INFORMATION TO USERS

While the most advanced technology has been used to photograph and reproduce this manuscript, the quality of the reproduction is heavily dependent upon the quality of the material submitted. For example:

- Manuscript pages may have indistinct print. In such cases, the best available copy has been filmed.
- Manuscripts may not always be complete. In such cases, a note will indicate that it is not possible to obtain missing pages.
- Copyrighted material may have been removed from the manuscript. In such cases, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, and charts) are photographed by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each oversize page is also filmed as one exposure and is available, for an additional charge, as a standard 35mm slide or as a 17"x 23" black and white photographic print.

Most photographs reproduce acceptably on positive microfilm or microfiche but lack the clarity on xerographic copies made from the microfilm. For an additional charge, 35mm slides of 6"x 9" black and white photographic prints are available for any photographs or illustrations that cannot be reproduced satisfactorily by xerography.

Bailey, Nathalie Hutchins

THE IMPORTANCE OF MEANING OVER FORM IN SECOND LANGUAGE SYSTEM BUILDING: AN UNRESOLVED ISSUE

City University of New York PH.D. 1987

PLEASE NOTE:

In all cases this material has been filmed in the best possible way from the available copy. Problems encountered with this document have been identified here with a check mark __✓__.

1. Glossy photographs or pages _____
2. Colored illustrations, paper or print _____
3. Photographs with dark background _____
4. Illustrations are poor copy _____
5. Pages with black marks, not original copy ___✓___
6. Print shows through as there is text on both sides of page _____
7. Indistinct, broken or small print on several pages ___✓___
8. Print exceeds margin requirements _____
9. Tightly bound copy with print lost in spine _____
10. Computer printout pages with indistinct print _____
11. Page(s) _____ lacking when material received, and not available from school or author.
12. Page(s) _____ seem to be missing in numbering only as text follows.
13. Two pages numbered _____. Text follows.
14. Curling and wrinkled pages _____
15. Dissertation contains pages with print at a slant, filmed as received _____
16. Other _____

_____

_____

University
Microfilms
International

THE IMPORTANCE OF MEANING OVER FORM IN SECOND LANGUAGE SYSTEM BUILDING: AN UNRESOLVED ISSUE

by

NATHALIE HUTCHINS BAILEY

A dissertation submitted to the
Graduate Faculty in Linguistics
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy
The City University of New York

1987

This manuscript has been read and accepted for the Graduate Faculty in Linguistics in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

January 24, 1987
date

Chairman of Examining Committee

January 16, 1987
date

Executive Officer

Professor Donald Byrd

Professor William Stewart

Supervisory Committee

The City University of New York

ABSTRACT

THE IMPORTANCE OF MEANING OVER FORM
IN SECOND LANGUAGE SYSTEM BUILDING:
AN UNRESOLVED ISSUE

by

Nathalie H. Bailey

Advisor: Professor Carlos Yorio

The purpose of this thesis is to study Interlanguage development within a particular structural area in order to infer language learning principles. The area of the English past tense -- the past progressive and the simple past -- has been chosen because of the contrast it offers to English present tense learning. Much has been written about progressive -ing learning, most of which concludes that either easy form or form-learning before function-learning accounts for early progressive -ing acquisition. Some of this research assumes that early progressive learning includes early learning of the past progressive. I hypothesize that the past progressive is learned later than the simple past. I challenge the assumption that easy form predicts early acquisition, predicting that despite form irregularity in the simple past, it will be learned before the regularly formed past progressive. The explanation that I offer for this is that the simple past has a simpler and more natural meaning for the past tense than the past progressive. My conclusion is that meaning constrains language learning more than form.

ACKNOWLEDGEMENTS

The assertion that science is communication seems especially true to me as I contemplate the number of people who talked me through this dissertation. First is Carolyn Madden, my co-researcher and friend with whom I conceived, planned and carried out this experiment. Our collaboration was the most important and enjoyable aspect of this work. To my advisor, Carlos Yorio, I owe an enormous debt of gratitude for his unfailing diligence and encouragement which made the completion of this thesis possible. His interest in my topic greatly enhanced my thinking about it. Very important exchanges of ideas also took place with William Stewart, Don Byrd and Helen Cairns. I thank them for their willingness to give so freely of themselves. Lou Gerstman generously contributed his time to help me with the statistics on the computer. I am grateful more than I can say to Miriam Eisenstein for her support and stimulation. I could not ask for a better colleague and friend. From Gladys Nussenbaum came incalculable help in the form of encouragement of my professional and personal growth. Father Jack Ganly also encouraged my growth by his belief in me. Last but not least, heartfelt thanks go to all of my family for their sacrifices and patience especially to my husband, Jotham, and my daughter Gabrielle. They can never know how much they helped me to realize this dream.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

Deciding between the importance of meaning and form in language acquisition is a little like deciding whether people are inherently good or evil, or whether they are influenced more by inheritance or environment. Take, for example, the question of whether language is innate or learned. The only reasonable answer is that of course language is innate and of course it is learned. To escape from dualism and false dichotomies one can more profitably avail oneself of the both/and approach than of the either/or.

In studies of how second language develops, dualities have also sprung up between such categories as learning vs. acquisition and product vs. process.

Typically a theoretical decision in favor of one excludes the other. Thus Krashen (1981) can assert that

learning (consciously, by rule) is very rare and that most second language development constitutes acquisition from exposure. Not only may this be an oversimplification, but it points up the suspect nature of scientific revolution in Kuhn's (1970) sense of revolution. According to Kuhn the only way new ideas can come into being is by completely replacing old ones. The idea of looking at linguistic products in Second Language Acquisition (hereinafter SLA) research has been replaced by the idea, which is by no means mutually exclusive, of searching for language learning processes. The question of patience aside, I would maintain that these cognitive processes can only be known by their products.

Kuhn's concept of the evolution of knowledge may not be as productive a model to follow in the context of SLA, as Hegel's (1967) spiral theory, though Hegel applied his theory not to learning but to the philosophy of history. His spiral image represents how succeeding generations stand on the shoulders of their forebears in interpreting the events of history. This model includes both an incorporation of previous knowledge and a change of direction. The way individuals understand their own history and the way scientists build theory may have a lot in common: those who forget the lessons of either history or science are condemned to eventually relive (or rediscover) them.

Hegel also articulated another important principle which relates to this thesis. Knowledge proceeds from thesis to antithesis to synthesis. His well-known dialectic can be interpreted (and has been by Dewey) as a theory of learning. This model articulates how opposition is central to learning but also explains how previous knowledge combines with new knowledge to result in an advancement of learning.

The present study on the comparative importance of meaning and form in second language acquisition conforms to the spiral model (and Hegel's dialectic). On the one hand, it builds on previous knowledge by testifying to the importance of meaning, which has been a growing concern in language acqusition. On the other hand it represents a change in the direction of second language research because meaning and grammatical form acquisition are closely integrated (synthesized) in this study as they have not been in much recent SLA research. Evidence of the importance of meaning will be sought in the domain of grammatical form itself, thus seeking to avoid an apples and oranges situation. In this study, I am controlling for both form and meaning on closely related grammatical structures.

The purpose of this thesis is to study interlanguage development within a particular structural area in order to infer language learning principles. The

area of the English past tense--the past progressive and the simple past--has been chosen because of the contrast it offers to English present tense learning. Much has been written about progressive -ing learning, most of which concludes that either easy form or form-learning before function-learning accounts for early progressive -ing acquisition. Some of this research assumes that early progressive -ing learning includes the past progressive as well as the present progressive. I hypothesize, however, that the past progressive is not learned together with the present progressive but is learned much later, after the simple past. I challenge the assumption that easy form predicts early acquisition. Despite the form irregularity of the simple past, I predict that the irregular simple past will be learned before the regularly formed past progressive. The explanation that I offer is semantic in nature: the simple past has a simpler and more natural meaning for the past tense than the past progressive does. My conclusion is that meaning constrains language learning more than form.

Review of Related Literature

First Language Acquisition

One first language acquisition study in particular stands out as having had a major influence on the direction of SLA research. This was Brown's (1973) longitudinal study of children learning a first language.

Brown studied the developmental order of sentence construction and the meanings carried by those constructions. He pointed out in connection with this goal that,

> "...linguistic processes, in general, tend to be invisible. The mind's eye seeks the meaning and notices the medium as little as the physical eye notices its aqueous humor. This work is with the meaning of construction forms as well as with the linguistic means for expressing these meanings. One might expect consciousness-raising to be a necessary preliminary only for the mechanisms and not for the meanings, but I think that it is not quite. Construction meanings are more often out of awareness than are the meanings of content words. They are furthermore generally more subtle and, though ubiquitous, hard to characterize in explicit terms" (1973:3).

Brown heavily influenced the direction of second language research by using an inventive new approach to describing aspects of childrens' first language learning: measurement of their acquisition of grammatical morphemes. He says of grammatical morphemes that they represent the "imperfect convergence of a very large number of characteristics of variables, both formal and semantic" (1973:249).

Clearly, grammatical morpheme development involves many aspects of language, among them meaning. In fact, Brown dubs the time when grammatical morphemes develop as "the modulation of meaning" stage of language acquisition. Brown's conclusion concerning morpheme development was that the children whom he studied demonstrated an

"approximately invariable order of acquisition in terms of [cumulative] semantic complexity and grammatical complexity", although "semantic complexity seemed to do a better job of predicting order of acquisition" (1973: 407-8). He acknowledged, however, that there is a big problem of confounding the two, which in his study of fourteen morphemes presented so much of a problem that he concluded that his outcome "must be considered indeterminate" (1973:408).

Brown thus challenged future researchers to disambiguate semantic and grammatical (formal) complexity in not only morpheme acquisition but in language development in general. Most importantly, Brown's work emphasizes the need to consider semantic determinants of language learning order. He explains that grammatical morphemes mark a special type of meaning in language: meaning which is inconceivable in isolation. For that reason, he refers to Stage II learning as modulation of meaning. Grammatical morphemes accomplish reference or tuning, as with the choices between specific and non-specific articles, between the present progressive and the past, and the singular and the plural. In a further sense, Brown explains that these morphemes modulate meaning by making meaning more precise.

De Villiers and de Villiers (1973) extended Brown's study of language development in many ways, at

least two of which are important predecessors to the work presented in this thesis. First, they confirmed Brown's morpheme order using cross-sectional data. Since my interest was in adults and adults are harder to study longitudinally than children, I was glad to see that a cross-sectional study had yielded equivalent results to a longitudinal one. Second, they also tested adult aphasics to learn about their reacquisition of language after traumatic loss, using grammatical morpheme development and longitudinal methodology to test this. The order in which adult aphasics reacquire grammatical morphemes correlates with the order in which SLA children and adults acquire them. This affirmed my perception that adults are quite similar to children in the way in which they process and acquire language. Also their longitudinal results provide additional support for the cross-sectional results which I obtained with Carolyn Madden and Stephen Krashen (1974) in a test of adult second language learners' grammatical morpheme acquisition. Whatever forces are at work in adult aphasics might also also be at work in adult second language learners.

Dan Slobin's work on operating strategies (1971) was another seminal work in the development of my own thinking about second language learning. Slobin conducted cross-linguistic research on language development, comparing how grammar was learned in various languages.

He discovered, among other things, that when locatives were expressed postpositionally in a language instead of prepositionally, they were learned at an earlier age by children. He concluded from this that learners pay attention to the ends of words. This was the beginning of a set of operating principles which formed the basis of his developmental theory of language learning.

Like Brown, Slobin liberally mixed syntactic and semantic observations together in his operating principles. Two of his principles out of five refer to semantic determinants of language learning difficulty. He proposed that:

-The use of semantic markers should make semantic sense.

-Underlying relations should be marked overtly and clearly.

His other more form-oriented principles were:

-Pay attention to the ends of words.

-Pay attention to the order of words and morphemes.

-Avoid interruptions or rearrangement of linguistic units.

-Avoid exceptions.

The cross-linguistic research which Slobin conducted looked at meaning and form development with an information processing eye. Although Slobin was well aware that meaning must take grammatical form, he

separated meaning and form into distinct operating principles. This separation and the lack of any attempt to order his operating principles has resulted in their limited usefulness.

Second Language Acquisition

General Framework

In a wave of recognition of the truth of what Brown, the de Villiers, and Slobin were saying, and its useful application to second language acquisition in addition to first, second language researchers jumped into the fray of morpheme acquisition research. Two complementary motivations spurred the growth of theoretical research in this direction. One was the need for SLA researchers to be in communication with other language researchers, and the other was the need to challenge habit theory. Second language theory had been cut off from other areas of language learning research because of the assumption that first language habits interfere with second language learning to a degree that accounts for most of the difficulty of the latter. A developmental theory was already being proposed by researchers such as Richards (1971) and George (1972), when Dulay and Burt (1973), using Brown's approach of measuring morpheme order acquisition, seized on the possibility of showing that second language development was not as different from first language development as

the Contrastive Analysis (CA) hypothesis predicted.

Dulay and Burt looked at a subset of Brown's fourteen grammatical morphemes and created a test called the Bilingual Syntax Measure to see whether children learning a second language were as similar to each other in their order of acquiring morphemes as Brown had found first language learners to be. They found that they were. This was the beginning of much subsequent research. Some investigators extended this study to include adults (Bailey, Madden and Krashen 1974). Adults were also found to be similar to each other and to child second language learners. Other researchers compared multiple measures of morpheme acquisition to confirm the reliability of the invariant order of acquisition result (Fathman (1975), Larsen-Freeman (1976a) and Anderson (1977)). The morpheme acquisition order was found to vary somewhat on tests such as writing, but in general it was concluded that child and adult learners from different language backgrounds were learning English morphemes in an invariant order.

Hakuta (1985) points out a major difference between these second language studies and the first language acquisition models on which they were based: the questions that were asked were not the same. The first language acquisition study by Brown called for an explanation of the acquisition phenomena that his morpheme study revealed. In contrast, according to Hakuta, second

language researchers were more interested in analysing the methods by which the results were achieved and then using the results to attack the CA hypothesis. As one of the authors of Bailey, Madden and Krashen (1974), I would agree that the implications of morpheme acquisition research for language learning were not fully specified. Bailey et al. concluded that "our results indicate that [adults] process linguistic data in ways similar to younger learners". At the time that was as much as we could say, based on our results and the fact that the state of the art in SLA was characterized by the lack of a coherent theory. Since the CA hypothesis was the only hypothesis that was really available to be opposed, on the Kuhnian model of scientific revolutions, counter-evidence to the CA hypothesis was consequently overemphasized as the significance of the natural order results.

