living.

(Spengler)

The study of speech via its outward signs is only useful in the manner in which it allows access to its source, the product of resultant changes. Cause-effect in these terms (quite distinct from Man as a cause) is important in that it establishes becoming as a source, itself a process of points or instances taken together as a larger sphere, the "what" of totality. Viewing this process should help us avoid divorcing the what is (the what has become) from its causes, its true causes, and the what has become, as an extension of its cause is a better definition of what is that what appears to be.
The use of something (for example, in the case of speech, its function) is the key to its definition, not its appearance. In the example that began this section, a reflection of the examples of the instances of tool use within one's history can lead to the possibilities of a picture becoming a symbol for illumination.

A genotypic view of an activity is source-oriented. It is a "developmental" view, the concept of becoming, that searches for the genesis of the problem under study. This is quite distinct from the phenotypic view, an analysis that begins directly with an object's "current features and manifestations." Referring to the genesis of a problem is better than referring to its origin because of the implication, in the use of "origin," of frozen moment, or things or objects as a cause as opposed to a process of generation. Two occurrences that appear genotypically similar may have distinctly different geneses; hence they are in fact very different. The throaty growl of a dog may express fear, and the equally throaty growl of a man may accompany contemplation, the latter fitting within a system of learned responses, the former reflecting an instinctive response which cannot, on the part of the dog, be reflected upon. Language is full of metaphors that demonstrate the validity of this observation ("tears of laughter, tears of joy," for example). As Vygotsky observes, were the phenotypic approach sufficient (or accurate) then the world could be known entirely through observation. If an object's construction and utility could be known through its outward appearance, then scientific analysis would consist of everyday experience.
A problem in thinking of the genesis of a phenomenon though, is the risk of viewing totality as a "genetic" or "reflective" or "self-activating" product of its own genesis. This still posits objectification as an origin, removing the substance from physical objects and transferring it to points in time (even if these points in time are in a non-linear time).

In studying how one learns language we see its use, its component parts at whatever stage, and our description may be faulty. That is, what we are seeing outwardly is genotypically development. When we describe, we should not abandon phenotypic study, rather subordinate it to source. In describing the outward appearance, we overlook behavior that has lost its original appearance, and we trace the fossilized mechanisms of higher behavior back to manifestations rather than sources.

Because of the ease with which they can be illustrated, represented, and conveyed, standard analyses of experimentation are algebraic. The Developmental School notes the quantitative misrepresentation that can, and often must, result. If a particular type of response can be broken into two parts, e.g. the discrimination response equaling simple response plus the additional "part", discrimination, and choice reaction consisting of simple reaction plus discrimination plus choice, and "the higher, more complex response is seen as the arithmetic sum of its elementary components." Besides denying the dynamic nature of activity, as well as the role of contemplation, intention, or motivation in qualitatively discriminated responses, the position ignores the synthesis of learning stages involved in virtually any such reaction. The error here is, unfortunately a quantification of method. And what is studied
is the comparison and quantification of what appears rather than the development of these appearances. It is also difficult to conceive of how the theory can allow for the repetition of responses fossilizing stages and the response becoming internalized, something that without question must happen as the procedure is performed. All that ever can be quantified in this way are appearances, and the movement, since it is a comparative match up with numericality, is lateral, obviously two-dimensional, that is, our model tells us that the process is two-dimensional. To study the source is to move in an entirely different direction. Compare the following:

Response #1.  \[ R_t = R_s + D \]

Response #2.  \[ R_t = R_s + D + C \]

If the \( R_t \) of #2 is greater than that of #1, then, according to the standard theory, response #2 is seen as more complex, or the sum of its components is greater. The movement in creating and interpreting the formula is lateral, left to right. But even if we arrange it down a page or in virtually any direction, we get flat representation:

\[ \begin{array}{c}
R_s \\
+D \\
R_t
\end{array} \quad \begin{array}{c}
R_s \\
D \\
R_t
\end{array} \quad \begin{array}{c}
R_s \\
D \\
R_t
\end{array} \quad \text{and so on.} \]
A step (but merely a step) away from this is thinking about appearance \( \rightarrow \) source. For example:

This is better, but we eventually have to see the source as the product of other sources and appearances and not as a beginning or an end in itself.

Quantification has its definite role but this role should not be misconstrued. In language we are quantifying because we are objectifying to freeze something long enough to convey it. This, the telling of how you see what you see, is quantification. It is measure. It allows reflection, observation, and communication, properties that are missing in numerical quantification. The search for source is the search to reconstruct the context that grows from the analytic methods of developmental psychology and particularly the development of higher psychological processes, the outgrowth of biological processes traced genotypically, that is, with an attempt to explain, and explain in historical terms rather than solely in phenotypic terms. Context then grows into source, fossilizes, and then in its subsequent stages is always becoming, and we who affect it are making it and being made by it.
Vygotsky believed that experiments could serve to illustrate the source (for him, description must be this) of processes and they could "telescope" ordinarily invisible processes from their remote sources. The experimenter's use of obstacles that disrupt routine methods of problem-solving (the introduction of non-native speakers to work with subject children in experiments designed to study speech processes, for example) force interaction, a primary means of addressing a problem by altering the environment. This opposes the "fake" kinds of interaction often used in structured learning situations (memorized parts in a dialogue, for example), independent filling in blanks, memorizing, context independent testing programs. Programs should build, not so much at the precise skill level the subject is able to demonstrate, as upon that area that barely exceeds his demonstrated grasp. It is that area into which the subject moves and processes move. That is, the object which draws him keeps receding (indeed it changes) and he keeps moving into this new area which is immediately before another "new" area. By now it should be clear that following a line in an illustration does not illustrate this as well as looking back at the most recent model of source/appearance:
While in the earlier illustration level "A" was an appearance and level "C" was a source, the model now illustrates a learning process from a different perspective. "C" is the fluid point (at any time during the activity) at which the subject is. "A" is the level at which goals and goals as objects lie. "B" is the area that barely exceeds his demonstrated grasp, the area of development and growth. This sub-process is similar to what Vygotsky called the zone of proximal development. The concept itself must have large historical bases. I am reminded that the Japanese, for example have a concept of the ideal learning situation being that in which the subject is kept in a state of "tension" (I'm afraid this seems to be the best English translation) "stretched" a bit between himself and the object of his inquiry.

So far, then, we see that the Developmental approach to studying activity emphasizes the facilitation of interaction, recognizes the role of the object manipulation in establishing signification, and allows that an "area" of growth in the potential, that, in being realized, becomes internalized and, as part of the process creates new, expanded areas in which to grow. With these in mind, performance level, the goal of experimental psychology becomes significant only as an end in itself, while the methods by which the performance is achieved fall within the purview of the developmental approach.

It is natural for our "value" regarding education pedagogy to be on performance since conventional psychology is performance based. Although the contrast with the focus on process of Vygotsky is apparent, the key to understanding the difference is that a methodology is not being judged superior to another, that is, there is not a world of methodologies
competing as much as there is an entirely new way of analyzing the task. That is, process and performance do not compare at all. They do not presume upon the same kinds of definitions. The point from which perception of process grows is quite removed from the point from which performance focuses. A Vygotskyian process must lead to a different sort of analysis just as the conventional experimental method is the necessary result of a particular perspective. Performance proceeds from a static world view. Process proceeds from a dynamic world view. So you see, the comparison cannot lie between process and performance, but between the points that generate each. (It seems to me that once one is within a dynamic world, it must then become impossible to truly compare that view with a static view, because one is still not comparing one with the other as if one were the antithesis of the other; the existence of one precludes the other but in a scope far removed from the analogy, say, of death precluding life, or vice-versa).

In conventional experimental method, the argument might be among different ways of gauging performance, but they could not be among competing ways of illustrating process; the process is absent as performance in the conventional sense; it is often a set of seemingly discrete skills. In the study of problem-solving, the conventional method does not see what the subjects are doing, rather it either assumes what they are doing or trying to do, and evaluates the assumption in terms of judgement of the product of the activity.

To the three areas the developmental approach opens (mentioned earlier) we now add a "tool" upon which it relies: mediation. That is the individual, in higher forms of human behavior, actively modifying the
stimulus situation, as part of responding to it: a problem to solve before the individual; the addition of another individual; and the use of speech to mediate the circumstances which lie before them. Children, in problem-solving, unlike any other animal, can mediate via language. They can conceptualize independent of the concrete situation. They have freedom.

The Vygotskyan approach, in several ways, re-defines fact, one of which is the detailed description based on observation. This lends to fact a qualitative as well as quantitative bent. This methodology also extends the laboratory since it relies on observations, the predisposition for which is an acknowledgement of the observer's role in the observed and the method of observation. That is, the laboratory becomes more like the field. Both of these point to source as descriptor. The "interrelation" of observer, method, and observed is representative of the kinds of interrelations of the world as a totality:

- Humans and their environment.

- New forms of activity that establish (have established and are establishing) labor as the fundamental means of relating humans to nature; and the psychological consequences of these forms of activity.

- The relationship between the use of tools and the development of speech.

The various models upon which experimentation/theorizing are based are incomplete models, or faulty misrepresentations. Significantly, even when researchers within a field challenge models, or offer new ones, the faulty models, if they have had any opportunity to thrive, will persist in that huge area (hugely populated too) that lies somewhere between the small coterie of the "experts" of a field, and those who are genuinely
disinterested. The notion that the child is a vessel to be somehow "filled" with knowledge is such a notion (although it is, in ways, consistent with capitalistic thought). The assumption that maturation itself, the passing of time, biological development as the primary factor in the development of behavior prevails, and in so doing, denies (or at least limits) the development of "complicated qualitative transformations of one form of behavior into another" as the source of development. A related reasoning to the purely biological approach is the animal analogy as a useful tool in explaining human processes. These analogies are useful only to a point, specifically to the point at which the child's preverbal stage starts to end. Intelligence (that is, intelligent activity) and speech are interwoven, and the points at which they meet form the course of development.

Mimicry in a child illustrates the above, and it illustrates the geometric progression of the processing of information. Consider tool manipulation development. What is the history of man developing the manipulation of certain switches and anticipating certain responses? The child now, in mimicking, learns mastery of machines, the direct manipulation of which, as a process, he cannot see, but the results of which he comes quickly to expect. That is, the relationship between grasping and holding is not only mimicked, but realized as several level (there is a certain tactile relation to the visual field that does not exist analogous to the pressing of a button with the resultant lighted room). Continuing with the example used earlier, the moving of the rake back and forth across the ground, and, as a result the earth it touches is a perceived link, that can easily be thought of linearly. The
introspection at this level can also easily be seen to begin exterior to the subject. He can visually follow lines, and the lines he is tactily in touch with. The outside and the "inside" (insight) come together, quite visually:

FIELD touch/contact/tool/movement/movement of what is touched

The "touching" exists in each step. The FIELD, is the subject's visual field. The contact, initiated with mimicking, moves from outside to the "interior" of the subject's experience.

The manipulating of a switch, perhaps also beginning with a mimicking of an adult's behavior, goes directly from the subject to the visual field:

FIELD touch _____ / _____ / _____ / _____

The object then can even become an entirely new visual field. The "linnear" stages (or links) are no longer experiential for the subject in the sense that links once were. This means that new links themselves become higher processes; and history is not so much a sequence as a way of realizing the promotion and containment of the steps. The lateral slashes in the second example mean that the visual (and tactile) links are not present, they are only historically present in the experience of others, probably none of whom the subject has ever known. The links then become his only as a social animal, and not as a result of direct,
discrete experience. Movement, culturally, into particular higher psychological processes is the acquisition, qualitatively of geometrically progressing change. Although the word "geometrically" implies quantity, the change is not merely quantitative, but quantitative in a way that the measurable appearances can be theoretically organized to reflect a qualitative shift.

To say that a child of four today, virtually anywhere in the world, performs operations on his environment, linked to intentions that would have absolutely startled Newton or Goethe shows that the "refined cumulative" designs that reflect man's development are piling up.

Purposive behavior in humans is possible without (or before speech). But that does not mean that purposive human behavior is independent of speech. Rather it shows that speech is a way of moving purposive behavior up the spiral. One can wish to alter something, one's immediate environment, perhaps without speech, but one can only consider the best ways to entice someone else to help him alter the immediate environment through the medium of speech.

The idea, considered earlier, that the primary factor in human behavior is biological development also leads to the assumption (Stern) that children begin to recognize the "meaning" that verbal signs contain, and that the mind of the child contains all the stages of further development. This implies that meaning is independent of perception as well as independent of human attribution, that is, that meaning can somehow exist independent of its source.

"The most significant moment in the course of intellectual development, which gives birth to the purely human forms of practical and
abstract intelligence, occurs when speech and practical activity, two previously completely independent lines of development converge." This is significant because it is an incredible jump, something which does not occur in other life forms. It is interesting to compare this with Steven Jay Gould's theories on biological evolution. Man, Gould notes, has so far been unwilling to accept "continuity" between himself and nature. The experimental psychologist, with his dispassioned eye, quite liberally accepts the continuity, and, with the aid of the behaviorist, attributes distinctions to degree, particularly in the way the environment is interpreted. We somehow, biologically see "more." An activity-based theory, one steeped in a total view of reality, posits that the degree is a matter of form; that is the form of the activity as a result of the interaction of biological bases with socio-cultural bases. Although Gould argues for differences in degree, he clearly is outside the school of evolutionary growth as a series of rungs on a ladder, and instead offers some insight that is consistent with new physical paradigms of the universe, of reality, and of the morphology of the growth of activity, namely, that "...evolution almost always occurs by rapid speciation in small, peripheral isolates, rather than by slow change in large central populations" (1977). The parallel here is that the idea of distinct, relatively drastic "jumps" is compatible (is a "natural" example of a unified reality) with, and an example of the monumental changes within human activity. Regarding man, the jumps may not seem drastic (may not be seen at all depending upon one's perspective) phenotypically, because of the universal nature of their occurrence. Genotypically (when one contemplates process instead of performance), the move is dramatic. This
is a kind of quantum leap in the mastery of surroundings and the
reflective mastery of self (in this sense, the organization of behavior).

The greatest change in children's capacity to use language "takes
place in their development when socialized speech is turned inward."
This illustrates the relation between speech and action in the course of
child development. Early speech accompanies the child's actions. When
it moves, relative to the incidents of speech, earlier and earlier, it
starts to precede the action. Behavior is a dynamic system the
properties of which interrelate in a constant state of flux. A question
I have, which must surely remain enigmatic because of my position within
the system I study, is whether or not the child begins by seeing things
in parts (an extension of the limitations of the visual field perhaps)
and then constructs totalities or wholeness, or does he begin with "fused
perceptual processes"? At any rate, early speech among children
developing higher psychological processes must pass through stages in
which the following must rather dramatically surface:

- the labelling function. Intuitive recognition of this
elicits, from adults, the kind of "what's this"? questions,
wherein a "label becomes immediately available and is
applied to something, although frequently the child, when
shown an object, may associate it with something not yet
concretized; an object that has caused pain, for example.

- the synthesizing function. This is the function, acquired
in stages, in which activities outside the subject, can be
internalized, for example; where the subject's visual field
can be recalled, expanded, transferred.

- Speech becomes a form of perception, one with bases in a
higher psychological process.

- choice selection; the learning of categorization via
language (distinct from the first category because it does
not operate on the same level of association as the first;
it is the process rather than the result, of association. Like other perception, language is a medium of categories.

If, as Vygotsky offers, the child, in developing at various stages, in attempting responses to problematical situations devoid of "sign" beyond his power, proceeds in a process entirely external to her (that is, the process of selection is concentrated in the motor sphere [she does her choosing while carrying out whatever movements the choice requires]), then this is very different from the manner of an adult who develops a strategy internally and then carries it out. The implications for second-language acquisition could be profound because the child's operations are tied to and indicative of his language acquisition process and the structure of his decision is a structure the visible signs of which disappear in similar contexts of the adult. The child's selection process is the choosing among his movements. Vygotsky contends that in the child "movement is not separated from perception." The introduction of signs "restructures the whole psychological process and reconstructs the choice process." It is this movement that most clearly represents human activity. In the case of biological comparison, in the case of the ape, for example, whose motives are guided only by instinct, and the child, whose motives become socially rooted, the latter can be viewed as any of several transformations the catalysts for which, in each instance, are speech. The human motive may be the spiral development of a higher psychological process, something divorced from possibilities for the ape and a step up from innate human possibilities. It may, on the other hand, be seen as the result of a human instinctive urge to interact with social influence, or it may be that what is "instinctive" in humans is
the tendency to respond to the higher processes which are themselves socially grounded. The result is the acquisition of "intentions" and the power to symbolically represent purposeful action.

At this point we are ready to add yet something else to the alloy of a theory. Mnemonic development is the next step. The child uses sign via language, to construct memory, the capacity for perception framed within a temporal perspective, which in one form is the ability to plan to operate on the future from gathered experiences of the past. This activity is not "discovered" or invented by children, nor is it passed down (it is, subsequent to its acquisition, one of the devices by which things are passed down). As Vygotsky suggests, it develops from operations which are not originally sign operations. As with all transformations, this one is historical. As we shall see, "the history of child behavior is born from the interweaving" of the socioculturally produced higher functions and the biologically produced elementary processes. Interesting (and accurate) is Vygotsky's view that the two most fundamental cultural forms of behavior, tool use and human speech, demonstrates that infancy is at the "center of the prehistory of cultural development." It is also interesting that the temptation to put infancy at the linear beginning of development is more consistent with many current perspectives, yet infancy as the center of the spiral of development is demonstrably preferable and more consistent with total views or paradigms that seek freedom from the restrictions of forced, two-dimensional thinking. The infant is actually the center of developmental progress, and viewed as such, history begins to lose those
illusory beginnings and ends externally orchestrated and instead becomes something within which human activity lies.

The transformations that constitute the process of internalization are broken down into the following sub-processes:

- an operation that initially represents an external activity is re-constructed and begins to occur internally.

- an interpersonal process is transformed into an intrapersonal one (at the social level); within the child.

- the transformation of an interpersonal process into an intrapersonal one is the result of a long series of developmental events.

It might be useful at this point to summarize some of our observations so far. We see that a Developmental approach to the analysis of higher psychological function contains at least the following properties:

- Analyzing process not objects.

- Explanation vs. description. This is also reflected in the earlier views of Spengler, "...its success (the sketching out of an 'unphilosophical' philosophy) will lie in resolving all the older problems into one, the genetic...the Morphology of world-history becomes inevitably a universal symbolism.

  With that, the claim of higher thoughts to possess general and eternal truths falls to the ground." It is only through source as explanation rather than appearance as description that we can accurately perceive human existence, and direct it. It is only through the source that we can perceive the illusion that we possess eternal truths, that we can discover that our philosophy expresses a particular rather than total view, that, as Jay notes behind the immutable laws of their theory (in this instance he is referring to the views of political economists, but the position is equally applicable to anyone who gauges reality in ethnocentrically structured views) lies a world of historically changing human relations, the totality of "actual life." Obviously the key to totality is understanding its historical nature, but the history must be understood in a total sense.

- external feature analysis is phenotypic as opposed to source analysis which is genotypic.
The confusion of description with explanation or definition is consistent with an objectivist tradition. Such a tradition cannot produce another view. By a developmental study we disclose the problem's genesis, its "casual dynamic basis." The approach to a problem by its current manifestations is phenotypic. Two phenotypically identical processes may be radically different in their casual-dynamic aspects and vice versa. It would always be more logical to work from casual to apparent rather than from apparent to casual. Logically, if every object was phenotypically and genotypically equivalent (or by extension, if the way to the genotypic **sufficiently** lay through the phenotypic), if observation of outward appearance were sufficient, then everyday experience and observation would suffice to explain the world. This does not of itself invalidate phenotypic explanations. It merely includes them in a process, but **subordinates** them to origin-based observation. Fossilized behavior, processes that have died away, disappeared, for example the apparent differences between voluntary and involuntary processes, denotes processes essentially different which may acquire outer similarity (thus hiding the source), i.e. an experiment, the constant repetition of which, or performance of which, **becomes** a different act though it resembles the first few performances.