The significance of the natural order studies was that they showed that 1) second language learning, like first language learning, is systematic; it follows a predictable course of development across learners and language backgrounds, with variation being less prominent than similarity, and 2) the sequencing of grammatical errors is highly indicative of the language acquisition level of the learner; i.e., beginning learners are known to make certain kinds of errors and advanced learners are known to make others. These remarkable facts were well

established through the morpheme acquisition research but they were not well explained, as will be seen in the review of related literature below. And, as the result of the lack of a satisfying, principled explanation of the order of grammatical construction learning, SLA research mushroomed in many directions, including discourse analysis, without a unifying theory of second language learning upon which to build. This led to an unnatural separation of form and meaning in SLA studies as the issue became lost in a sea of unrelated research.

Hakuta (1985) has commented on the relationship of levels of analysis in language acquisition research. He has gone as far as to say that,

> "It would be rash to conclude that there is a progression with grammar developing out of meaning and communication. Grammar, meaning and communication are distinct levels of language and cannot be interchanged. Each has its own course of development, and it is still unclear how they are related to each other" (1985:113).

Although it may be more convenient for researchers to assume that there is a unique course of development for each of the three areas of language which Hakuta identifies, I do not feel very comfortable with a separation of levels in language learning. Inherent lack of separation is probably why it has never been possible to establish an order of acquisition of communication, meaning and grammar development. The relationship of communication, meaning and grammar may be the very issue

in language learning to which SLA studies can uniquely speak, in fact. Unlike in first language studies, in second language there is less confounding of cognitive and language development. It is not necessary to question whether the learner has acquired the concept of pastness, for example, when determining whether a past tense marker was never intended because its meaning was not understood or if it was missing for some other reason.

In this thesis, I will attempt to clarify the relationship of meaning and form learning by investigating the acquisition of a particular area of the grammar: past progressive and simple past learning. My goal is to determine whether form or meaning is more important in predicting the order of development of these grammatical constructions. I am looking for a prioritization of Slobin's operating principles having to do with form and meaning. In so doing, I am challenging the idea that form and meaning are acquired separately in the course of language development. Most importantly, however, I hope to address in this thesis some unresolved issues in SLA research. The ordering of meaning and form as determining factors in the acquisition of grammar has long been neglected and carries the promise of unifying SLA theory.

Closely Related Research

In both first and second language acquisition studies, the progressive -ing has consistently emerged as

an easy grammatical construction for learners to acquire, at least as a roughly tuned form/function relationship (Brown (1973), de Villiers and de Villiers (1973), Dulay and Burt (1973), Hatch (1974), Hakuta (1974), Bailey, Madden and Krashen (1974), Wagner-Gough (1975), Larsen-Freeman (1976), Frith (1977), Olshtain (1979), Lightbown and Spada (1979), and Pica (1982)). Despite the robustness of this finding, many researchers have had trouble explaining it. The explanations have tended to focus on one of three factors: form, function or frequency.

I will review the history of attempts to explain early progressive learning. Brown (1973) concluded that, in the long run, acquisition of the full progressive (aux verb -ing) is equally predictable by both syntactic and semantic cumulative complexity, causing a "semantic-grammamtical confounding". He explicitly rejected a frequency explanation. He collected data showing a low correlation between the morpheme acquisition ordering of the three children he studied and the morpheme use ordering of their parents in talk directed to each child.

In the process of coming to no decision between form and meaning, Brown discovered that before any verbs acquired grammatical morphemes, they appeared in the generic unmarked form. The childrens' parents could discern four meanings for the use of those verbs:

imperative, past, future intention and progressive (temporary duration). Brown reports that progressive -ing was the first grammatical marker to reach acquisition criterion, and that was just before the irregular past was acquired. In order to be sure of what the progressive was marking, Brown looked for a semantic contrast between the progressive used to express temporary duration, the principal use children make of the progressive, and the simple present used to express non-temporary duration. He identified five non-temporary meanings of the simple present: recurrent activities, timeless relations, permanent relations, characteristic actions, and instantaneous actions. He found that these meanings were not marked until a much later stage in the childrens' development. He was bothered by the lack of semantic contrast between the progressive and the simple present at the early stages of learning. He felt that the temporary duration meaning of the progressive could not be said to be acquired if the corresponding non-temporary duration simple present meanings were not grammatically marked. I will take the position in this thesis that the temporary duration meaning of the present is in semantic contrast with non-temporary duration, not within the present tense but rather across tenses with the past tense completive meaning.

A sense that the progressive is lacking the

requisite semantic contrast has been discussed in many SLA studies. Many researchers give this as a reason for concluding that form is acquired before meaning. It appears, however, that semantic contrast might be developing between the present progressive and the simple past instead of within the present tense.

Form Before Function

Two second language researchers who struggled with the question of semantic contrast and, like Brown, were forced to conclude that there was none for the early progressive are Wagner-Gough (1975) and Olshtain (1979). Both come to the position that form is learned before function.

Wagner-Gough says that "we may have falsely assumed function to be a precursor of form". Her five-year-old Persian subject, Homer, learning English naturalistically in a nursery school over a five-month observation period, used the progressive -ing in future and past constructions as well as present (and an occasional imperative). Wagner-Gough concluded, therefore, that the progressive was in semantic free variation because "it didn't contrast with another tense". But it is very important to notice that Homer's use of the -ing in the future was appropriate (i.e., "I'm taking 'nother one" and "I'm going give it to Mark"). And the uses of -ing in contexts where a past or an imperative

belonged could just as well be called instances of overgeneralization of an old form for a new function that does not yet have a form. If anything, it seems as though a contrast of meaning between the future, present and past was occurring in Wagner-Gough's data through overgeneralized progressive use. Looked at another way, Homer could have been learning function before form!

Wagner-Gough observed that the progressive -ing did not seem to emerge as a form whose adult function was clear to Homer. But why should target language functions be clear to a low level learner when they first emerge, especially to a child? Does Wagner-Gough expect instantaneous and error-free functional control? And failing that, can it therefore be concluded that function is not a precursor to form?

It seems to me that Homer is demonstrating, with his use of -ing, an awareness of as broad a range of verb functions as Brown's first language learners; i.e., imperative, past, future and progressive. Just because his form/meaning representation was not always correct strikes me as insufficient reason to claim that semantic contrast did not exist. Wagner-Gough claimed that Homer was just grouping forms by sound ("I going", "I'm go", and "I'm going", which were all used similarly). It may be that recurrent -ing use in the past (past progressive), present, and future constructions facilitated Homer's

expression of a wide range of verb functions. The recurrence of -ing use does not have to mean that no difference in functions existed in Homer's developing language, however. Perhaps Wagner-Gough would like these functions to be expressed without any duplication of form. But, in fact, the English language reuses the -ing form to express aspects of the past, future and present tenses. Homer's early evidence of use of all of these verb functions seems to me to be a demonstration of semantic contrast rather than the absence of it. Use of the -ing form to express several tenses is not necessarily inappropriate; i.e., the majority of the examples of Homer's -ing use are in the future, where the progressive form is accurately used.

Wagner-Gough concludes that form is learned before function and that the reason why the progressive is learned early is both form and frequency related:

1) The -ing morpheme is easily recognizable.
2) It is frequent in speech.
3) It is phonologically stable.
4) It does not, morphophonemically, affect the base form of the verb.

Olshtain disagreed with Wagner-Gough's premise that the progressive is learned early because it is an easy form. She says that the full form, be & verb-ing, is not easy because it requires complex subject/verb

agreement, forms a discontinuous constituent, and occurs without the be auxiliary in many instances (i.e., gerunds and participial phrases). In order to understand the development of this construction better, she followed the development of seven-year-old Orly for two months as she learned English naturalistically from her classmates in the second grade.

Olshtain traced several stages in Orly's development of the English progressive, both present and past, in durative-incomplete contexts. She concluded that form is learned before function because "Orly uses the progressive form beyond its obligatory context and makes no definite semantic contrast" until she stops using the progressive in place of the simple present. Again, like Wagner-Gough, Olshtain was using accuracy as the basis for her judgement that no semantic contrast had been learned. Perhaps a better measure would be frequency of obligatory occasion because if function learning had not begun Orly would not have been producing contexts for simple present use.

Looking closely at Olshtain's argument for form-before-function learning, we notice that she has accounted in a strange way for Orly's choice of the progressive as her preferred verb construction to learn. Olshtain explains that Orly learned the progressive first because a durative-incomplete aspect does not exist in Hebrew. Why

is that a reason for choosing to learn something first? It seems as if some better explanation must exist for why Orly would choose to mark the durative-incomplete aspect ahead of other aspects which were marked in her native language. Olshtain suggests that it is because Orly hears the progressive more in school. She does not support this opinion with evidence from Orly's classroom, however. This is just her impression from the type of verbs she hears Orly use (i.e., reading, writing, working, etc.) coupled with the absence of the inappropriate use of progressive for other types of verbs (e.g., knowing).

Two pieces of information from Olshtain's research were especially thought provoking. For instance, she reports that a "Eureka" discovery occurred from one week to the next in Orly's ability to distinguish appropriate progressive vs. simple past use. (This supports my hypothesis that it is indeed the simple past that supplies semantic contrastiveness with the present progressive.) And then, in charting Orly's progressive development, Olshtain discovers and puzzles over two valleys in the frequency of her progressive use. One occurred at a time when there was an increased use of the simple present form and one when "Orly almost forced the past tense into most of her utterances". Olshtain queries, "Is it posssible that the learner's more intent concern with a new structure or form causes a setback in a previous structure

which has not been fully mastered?" I think that Olshtain is quite right that this was what was happening. Language learning may not be as plateau-like as Olshtain and Wagner-Gough assume in their conclusion that form is learned before function.

Frequency

Larsen-Freeman (1976a) claimed that "morpheme frequency of occurrence in native speaker speech is the principal determinant for the oral production order of second language learners" (1976a:132). She based that claim on positive correlations between the orders obtained by Dulay and Burt (1974), Bailey, Madden and Krashen (1974), and Larsen-Freeman (1976a), and Brown's order of parental morpheme frequency in talking to two-to-four-year-old children. (See Dulay and Burt (1978) for a discussion of Larsen-Freeman's conclusion that this could be a causal relationship.) Note that Brown did not claim that frequency was a cause of morpheme order in the very children to whom the parents were speaking. Larsen-Freeman (1976b) tested classroom frequency of morpheme use in teacher talk to university ESL students and showed a positive correlation between input frequency and morpheme accuracy. Long and Sato (1983), testing a beginning university level population, failed to find a positive correlation between teacher frequencies and morpheme difficulty, however. They explained their results as due

to the differing ability of low level learners to "tune in to the frequency". They point to "other factors yet to be determined" to explain the morpheme difficulty order at this level. Furthermore, Long and Sato state that neither they nor Larsen-Freeman "suggested either that correlational data of the kind available to them justified inferences of causal relationships or that input frequency was the only factor likely to be involved" (1983:282).

Dulay and Burt (1978) very insightfully point out that Wagner-Gough and Hatch (1975) have reported data that contradict the importance of frequency. They report the equal frequency in input data to their subjects of what and where wh-questions and Is this X? copula inversion type questions. Despite the equal frequency, only the wh-questions were produced correctly.

Dulay and Burt (1978) also challenge frequency arguments with evidence that had been cited by Brown vis-á-vis the acquisition of grammatical morphemes vs. content words. They point out that content words are learned more easily despite the fact that grammatical morphemes are more frequent.

It seems as if input factors of some sort are the favored explanation of numerous researchers of grammatical acquisition. Hatch, Wagner-Gough, Larsen-Freeman and Long and Sato have all supported a frequency argument. Dulay and Burt (1978) point out the many counterexamples to both

form (e.g., perceptual salience) and frequency as principal determinants of grammatical development. Nevertheless learner external rather than internal (e.g., creative construction) explanations are continually proposed in what appears to be the absence of an adequate psycholintic model for aspects of second language grammatical development. I will be attempting to show in this thesis that a more relativistic interpretation of frequency (as a possible markedness by-product) and form (as a signal of one form to one meaning) will reserve an explanatory role for both of these important features of language in a theory of the second language learning process which gives the greatest importance to meaning.

Input from Classroom Practice

Frith (1977), Lightbown (1983) and Pica (1985) have all argued for the influence of input, which they identify with classroom practice rather than frequency of use. In the process of coming to this conclusion, each deals with the reoccurring questions about meaning, semantic contrast, regression and frequency in different ways.

Frith (1977) describes the "natural language learning" of four newly arrived adolescent language learners with no previous knowledge of English. Her subjects lived in an English speaking community and went to school mostly in the target language with a minimum of

ESL instruction (two periods a day). They attended math, science, art, music and physical education courses with English-speaking peers.

Frith's study focuses on the relationship of both form and function to grammatical development. She categorizes the language functions of five different grammatical forms in the speech of her subjects, among them the progressive. She came to the conclusion that "the present progressive was used in free variation to express various functions such as ongoing activity, present state, non-immediate future, immediate future, past events (durative and non-durative) and even as an imperative in one instance and as an infinitive in three instances". She felt that her subjects had "overgeneralized the progressive to several functions for which they had not yet learned forms". She says there was no evidence that two of her subjects had analyzed the semantic range of the progressive beyond the meaning of ongoing activity, though the others used it for the immediate future appropriately.

Frith appears to believe that form learning is all that her cognitively mature subjects need to do. Since function learning involves not just a one-to-one correspondence of form to function, but a complex system of form/meaning distribution with many language specific idiosyncracies (such as the use of the progressive to

express the future in English), Frith's assumption is a questionable one.

She concludes that the reason why the progressive develops early is that is has been overemphasized in ESL teaching "out of all proportion to its frequency." One aspect of her data which Frith finds difficult to explain and which she regards as unnatural, is her subjects' overuse of the progressive. She carefully selected a naturalistic learning situation where her subjects were acquiring language from the school and the community to a greater extent than from language classes. In spite of this, she seems to have placed the most importance on the quality of classroom input. Although she reports that in only three of the twenty ESL classes which she attended were lessons taught in any sense of the word, she objected to the presentation of the progressive ahead of the simple present and to certain practice work on the progressive which the teacher conducted. In one exercise in particular the teacher demonstrated actions and asked the class to identify what he was doing. Frith did not regard this as a meaningful activity and emphasized the lack of realistic and communicative language input in the classroom in her explanation of progressive overuse. This assessment of the significance of classroom practices was hard to reconcile with statements that she made about the ESL class being very "disorganized and unstructured", with

very little teacher input and, with the result that, "it [was] practically impossible to determine with any degree of confidence the influence of input in this particular teaching situation" (1977:37).

Frith recommended that further research be done integrating the entire process of second language learning, investigating regression in learner speech, and describing more completely the progressive aspect in English for more effective teaching. She seemed to feel that progressive overgeneralization by learners was merely an artifact of teaching. This is surprising in light of the fact that she observed that,

> "subjects with the widest range of past tense forms in their grammmar ...produced the non-target overextensions of the past to express present as well as future time. It was as if, being more conscious of the form than the [other subjects], they tried to use them more extensively so they could not escape the overgeneralizations to which this would inevitably lead" (1976: 85).

In saying that it was subjects with the widest range of past tense forms in their grammar who made the most errors in their use, Frith is describing a creative learning pattern rather than a habit learning pattern. If these subjects were primarily reflecting teaching input, one would not expect their accurate use of past tense forms to regress as their repertoire increased. Habit theory assumes that output will reflect input. If, on the contrary, subjects are creatively constructing their

grammars, then internal conscious forces would be at work, as Frith indicates, causing overgeneralizations to occur.

Generally speaking, Frith reflects a habit rather than a creative construction model by her attitude that progressive overuse and present progressive before simple present learning are unnatural and probably due to classroom input. We find this attitude again in Lightbown and Spada (1979), and Lightbown (1983). In this research, subjects who only had classroom (ESL) exposure to English were studied cross-sectionally and longitudinally with respect to their grammatical development in select areas, including the progressive. The results which relate to this thesis involved thirty-six grade-six students, subsequently followed up as grade-seven students in Montreal, Canada, who took about seventy-five minutes of ESL a week.

These subjects overgeneralized the progressive just as Frith's mixed naturalistic and ESL subjects had done. Since Lightbown followed her subjects for a longer time than Frith, she was able to observe more advanced stages of grammar development. She found, like Olshtain, whose study was completely naturalistic, that the progressive -ing showed a decrease in accuracy and frequency as learning progressed. Lightbown does not relate the learning of one area of the grammar to another. This is surprising in view of the fact that she

reports data that shows that third person singular -s increases when the progressive -ing decreases. Rather than give a creative construction interpretation to this co-occurrence, she accounts for regression as the result of input.

One source of input which Lightbown explored was the frequency of occurrence of the progressive -ing in both the classroom speech of the teacher and in the ESL text. Her study disconfirmed hypotheses about the influence of frequency of both classroom teacher talk and text input. Teacher talk on the sixth grade level, where the highest rate of progressive use by subjects occurred, turned out to reveal a four-to-one ratio of uninflected verb to progressive -ing use. The textbook survey also revealed a low frequency of progressive -ing use outside of the actual chapters where it was taught.

Having discounted these sources of input, Lightbown still explained progressive -ing use as the result of input from classroom practice. The following statements detail this reasoning:

> "Since the progressive had been taught alone with no specific contrast to any other form, there had been no opportunity for [the subjects] to discover the limits of its appropriateness" (1983:237).
>
> "By forcing learners to repeat and overlearn forms which had no associated meaning to contrast them with we may be setting up barriers which have to be broken down before the learners can begin to build up their own interlanguage systems" (1983:239).
>
> "In [ESL] classes...learners heard and practised

> certain language forms--correct forms, of course--dozens or even hundreds of times. In class and for a period of time outside of class, they appeared to 'know' these forms in the sense that they used them correctly in appropriate contexts. Later, however, some of these 'correct' forms disappeared from the learners language and were replaced by developmentally 'earlier' forms. I would guess that if these learners had been exposed to English in an environment where there was a wider variety of language forms in the input and where there was less pressure to practice correct verbs, the learners would have used base forms--the uninflected verbs in their earliest utterances, adding the grammatical inflections at a later developmental stage. In this sense it could be argued that their development had been slowed down by the too-early insistence on correct production of certain language forms which would be expected to come later in natural sequence" (1185:102-3).

Many studies, as mentioned earlier, have documented the extremely early emergence of the progressive _-ing_ in SLA. Lightbown's expectations about a substantial early period of uninflected verb use do not seem to be borne out by the facts. Other studies have also reported regressions in _-ing_ use following heavy early use. Eisenstein, Bailey and Madden (1982) found regression in the progressive construction _Wh is X verb -ing?_ in a study comparing present progressive and simple present wh-question development. The regression of the _Wh is X verb -ing?_ construction coincided with an increase of _Wh does X verb?_ constructions. This was interpreted as an interaction in the learning of the present progressive and the simple present which indicated that the two were being learned in relationship to each other. In other words, what caused the regression in _-ing_ was the

expansion of the grammar to include a structure closely related to the progressive, the use and/or meaning of which were being worked out in relation to the progressive. Regression was thus interpreted as a natural result of the complex process of development of the language system.

Remarkably, since her own research also looks at simple present development (third person -s), Lightbown did not consider the possibility that the formally simpler "simple" present might naturally develop after the progressive and cause a setback in -ing use. Indeed, such regressions have been extensively discussed in the literature (Olshtain (1979), Eisenstein, Bailey and Madden (1982), Huebner (1983) and Kellerman (1983)). Omission of these references in Lightbown's study is surprising.

In a study conducted in Mexico City, Pica (1985) compared three types of learners: those with only classroom input, those with only naturalistic input and those with a mixture of the two. She found that "subjects who had experienced exclusive exposure to classroom input...acheived a...lower rank order accuracy for progressive -ing" (1985:140). This result contradicts Lightbown's conclusion that the classroom promotes higher progressive accuracy. It shows that an even higher percentage of progressive use occurs in naturalistic settings than in formal ones. Pica suggests that the

classroom retards the learning of the linguistically complex progressive -ing! She cites Wagner-Gough (1978), Wagner-Gough and Hatch (1975), and Larsen-Freeman (1980) as having pointed out the "complex relationships between the grammatical morpheme progressive -ing and the numerous functions it serves in expressing verb aspect" (Pica (1985:139)). The contradiction between Pica and Lightbown in their results and interpretations compels further search for a more satisfying explanation of the earliness of progressive learning.

Regression

There exist in the literature at least two other studies besides Olshtain (1979) and Eisenstein, Bailey and Madden (1982), which have already been discussed, that testify to the existence of regression in language learning: Huebner (1983), who calls it backtracking, and Kellerman (1985), who refers to it as U-shaped behavior. Both of the latter, with Eisenstein et al., regard regression as an advancement in learning. Specifically, regression refers to such patterns of language development as the familiar simple past overregularization done by children resulting in forms such as comed and goed being produced after came and went have already been used.

In Eisenstein et al., present progressive wh-question accuracy regressed when simple present questions were being learned and one way in which the

present progressive was inaccurately produced was with traces of simple present form marking (i.e. the substitution of does for is in the frame wh-aux he/she verb -ing? or with the deletion of -ing, which was even more common). The interaction of the two was interpreted as the interaction of two closely related structures.

Huebner (1983) found an increase in errors over time in the article system. He traced an Hawaiian Pidgin speaker's acquisition of English and found the overextension of the specific article da use to non-specific article target utterances. He characterized this decline in understanding of the appropriate use of the definite article as backtracking (although he later reversed his opinion and called it fowardtracking) and explained it using a maze metaphor:

> "Unlike the traditional view of second language acquisition, which is analogous to an open field race, this paper proposes a model of second language acquisition which can be likened to walking a maze. At the start, the learner doesn't know where he/she will end up. He/she heads off in a promising direction. When the learner runs up against a wall, he/she must alter course. Sometimes it may involve retracing one's steps to a point at which a viable alternative course becomes apparent...The maze analogy suggests that the paths which the learner can follow are at least partially selected for him/her. To what extent these paths are selected for the learner, what these paths are, and under what conditions individual learners follow given paths are questions open to further research" (1983:209).

In his forward to Huebner's book, Derek Bickerton further interprets what Huebner came to regard as

regression which was "progressive" by relating it to the hypothesis formation process. He says:

> "Once an hypothesis has been driven to the point where it is no longer tenable in face of the evidence, the learner does not stop and tinker with that hypothesis but simply junks it, lock, stock and barrel (and often baby as well as bathwater), and proceeds to start over from scratch with a new hypothesis. Very often the new hypothesis gives worse results, in terms of feature distribution, than the old one. Why does the learner do this?... Our choice must therefore lie between structures or patterns of mental activity and constraints imposed by the evolving grammar itself" (1983:xxvi).

Kellerman (1985) found regression in modal auxiliary use in hypothetical conditionals as well as in learners' acceptance of translated sentences using transitive vs. intransitive words. An example of the former is that more advanced learners use would in both the if clause and the main clause of hypothetical conditionals. Kellerman uses a phrase coined by Karmiloff-Smith (1984) in saying that his L2 learners seemed "to go beyond success" in these instances and understand the implicit information carried in the earlier correct forms. He goes on to say that "it is the positive feedback from a success criterion that generates subsequent reorganization". Kellerman is talking about cognitive feedback here in his description of an organization/reorganization cycle. He leaves the question open, however, of what triggers the learner's early success experience.

The Role of Meaning

It is significant that of the three possible explanations of grammatical acquisition--form, function and frequency--that have been discussed so far (in relation to progressive -ing development specifically), function (or meaning) has rarely been selected as the best explanation. It may be true that meaning is not important, but it is more likely that a good functional explanation just has not been found yet. Explanations such as that form is learned before function, or that classroom input explains grammatical development are sufficiently unsatisfying as to suggest that the role of function has not been properly analysed.

Part of the problem with the way function has been understood previously is that it is usually referred to in the plural. Researchers speak of how many different functions there are for which a learner may call upon a form (ongoing activity, future intention, imperative, etc.), or they look at how many different grammatical constructions there are in which a form can appear (present progressive, past progressive, future, etc.). But they do not look at function more simply, as a learner might.

Researchers make several mistakes when they focus on the breadth of function development. First of all they fail to give credit to learners for correct (or target-

like) functional use, so concerned are they with non-target-like usage. The assumption they seem to be making is that learners would not be having trouble with function if it were really learned early. Children learning a first language, for example, are sometimes said to make few or no errors with the appropriate use of grammatical constructions. Many SLA researchers appear to think that clear meaning springs into existence intact, instead of piecemeal as they expect of form learning. Too much is made of functional errors. Errors appear to be more acceptable in form than in function.

Secondly, whether functional usage is considered to be too broad or too narrow, rarely do researchers focus on the most common function to be acquired. The fact that ongoing activity (incomplete-durative aspect) is the predominant early use made of the progressive -ing is seldom mentioned. (Olshtain is an exception.) Incompletion may, in fact, be the common meaning of all early progressive usage--present, future and past. Child language researchers have claimed that aspect is learned before tense (Bronckhart and Sinclair (1973), and Smith (1980), etc). This may be what is happening in SLA. The incompletive may be learned before the completive. I do not think there has been an expectation in SLA, however, that one meaning will be learned at a time.

Thirdly, since progressive -ing is thought to have

many functions (though perhaps just one meaning), it is considered to be hard to learn (Wagner-Gough and Hatch (1975)). Yet as much as the progressive has many functions, it is obviously not hard to learn or it would not be acquired so early (even if it were just the form that was being learned).

The fourth and greatest error that is made with meaning is that it is treated as if it were a separate entity from form. Although form can be distinguished from meaning, they do not exist separately in language performance. Language is a form/meaning relationship. Evidence that learners see language this way comes from observations that they prefer a form to have a single meaning. An example of this is the final -s in English. It is thought to be learned late because it marks so many meanings: plural, third person singular and possessive. One of Slobin's operating principles is that meaning should be overtly and clearly marked. I believe that learners like to assign a single meaning to a form and are attracted to clear meaning. In fact, that is a good explanation for why content words with their explicit meanings are easier for learners to acquire than function words with their many meanings. Function words with constant and transparent meaning are probably learned the most easily.

Second language researchers are remiss in not

considering the possibility that the present progressive is learned before the simple present because its meaning is more natural for the present. From children learning language to second language students in the classroom, the present progressive is what is used to describe what is immediately occurring, that which is observable, the here-and-now. Woisetschlaeger (1980) calls the (present) progressive the phenomenal (or foreground) present because it is observable and the simple (present) the structural (or background) because it is what is known. In simpler terms, the present progressive is the here-and-now and the simple present is more like the now-and-always. The simple present describes the universal, timeless, habitual and reiterative. The present progressive describes the occurrence of quintessentially present activity.

Derek Bickerton (in Huebner (1983:xxvii)) has said that we must consult both the "structures and patterns of mental activity and the constraints of the evolving grammar itself" to answer the question of how language is acquired. So far I have focussed on constraints of the evolving grammar. I have reasoned that meaning difficulty constrains the evolving grammar more than form. Now I would like to place this argument within the larger context of human mental activity.

Markedness

Markedness is sometimes thought of as a concept having mainly to do with linguistic form or language typology. It is associated with studies of phonological, morphological and lexical development more so than syntax or semantics. Rutherford (1982) has insightfully analysed markedness in relation to SLA as overlapping significantly with what is regarded as redundancy (in communicative competence terms) and complexity (in pyscholinguistic terms). Rutherford projects that markedness has enormous potential for explaining discourse phenomena.

According to Rutherford, George (1972) first related markedness to SLA. He discussed how learners acquire polar adjectives such as happy and unhappy. He advises that they not be exposed to both of these adjectives at the same time because that would "only serve to emphasize [their] redundancies, in opposition to the learner's predisposition to eliminate [redundancies] as part of his or her learning strategy" (quoted in Rutherford (1982:88)).

What happens when polar adjectives are acquired is that the unmarked member of the pair is learned first. Happy with its simpler core meaning is learned before its marked version unhappy in which the core meaning has been expanded upon. Ross (1974) uses the terms core and periphery to describe what are essentially unmarked and

marked syntactic contrasts.

Rutherford credits Kellerman (1979) with extending markedness to syntax domains in SLA. Kellerman points to the learner's preference for coordination over subordination and non-raised subjects over raised subjects as evidence that explicit, transparent meaning explains early acquisition.

Jordens (1980) has shown how acquisition moves from the concrete to the abstract based on his reanalysis of Hyltenstam's (1977) data on negative placement by L2 learners of Swedish. Jordens concluded that the order of this learning showed that semantics was more important than morphology which was in turn more important than syntax in determining acquisition ordering. It was the meaning of the main verb, the most concrete feature of all, that determined where the negative was learned first, followed by the finiteness of the verb, morphologically marked, and lastly by clause type, a syntactic feature.

Beyond these few ground-breaking initial studies which show the relationship of meaning to markedness, I think that it can be shown that markedness as a mental pattern has great implications for language learning. The concept of semantic contrast which has been a central concern of both first and second language researchers can be analysed as having its roots in markedness. Indeed, contrastive analysis, which assumes that the L2 is learned

by contrasting a first language to a second, also turns on the notion of opposition.