By now, the argument so far presented supports the position that development of higher psychological processes is a matter of qualitative transformations, and each of these transformations provides the conditions for the next one and is conditioned by the preceding one; the links are like the strands of a web, and when they **apparently** disappear, they remain as extensions of the source. The web-like structure which
serves as a two-dimensional model of the process, is itself a modification of a multi-dimensional model, closer to the "truth" of what it represents. It is interesting that in reflecting on how to re-create an illustration of the processes, we undergo the process itself. When we usually think of source, we think of a link between two points. This is due, in part, to our misinterpretation of source as cause (cause, within our framework, is even more illusory. It really assumes the assembly of objects in an objectified "time." We are even, within the positivist tradition, able to talk of necessary causes and sufficient causes, to modify the concretization according to degree. The most obvious error in the notion of cause is that, even measured by the logic which engenders it, it must eventually, and in a linear way, link with a free-standing and self-sustaining Cause, at one end, and a distinct End at the other. This would give the appearance that what is dynamic lies between, but of course this is impossible, since the two worlds are incompatible, and indeed we would not be living in a dynamic world, but in a world of frozen stages). We begin, though, with the appearance:

____________________________
Source  Appearance

The two lines just mean that we are able, theoretically, to go back along the already-established link to explain the source. One might be tempted to surmise that even within a dynamic system, the relationship between any one appearance and its source, could be sufficiently illustrated by the above. This would be misleading for no one source is independent of other appearances, and other sources. We must understand that the relationships that we are illustrating do not exist solely in a physical
sense, or a historical sense (in the conventional meaning) but rather within a Historical sense (which is beyond the notion of "time" and sequence) which encompasses any perspective of totality. The next step might be:

In the above, each of the "points" of intersection can be seen as appearance, or source, or perhaps both in some situations. The difficulty with the above is obvious. We need more dimensions so that sources that generate certain appearances but not others should not be represented by intersecting lines. That is:

A and B may describe a link from appearance to source, but in a complex, dynamic world, there are going to be many other links like C and D, though they are "in the way," do not really "touch" A and B. More significantly, how do we, at least theoretically, conceptualize the possibility of the "interrelatedness" of many sources and appearances, an appearance that may lead to one source, and that source to another appearance? It is similar to the problem one would have in trying to place five equidistant balls in a Euclidean universe (which in spite of all that has happened in the last 100 years happens to be the way we
still "empirically" verify reality). It cannot be done unless we considerably expand our view. Our problem, too, is not just one of arranging five equidistant points, but a potentially unlimited number, unlimited in the sense that in the real, dynamic world, new ones are constantly being added. Or, as Callahan suggests:

The assumption that we build a scale model of any physical system, which is equivalent to the assumption that the geometry of space is Euclidean, is thus revealed to be an attempt to make reality conform to our preconceptions. (1976).

To properly conceive of source-appearance relationships, we have to accept the conception of N number of equidistant "points."

The history of child behavior (learning behavior?) is born from the interweaving of the higher psychological functions, which are social in origin, and the elementary processes which are biological. A goal of psychological research is the analysis of the higher forms of behavior; analysis itself must be studied, hence the need, not so much to study models, but to study how we make models. By realizing how we see we can begin to move to perspective outside your previous perspective.

In studying how one learns language, for example, we see its use, its component parts, at whatever stage, and description may well be faulty. That is, what we are seeing outwardly is, genotypically, the growth and development of a particular history, and when we describe we analyze phenotypically. Vygotsky would recognize the fossilized nature of outward appearances and the ease with which one could overlook their original sources. Only through what Vygotsky calls "dynamic analysis" can we trace the fossilized mechanisms of higher behavior back to their source. We are searching for a model that will help us see what grows
from the analytic methods of developmental psychology, particularly the development of higher mental processes, the outgrowth of simple biological processes and their junctures with socio-cultural relations. This is Context, and Context grows, fossilizes, and is always becoming, and we who affect it are making it and being made by it. The "Zone of Proximal Development" is another reflection of this bio/social/cultural context. It is a reflection of a reality in which we live, but a reality which is often subordinated to "mastered tasks" as language development as it is directed within the classroom. The reality is that which you have not yet, you should be directed towards; that which you haven't yet, you are linked to by our potential; that which you haven't yet, is linked to your "yesterday's development" by you. That is, learning should not be directed towards already-reached developmental levels. For Vygotsky, the only good learning is that directed in advance of development.

There is surely, then, the concept that in learning a language, one must subordinate his behavior to the behavior of the group learning the language, or the group representing the target language. This is the only way he will internalize the behavior of that language. Two important functions of this behavior are the child's internalizing rules and his structuring of meaning and action.

The entire idea of how we internalize rules has been widely explored. Indeed, most language labs are grounded on rule-based behavior and "performance" is a matter of correctly demonstrating the rules. The participants either play or are encouraged to play at being real people. The child evolves from games with overt imaginary situations with covert rules, to games with covert imaginary situations and overt rules. At the
one level he learns how to fit in life, at the other he learns how to
direct it. In learning the first language the initial rules must surely
be retrievable almost exclusively from the covert level. That is, the
child, from the exteriorization of his social setting does not ask what
the correct forms are, he observes examples of their use. Indeed he has
to do this long before he can direct contact to that exterior world, to,
at a higher level, inquire about the tool of language. In learning the
target language the rules are presented as overt. Now the flux here is
great, and the setting of the context is of tremendous influence. That
is, the strategy is clearly towards covert rules if the student is in a
classroom setting where he is testing, always with the expectation, or
hope of a correctness of response. If, on the other hand, he is in the
target cultural/contextual setting (or one that has been created, not
duplicated [for duplication will always mean an unreal setting] he will
attempt to covert rule verification at times, but he will frequently
attempt overt retrieval too.

Early on when the child is learning his first language, he
subordinates meaning to action; but when he learns it, he can reverse the
model as he becomes fluent. But, when he is acquiring a second language,
he tends to operate from a position of action subordinated to meaning,
and, indeed, once Language of any kind has been acquired, he can never go
back to the time when only one formula action
meaning
stood before him. He has,
if I may borrow from the poets who are able to see without the tedium of
analysis, "lost his innocence." We all too often in the classroom look
at meaning in anything but a real sense. Rather, a correct response, the
demonstration of the ability to follow a proper cue, playing as if the
scene had real meaning (indeed the meaning it should have, the meaning the scene is supposed to have, supposed to demonstrate, is subordinated to the meaning it does have, namely the correct outcome of "the game").

The child helps to make himself by the interaction of seeming disparate items of the world around him, from things that subsequently prove not to be discrete but which become joined in creating the personality. As I've said, the human is the point at which certain properties are so arranged, synthesized a certain way at him; that he is an arrangement. His perception and his reaction to the world (caused by his perception) are the nature of all of his relationships.

To conclude, then, developmental theories, if they have any substance at all, reject the notion that cognitive development is a gradual accumulation of distinct changes. The gradual accumulation theory, while consistent with some theories of biological evolution, is adequately refuted by the views of notably Gould, to whom I refer. This interplay between analogies at the individual, cultural, speciated, and universal level, are significant and only apparent the more total our view becomes. The "distinct" changes though consistent with a positivistic and alienated universe, are also denied by the flux of becoming, within which totality falls.

We believe that child development is a complex dialectical process characterized by periodicity, unevenness in the development of different functions, metamorphosis or qualitative transformation of one form into another, intertwining of external and internal factors, and adaptive processes which overcome impediments that the child encounters...to the naive mind, revolution and evolution seem incompatible and historic development continues only so long as it follows a straight line...the naive mind sees only catastrophe, gaps, and discontinuity. History (to the
naive) seems to stop dead, until it once again takes the
direct, linear path of development.  

(Vygotsky)

In fact, many ignore or forget their own history. Yet in learning
theories, we frequently have forgotten or ignored even our own individual
histories. If, in the evolution of man, it is his nature to bridge gaps,
to experience spasms, to revolt, then he is consistent with the evolution
that defines him.

It appears that the child goes through many stages, many of which are
inadequately defined unless they are conceived of in terms of source.
Things motivate the child at an age when perception is not (cannot yet
be) independent of motor reaction. Development is movement both from and
upon this base. To build upon these features in a language classroom, is
to move away from saying things which aren't true. Rote behavior models
create difficult and senseless tasks in that they divorce meaning from
language (for example, "what do you say if..." in which various contrived
situations are inserted after the "if". The "if" of the world, is not
usually the "if" constructed in a classroom"). The truth of anything is
in the context in which it is said, not on the form, nor on the content,
two usually convenient but inaccurate divisions.

What remains, then, is the establishment of paradigms upon which to
build a viable theory; paradigms that can assemble our visual sense in
such a way that we can conceptualize dynamic movement, where the language
form and structure of human totality are developmentally perceived: A
morphology of context.
CHAPTER V

Contemporary society is increasingly functioning as a rational whole which overrides the life of its parts, progresses through planned waste and destruction, and advances with the irresistible force of nature—as if governed by inexorable laws.... The "holism" which has become reality must be met by a "holist" critique of this reality.

(Marcuse, 1973)

When man reaches a certain stage of socio-cultural behavior, he reorganizes his animal behavior by subjecting it to the imperatives of truth claims. In this process, language operates like a transformer. When psychic processes like sensations, needs and feelings enter into the structures of linguistic intersubjectivity, they are transformed from inner states and episodes into intentional contents. Intentions can only be stabilized over time, if they become reflexive, i.e., if they are connected with one another through reciprocal expectations.

(Habermas, 1979)

It is not an objective property of the universe to be either finite or infinite.....

The assumption that we can build a scale model of any physical system, which is equivalent to the assumption that the geometry of space is Euclidean, is thus revealed to be an attempt to make reality conform to our preconceptions.

(J.J. Callahan, 1976)

That reality to the Western mind is broken down into pieces is apparent. It is worthwhile, though, to consider possible sources of this view and related implications. The only way we could have gotten to a "reality consists of these things" kind of view is by separating the destroying relationship between the "what is" and the "what is not" and
acquiring the assumption that one could be studied in the absence of the other (indeed that here there were two properties, positivism and its antithesis, and that they could be parcelled in two), and that objective reality belonged in the camp of the former, the "what is" of reality. It is really ludicrous to think that one could talk in terms of "what is" as distinct from "what isn't," but the only way one can perceive this is through the decidedly subjective involvement of the self. It is only through the self that one can see the illusion and the contrived nature of dichotomies. We tend to emphasize movement from the objective position, the "what is" position and construct reality solely on the basis of what something is. This allows us to call upon the history of stored data that can categorize our visual field, for example, that can classify our experiential life. The notion that we can recognize some reality, and perceive it in terms of what is and what is not is quite alien, because any ability to so do has been fossilized in terms of cultural development, so our culture's reality is no longer built upon a source, but upon an appearance, that in other cultures can lead back to a different appearance as a source-becoming-appearance. The ability to think consciously from the perspective of something being an appearance, or something as "not is" seems outside our grasp. I am not proposing a way of seeing what another sees, nor what something appears to be at certain times, but seeing behind this schema or transcending the perspective that creates so many relativities as possible views, a way that recognizes that the following has culturally/historically occurred:
"A" is one's field of view.

The field of view in the above is become fragmented. Objects within it seem to lie in one half or the other. Objects in the left half, are distinct from those in the right half. We can move to a position wherein we can choose to "see" only those objects in one part:

Our reality, though, as a field of vision has evolved into:

One has reality which was once unified, or "whole" now lying on one side of the line, the "real" side of the culturally-produced "line." That is, one can now see only those "things" which he can arrange this way.

The illusory nature of time is a further illustration because it follows from the dissection of reality. In a very real sense, the future, in the child's development, is his directed communication with the external world (imagine the child experiencing tomorrow, when it comes, as a new level of consciousness; or thinking of tomorrow as either different from today, or the "piling up" of new experiences. "New" is
different when one is a child. Any movement to the external world is like the future tense of English (the "past" one has experienced and internalized). Any introspection — any memory or buildup of data, is the "past." The present is like the constant, ongoing synthesis of unfolding experience. The child lives lengthily in each of these stages, developing, contemplating each. Present, Past, Future are socio/cultural divisions given to types of interaction. The figures that follow are distinct and yet not distinct. That is, they should be superimposed, combined, because figures 1, 2, and 3 happen at the same "time". In addition, they are a network, the conceptualization of which takes one beyond his "experience" in the Western World. Frankly, I would much like to meet the person who could envision what follows three-dimensionally:

Fig. 1

\[
\begin{array}{c}
\text{The Future} \\
\end{array}
\]

Fig. 2

\[
\begin{array}{c}
\text{The Past} \\
\text{(as if arrows are recollections)}
\end{array}
\]
Our schema must be like the multi-dimensional, equidistant dots earlier indicated. We cannot physically construct a model of five or more equidistant points even though this is what we need because figures 1, 2, and 3 are the human interaction with the whole world, happening all the time. The world of individuals and cultures happens at all stages, superimposed on each other. Because we are unable to conceptualize beyond our expectations, unable to construct models that cannot be physically constructed, we are unable to transcend an illusory reality.

In English, the various modes and tenses are perspectives or socio/cultural degrees of the movement interior — exterior relationships. So then, time is the culture's way of structuring and ordering the individual's relationship with the group. Reflect, for a moment, that cause-effect cannot explain this reciprocal movement, only source-appearance will.

Time as we are conditioned to see it, is a forcing of the properties of the visual field of objects analogized. Time is then like an "invisible" icon, indexing objects. In our cultural sense, this objectification is of relationships: people to people; people to objects that are used as functions of people. The "world" on which the process is based, though is one of objects which cannot be self-motivated, or actualized. We must have the potential to realize a conceptualization of this. We need to transcend the concrete. We are, in a sense, like the dog in a relative level of abstraction. It cannot differentiate between
three oranges and two, but it can differentiate between an orange and a steak. It does the latter only because it can tune in to the concrete nature of the difference. It cannot do the former because of its abstract nature, and the ability to perceive this abstraction is developmental.

At this point, the direction of this section moves towards the Psychology of Writing. That is, my theory does not allow me to separate writing from any other language function, but it permits better focus on the area of language with which I'm most concerned—writing. Vygotsky was quick to recognize the artificiality with which writing is usually taught. Indeed, writing "is taught" while speech, more properly, "is learned." The distinctions are important because the latter tends to emerge naturally while the former is contrived. "Practical pedagogy, despite the existence of many methods for teaching reading and writing, has yet to work out an effective, scientific procedure for teaching written language." Speech develops from needs that have undergone the external transformation. Writing, on the other hand is given from without, much as one learns mechanical operations en route to skills, yet, (for the individual), the operations are alien to the creation of the medium they represent (Vygotsky uses the example of one learning the basics of practicing the piano, yet not being involved in the "essense of the music"). The danger of such an approach, whether or not it has its place in the imparting of writing skills, is the illusion that writing is a motor skill. (When you say "she writes well," are you referring to her penmanship or her content?) In the movement, as one acquires the ability to write, from second order symbolism to direct symbolism, one moves in
much the way one moves in acquiring Language. That is, learning to write has many of the characteristics of learning speech for the first time. There is a time when the written symbols briefly represent spoken language, at least in the goal-focused mind of the learner, but eventually, the learner begins to internalize that writing is not just representation of spoken language, but a sub-category of Language, with its own rules and form. It is necessary that the individual reach this intermediate stage the disappearance of the spoken language as target, in learning to write, and particularly important when one is learning the writing in a second language. When learning one's first language, one has the assumed advantage of learning the cultural context. the new dimension of writing following reading within the same cultural context. In the experience of the second-language learner, however isolation-causing interferences exist which a valid perspective must transcend; for example, one may become quite fluent but illiterate in his first language and subsequently be faced with learning a second language in the composition classroom.

One source of writing is gesture, and the connections seem apparent, particularly in languages that still contain vestiges of their indicatory nature, like Chinese, in its written form. Writing is a way of indicating objects, placing them in classes within the visual field, indeed, including those things we are able to label, and excluding those which we cannot. One thing is certain: writing development is movement to, then through indicatory gesture to the basic representation that allows first order, then subsequent or second order symbolism. And
although written language is first developed as a function of spoken language, this link eventually disappears.

Our paradigm then, which seeks to illustrate language acquisition must be also able to illustrate any sub parts generated by Speech as a whole. We are working towards the creation of the internal structure of a language, how language organizes and structures totality, reflects, comprehends it, and becomes a primary tool to relate it to human existence. The writing that we do reflects our perceptions, retains, restricts, and transfers, most graphically our visual field, and indeed enables us to structure history. The recording of history is the sequential act of writing (we can obviously neither read all at once nor write all at once; we cannot read or write in the way that we can experience, although in writing about the experience we create an illusion in which all participate). I note just in passing the tradition of "scorn" among philosophers for the restrictions of the sequential nature of writing. Although history has been viewed as cyclical, and this has at times evolved into a spiral view, and while a holograph (though by no means adequate would better illustrate our place in the world of ideas) the spiral might serve as the third step in viewing the structure of a learning situation.

A ———— B

Fig. 4
A to B can represent the movement of the subject to the object of his search (a traditional approach to how skills are mastered). B could also
be the learner as object to whom A loads information. The figure can illustrate one to one lateral movement.

In the above, \(A_1\) can become \(A_2\) after interaction with \(B_1\) who, as a result of the interaction, can become \(B_2\). Though woefully inadequate, we can at least begin to get some idea of the becoming after interaction, but the sense of movement, or the kind of movement resultant from interaction is still vague.

It may rather be that, like the development of higher psychological processes, the interaction is \(B\), which is the people with whom we interact inseparable from the interaction itself; and \(A_2\) is the movement undergone. So the shaping of a higher psychological process should serve as an illustration of interaction within a contact setting. As illustrators of classroom dynamics, figure 4 is the observable, physical kind of setting. Any one person's relationship, either momentary or in
isolation can be illustrated by figure 5. The desired movement of evolution is figure 6. The spiral is the use of the language and the process of acquisition.

In facilitating writing within a group of second-language subjects, the facilitator needs to focus on establishing dynamic points wherein the group comes together. He does not direct this coming together as much as he furnishes material that facilitates it. In many (if not most) situations where the target language is taught in the country in which it is spoken, certain arbitrary measures have already forced a homogeneity on the group, test score performance or socio-economic grouping, for example. Although this forced grouping denies an interesting heterogenousness, it is the situation that many facilitators must work within. Almost all members of groups I have worked with have a degree of literacy in language 1, and are striving for a degree of literacy within language 2. In another place in this paper, the ideas of motive and goals, both specific and group, are developed. Suffice it to say, that the group must have its personality developed, be directed towards a unity if learning is to be realized. Topics, for example, should come from functions within the group and facilitate contact outside the group. But the contact should come in the form of challenges to the writer as a member of the linguistic/cultural group of the class. Activity has to initially be directed towards this. When this goal is achieved, it will disappear as the activity is directed towards a larger goal that the subordinate goal was a movement towards. In acquiring the identity one could furnish the idea of peer critiquing to the group. The teacher/facilitator introduces an element into the interaction of a group, which
enables the group to evolve in a particular direction. In a sense, the teacher is also evolving. This is an idea which is expressed often, and in many ways. But the usual criteria for framing the activity are insufficient. For example, facilitators may choose subject writing which illustrates particular errors as a goal or subject writing which exhibits certain organizational skills. These are both only useful as secondary goals. The primary goal must be the appearance of a group essence, a unity, a personality, and the interaction of good sessions. Good mechanical operations "hang on" as it were, to these goals, but they cannot replace them. Where do you go, for example, after someone has many instances of poor article usage, or becomes sensitive to a particular organizational error? How do you move from here to content? The links are not there. For example, early on, a facilitator could use a topic that draws on a biographical note, something that links the exterior and interior of the subjects in the classroom with their introspection of another time and place. On reading these, the facilitator must select a number to serve as discussion models. His criterion should be representing the group in such a way that all members can read a sampling of the group, a sampling that falls within a certain type of range:

![Graph](image)

The range most useful from which to select samples.
The points of the line, the movement of A (traditionally the "poorest") to B (traditionally the most accurate, most descriptive "the best") are the possible points of selection of our models. Depending upon the accuracy of our assessment within the class, point A, for example could conceivably have limited usefulness, as could Point B. Within the class, the relationship that the items have to one another is not

\[ 1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 5 \]

but,

\[ \text{and so on.} \]

So on the one hand, the linear placement is on the basis of accessibility and readability, but the real placement is directed towards establishing group interpretation of one member's perceptions. The lines are equidistant within the class. The model of the internal graph of some members is further along in its potential for interaction than that of others.

At some time in the development of the class, one can explore how the culture of the target language is ordered, and established lines of interaction from the culture of the class to that culture.

For example, I have taken to class a large cardboard box and given the following instructions:
You see before you a box holding various items. You may be familiar with some or all of the contents; you may even know the names of each. In any case, you are going to write an essay in which you organize and classify the items in the box. You may describe as much as you feel necessary. You may name specific items if you think the situation warrants. You should begin with some term that encompasses all of the contents, then organize your paper into appropriate sub-categories. You are encouraged to handle the items, to study them.

At this point, the content of the exercise can offer several possibilities. Perhaps the best is to direct the members to work in pairs. Thus you have the situation of interaction, of a problem necessitating and encouraging access to a solution via linguistic behavior at virtually every level: introspection, vocal speech, manipulation, contemplation, all the musings of ordering. And the Vygotskyian "hitch" is that, in the case of second language learners, they may know few words that the culture uses to designate the objects, but they probably know and have used the objects. So they are faced with describing without the labels. They illustrate process, as we will see.