If languages are learned by opposition, then we should know more about how this is done. Remembering the example of polar adjectives, it would seem that opposites are not optimally learned at the same time. That can be observed in the teaching of other lexical pairs like right and left. If taught at the same time, opposites like these would become cross-associated. Instead, common sense would dictate teaching the one that is most needed, first, and its marked counterpart, later. (By definition the unmarked variant of a pair is the more common and useful one.)

In the case of the present progressive and the simple past, it would seem reasonable to expect a delay between the learning of the two. Eisenstein, Bailey and Madden (1982) show a clear interaction in the learning of these two verb constructions. They definitely seem to be learned in relation to each other because they are cross-associated, but the unmarked is learned before the marked. Lack of complexity of meaning seems to be the way the unmarked of two constructions is selected for early learning. This hypothesis has successfully explained results that have been obtained previously but not satisfactorily accounted for. Now further confirmation of the meaning hypothesis depends on its ability to predict new data.

THE PRESENT STUDY

The Hypothesis

Because of the similarity between the present progressive and the past progressive it has sometimes been assumed that the past progressive is learned together with the present progressive, due to their similar forms and, presumably, similar meanings (Frith 1976). No study has ever confirmed the relationship of past progressive learning either to the present progressive or the simple past learning, however.

The form of the progressive has been considered to be easy to learn because of its regularity, perceptual salience and unchanging stem. The form of the simple past, on the other hand, is a mixture of regular and irregular verbs (with the most heavily used verbs being irregular). The irregularity of the simple past commonly consists of word medial vowel changes, a non-salient position and type of change. An hypothesis that simple form predicts early learning would favor the acquisition of the past progressive over the simple past.

The four verb constructions in question constitute a well-controlled grid of contrasting form difficulty: the simple present is easy to form, except for the third person singular -s, compared to the simple past which is difficult, while the two progressives are equally easy. Meaning simplicity makes the opposite predictions: the

meaning of the simple past is less difficult for the past than that of the past progressive.

The hypothesis of this study will be that despite the form difficulty of the simple past compared to the past progressive, the simple past will be learned before the past progressive, both in terms of accuracy and frequency of use, because of its easy meaning.

Literature on the Form and Meaning of the Past Progressive and the Simple Past

Halliday (1976) and Comrie (1976) have both referred to the past progressive as a present in the past because of its ongoing meaning. There are two parts to its meaning, earlier and ongoing, and the ongoing meaning is counterintuitive for the past (unlike for the present where ongoing is the core meaning of the present). For the past, the core meaning is completion (or perfectivity) and not duration (or imperfectivity). The simple past carries the unmarked meaning for the past the way the present progressive carries it for the present. Both the simple present and the past progressive answer the description of the marked member of a pair because each has had something added on to its core meaning. In the case of the past progressive, there is a past-but-ongoing combination of meanings; in the case of the simple present, there is a now-and-always conjunction of meanings. By contrast, the present progressive and the

simple past are not only simpler in their meanings, now and then, respectively, but these meanings are more natural for their tenses.

The meaning of the simple past also appears to be easier than the simple present or the past progressive partially because it is a marker of foreground activity. It has been mentioned previously that the present progressive constitutes the foreground in the present. According to Woisetschlaeger (1980), the progressive marks what is phenomenal or observable knowledge and the simple, what is known, characteristic or structural. My interpretion of Woisetschlaeger's analysis is that a progressive event, since it is observable, is more of a foreground event than a simple (or known) event. But, as a result of comparing the present and the past, it appears that in the past the simple and progressive have the opposite foreground and background significations. This conclusion is somewhat controversial, however. William Stewart (personal communication) has pointed out that in some analyses of Creole data in the early sixties a Generative Semantics approach was used to analyze present progressive constructions as having underlying performatives, i.e., I see that you are leaving. As a result the consistency of the semantico-syntactic category progressive could be retained by saying that the present progressive and the past progressive both served

background functions--the past progressive as background to the punctual past and the present progressive as background to the actual moment of speaking.

Hopper and Thompson (1980) also have proposed that the syntactic feature "progressive" correlates with the discourse feature "background", not "foreground". They support their claim with an analysis of various linguistic characteristics which they have found to have a high correlation with the progressive. Most generally they discovered that the progressive correlates with low transitivity. Broken down into components, this means that the progressive typically lacks clear results, lacks an affected object and has a low number of participants. These are all background, not foreground, features. Bronckhart and Sinclair (1973) in an L1 study in which they found that the past progressive was learned ahead of the simple past by children, agree with Hopper and Thompson in their analysis. They say that "probably imperfective events are considered to be of indeterminate duration precisely because of the absence of any result whatsoever" (1973: 122).

Between Woisetschlaeger and Hopper and Thompson there exists a contradiction. For the former, the progressive is analysed in the present as the foreground, and for the latter the progressive is analysed in the past as background. This is a contradiction which can be

resolved, of course, by using the analysis of the present progressive as background to the moment of speaking, discussed above. However, too much emphasis on the consistency of syntactico-semantic relationships may have prevented researchers in the past from noticing that the reverse discourse functions appear to be served by the progressive in the present and the past; i.e., the progressive seems to serve a background function in the past but a foreground function in the present.

Support for the backgrounding function of the past progressive can be found in the work of William Labov (1972) and Deborah Schriffin (1981), in first language research. Labov elicted narratives from black inner-city English speaking teenagers on the subject of close-to-death experiences. He reported that the structure of past time narratives consisted of five major purposes: 1) orientation, 2) intensification, 3) correlation, 4) complicating action and 5) evaluation. He observed that the past progressive was used for the purposes of orientation (in the beginning of the narrative), displaced orientation (background given in retrospect), correlation (of events that had duration and overlapped main story events) and sometimes intensification (several progressive actions lumped together to heighten the dramatic moment). One purpose for which the progressive was never used was complicating action which comprises the backbone of

narrative because it presents the temporally ordered events that contain the new information or story line. The significance of the story line has been discussed by Clark (1970 and 1973) in relation to children learning English as an L1. She has found that the order of mention of an event is the order of occurrence of that event, especially when they first start to talk about events in sequence. She found this to be true for both production and comprehension. Keller-Cohen (1974) also found that children use this same strategy when imitating adults. It is easier for them to imitate when the order of mention mirrors the order of events.

Schriffin, in a follow up of Labov's study of narrative structures, uses adult narratives to further examine verb variation in past tense stories. She relates past progressive use to that of the historical present and claims that introducing past progressive or historical present blocks of sentences into narrative functions to set one event off from other events. She maintains that the past progressive is earmarked for special purposes in past narrative while the simple past is used for cohesion of events related in time by their sequential order.

Comrie (1976) talks about the greater substitutability of unmarked structures for marked. What he means by this is that the meaning of the unmarked member of a pair tends to be broader and contain some of

the marked member meaning, as well. There is an overlap, in other words. An example of this in English is the way the simple past used with a verb such as run, i.e. I ran yesterday, can overlap the meaning of the progressive/durative sentence, I was running yesterday. Comrie calls the unmarked member of a pair more usual and normal and less specific. In respect to form, Comrie says that "the morphological criteria [of markedness] are the least telling, since the morphology reflects systematic correspondences of an earlier period in the history of the language" (1976:118). He also has observed that the unmarked member of an opposition may be less regular than the marked version. One can conjecture that, historically, a heavily used language form can retain its irregular marking against the leveling pressure of a paradigm because heavy use makes the form familiar.

THE PRESENT STUDY

The Selection of Experimental Methodology

For the present study an experimental methodology was designed to look for the ordered developmental sequence of past progressive and simple past acquisition. I chose to test university ESL students who were receiving formal language instruction as well as learning English naturalistically outside of class. They were from a variety of language backgrounds (Greek, Persian, Japanese, Chinese, Hebrew, Spanish and French).

I tested these subjects cross-sectionally with one repeated measure after an interval of approximately six weeks (Time 1 and Time 2). I decided on the cross-sectional approach over longitudinal because I feel that longitudinal tests are successful at getting at individual variability (Cancino, Rosansky and Schumann (1976)) but miss some important generalizations. My cross-sectional design spanned high beginner to advanced English language proficient subjects in order to look at a broad range of development of the past progressive and simple past.

Previous research, my own and that of others, has pointed to the value of multiple measures for yielding important comparisons of information (Madden, Bailey and Eisenstein (1978), Eisenstein, Bailey and Madden (1982), Larsen-Freeman (1975) and Wong-Fillmore (1976)). Each means of collecting information has its advantages and disadvantages in terms of what is revealed and concealed.

All of my tests involved the production of language: three were oral, one written and one imitation. These data could best be described as elicited with varying degrees of control. On the free end of the continuum, each subject told a personal story, first in writing and then orally. Next, the subject was presented with pictures to describe and to ask wh-questions about. Also at this same level of control, the subject told stories about multi-frame cartoons. The most controlled

tests were imitation (based on the same multi-frame cartoons), and a controlled composition which was the reconstruction of an oral story that contained balanced frequency of past progressive and simple past use.

The control exercised by the latter two tests was important for preventing data loss due to avoidance. Whether the imitation test would yield superior results to the other production tasks was not predicted. SLA research has been inconsistent on this. Adams (1978) found slightly less advanced auxiliary development in imitation than in spontaneous speech. Swain, Naiman and Dumas (1978) report superior performance on imitation over a Berko-type elicited production task. Much remains to be learned.

There is also much to be learned about the relationship of written to oral production as well as the relationship of story telling to picture description. Primarily, the purpose of combining the foregoing tests was to have a range of tasks to reveal the development of the grammatical structures by means of essentially creative and communicative language production.

THE PRESENT STUDY

Experimental Hypotheses

Predictions were made specific to many of the tasks performed by the subjects:

1) In wh-questions (asked about pictures) the simple

past was expected to be acquired before the past progressive because of its combined advantages of easier function and easier form (because the auxiliary did is used for all persons as opposed to the use of both was and were for the past progressive).

2) In statements (about pictures) the simple past was expected to be acquired before the past progressive regardless of the irregularity of simple past forms.

3) Low level learners were expected to show an early past progressive advantage due to the similarity of present progressive and past progressive forms. After this brief stage of transition, however, the simple past could be expected to be overwhelmingly favored over the past progressive in terms of both frequency and accuracy of use.

4) High level learners, it was predicted, would demonstrate a late stage of increased past progressive use, both target-like and overgeneralized, accompanied by simple past regression.

5) The imitation results were predicted to reveal clear overgeneralization stages with early substitution of the simple past for the past progressive and late substitution in the opposite direction.

More generally speaking, the imitation task was designed to disambiguate the results of the other tests and to explore differences that were not, for the most

part, predicted in advance. For instance, two clauses were used in the sentences for imitation to find out more about the relationship of the past progressive to the simple past. The order of the two structures was balanced, with the past progressive preceeding the simple past in half the sentences and vice versa. One condition which was not balanced was the order of the subordinate clause in relation to the main clause. The subordinate clause was always last. I had an idea that the simple past would be imitated best in this task in the last clause due to the combined advantage of its meaning simplicity and final serial order position. A sub-set of sentences was designed to test the impact of contrast vs. no contrast of two past aspects used in one sentence. Sentences with contrasting clauses, one in the past progressive and one in the simple past were compared to sentences with no contrast in which there were two simple past or two past progressive clauses in one sentence. Since the past progressive is a relational aspect it was felt that these conditions could greatly affect its development.

On the other side of the control continuum, it was hoped that the stories that were told, both the personal stories and the descriptions of pictures, would yield important information about the use of the past progressive in narratives and the significance of the

combination of various combinations of simple past and past progressive clauses in a single sentence. These findings would have important implications for the discourse functions of the simple past and the past progressive and broaden the analysis of the impact of meaning on the development of these grammar constructions.

CHAPTER II

PROCEDURE

The experiment consisted of an imitation task and four production tasks, three of which were oral and one, written. The entire experiment was administered twice (Time 1 and Time 2) to each subject over a five to seven week interval. It was expected that five to seven weeks would be sufficient time for significant learning of the target structures to take place. Testing began in the fourth week of the academic semester.

The twenty-six subjects in this experiment were students enrolled in the English Language Institute of Queens College in Flushing, New York. The E.L.I. is an intensive English language program which meets twenty hours a week. Most of the students are in their early twenties and have plans to attend college in the United States. Students at the E.L.I. take an average of two

semesters of English before matriculating as full-time college students.

Five to eight students from each of four levels (levels 2,3,4 and 5, out of 6 levels of proficiency) volunteered to participate in this experiment. Class level assignment at the E.L.I. is based on an extensive battery of entrance exams, including grammar, vocabulary, reading and a cloze test. Experienced teachers then meet, as a group, to reconcile the test scores and place the students in classes. In addition, teachers can reassign students from one level to another in the first few weeks of school if their placement requires correction. Given the thoroughness of the process, of which this researcher has first-hand knowledge (having worked at the E.L.I. for many years), it did not seem necessary to administer an additional measure of proficiency for the purposes of this experiment. The E.L.I. scores were therefore accepted as an independent index of development.

A maximum of nine volunteers participated in the experiment from each of the four levels. Due to attrition from Time 1 to Time 2 of the testing, the set of subjects which participated on both occasions came down to the following: level 2 - six subjects, level 3 - seven subjects, level 4 - eight subjects, and level 5 - five subjects.

The Experiment

Subjects were given the written story test first and, on a seperate day, four oral tests (one oral story, two picture description tasks--one telling about pictures and one asking questions about them--and an imitation task).

The written task was administered along with a comprehension test by a co-researcher who was investigating comprehension and intuition skills on the same research project.

Three interviewers administered the oral tasks: two cc-researchers and an undergraduate TESOL major who had been in this researcher's class at Queens College. All were unknown to the subjects. The undergraduate student was chosen because she was a mature person with a warm accepting manner. It was thought that her manner would help put the subjects at ease so that they would be able to draw on all of their language resources. The oral tasks were conducted in the form of an interview about personal, humorous or action filled, illustrated incidents. A good deal of laughter usually accompanied these interviews and they appeared to be almost as much fun for the subjects as for the interviewers. Each interview lasted for about a half hour or forty-five minutes and was tape recorded for later transcription.

Design of the tasks

Written Production, Time 1

An original composition was elicited from the students at Time 1 by asking them to write about a personal experience in which their lives had been in danger (following Labov), or which had been frightening for them. If they could not think of a dangerous or frightening experience, they were given the alternative of writing about an embarrassing experience.

The researcher-experimenter who conducted this test illustrated what she wanted from the subjects by first telling them a story about herself. She then asked them to take about twenty minutes to write their story.