I usually use a box filled with paper clips, tape, velcro, vises of several sizes and shape, vise grips, twine, pliers, screws, nails, clamps, plastic folder spines, belts, and so on. In classrooms of native speakers, I allow one class period and specify individual work. The contrast is interesting. Second language learners exhibit a considerably higher degree of classifying by function than do native speakers. I can only speculate, but I imagine that knowing so many labels as one does in one's native language can actually get in the way. Perhaps when the labels are not so apparent, analysis in terms of how something works emerges more easily. The classification assignment, if given to second language learners, also illustrates the successful movement to the
concept of retrievability of the sign upon which language acquisition is predicated. Within the entire array of objects and further, within the classes of the items, the subject, when manipulating the items, retrieves the sign:

\[ \text{subject} \rightarrow A \text{ subject} \]

which in turn recalls instances of how some children use numbers by early recalling invisible points:

1 = 1 point
2 = 2 points
3 = 3 points
4 = 4 points

after which the "points" become combinations or multiplication of the points that appear on 5 - 9.

Below follow two essays from a Technical Writing class. Within the fixed time, and subsequent to my cryptic instructions, only these two of 20 classified according to function:

Fasteners have a variety of uses. They are used to keep things out of the way or to hold things up. Fasteners are used to put things together to form an object or to hold things together temporarily.

Some fasteners keep things out of the way by wrapping around the object and securing it. This is accomplished by Velcro, strings, bungee cords, and metal loops that wrap around a pant leg while riding a bike. These fasteners hold the objects out of the way until they are removed.

Fasteners also hold things up. The types of fasteners used to hold things up are clothespins, belts, plant hooks, and utility hooks. Clothespins work by squeezing an object onto a wire or string. Belts wrap around an object and hold things up by tightening around the object. Both plant hooks and utility hooks work by hanging from a ceiling. They are formed in a "J" and objects are hung from the bend.
Fasteners which put things together to form an object are nuts and bolts, needles and thread, glue, nails, and screws. They work by forcing items together and holding them securely. These fasteners are more permanent than others, although they can be removed with effort when the items need to be separated.

Fasteners that hold things together on a temporary basis are safety pins, thumb tacks, clamps, tape, buttons, rubber bands, and locks. They can all be removed easily when the objects need to be separated.

All of these fasteners have the same basic purpose. The ones one chooses depends on the final use intended.

My comments in class consisted of: "Notice the functions that the writer above uses. Those which 'keep things out of the way' are further explained as devices which surround; fasteners which hold things up—hooks as well as pants, categories that seem discrete from one another; fasteners which unite things—further divided into less or more temporarily." I attributed the repetition to the writer's using her writing to allow herself to think. This probably also explains why the writer has metal loops riding a bicycle (Paragraph 2, 1.4). In general it was a very sound way to attack the question of classification, which is an eternal question in that it is the very essence of how we discern the world, how we make it mean. I remember a Norwegian student once grasping the ordering principles but unable to generate the nomenclature. With a colleague he was able to work around the problem. There were screws as well as bolts in the box, and he wanted to differentiate so he informed me that in his native language, the word for screw and bolt was the same, and the difference was made by modifying the noun to show degree of size and purpose. He considered this important because he had considered the possibility that in English we might very well have labels for the difference. The second example by an American woman who showed skill and insight in addressing the problem:
All the items on the floor are fasteners. I will use the following categories to classify specific items:

1. Clamps
2. Adhesive
3. Ties
4. Screws
5. Nails

Clamps

The items that fall under this category are related by a "pinching" feature, i.e., they attach to other objects by pinching them together. This is done by spring-action in the case of the clothespin, vise grips, and alligator (roach) clips. The C-clamp and the forceps must be acted upon by an additional force to hold the item in place, i.e. the vise must be screwed to exert pressure on an object; the forceps must be held in place.

I included the paper clip and the white paper binder, although they are unique and are self-contained fasteners without any springs, grips, etc.

Adhesives

The items in this category create a bond to join two things together. The wood glue, tape (scotch, strapping, masking, electrical) and Velcro fall within this subheading.

Ties

The ties all have the ability to wrap around things to join them together. The items on the floor that are ties include string, wire, thread, Bungi cord, belts, and rubber bands. I would also place the paper clip here as a possibility since it does wrap around paper.

Screws

Screws, as a generic term, are all items that must be turned by a force to fasten two objects. The items in this category are screws, utility hooks, plant hanger hooks, and the mason lid. All these items have different functions, but are used by applying the same mechanical function, i.e. screwing.
Nails

Again, "nails" is a generic term to describe the materials that are driven through other objects to connect them. Nails, as applies to the specific item, are driven through wood by a hammer. The items in this category are nails, tacks, and cuff links.

All the fasteners vary in use, durability, and effectiveness. You must examine the function you need to perform, whether it is to pinch two things together, bond, tie, screw, or nail, and choose the correct fastener accordingly.

In this last I commented to the student upon the visual arrangement of categories, which appear to have been immediately obvious to the writer. The writer has actually sorted through what she has seen and classified according to function. She was quickly aware of the need to direct her reader. It is interesting to reflect, and to comment upon in the group, the varying approaches. Watching people begin is watching different appearances. That is, the different steps that become buried in processing one's writing, surface at different times for different people. It is as if there is a line above which are the surface appearances of one's writing, what you see as the pen moves; and below sunk to various levels, are those operations which have so become internalized as to be buried, to hide the source. The line, though, undulates, pulling the points, weaving from the surface to the interior, and, because of the dynamic nature of man, this weaving probably never exactly corresponds in any two people (certainly I have not observed two within the same group).

The writer could, conceivably, have sub-categorized as to which items in each class tend towards permanence and which do not. She could also, perhaps, have noted that the screws and nails are items that bind by
penetrating (this would have enabled joining her fourth and fifth categories. She could even have observed that all of the items lie within four and five join by friction. At this point it becomes clear that the Velcro from three also does. This, then would bring us full circle as we observe, and reflect that there is a point at which categories are arbitrary, as we see how we break up a unified whole when we classify, the minute we separate our field of vision from all the potential fields of vision. All of the items that join employ friction; so the items overlap in terms of how they work, how they function. Therefore friction is not a good sub-classifier. Recognition of this leads to invention. We look at all of these items and in order to understand, in order to make them serve, we have to break down the total picture; but that total picture and the pictures of them in separate classes exist simultaneously—a paradox. Those who analyzed the items in terms of their construction (wood, paper, metal, etc.) go through a stage that perhaps all of the subjects, to varying degrees, went through. But this is merely a step in seeing an object. Materials of construction are chosen according to how they will contribute to the efficacy of the device. We begin to see the why of an object at this point. If we classify in terms of what the items join, we do not define, we merely list examples of use, a list we could never complete (you can also see here that the apparent what can misrepresent the source). This would, were it correct, preclude invention (which is really what we also think of as the genesis of creation). The how and the why then, are the routes back to the source; and an item's function can never be separated from what it is. At this time I am reminded of Yeats'"Among School Children":
O body swayed to music, o brightening glance,
How can we know the dancer from the dance?

The point of all of the above, is the predication of writing activity on uniting the subject in a totality of view. It is as activity should be. The writing unites the writer with the process and with the essence of Process. In constructing her response she interacts with others, she manipulates, she interacts with the function of design (indeed she sees an object in terms of function). The process, like her, is fluid and dynamic.

Perhaps most significantly, the activity cited above is not a "what if" proposition that, for the student is outside the group experience of the class, and may remain outside the subject's experience in its speculative potential for realization. The context of the group is real instead.

Context

The property of a message referring to something other than itself is what Jakobsen calls context. This context is one point of the triangle of "The constitutive factors of communication."

[Diagram of Jakobsen's Constitutive Factors of Communication]
The code is the shared meaning system, the structure of the message. The contact is the physical and psychological connections. Jakobsen further breaks down communication into its functions: the emotive is the addresser's relationship to the message; the conative operates at the other end, the effect of the message on the addressee; the referential is the "reality oriented," that is closest to "factual" communication; the phatic is merely the maintenance of open channels, the "hellos" and the attitudes that maintain the potential for dialogue, for example; the metalingual identifies a particular code, the engagement of cocktail party talk and not the deciphering of a mathematical theorem; the poetic is the relationship of the message to itself, the aesthetic sense of words measured in their own world.

I mention Jakobsen because his illustration presents the problems of the best of two-dimensional conceptualization. That is, the relationships between the terms still seems to be static rather than dynamic in that action appears from only one or two sources. The concepts that act upon each other seem discrete too. Function cannot be separated from the essence of the property that functions (in this case, language or communication); and context does not lie within a relationship but is the relationship.

We are still searching to illustrate a theoretical perspective that acknowledges totality; how language fits within the totality of human activity (in a sense, in the development of higher processes, language and activity); how language acquisition fits a learning system based on totality, how the activity, the "objects," the processes, and the histories of all that preceded are grounded in this totality.
The search for a graphic model could perhaps overcome dimensional limitations through the use of holographs. We have so altered our nature (re-constructed it) so that we can view two-dimensional graphs and illustrations and allow them to represent relationships that are not two-dimensional; for example, the relationship between a teacher, student, subject; or the interrelationship of the price of grain as it is affected by weather, supply and demand, a bumper crop, drought. We need a paradigmatic system that shows that this ability is as surely learned as is the child's ability to "recognize" himself in a photograph, or to attribute the "I" to the meaning of a mirror image, something no other life form can do.

At this point I would like to re-visit the illustration intended to show the process link of appearance and source, and expand upon it:

The shapes are intended to represent vortices of movement, links of appearance (1) to source (2). The link is not with a stationary source because in developing, you are not, relative to where you were, in the same place. Therefore, the link is not static, the source is not static,
and the appearance cannot be. The vortices represent a kind of flowing back and forth, up and down. The appearance at one level, can be the source at another. This is merely an illustration of the process of generation. A, B, and C are the \textit{same size}, which brings us to another development. They are the same size because, more accurately, they have \textit{no size}. That is, like the constraints of the time illusion, "size" misrepresents. The notion of size is used to express more than physical dimension but it has the \textit{property} and the \textit{effect} of physical dimension, hence its misrepresentation in all of the larger contexts in which it is used. Space makes sizes relative. Time, which is even further from representation, is a transcending of size.

The next step is an \textit{experiencing of the reality} the model illustrates, a step so far elusive. It is obvious, though, that we can experience processes ("experiencing" is itself a process) and not things.

This process or function, when applied to an object can be illustrated by the problem of codifying the context of the word or language in second language instruction. Teaching that code, not, for example teaching a Spanish-speaker that what he calls "coche" we call "car" in English, but that there is a coche "ness" of the first language and there is a car'ness' of the second, and this "ness" is the word, or the signification from the cultural context, in a "source" sense as far as the culture is concerned, and in the "appearance" sense as far as the culture's perspective of the individual; it is in the source sense as far as the individual is concerned, and as the appearance level as far as his perspective of the culture. This is the praxis of word/concept -concept/meaning.
As substantial numbers of people migrate into a country and culture, the culture is affected, changes in a qualitative way, and the signifiers of that culture are also affected. If the language is a universal language (to a degree) then the cultural values of those who learn it effect its terms and values; the connotation of the word "car" for example, becomes important, and not just in the traditional contextual way (that is, in time, or characteristics of those in the main of the larger language affected).

This is the general position from which the Council of Europe (1973, 1980) in developing adult language learning systems operates. They are facilitating second language instruction by developing from the policy level, the content level, and the situational (contextual) level.

Their work is noteworthy because it is a substantial effort towards breaking the barriers of monolingual systems. A conclusion of the council (the Committee for Out-of-School Education and Cultural Development, which followed the Symposium on Modern Language Learning in Adult Education held at Ruschlikon, Switzerland in May, 1971) was that effective adult learning could be facilitated by:

"stimulating" governments to survey their own existing provisions for adult language learning; determine the demands for teaching (actual and potential); survey learner motivation and community social and economic needs;

[recognizing that] content should be learner-centered and motivation based;

[and that] organization of the content of the system should result from analysis of the language acts in which the learners will eventually participate, i.e. language systems, language skills, and language situations.
Here, then, is a plan for systematizing language instruction by making "participants" of government, subjects, and the skills to be acquired. This is a valid attempt to recognize the organization at many levels, and to intertwine these systems into a larger one. Particularly interesting is the idea of establishing motive and experience on the part of the subjects as a tool for program direction, and the idea of studying and anticipating the potential language situations. The suggestions are all seen at the individual, the cultural, and the governmental level, as well as the overlapping functions of these levels.

The Council is obviously interested in developing paradigms that move in the right direction, i.e., those that function best are those applications of formal education that recognize education as a life-long process to the extent that each individual is encouraged to organize his own experience; to deal with a larger problem into which he/she fits (employment changes, e.g.); and to develop creative abilities and personality. Within this framework, "personal teaching in an institutional framework is but one element of these systems." A language learning system based on preparation for the language situations in which the learners will participate calls for research into "situational structure" and analysis of it "in terms of persons, purposes, setting and matter...in order to establish a typology of common generalized language situations..."

I would like to conclude this section with a note about a variation of the "freedom" that truth engenders, followed by some conceptual gymnastics. Process is liberation. The whole idea of becoming, the ability to view in terms of function, or the processes of interrelation
can only emerge in fecund conceptualization. The forming of mental concepts is a path beyond the confines of the static reality, which we have come to believe in, and in believing, have accepted a limiting world. The logic of a limited world, the logic of a static, positivistic world necessarily dictates that if we accept it we are accepting its basic premise, that it is the bounded reality, and it can allow no other. Now, if our conceptualizing tools have been made in this world, then they are geared to keep us in. It is only by calling upon the sources of the biological/cultural interweaving that we can escape limited belief, for the source of biological/cultural interweaving has not engendered a limited view as much as it has subsequently been restricted and shaped by it. Process, as I said, is liberation. And in this case, it is the process of conceptualizing beyond empiricism.

In 1976, J.J. Callahan offered some structures, which if attempted conceptually, with some application of internal vision can lead to some internal forming of process. His starting point is the notion of an infinite world, or rather the conflict between wondering if the universe is infinite or finite. He notes that if the universe is finite, then it must have a boundary. But this, logically, must be false, because a boundary can only separate one part of space from another (at this time try to recall discussions of context, because this is obviously a crucial concept. Within the context of the discussion so far not only must Aristotle's proposition of a finite universe be false, but our context creates the kind of dichotomous thinking that allows the question). Context involves the paradox of the finite universe. Euclidean Geometry treats "ideal objects" in an infinite mathematical context, but its
axioms exactly describe spatial relations to the real world. For space to be Euclidean and infinite is an interesting thought because one has finite tools measuring (and being "true" in) an infinite world. The Kantian view, that one cannot really ask the question, is the "antimony of space," that it is neither an objective property of the universe to be either finite or infinite (another tool here; a linguistic one: objective). Kant is still dealing with the idea that objective truth is Truth and that this question lies outside the realm of objective truth; somewhere in "pure reason." Newton asserts that the universe is finite. The implications are that theoretical instruments lie undeveloped for measuring it. At this point we begin to approach the possibility, at least theoretically, of a universe that can be represented to scale. The antimony of space, and the expanding universe allow for equidistant galaxies. But we cannot, because of the theory of the curvature of space, construct, with laws that obey Euclidean geometry as seems to be manifest here on earth, models of five or more equidistant "objects" (in this case, Galaxies). So we have an apparent reality of the universe that is incompatible with rules governing reality on earth. There is no way to build a laboratory model consisting of five equidistant models. Therefore, our powers of observation at the theoretical level are not consistent with perception or experience. We are talking about a different kind of reality. Yet, physically, the reality of our immediate field of vision, as well as our imagined fields of vision, exists within the larger reality, the truth of which we have not discovered.

We are led to infer that a three-dimensional "spherical" space must somehow curve around into a fourth dimension. The analogy collapses because it is hopeless to imagine
what the extra spatial dimension looks like: no one has ever seen it.

Physical space has no extrinsic geometry that we know of, however, because every spatial property we know relates to figures and measurements made in space itself. Thus space cannot be analogous to the surface of a sphere, because it has nothing comparable to the sphere's extrinsic geometry.

Callahan concludes, in searching for a mental concept, that space is not a thing, "but one of the forms through which we organize our perceptions of things." So the entire nature of forms becomes the question.

In our own search for a model, the problems that don't seem to go away defy definition. Am I conceiving of something material, even if its only material in my mind? Does this mean that the kinds of "materiality" of which I can conceive are limited, and that even the unimagined are restricted by the world that I have structured and that has structured me?

We need not feel too limited by a totality that we cannot imagine (and cannot represent). That is, the fact that no one has ever "seen" it or its model does not preclude us from (discussing, recognizing, creating [if you will]) it. Perhaps the totality that we discuss is the essence of the process of recognition; the creating of a theoretical perspective based on it. We are not justifying basing a model on something we do not know; rather we are positing an entirely new approach to the notion of basing—a basing that allows for discovery and expands from it.

We are in a search, much in the position of one looking for an external position from which to extrinsically observe and deduce reality, while immersed in and surrounded by, a part of reality that, because its limits are unknown, restricts us to intrinsic observations. The analogy
of Callahan is an interesting one. It is interesting because one can only recognize and establish relationships in the limiting reality to which we are accustomed by comparing something (in this case a reality) extrinsic to the original. There are qualities of the reality our model seeks to represent that cannot be inferred from the model. This is because they are qualities that are features extrinsic to the model (and intrinsic to reality?). The law of the model and the law of the reality it seeks to represent lead to antimony, the irreconcilability of opposing but rational laws... A positivistic world does not allow of this. Our problem is not in representing things, but in representing the forms in which those things are organized.
Additional Applications

The development of a theory is more than the result of pure reflection. It has been my opportunity to teach English as a Second Language, and, as with many of my colleagues, to search out methodologies that "work" in given situations.

Some years ago I accepted an appointment to teach fifteen Nigerian elementary and secondary teachers newly-arrived in the United States. Because they had arrived after the quarter had begun, the three staff members in the English Department assigned to teach them had class five days a week for one hour, as well as an evening class. This kind of contact turned into an asset in the sense that we were given more contact hours than is the custom. In addition, I noticed that virtually all the members of the class to which I was assigned were from three ethnic groups. Most were Moslem, although there were a few Christians, and an even smaller number who practiced religions indigenous to their regions and traditions. All were from the northernmost reaches of the country, a largely rural area. I mention what I have so far in the way of description, because I found myself, in noticing these observations at the time, using the tools of the ethnographer. That is, because of the time (our contact was extensive), because of the element of motive (they were very highly motivated, having been entrusted by their government and districts with the responsibility of serving their fellow teachers upon
their return), because of the fact that they all spoke a common language in addition to English, they quickly began to develop into a unit. This frequently is atypical to second-language classes with respect to linguistic background. I too had motives I shared with them. I was recently arrived. I was extremely grateful for what I perceived as an opportunity. Like them I was far removed from my family. We all began to establish a kind of comradeship upon which everything we did as a group was based. This was only possible by first becoming aware that this group of which we were all members, possessed characteristics, and that these characteristics were the results of histories that each brought with him to the class. Many of the past experiences overlapped, as they must when people have things in common. But to the group each also brought his subjective perceptions. This was an early stepping stone to creating a certain kind of classroom dynamics—dealing with one's own perceptions and with the perceptions of the group. In order for us even to survive as a unit we had to gradually learn that objective reality was at best obscure.

Early on I assigned an essay based on description. This is usually a valid place to begin writing instruction. It illustrates, if carefully done, the ethnocentric nature of perception.

Our first assignment was to describe, briefly, the dwelling with which we were most familiar. The reader should be able to "see" the place described. All of us, myself included were to write. When we shared what we had written, we began to become aware of the relative nature of terms and concepts like "large". Typically one from an urban area saw large, in terms of his own dwelling as more compact than did one from the country. When I wrote that the house I had grown up in had a large tree in front,
it was they who made me realize the vagueness of a concrete term like tree. Indeed, none had envisioned the type of tree I had had in mind. Underlying this entire process is the gradual awareness that language cannot be separated from its purpose; that is, form and content in language are interwoven. Words have meaning, specific meaning, because of their form, and messages take the form they do because the content. Meanings in our situation were often obscured because reader and writer often forgot to take into consideration the history of each. What our messages denoted was fairly clear (and relatively flat). What they connotated (which was much more important) was not so easily obtained. Grammatical ity could be useful only where it was seen as conveying meaning in a contextual way.

We went, as a class, from this to another assignment. I asked them all to get together and choose an instrument they could reasonably assume I would not be familiar with. They were to then each write a descriptive essay. At the appointed hour, I chose one member of the class to carefully read a few papers I had chosen, while I drew on the board a figure depicting the instrument. The class had selected the kalangu, a type of drum. The members were intrigued as I made rather poor efforts at first. Many were amused. Most realized, though, the difficulty in recognizing what one assumes, when he writes, and how these assumptions are often not well-founded. Those who had made the most superficial efforts at writing had descriptions that I indeed could not replicate. Some described the drum as being made of wood, forgetting that "made" could mean assembled from several pieces, and that "wood" was not the same as a log. Gradually, it emerged that the drum was fashioned from a
hollowed-out log. But its overall shape was described accurately by only a few. And this illustrated to them the way distinct terms of measurement function in language. One wrote that the log was hewn in the middle, as if two cones were "joined at the vertices." I was impressed by both his ingenuity, and his vocabulary. Try as I may, it was very difficult not to accurately represent his effort. We had examined a wide range of writing ability, a wide range of perceptions, a wide range of individual awareness.