Written Production, Time 2

At Time 2 the nature of the written production task was changed considerably. Past progressive use had been very low at Time 1 on the personal story, due perhaps to the excessive demands of the task or to avoidance. A new written test was designed for Time 2 which would establish some control over the occurrence of the past progressive. The new test was a form of "controlled composition", so-called because it consisted of retelling on paper a story which had been read aloud. The experimenter used an anecdote about Nasreddin, a Middle Eastern folk hero, who, through a combination of foolishness and wisdom, reveals human foibles in a comical

and appealing way. A story of this sort seems to have a universal appeal and comprehensibility and, for that reason, is often used in E.S.L. classes. The text can be found in the Appendix.) As an additional measure to insure the subjects would understand the content of the story which they were being asked to recount, an illustration of the principal action of the story was included in the top right hand corner of the sheet of paper on which they wrote the composition. This was a simple line drawing done by the researcher.

Following the procedure set for this task, the experimenter read the story twice to the subjects, allowing them to ask a few questions after the second reading concerning the spelling of certain non-crucial words, e.g., branch. The subjects were then given as much time as they needed to retell the story on paper.

To prevent the subjects' avoidance of the structures being tested, the composition was a balanced task. In the story told by the interviewers, the number of verbs in the past progressive matched the number of verbs in the simple past. It was anticipated that this would increase past progressive use at least to the point where subjects at different levels of proficiency could be compared on this aspect of their language development. In order to know what a native speaker might produce in terms of relative proportion of simple past and past progressive

use, a group of native speakers was tested as normal controls. They were sixteen Queens College undergraduates, approximately the same age as the subjects in the experiment, who were taking an Error Analysis class in the Linguistics program. Their percentage of usage of the past progressive was intended to serve as a native speaker norm for this task.

Oral Productioon, Time 1

Oral Story

The first task given to the subjects in the oral segment of the experiment was to retell the same story about a dangerous or frightening personal experience which they had previously written. In designing the tasks this way, it was hoped that writing the story before telling it orally would greatly facilitate what could be a difficult task--recounting in a second language an emotion laden story which was likely to be highly codified in the first language. Writing, which allows time for monitoring, might lead to smoother word searches or narrative ordering when the time came to communicate the story orally. Furthermore, starting the oral interview with a prepared story might give the subject extra confidence and help eliminate some awkwardness between subject and interviewer. At the very least, the telling of a personal story would engage both personalities in real and meaningful conversation. The feelings of familiarity and

trust achieved here would make later, less personal parts of the experiment easier for the subjects.

Telling about Pictures

A picture description task was included in the experiment because it would make intersubject comparison possible. It would serve as a control for both the vocabulary level and grammar proficiency of the subject, a control judged to be necessary to prevent past progressive avoidance. Pictures were selected to encourage past progressive use, namely pictures depicting actions in progress together with more punctual or completed actions. Those chosen showed people crying, holding, talking, throwing, robbing, running, lying, building, shaving, dropping, cutting, stealing, washing and falling. Roughly half of the nine pictures that were used in the picture description tasks contained more than one frame. Depending on the number of frames contained in each picture, roughly half of these nine pictures were used on the tell about task and half on the ask about task.

The source of these pictures was an ESL text edited by E.F. Candlin and published by the University of London Press, entitled Present Day English, Picture Book 2. The author of this book was Bill Burnard whose purpose was to provide illustrations that could serve as the basis for class questioning or discussion, and also to provide

extra vocabulary for structural practice. An illustration of one of the pictures selected for use on the picture description task can be found in the Appendix.

Part of the rationale for this task was that the procedure would be a familiar and presumably comfortable one. The interviewers began by asking the subjects to "tell about these pictures". This instruction was also shown in writing. Verbally they were then instructed to "use the past". If they began their picture description with the present, they were given the oral prompt, "yesterday", to which they usually responded by changing their time references to the past. They were also given the instruction, before beginning, to tell about the whole/both pictures, and to use while and when. The interviewer was given the suggested time limit of six to eight minutes for this task.

Asking about pictures

In the third task of oral production at Time 1, half of the aforementioned pictures were used to test the subjects' ability to form and use questions in the simple past and past progressive. The subjects were instructed by the interviewer as follows: "Ask about these pictures. Try to use what, where, who, why and when in your questions. Use the past. I will answer the questions that you ask." All of the questions were answered by the interviewer to give a conversational flow to the task. If

subjects started by using the present, they were reminded that the story took place "yesterday". The subjects wre asked to "try to use **where, when, who, or why**" in order to encourage more variety in their question-asking. They were also urged to ask questions using **while** and **when**. Interviewers were instructed to elicit about six to eight minutes of questions from their subjects.

Oral Production, Time 2

Oral Story

The oral story at Time 2 was very different from that at Time 1. A change was considered to be necessary because the personal oral story told at Time 1 did not produce sufficient past progressive use to adequately ascertain the subjects' past progressive knowledge, by comparison with their performance on other tasks. On the other hand a modification had been made in the procedure for the imitation task at Time 1 that suggested itself as a suitable oral story task procedure for Time 2.

It is necessary at this time to explain the derivation of the oral story task, Time 2, with reference to the imitation task yet to be described. Preparation for the imitation task included a comprehension check to see if the subjects understood the meaning of the four different frames of the Louie cartoons that were used as a context for the imitation task. The experimenter would do this by reading completely through the sentences for

imitation once before asking the subjects to repeat them. When it came time to test level 5 for imitation, it seemed to the experimenters that this procedure for testing the subjects' understanding of the cartoons in this way, through listening, was too passive and somewhat insulting for language learners at their high level. Therefore for level 5 alone a new method of checking comprehension was used. Level 5 subjects were asked to tell the experimenter in their own words what they thought the cartoon was about. In this way their comprehension was checked and their dignity preserved at the same time. The stories which level five subjects told about the cartoons at Time 1 were of such a high quality that a decision was made to replace the oral story Time 1 with this story. The most important difference was that a very large amount of past progressive use was invoked using the cartoon retelling task. It was, therefore, possible to make a more meaningful comparison of levels of proficiency at Time 2 than at Time 1 since a very small amount of past progressive was produced at Time 1.

One possible drawback of using these cartoon stories as oral narrative data was that each story was followed by a repetition of the sentences which were used for imitation, and that could conceivably influence the structure of the subjects' stories. A control for knowing if this had happened, however, was the picture description

data with which the oral story data would be compared. And if the level 5 data was any indication, the potentially superior connectedness of the discourse which the subjects produced by explaining the already familiar content of the Louie cartoons made the risk worth taking.

Asking about pictures

The next oral task that was given at Time 2 was the ask about task. The order of the two picture description tasks (ask about and tell about) had been reversed from Time 1 to Time 2 in order to balance the possible advantage of first task position. The pictures themselves were also exchanged between the ask about to the tell about tasks in order to prevent subjects from becoming too automatic in their responses in the event that they remembered what they had said at Time 1. This change was made with the awareness that changing pictures would also preclude the possibility of comparing data that had been elicited with the same stimulus. The decision was made that it was more important that the subjects not be overly familiar with the pictures.

Telling about pictures

The same procedure that was followed at Time 1 for telling about pictures was followed at Time 2 with the exception of the exact pictures that were used. This change is described in the section above in connection with "asking about pictures".

Imitation, Time 1 and 2

Design

The final segment of the oral interview was the imitation task. This task, it was thought, could serve to disambiguate the less controlled parts of the experiment.

An imitation task has the advantage of freeing the subjects from some of the burden of language production. On this kind of task, subjects are initially required to comprehend language (which has been produced by someone else) and then they are asked to recreate or repeat that language. An imitation task can test multiple aspects of meaning and form through the controlled manipulation of variables.

One of the important form variables which this task was designed to test was the effect of complex sentence construction on past progressive learning. In respect to the past progressive, subordinate clauses are probably the greatest single aspect of sentence complexity which interacts with past progressive learning, since past progressives are relational verbs and subordinate clauses are a prime means by which they are connected with verbs in other clauses.

There are many ways in which adding a subordinate clause to a sentence could make the past progressive more difficult to learn than the simple past. One of these is simply the factor of length of sentence. Another is the

unpredictability of clause order (subordinate/main), and the great variety of subordinators from which to choose.

Subordinate clauses may occur in the initial or final position of the sentence, depending on the user's focus. That is, subordinate clauses normally contain "given" information and the speaker may want to present such information first or last in the sentence. A subordinate clause also can on occasion occur in the middle of an independent clause, as in the sentence: Mary, while she was looking for a job, lived for six months on welfare. This may be an indication of a stylistic preference on the part of English speakers to put new information at the end of a sentence.

Another complex aspect of subordinate clause use is the unpredictability of the occurrence of the common subordinators while and when with simple past vs. past progressive verbs. Contrary to the impression given by many grammar texts, while and when may occur with either the simple past or the past progressive. While is not restricted to co-occurrence with past progressive verbs, since many simple past verbs are lexically durative. An example is the following sentence: He made the beds while I cooked dinner. Cook is a verb which is durative.

While the syntactic complexities in relation to

subordinate clause use are many, only a fraction of these difficulties could realistically be tested on the imitation task given the limitations of time and the subjects' attention span. A length of twenty-four sentences was determined to be the maximum possible for this task, based on this researcher's experience with a pilot experiment in which thirty sentences were used and judged to be tiring for the subjects.

The variables ultimately selected to be included in the design of the imitation task were the following:

1) simple and past progressive sentences
2) questions and statements
3) first and second clause position for simple vs. past progressive verbs
4) subordinate clauses in sentence final position only
5) complex sentences with a combinaton of two simple past or two past progressive clauses, i.e., non-contrasting clauses, and complex sentences--one simple past and one past progressive sentence--,i.e., contrasting clauses.

In respect to variable number three, it was decided that all of the items in the task should contain subordinate clauses in order for the sentences to be long enough and complex enough to exceed short term memory

limitations. A length of fifteen syllables was also established for all sentences for the same reason. In attempting to reproduce a sentence which they had understood but been unable to memorize, subjects would be forced to implement their own developmental grammars in their "imitations" or reconstructions.

The reason why condition number four above is not balanced, i.e., subordinate clauses in sentence initial as well as sentence final position, is that a limitation of twenty-four sentences would not permit a manipulation of this variable. Sentence final position of the subordinate clause was chosen because it was believed to be the first position in which subordinate clauses would be learned, since end position is a perceptually salient one. It was also felt that testing the effect of the subordinate clause in either position would be sufficient for exploring in a global way the effects of subordination on the development of the aspects being investigated.

The final variable tested was the combination of simple past and past progressive verbs within a complex sentence; i.e., the contrastiveness or noncontrastiveness of clauses. Thus some sentences had two clauses that were both in the simple past or both in the past progressive, and these were called non-contrasting clause sentences; some sentences had the simple past in one clause and the past progressive in the other and these were called

contrasting clause sentences. This condition was included to try to determine whether contrast of clauses is a significant factor in the relative difficulty ordering of the simple past and past progressive verb learning.

Administration

In keeping with the pains taken throughout this experiment to insure that the subjects understood what they were saying on any given task, special precautions were taken with the imitation task. All of the sentences for imitation were written about Louie cartoons. These are four-frame, virtually wordless picture stories about a middle-aged man and his wife. Eight cartoons of this series were used, and the same eight cartoons were used both times the experiment was given, with the order of presentation reversed at Time 2. Each cartoon was described by two or four sentences which attempted to capture its meaning in words. A sample collection of the cartoons and a complete listing of the sentences for imitation can be found in the Appendix. It will be noted that there are separate listings for the sentences for imitation at Time 1 and Time 2. Not only does the order of these lists vary, but the wording of some of the sentences as well. It was discovered in the process of administering this task Time 1 that the subjects had inordinate difficulty with certain of the vocabulary items or the phraseology of some of the sentences. This was

apparent both from the number of requests for repetitions received by the experimenters and by the misinterpreted items that appeared again and again in the transcriptions of the task results. Therefore, in the interests of successfully collecting more targeted data, those test items which had presented the most difficulty were reworded. These changes, made in eleven of the twenty-four sentences for imitation, have been highlighted in the listing of sentences for Time 2 in the appendix.

In administering the test, the experimenters acquainted the subjects with the cartoons by first asking them to look them over. Then any words which might happen to appear in the cartoons such as in newspaper headlines, etc., were checked for comprehension. The subjects were asked, "Do you know what this/these word(s) mean?" If no clarification was needed, the experimenter instructed them to "look and listen while I read some sentences". She then read completely through the two or four sentences for imitation that were based on that picture. If she judged it to be necessary, the experimenter pointed out the parts of the cartoon which contained important details for comprehension but which might not have been understood. Then, turning the page so that the subject would not be distracted by the cartoon pictures, the experimenter instructed the subject to "repeat these sentences after me". She also told them not to worry if they couldn't

repeat the whole sentence. The experimenter was permitted to repeat the sentences for imitation upon request.

A special procedure was applied to that half of the imitation task which consisted of questions. The subjects were encouraged to give answers to the questions in order to make this test more communicative and natural. If the subject could not answer a question, the experimenter would do so.

CHAPTER III

ANALYSIS

All of the tasks and repeated measures (Time 1 and Time 2) were analyzed to determine the frequency and accuracy of simple past and past progressive use. The tasks were then compared with each other to decide whether the main hypothesis had been confirmed, i.e., that the past progressive is learned later than the simple past as evidenced by its less frequent and less accurate usage. A Datatext ANOVA program was used to assess the statistically significant results, followed up by post hoc Scheffé tests where they were required. Due to the large number of subconditions being tested and the small number of items in many of the conditions, the findings of this analysis were conservative, quaranteeing that any significant results were indeed significant.

Another dimension of the results of this

experiment which was examined was the dynamics of simple past and past progressive development. This was done by analyzing variation among tasks and across time (in repeated measures). In particular, the following variation was studied:

1) questions vs. statements
2) written vs. oral
3) picture descriptions vs. oral stories
4) production tasks vs. imitation
5) level differences
6) time differences.

In the course of examining these results, additional questions suggested themselves. One concerned the patterns of development of the irregular past. This was an especially important question because part of the hypothesis of this experiment was that the simple past has a more difficult form to learn than the past progressive because of its irregularity. Simple past and past progressive verb use were examined to determine what percentages of irregular verbs were used for each. This analysis was undertaken using data from both Time 1 and Time 2 of the tell about task. Both the frequency and the accuracy of use of verbs with irregular preterite forms were measured.

Another question which emerged from this study and was briefly investigated had to do with the development of

past progressive use in relation to complex sentences. It seemed important to observe some of the interaction which was occurring between clause subordination and past progressive development in the production data, since the relational nature of past progressive use was hypothesized to be an impediment to its development. The oral stories which were told about the Louie cartoons were used for this purpose. Any sentences containing when and while were examined for their order of independent and subordinate clauses and simple past and past progressive use.