The point in all this is that I found it both necessary and beneficial to be aware of as many components of the class as possible. That is, in this type of class it was necessary that one bring his own history and acculturation to the activity of the classroom, and that this activity was entwined in a linguistic activity. The topics were discussed, pored over, re-vised, and evaluated by the class members. Each was certainly aware of many levels of goals and motives. There were particular tools and operations that I intended to teach, proper use of a preposition, for example. But the contexts in which these kinds of specific devices were taught were subordinate to larger, more meaningful contexts, contexts of ideas. While members of the class would work towards an idea, all were conscious of the necessity of the entire group, myself included, working towards a goal.

To become aware of what the group needs or may need, one must leave the prescriptive bent of doling out particular exercises, and discover the identity of the group in terms of common experiences.

I once taught a class comprised mostly of Malaysians. With them I developed the habit of choosing student papers, typing them exactly as
they appeared, copying them, and distributing the xeroxed copies to class members. I would read the papers aloud as they read along silently. We would then criticize the work, then each would revise, trying to imagine clearly what the writer meant to say. The basis for this is meaning-oriented revision practice. That is, to say that after a while, members began to value one another's contributions, and appreciate the perceptions of others. It was in this particular class that I offered to quit reading papers aloud, but was stopped by a young woman who maintained that we were looking at what people had written (with an emphasis on both the people and the writing); reading this work that had been produced by a real member of the group; and hearing the sounds of reading aloud by a native who was familiar with the sound system of the language. Without saying it, she was illustrating the importance of presenting the language as an integration of its linguistic forms. From her I learned that her problems with the article were compounded by not hearing them, even when natives, like myself, read English sentences in which the article was clearly written. I became conscious of how frequently contexts occur in spoken English in which we at best slur over many articles, and how, in learning to write in the language, many were relying on a sound system that almost seemed capricious when compared to the rules of spoken language.

As a member of an ongoing project aimed at teaching Japanese English teachers during an intensive summer program, I worked on a listening lab that would, I hoped, leave behind the kind of labs that flourished in the days of audio-lingual methodology. Some colleagues and I, after two years in the program, made our own tapes which consisted of us asking and answering questions in which idiom played a large part. We employed many
of the reduced speech forms so common to spoken language, but, more
importantly, the topics of the tapes reflected visiting the local bars,
shops, and stores, and writing down dialogue we were actually hearing,
dialogue those who were part of the program were likely to hear. We then
asked questions based on correctly interpreting the content, relative to
several possible choices. The framework reflected here is that the
dialogue is as timely and close to the situation of the students as we
could possibly reflect. Motives were clear, and dialogue was natural.
The listening was tailored to specific circumstances which the group would
have in common. Like the other experiences mentioned above, the
ethnographer's tool of emersion into the situation of those whom he
studies, recognizing that he has an affect on it, as do all group members,
is practiced.

Implications

The implications for using a theoretical framework that recognizes the
affects of Vygotskyian methodology on second-language instruction, and
substantive changes in perception on context and language acquisition, are
that instruction recognize, not that there is a right way, but that there
is a way to liberate oneself from believing that there is but one right
way to learning.

The framework that I have tried to create is aimed at heightening the
second-language instructor's ability to recognize the perceptual bases of
the language learner.

Second-language acquisition theories are probably more in a stage of
growth than that of many other disciplines. The time is right for
movement beyond the framework created by the generativists, and to build
upon sound tools of many preceding theories. Although structuralism as a methodology is limited, recognizing structure in language and the way that language structures are valuable instructional tools. To this Krashen, (1985) for example, has added the constituents of Comprehensible Input Theory which rests on hypotheses and claims that competence in a second language is based on a subconscious acquisition, similar to the process of children acquiring their first language, and conscious learning about the language:

We move from \( i \), our current level, to \( i + 1 \), the next level along the natural order, by understanding input containing \( i + 1 \).

(Krashen (1982, 21)

The point of this position is that the second language teacher cannot teach speech directly, but can only facilitate comprehensible input by contextualizing messages. This is a good step away from the formulaic approaches to second language teaching so often existing apart from any methodology.

Further implications are that ESL teachers must possess personal qualities that are difficult to assess in any quantifiable way. They must understand the nature of those whom they intend to teach. They must respect the cultural setting that the class becomes, and most importantly, they must understand the nature of language, that it is social and functional, two elements inseparable from its instruction.

Learning one's native language "flows" at a time when one is hampered by no interference from any other language, when one is responding to this first language as initial means of linking himself to the external world. It's as if there is only this path to consciousness and his predisposition to follow it, to realize it, is quite high. Learning a second language is
a conscious attempt to internalize the operations of that language, to gain automatic control of the language, and this is ironic because it means getting to the point where you no longer can have it as your conscious goal.

Language competency, be it native or second language, is the ability to recognize order, inflection, and function words, and establish the measurable "sets" the language allows. This does not allow for redundancy (as a way of reducing the auditor's possible choices, for example), or the element of creativity, possibly the most significant.

The position that rules are finite is true only in the broadest theoretical sense. It is not a reality lived by the speakers; combinations may be theoretically finite, but the bulk of expressions is unique and it is this statement which is profoundly true: linguistic ability is the capacity to produce something we and others grasp, though we will see it or hear it in its exact form but once.

In acquiring a second language one instinctively uses his native language whether he's conscious of the rule structure or not. He makes value judgements about the language, about the ability to express within the language, about the form in which conceptualization is ordered within one language. This attitude is not inherently bad. It can be built upon. Stern points to three "inferencing" orders that he believes are to some degree instinctively used in the movement from one language to the next. Intralingual inferencing occurs when the student, within the context of the target language notices form, order, strategy, when movement, perhaps, materialized as predication within the language, predication "experienced" within that language. Interlingual is movement from the form of one
language to recognition of a form within another language (which sounds like contrastive analysis), when, for example, the learner recognizes a sentential movement of predication in the target language and the recognition was at least in part because recognition of the element (predication) of one began by its like recognition in the native language. The third inferencing is extra lingual inferencing, when the learner internalizes something about the target language from experience external to linguistic expression.

For the acquisition of linguistic competence, the motives and objectives of native and non-native speakers will, with certain contingencies, be similar; likewise, there will be levels (perhaps degrees) where they will be quite different. An ESL program should accurately reflect the motives and objectives, and respond to direction towards the student's realization of the goals.

The native or non-native will have competence in communication and accuracy of expression as goals. The degree may be quite different, their belief in which constitutes accuracy and competency may be different from one another's and, equally important, their initial belief may be different from eventual belief, or from what the teacher interprets.

An ESL class may be directed (as many are) towards immigrants who will eventually live and work in the country of the target language. It may be directed towards an age group within that group. It may be directed towards entering college freshmen yet within that group. Our definition of the group has gotten progressively more exact as must our identification of the goals of that group, and methods serving that group. The goal might be, not only linguistic ability, spoken and written, to
serve them during the stay at the university, to help them understand other coursework at that university and relate that knowledge, it may also be to help them develop empathy with the culture.

Another course may have foreign graduate students, perhaps foreign graduate students, most of whom are engineering students. Their goals most probably will not stem from any altruistic feeling for American culture, rather ESL for them might be access to principles, the sophistic level of which lie outside the interest of other ESL students.

Where levels are the same, problems, specifically realizing meaning, attaching significance to what they write, anticipating, predicting reaction, will be similar in origin, yet different in degree. A valid course should recognize the class objectives, help them realize what their objectives are, and facilitate them towards all the other communicative relationships implicit in their objectives.

Since second language learners come from one linguistic community, live in another as they study, and perhaps learn the second language of a third, many interesting questions arise if one looks at second language learners while entertaining the concept of linguistic community.

The position some anthropologists hold that we are members of a linguistic community is valid in that language is a manifestation of culture, is inseparable from culture, and is any culture's way of mediating reality. This assumption shall later establish a paradigm for methodology aimed at ESL.

A successful second language program needs a theory that recognizes the underlying causes of problems in second language acquisition; it (the theory) must address the problems successfully.
The culture to which one belongs, and through which one passes as he learns a second language can be involved, even traumatic experiences. Recognition of these stages is important.

The ultimate establishment, or recognition of the ESL class as a culture is the key to linguistic fluency in the target language. We need, then, a theory that recognizes where the student is from, where he is, and where he's headed.

Leont'ev (and Vygotsky) recognized that the manner in which one learns his native language is important. Language is social. It begins outside, and conscious and unconscious efforts are made by the language learner at linking to the socialization around him. The process eventually becomes so internalized, the process itself no longer needs to be a conscious effort, even if the goal is conscious. That is, if an utterance has a conscious purpose, expansion into other forms, for example, the process of using the utterance need not be conscious. In second language learning, the process is largely a conscious effort, as well as movement towards its goal and until the roles are reversed the second language lies exterior to the speaker.

Early in native language acquisition, language is context bound, but in true contexts. That is, an utterance that has meaning, first to the author, then to the participants in a given situation, has meaning because of a relationship established by the speaker, either with a person or object referred to, or with his or her own reflection. In an ESL situation, though, the motive for the utterance lies outside the intended meaning of the utterance.
For example, the child says "water" because she wants water, or because she's wet or some other internalization of a related concept. The second language learner says "water" because he's translating, but more importantly because he's wondering what's "right," or because he's wondering what the listener expects to hear or what the teacher expects. An ESL theory should recognize, though, that these motives are not bound to one situation or the other. A native speaker uses similar reflective tactics when he consciously edits. "Did I go too far? Did I say too much? Is this the word I want to use?" All might pass through his mind as he talks, not as realized thoughts, but as internal processes.