Imitation data yielded accuracy but not frequency results, since frequency was supplied by the task. It was noted, however, that evidence of frequency preference for either the simple past or the past progressive was occurring in the imitation data in the form of overgeneralization errors. Subjects seemed to be regularly overusing one or the other of the two past tense forms. A special study of overgeneralization was, therefore, undertaken. Otherwise, variation which was built into the imitation task yielded the principal data from this task. Results were obtained along the following dimensions of simple past vs. past progressive use:
1) question vs. statement accuracy, 2) non-contrasting vs. contrasting clause accuracy, and 3) accuracy in the first clause vs. the second clause position.

Production Tasks

Quantifying the Data

Both accuracy and frequency results were arrived at by using obligatory occasion methodology. That is to say, data were classified and scored according to the researcher's discretion as to whether a structure had been used appropriately and accurately in a context for which it was required.

These decisions were sometimes very difficult to make, especially when subjects were at low levels of proficiency. Picture and story tasks imposed contexts which constrained the subjects' choice of language to a certain degree, but because the subjects were still in the process of learning these structures their errors were often quite hard to classify. This was particularly true on the ask about task. For example, one subject from level 3 produced the following difficult to classify questions for picture #2 (see the appendix for this picture).

1) What is she does? What is she do yesterday?
2) What does and what did baby do?
3) Where they were?
*4) Where did they speak?
*5) What about? About what subject did they speak?
*6) What kind of clothes did his mother worn, wore?
7) Are they, were they happy?

Sentences 4 and 5 were difficult to classify as simple past or past progressive. The problem was that the word speak could have been a simple past verb in another context, such as in the sentence About what did the Governor speak?. But in this sentence it was judged that the word talk would have been the correct lexical choice here and that the past progressive should have been used. This is an example of just one type of judgement difficulty in deciding upon obligatory occasions. It was also sometimes difficult to determine what structure subjects were attempting to use because of poorly marked form. Sentence 6 above is an example of a lexically durative verb choice--wear--which makes this sentence acceptable in the simple past. Though the past progressive might have been better here, this was accepted as correct.

Freguency Results: A Summary

The frequency results of this experiment confirm the hypothesis of the experiment in the following manner:

> The simple past is learned earlier than the past progressive in English, as evidenced by its greater overall frequency of use. In addition, the past progressive shows an increase in frequency at higher levels of proficiency accompanied, on some tasks, by a decrease in simple past proficiency.

An analysis of variance (hereinafter ANOVA) assessing the significance of the effect of structure found the simple past to be more frequent than the past progressive ($p<.001$). Figures 1 and 2 (based on Table 1) graphically display the comparison of simple past and past

progressive frequency of use. On most tasks and on most levels, simple past production greatly exceeded past progressive production. A two-way ANOVA assessing structure X state (task) found that this was not the case on the ask about task, however. On questions, the past progressive was more frequent than the simple past. A four-way ANOVA of level x state x structure x time determined that simple past frequency was not significantly higher than past progressive frequency on levels 2 and 5 at Time 1. At time 2 a significant difference occurred between simple past and past progressive frequency on level 4 where the past progressive significantly exceeded simple past use. An ANOVA table completely listing all significant ANOVA results for frequency appears in the Appendix as Table 10.

Further evidence in support of the hypothesis derives from an analysis which was made of subordinate clause use in the oral stories, showing that the simple past is used in subordinate clauses before the past progressive is. This result will be reported more fully below as Special Analysis 3. A study of irregular verb use also revealed an interaction between irregularity and past progressive learning indicating the dominance of irregular simple past forms (discussed further below as the Special Analysis 2).

TABLE 1

Production Frequency: Mean No. of Occurrences

Level/Time		Writing		Oral		Tell About		Ask About	
		pp	sp	pp	sp	pp	sp	pp	sp
2	1	1.5	4.8	1.3	7.0	5.0	5.3	1.7	1.4
	2	2.7	5.1	7.0	40.0	3.0	24.0	6.0	6.7
3	1	.7	10.5	1.7	7.8	9.8	14.7	3.5	8.6
	2	3.0	7.0	13.7	42.5	5.7	16.5	8.0	7.5
4	1	2.0	11.9	1.6	12.0	8.3	12.3	2.6	6.4
	2	.0	7.5	13.0	33.0	6.1	13.8	6.4	3.4
5	1	4.0	7.2	2.2	10.8	14.0	13.8	6.1	5.4
	2	3.8	7.0	16.4	32.8	6.4	12.6	8.0	5.6

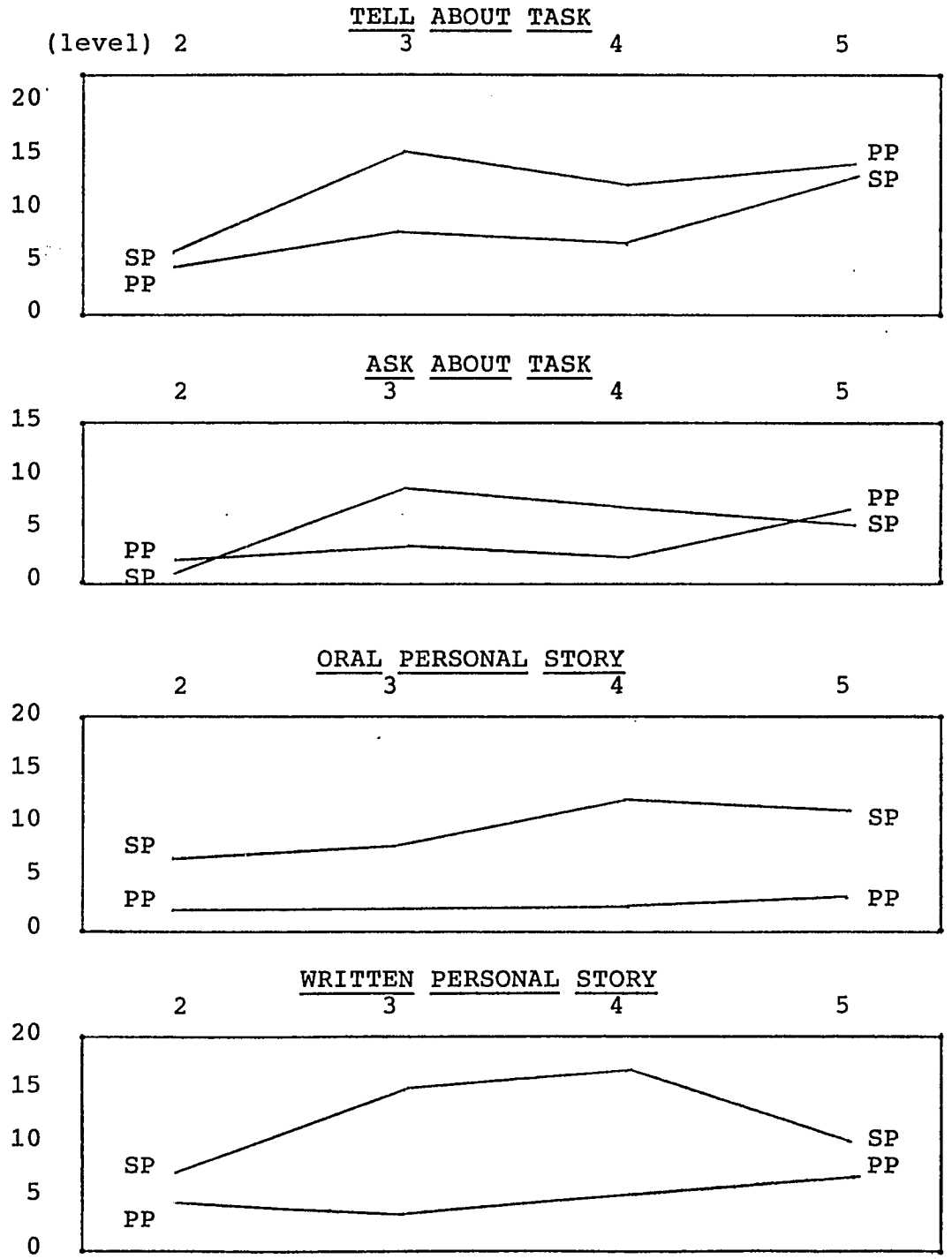
TABLE 2

Production Frequency: Percentage of Use*

Level/Time		Writing		Oral		Tell About		Ask About	
		pp	sp	pp	sp	pp	sp	pp	sp
2	1	.24	.76	.16	.84	.49	.51	.55	.45
	2	.35	.65	.15	.85	.11	.89	.47	.53
3	1	.06	.94	.18	.82	.40	.60	.29	.71
	2	.30	.70	.24	.76	.26	.74	.52	.48
4	1	.14	.86	.12	.88	.40	.60	.27	.73
	2	.37	.63	.28	.72	.31	.69	.65	.35
5	1	.36	.64	.17	.83	.50	.50	.53	.47
	2	.35	.65	.33	.67	.34	.66	.59	.41

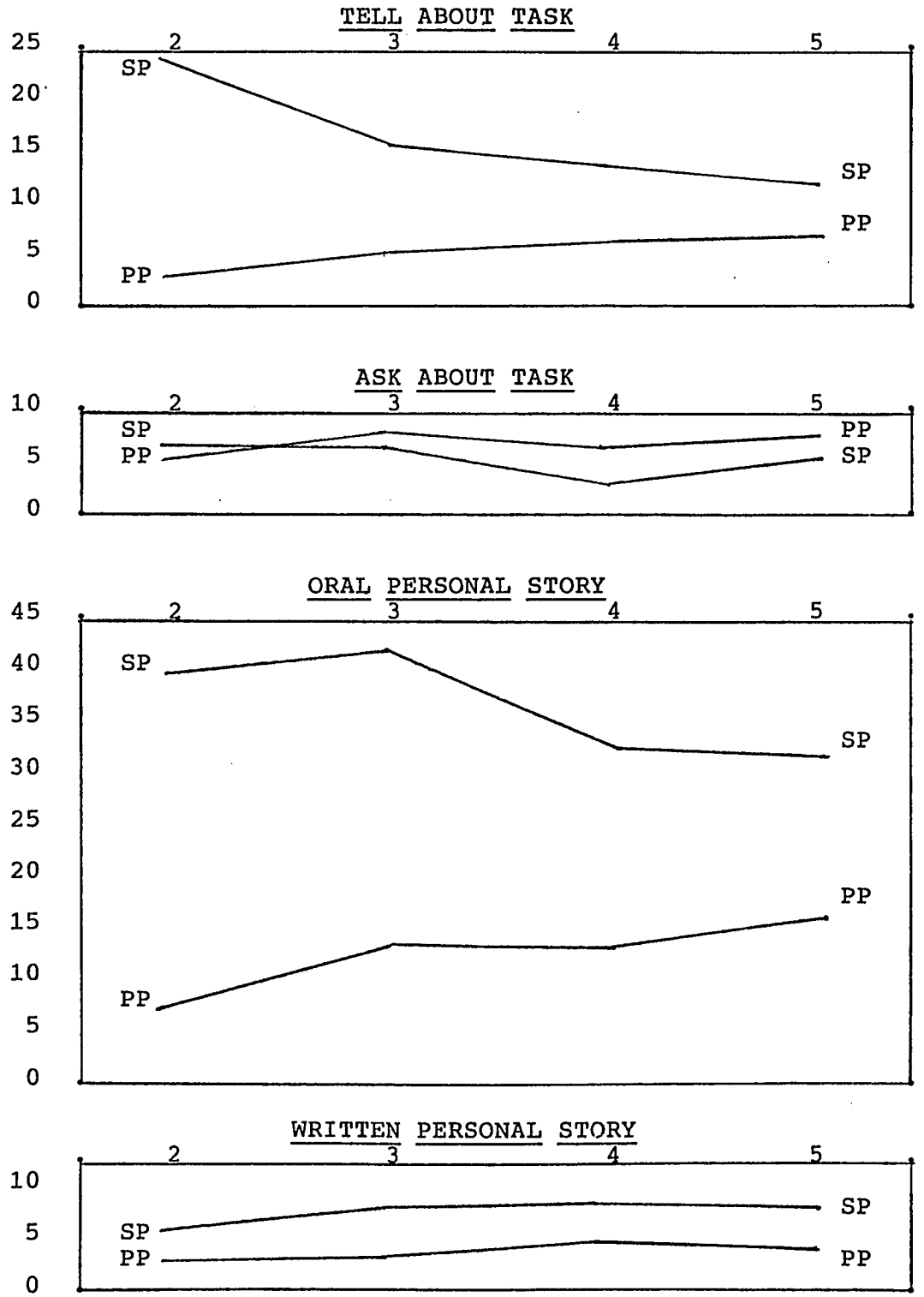
*Percentages expressed as proportions of sp and pp use. (pp stands for past progressive; sp, for simple past.)

FIGURE 1: PRODUCTION FREQUENCY*, TIME 1



*Figures 1 and 2 are based on mean number of occurrences. (PP stands for past progressive; SP, for simple past.)

FIGURE 2: PRODUCTION FREQUENCY, TIME 2



Picture Description Tasks

On the picture description tasks, subjects on certain levels of proficiency contradicted the finding that the simple past was used more frequently than the past progressive. It is significant that on both the tell about and the ask about task at Time 1, the lowest and the highest levels of proficiency produced as much if not more past progressive as simple past, as can be seen on Figure 1. At Time 2 this peaking at polar extremes was no longer true on the tell about task (where the simple past was used more than the past progressive on all levels). But on the ask about task, Time 2, the past progressive was even more frequent than the simple past on all but the lowest level. Because of these anomalous results, a four-way analysis of variance (adding level to grammatical structure, task and time) did not reach significance.

What is there about level which would cause significant variation to occur? Level, of course, represents stages of development. One stage of development which has been hypothesized for the past tense is that, in the very beginning, the past progressive might be more heavily used than the simple past. This would be reasonable to expect, given that the progressive is the unmarked present and second language learners might transfer their present tense learning into the past as a first guess (fill in the gap) about the past tense

marking. The findings of this study indicate that, indeed, a past progressive advantage does exist for beginning learners but that this advantage rapidly disappears as they acquire more proficiency. Conversely, a high proportion of past progressive use may return at a high level of proficiency as can be seen at Time 1 on the picture description tasks. One reason why this might happen is that learners go through overgeneralization stages. This researcher (Eisenstein, Bailey and Madden (1982)) has previously located flip-flops in other areas of the grammar where the relative frequency or accuracy of closely related form/meanings change place at critical points in their development. Simple present and present progressive, for example, have been observed to change places in their frequency of use at a high level of proficiency when the present progressive has been initially mastered and the simple present is being learned and overused.

U-shaped behavior (Kellerman (1985)) is an appropriate and graphic description of the learning curve of the past progressive that has been described above and will be seen again below.

The Tell About Task, Time 1

The frequency anomaly on the tell about task would appear to have a similar explanation to the present tense learning pattern. In other words, it seems likely

that the sudden increase of use of the past progressive over the simple past at a high level of speaker proficiency is an overgeneralization phenomena caused by a surge in learning. This stage of learning can be observed to a greater or lesser extent on the other two production tasks at Time 1 as well. The written personal story shows a decrease in simple past use from level 4 to level 5 as does the oral personal story to a lesser degree. In both cases, past progressive use increases at the same time as simple past use decreases.

The Tell About Task, Time 2

Time 2 data (see figure 2) support this analysis of late past progressive development. First, the level 2 frequency figures show that early learners are now overwhelmingly preferring the simple past to the past progressive. On both the cartoon story and the tell about task, the margin of difference decreases from level 2 to level 5 with the proportion of simple past use gradually decreasing and past progressive use increasing until past progressive use approximates fifty percent of simple past use on all tasks except ask about. This pattern of increased past progressive usage over time is one of the two main findings of this experiment, the other being increased accuracy over time. To this researcher, these two results taken together attest to the fact that the past progressive is being learned later than the simple

past. The reasoning here is that increased frequency of use and increased accuracy are both prime indicators of learning, and taken together they provide especially clear evidence that the past progressive is going through the process of being acquired and that this is happening after the simple past has already experienced similar growth (see levels 2 and 3, accuracy and frequency). Since the course of development of the simple past shows that it declines somewhat in frequency of use while past progressive use is on the rise, it seems reasonable to assume that these two past tense verb constructions are being learned in relation to each other. The probable reason why this happens is that focus shifts very naturally within a semantic field and the distributions of both the simple past and the past progressive are being worked out simultaneously. Meanwhile, the simple past appears to have had the lead in this process because it was preferred by early learners once they passed an initial stage where the past progressive may have experienced carry-over from the dominant present tense verb construction--the present progressive. As an initial strategy, much in the same way that contrastive analysis is used to account for transfer type errors that occur when learners have "a hole" in their knowledge (Taylor (1975)), learners have seized on the past progressive as their first approximation of the common unmarked past.

They have transferred the progressive from the present, using some form of past marking (usually an adverb), until they have a chance to work out what the appropriate tense marking for the unmarked past might be. But it is this researcher's conviction that learners very quickly settle on the simple past as the unmarked past tense, because of the strong contrast which is then created between the present tense and the past tense, and also more importantly because it is more logical for the unmarked past to be the punctual (simple) past rather than the durative (progressive) past. The meaning of grammmar is thus asserted to be a powerful constraint on acquisition.

The Ask About Task, Time 1

At Time 1 the ask about results were very similar to the tell about results (See figure 1) but on a lower scale, since fewer questions than statements were produced. Nevertheless, the same pattern prevailed: level 2 and level 5 each produced practically equal proportions of the simple past compared to the past progressive. Levels 2 and 4 both produced more simple past than past progressive (although only on level 3 was the greater simple past than past progressive frequency statistically significant).

The Ask About Task, Time 2

One of the most striking results anywhere in this experiment was the greater frequency of the past

progressive over the simple past on the ask about task at Time 2 on levels 3 and 4 (although only on level 4 was that difference statistically significant). In this task questions were elicited from the subjects. The result was all the more striking because it contrasted with accuracy results. It was was also very distinct from all the other production results at Time 2, which heavily favored the simple past.

The explanation for why questions should favor the past progressive seems to involve pragmatics. Specifically, questions are usually asked in question/ answer sequences. As such they are utterances which are somewhat detached from other utterances, not requiring the same kind (and also not requiring the same degree) of interrelationship as statements such as those used in narratives. It was certainly true of this particular question asking task that questions were asked somewhat in isolation from each other.

The pictures that were used tended to feature past progressive actions, since it was predicted that the past progressive would be more difficult to elicit than the simple past. The abundant availability of progressive actions to question and the somewhat obscure purpose of the task (asking questions about a picture about which both parties had equal knowledge) may have resulted in the subjects' dwelling more on the surface actions and details

of the picture rather than on the underlying meaning and outcome of the events that were recounted in the stories. This is one possibiity.

These results may also indicate that questioning is where second language learners may begin to learn the past progressive. It certainly seems true that the subjects of this experiment found it easiest to use the past progressive in questions except for the writing task at Time 2 where they used the past progressive more accurately than the simple past, but not more frequently. The most important contribution of this task to our understanding of grammatical usage is the realization of how sensitive language use is to its context of use. In other words, in question/answer sequences, the use of the past progressive seemed to be easiest for subjects to master because of the pragmatics of the situation; i.e., asking a question about a picture requires that only one sentence at a time be uttered by the questioner without the necessity of relating that sentence to another sentence.

The Oral Story Task, Time 1

By contrast, the retelling of the personal story about a dangerous or frightening experience, which the subjects had previously written, required the subjects to select and structure their own topic. (On the picture description task, the structure and content of the story

the subjects were able to tell was more controlled, as it was cued by a picture.) By comparing these two tasks it was possible to observe whether the less controlled personal narrative yielded comparable results to the more controlled cued production, thereby affirming the validity of more controlled language elicitation approaches.

The outcome of this comparison, in terms of frequency, was mixed. The oral personal story results were similar to the picture description results in so far as past progressive use was less frequent, overall, than simple past. One of the biggest differences was that on the lowest level of proficiency, level 2, on both the tell about and ask about tasks at Time 1, the frequency of the past progressive equalled or exceeded that of the simple past and this did not occur on the oral story. There was a low, flat level of past progressive use on that task that spanned all four levels and was quite unlike the U-curve of the picture description results.

Also the past progressive was considerably less frequent on the oral story than on the picture description tasks, ranging from 12% to 18% of simple past use as opposed to about 40% to 50% of past progressive to simple past use on the tell about task.

The progressive peak at low levels of proficiency which was found on the picture description tasks at Time 1 was considered to be the result of an interlanguage

transfer stage of the present into the past. The oral story bears no trace of that. It could be that when the meaning which a subject wants to convey is clear, such as in one's own story as opposed to a story about a picture, this confusion does not exist for the learner and the simple past would even initially emerge as the past tense of preference. This would strengthen the meaning hypothesis of this thesis, namely, that the simple past has the clearer meaning and for that reason is learned before the past progressive.

The performance of the more advanced subjects, levels 4 and 5, on the oral story at Time 1 shows a learning curve that echoes that of the picture description tasks, except that the past progressive becomes more frequent relative to the simple past. On the oral story task, past progressive usage increased from 12% on level 4 to 17% on level 5 and the simple past shows a corresponding decline in relative frequency (88% to 83%). Between levels 3 and 4 the simple past made a very similar jump in amount of use (from 7.8 average occurrences to 12) indicating that this was a growth surge for the simple past. Right after that, between levels 4 and 5, the past progressive increased in frequency (from 1.6 average occurrences to 2.2). This implicational ordering of the learning of the two structures can also be seen on every production task which was given at Time 2. The most

important conclusion that can be drawn from a comparison of oral story and picture description results, therefore, is that the past progressive increases in frequency of use on both tasks at a higher level of proficiency than does the simple past, indicating that it is being learned later.

The Written Personal Story, Time 1

The oral and written story tasks at Time 1 can be compared more satisfatorily than most tasks because they were based on identical subject matter--each subject's personal account of a single dangerous or frightening experience. One of the biggest differences between the results of these two tasks has to do with simple past frequency at the lower levels of proficiency, levels 2 and 3. While oral results for these two levels are nearly equal for simple past use (circa 7 occurrences per story), written results show an initial lag in the frequency of simple past use on level 2 (4.8 average occurrences of the simple past per story) but a jump at level 3 (to 10.5 occurrences). This might appear to indicate that written grammatical ability is in advance of oral ability because a corresponding advance in simple past frequency in oral stories doesn't occur until level 4. Although it might appear rather paradoxical that written ability would advance earlier than oral, writers have a chance to monitor their production of language in a way that

speakers do not.

At the other end of writing proficiency, subjects on the higher levels, four and five, demonstrated in the written task an earlier closing of the gap between past simple and progressive use than was found in the oral story results (and which resembled picture task results). Average occurrences of simple past to past progressive were 10.8 to 2.2 respectively in the oral story data, and 7.2 to 4 on the written. Past progressive use thus rose to approximately fifty percent of simple past use at level 5, a proportion that practically all level 5 production tasks displayed at Time 2. Writing at Time 1 seems to have anticipated the greater rate of past progressive use which subjects on levels five demonstrated on all production tasks at Time 2. In this experiment, level 5 was the developmental point at which this most productive period of past progressive learning seemed to be taking place.

The Oral Story, Time 2

The oral story task from Time 1 was replaced by a different task at Time 2 (telling about the Louie cartoons), in order to stimulate more past progressive production. The average number of occurrences of the past progressive at Time 1 on the oral story task was 1.7. Using the new task at Time 2, subjects produced an average of 12.25 usages of the past progressive. The pattern of their usage was one of steadily increasing past

progressive use relative to simple past use. It was very apparent from the changes in the proportion of use of each that a dynamic learning process surrounds the learning of these structures. (From 7 occurrences on level two, to 13 on level 3, to 13 on level 4, to 16 on level 5.)

The oral story frequency results, as can be seen in Figure 2, present a mammoth gap between simple past and past progressive frequency at the lowest levels of proficiency; simple past use simply towers over past progressive use on level 2 and again on level 3, although the gap does begin to narrow at level 3. The simple past, on the other hand, increases almost not at all. The past progressive is clearly the late bloomer of the two. On level 4, the absolute frequency of simple past use drops substantially, from forty two average occurrences per subject to thirty three, so that the past progressive, which doesn't increase in absolute frequency from level 3 to 4, nevertheless increases in relative frequency. And, on level 5, the approximation of the frequency of the two continues to the point where the past progressive is being used fully half as often as the simple past, a proportion which strikes this researcher as unnatural for a native speaker and most probably a learning phenomenon--over-generalized use at a critical point of past progressive development.

Beyond the numerical analysis of this task, more

can be said about its relation to the other production tasks. The oral story format at time 2 unquestionably accomplished the purpose of stimulating more past progressive use than the oral story at Time 1. Compared to the picture description task, the oral story format was much more successful at eliciting the target structures, at a rate of two or three times that of the tell about task at Time 2. However, the stories themselves seemed qualitatively different.

The stories which were told about the single-frame pictures on the tell about task were quite distinct from the stories about the Louie cartoons told in the oral story. (Subjects seemed genuinely confused as to how to tell a story about a man brushing his teeth or a woman cooking--albeit she was burnig her food.) A lot of description of the setting and guessing about the action that was implicit in the picture went on with a single-frame picture, for example, as compared to when a multiple framed picture (or a Louie cartoon) was used. For that reason, perhaps, absolute frequency decreased from Time 1 to Time 2 on picture description statements, though not on questions. It seemed as though the subjects had tired of the task from Time 1 to Time 2, even though the sets of pictures that were used for questions and statements were interchanged. Except for level 2, which exploded with simple past use and the new-found language power which

that had apparently bestowed upon them, the rest of the levels had less to say about the pictures at Time 2 than at Time 1.

Oral stories about the Louie cartoons produced much needed evidence, if only in numbers, of the developing usage of the simple past in relation to the past progressive. In addition, the stories that were told about the cartoons seemed more coherent and sure than the groping explanations of the pictures in the tell about task. The fact that the oral story and tell about frequencies were as similar as they were, despite the content differences, suggests that they were underlyingly very similar tasks, although one was more successful than the other. The results which they yielded in terms of frequency are more reliable because they are cross-verified.

The Written Story, Time 2

The writing task at Time 2 was changed from the personal story at Time 1 to a controlled composition in order to encourage past progressive use, which was low in relation to simple past use at Time 1. A new task was designed. A story was told to the subjects by the experimenter, then retold by them on paper. The task was balanced for simple past and past progressive use, equal numbers of each were used in the story which the subjects heard. It was hoped that the proportion of simple past to

past progressive usage which the subjects gave back in writing would help to distinguish levels of proficiency in past progressive learning.

As it turned out the controlled task at Time 2 distinguished levels of past progressive vs. simple past frequency usage less well than the written personal story at Time 1. The results of the Time 2 written task can be seen in Figure 2. In terms of both absolute and relative frequency, this task produced as flat and uninteresting a learning curve as the oral personal story at Time 1. Such a result is not useful for development observations but makes the point that even when faced with a model of matched simple past and past progressive use, learners of English as a second language prefer to produce a proportion of roughly half past progressive to simple past. Contrary to what many people believe, the elicitation instrument has not been shown to create a significant difference in this case. The results obtained from using other very different instruments from this oral composition task yielded very similar results.

Although figures are not generally available of native speaker proportion of use of the two target structures of this investigation, it was decided to obtain some native speaker control data on this task. Surprisingly enough, the native speakers produced an average simple past to past progressive use of 56%

compared to 52% for non-native speakers--which is to say, almost identical. This strongly suggests that non-native speakers may be mirroring native speakers' proportion of usage of a structure (variable rules) as a foremost strategy. In this case the natives and non-natives alike seem to be reflecting an upper limit on past progressive use compared to simple past in a given context of language use.

Accuracy Results, A Summary

The accuracy results of this experiment confirm the hypothesis that:

> the simple past is learned earlier than the past progressive as evidenced by its greater overall accuracy.

Similarly to the frequency results, accuracy results (see Table 3) show past progressive accuracy increasing later than simple past accuracy, which is to say, at the higher levels of proficiency and at Time 2. By Level 5, Time 2, past progressive accuracy actually exceeds simple past accuracy on three tasks. This is unlike frequency results to the extent that past progressive frequency never exceeded simple past frequency. In fact, past progressive frequency did not go beyond fifty percent of simple past frequency except in questions (at Time 2 on Levels 4 and 5). Nevertheless, past progressive accuracy and frequency increases occur at similarly late stages of development relative to the

simple past. In summary, these results support the hypothesis of this experiment that even if the past progressive does have a form advantage over the simple past, it is not learned as early or as easily as the simple past.

Results obtained on an ANOVA assessing the significant effects due to structure x state x time revealed that simple past accuracy significantly exceeded past progressive accuracy on all but the writing task (at Time 2 the past progressive was significantly more accurate than the simple past) and the ask about task (at Time 1 the simple past was not more accurate than the past progressive on Levels 4 and 5). An ANOVA table listing all significant accuracy results appears in the Appendix as Table 11.

A summary of the raw data of accuracy results can be found in Table 3. This is a group averaging of individual scores. In addition, Figures 3-10 (based on Table 3) display the accuracy of usage of simple past and past progressive verbs for each task and for both Time 1 and Time 2. These are the figures that will be referred to in the discussion of results that follows.