A theory should attempt to exploit the conscious linguistic efforts one makes in one's native language, as well as the unconscious efforts. The development of dialogue and monologue techniques in language instruction, for example, illustrate both. Dialogue has feedback. The speaker reacts to nonlinguistic cues (expressions) as well as to challenges, questions, lapses of interest. The significance here, is that the situation be real. In the context of a classroom to train learners to ask how Mr. Lopez or how Mr. Smith is today (a somewhat less than successful technique of audiolingual methods) artificial. All the imagination in the world is not going to transport the "target" individual to a situation where contextually, the statement is true. Valid class dialogue would be more realistic. Also the value of monologue should not be underestimated. What the monologuist discusses is not as contextually or situationally bound as is dialogue. The speaker reacts to his listener too, in that he predicts reaction or responses, the accuracy of his prediction is based largely on his knowledge of the culture in which he is operating.
The implications so far stated are somewhat universal in that the linguistic origin is with man rather than with specific cultures. Culture cannot, however, be separated from speakers, and any approach should allow for those language learners to manifest culture that apprises the methodology used. I'm thinking specifically of an instance, an opportunity in teaching ESL, that was particularly frustrating. Many of my classroom students were from Central and South America. They were Spanish speakers. Their linguistic fluency in English seemed positively affected by my teaching. I also had another group of Spanish speakers. These were from the U.S., sons and daughters of migrant workers. The approach used on them (assuming, as I know it wasn't, that it was the same) failed. Over a course of time, I realized that while members of group A were literate in their first language, those of group B were not. Assuming a validity (I don't feel is justified) for Shaughnessy's contrastive analysis, one group had no internalized sense of a structured grammar. Actually, though, the significance of the disparity between two groups is much more than literacy, isolated from the culture of which it is a part. On the one hand there was a group of people who could afford to come to America to go to school. What position did they occupy within their home cultures? How did they view themselves? How did they view the roles they were to assume as well as the role they expected of me?

Language is a part of culture, inseparable from culture. Economics, the manifestations of socialization within a culture are also a part of that culture, and, as the categories are not discrete, language acquisition (the kind within a culture, the degree perhaps, when moving to another culture) are affected by the other constructs of culture.
How then, to create a situation that properly reflects the problems of a group, or perhaps more accurately, the concerns of a group? This position is germane to ESL, and should be developed by the student within the "culture" of the class.

The ESL student moves from his home culture. This is: family on one hand; family within immediate environment (i.e. family in a neighborhood of families with a similar culture, the neighborhood perhaps being within an area of dissimilar culture). He is then in the culture of the class, studying the language of a culture or linguistic community to which he, as yet, does not belong. At this point he should be in a class where ethnographic techniques are used. The level I'm addressing is the level that assumes some writing skill. Students should write on their perceptions of their role within the class, on their perceptions of what writing is (please see previous question); more importantly, at this stage topic should be generated from within the class. They begin by studying who they are and this they includes all the participants of the class; the teacher as facilitator. The criteria for evaluation should be meaning oriented. Structure, form, and constituents are inseparable from the activity of writing. Where they are, then, should be revealed to them, as participants, as a dynamic state of flux.

The teacher then, is responding to the acculturation of language within a culture, and the psychological origins of language in all cultures.

The class is a microcosmic culture. Its members bring to it their own circles of culture (circles that encompass the numerous groups to which they, at any point in time, belong). In an ESL class, especially, there is a divergence of ways of looking at an event, relationship, or
linguistic representation of either, that contributes to group apprehension of a process and group comprehension of a theory fundamental to that process. The peer teaching of the acquisition of the perspective of the target language/culture is often more accessible because of the different ways of ordering reflective of backgrounds within the ESL class.

For the class to be able to ask questions of meaning of its members, or to speculate upon possible meanings of a paper produced by a member (or members) is to at once illustrate the necessary link between writer and reader. To analyze meaning, also from the perspective of the entire writing (whatever has been written, a paragraph or a page or more) is to deal with meaning as it is defined by relationships. A sentence, lifted from a page, has the meaning of what came before and what follows, missing.

The class begins to reflect to its members for culture. It has the cohesion of a group and the distinction of one group from other groups. It would, I suppose, be possible to have an assemblage who would not reflect this ethos, who would be 20 or so writers alienated from their writing, but even at such a level the psychosis of the group would stand it apart from other groups.

To properly link where the student is to where he is headed, reflections of activity outside the class, and future to the class become internalized to the group as topic, as motivators of strategies. The effort should, I think, be towards fluid movement.

Summary

The re-structuring of a language arts program might begin with the student and teacher becoming ethnographers, becoming participant observers
in life around them, life, of which they are a part. The activity of writing should serve as a tool of mediation to the world; the link of the interior realization to the exterior awareness. It is a positivistic view that separates reading from writing. Speaking, listening, reading, writing, reacting are manifestations of language form but they're not inclusive. There is, for example, unity in the process of writing while anticipating reaction, reading aloud, silently, or being read to. Linguistically, one category does not begin where another ends; rather, they are qualitatively interrelated.

In an ethnographic setting, writers interview, asking, interpreting (which means first attaching significance to what is written), ranking and selecting information. Their own writing then becomes a transcript of conversation, or a transcript of reflections. Composing should be tied to a motive that eventually replaces a teacher-oriented motive. in a

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paradigm, the student becomes responsible for his own learning (Freire, 1981).

Reading in such a class, consists not only in "outside" material, but in material written and revised by the class. This material is not exterior to the class but is an interpretation of class members' relationship with the world.
The theoretical basis for using ethnography in the language arts class is an attempt to increase qualitatively, through linguistic proficiency, the writer's experience with the world and with his recognition of his own reactions. It is recognition that language is itself introduced externally through social activity, that reality is observation of activity and interpretation of those observations.

The ethnographer uses tools that are particularly valuable for language instruction, not the least of which is himself as the chief instrument of research.

The ethnographer's perspective begins with determining how the participants order the world around them. A language teacher may also begin with this perspective but the teacher's perspective has real value when it is accessible to all the participants in a classroom situation.

If the activity is writing, what is it? How is it defined by the participants? It is through the use of an ethnographic approach that all may discover what writing is.

There emerge, at first, two perspectives from which to work:

What does the student view as writing?
What does the teacher view as writing?

While both need to be developed, before going any further, is there anything in the form of the above construct that is incomplete? The teacher may represent a particular culture with all the characteristics of teacher. The student may be similarly disposed. Then the definition is a polemic argument relative to the position of each. We need a third view: "What is writing?" We then have:
What is writing as a process; what is writing as viewed by student and teacher?

Writing is a process. It is, in all its forms, heuristic. It enlightens the participants. It is a form of human activity, one's mediation of material reality, human interaction, the reflection of social relationships. It is this definition of the process and the activity that must first be defined. What description can properly reflect the uniqueness of each participation and the commonality of the socialization of linguistic activity? Each manifestation is at once unique and patterned. Both are the products of culture.

In its most discovery-oriented forms, according to Richard Young, prewriting is concerned with the writer discovering ordering and psychological changes he goes through. Class invention is concerned with the writer discovering psychological changes that can affect an audience.

From an ethnographer's viewpoint, the writer has to know, or at least consider, the culture of the audience to predict what, in his writing, will affect a change in that audience. As he writes, he discovers forms available to him that change the psychology of the act as it happens. As he edits, this happens. Thought changes, or more properly, meaning is created, altered.

Perhaps the most intriguing aspect of writing as a process is the "discovering" of an ordering principle. This ordering principle is the internalization of a method for structuring, for recognizing, for, as Young would posit, classifying to make sense of the world, to represent it, first to yourself, then to others.
This "discovery" is perhaps most interesting. Though it is seen by some as the eventual recognition of a naturally occurring form, I suspect rather, that it is extremely culture influenced, that the pre-linguistic strategies the eventual writer employs are direct results of the culture. Richard Weaver sees the ordering as "linear," an accurate reflection perhaps, but only about certain linguistic systems.

Writing is a social/cultural process. It is, of necessity, a metaphorical activity. In a sense, few relationships are truer than writing's metaphorical representation of reality. It employs signs which at some historical point represented sounds (or at least represent what is theoretically oral/aural). The signs are not the reality. It locks a moment in time. It objectifies an action. It is the recollection of history, the passing on of culture, the objectification of an action into statis, and writer and audience both participate in the deception.

It is more than (as De Saussiere, 1967, maintained) another form of speech, a visual representation. It is at least the merging of form and constituents. Though the theoretic possibility of sound representation may exist for writing, much, if not most, is not intended by the writer to be read aloud. In a convoluted sentence it is the form which is not apprehended though the constituents are.

Writing uses the tools of a culture, following arrangements prescribed by the culture. It is my contention that what happens to create a culture in the broad sense, people patterning their relationships, happens in a microcosmic sense in the writing classroom. The class develops a history manifest in each personality, and a history drawn by individual family culture. The circles of each culture overlap. The way history affects a
larger culture parallels its use in the writing classroom. The class should look at the writing produced by its members, not only as they go along, but also in terms of how they were writing.

Within a product oriented culture, students are going to look at writing as an act and the act as measurable in terms of a product. It is the unity of the writer to his writing that an ethnographic approach seeks. One would begin by the class assuming the role of ethnographer. How does each see writing? How do they think they see writing? By interviewing each other they should get some responses. How would they order the responses? What kinds of writing do the members of the class do? How is meaning determined? What does conversing have that writing doesn't?

An early task, then, of any class, is to find out what the activity is in which they're engaged. They do this by directly approaching the task.

It seems clear that the study of any language form must focus on its link to other forms. Writing may be talked about in terms of visual signs on a page but this is too narrow. Historically the sound precedes the visual as a sign. What, too, does hearing do; what happens when, for example, in editing, a writer reads it aloud, or imagines how his reader will read it?

The considerations for finding out what writing is, and for its dynamic reflection of relationships are grounded in culture and the predispositions that result in culture. The study of writing, is the study of culture, of the constituents of culture, especially by the participants. In order for the participants to see writing as it affects the writer, as it affects the reader, as it is intended to affect the
reader, the group should look at itself in terms of the culture it forms and assumes. What is going on within the "culture" of the class and what is going on with each member's relations to the class? What, too, is going on with the class' relation to events exterior to the point and time where they meet each day? How do they recognize the changes they've gone through? An additional value in an ethnographic approach is in the system of ordering that may be discovered. While the teacher categorizes according to his perceptions, the class categorizes according to their own. They use this ordering to make meaning of their world and it follows that their writing should be studied, by themselves, in terms of meaning. If it is true that form and constituents are interdependent, then looking at structure discrete from meaning has little value. The writing class must bridge the gap between the distinctiveness of each personality brought into the group and the internalization of rules (like the direct method of ESL) that describe all the members of a linguistic group. There is no contradiction. For all his uniqueness the individual is defined in terms of the culture to which he belongs (Burkheim).

In summary then, I suggest a classroom in which all the participants assume the perspective of ethnographers, look at the act of writing within the activity of writing; look at the activity as a cultural process; look at the culture they form while together (in historical terms too) and the culture within the context of a larger culture.


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