FIGURE 3
ACCURACY ON THE TELL ABOUT TASK, TIME 1

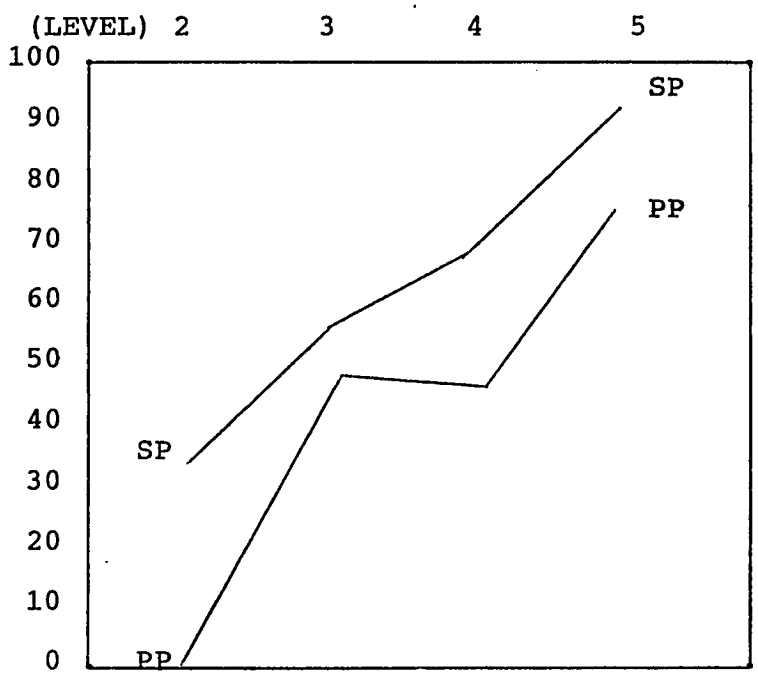


FIGURE 4
ACCURACY ON THE TELL ABOUT TASK, TIME 2

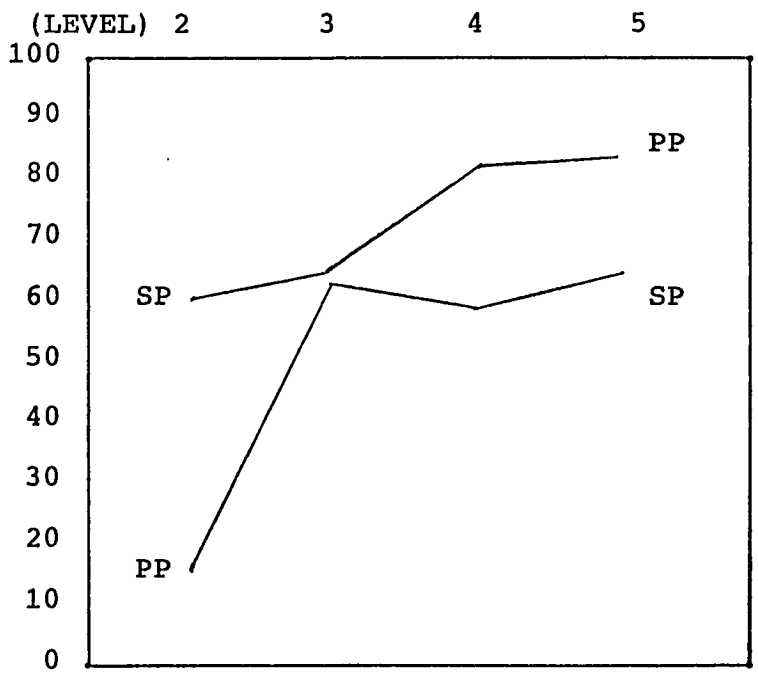


FIGURE 5
ACCURACY ON THE ASK ABOUT TASK, TIME 1

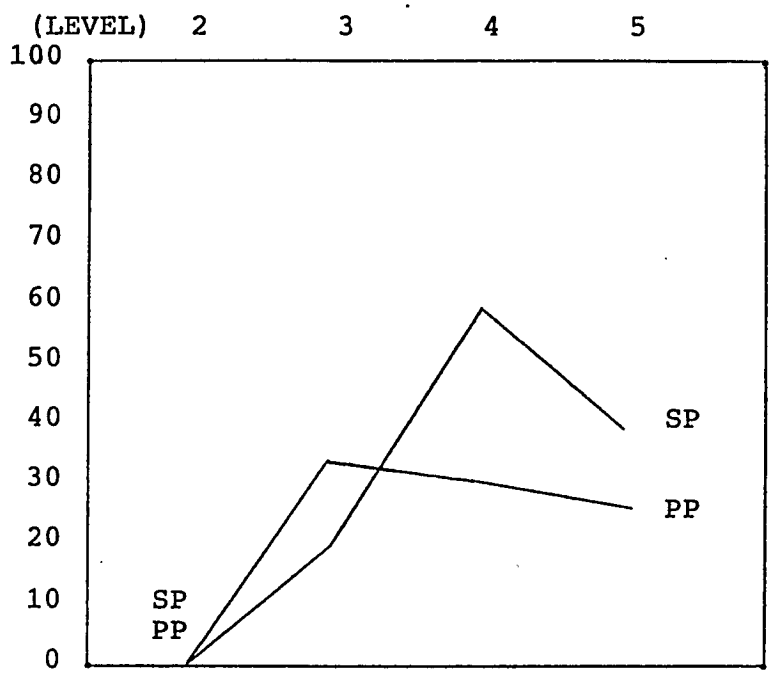


FIGURE 6
ACCURACY ON THE ASK ABOUT TASK, TIME 2

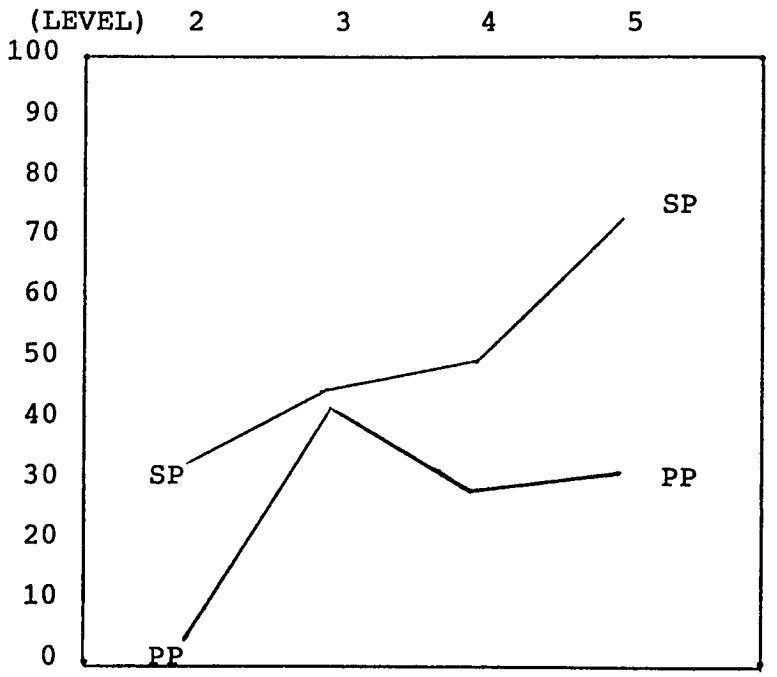


FIGURE 7
ACCURACY ON THE ORAL PERSONAL STORY, TIME 1

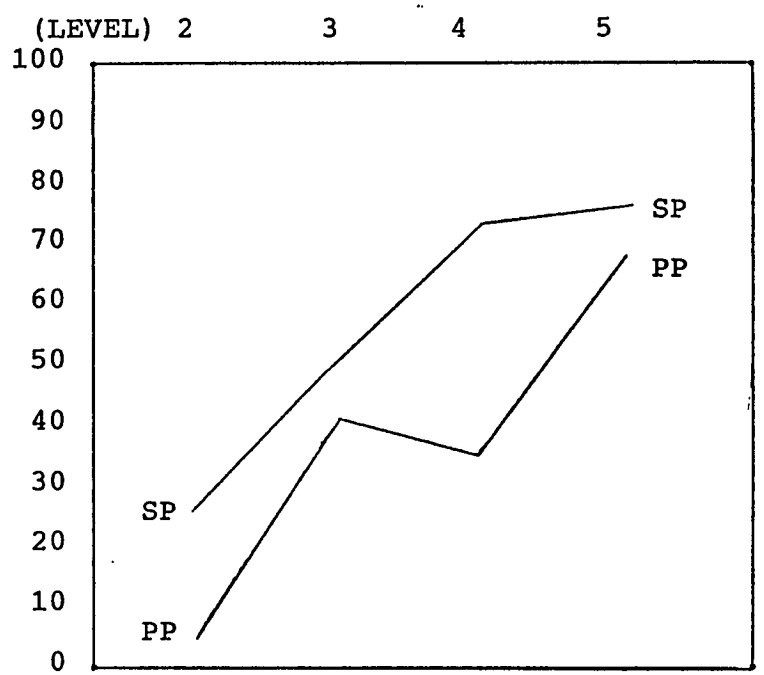


FIGURE 8
ACCURACY ON THE ORAL CARTOON STORY, TIME 2

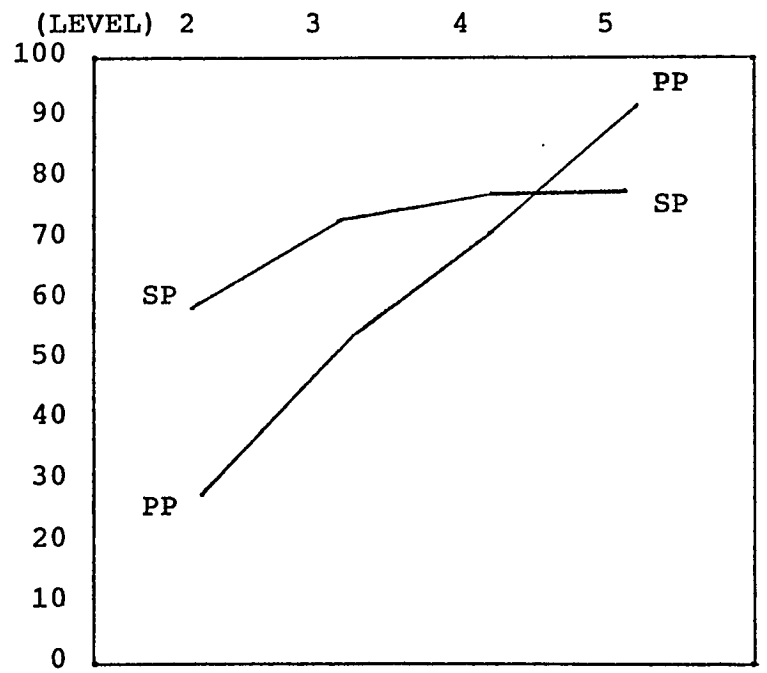


FIGURE 9
ACCURACY ON THE WRITTEN PERSONAL STORY, TIME 1

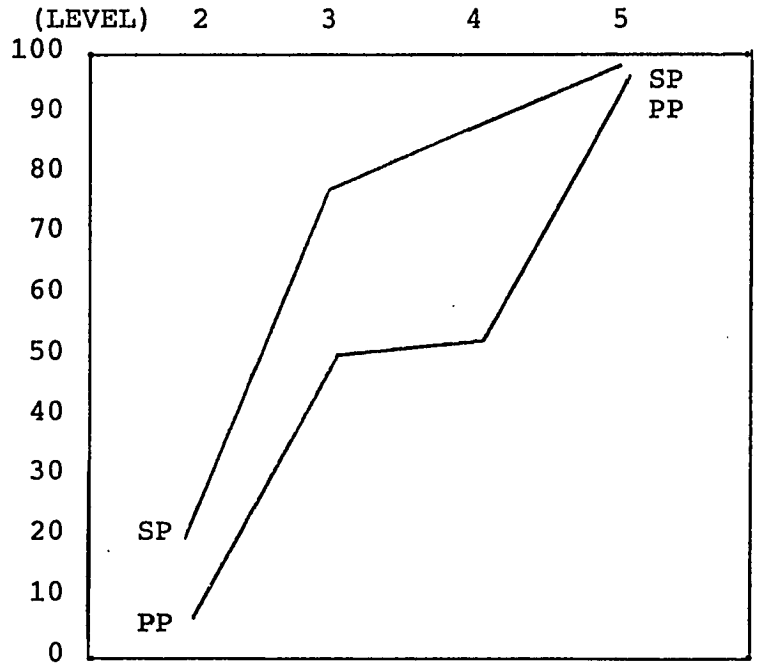


FIGURE 10
ACCURACY ON THE WRITTEN NASREDDIN STORY, TIME 2

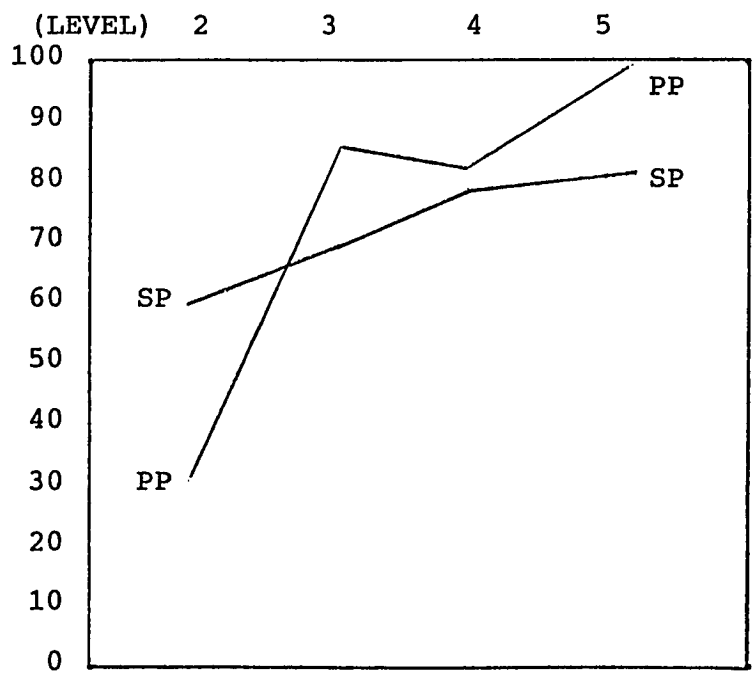


TABLE 3

Production Accuracy: Percentages

Level	Time	Writing		Oral		Tell About		Ask About	
		pp	sp	pp	sp	pp	sp	pp	sp
2	1	.00	.21	.00	.26	.00	.33	.00	.00
	2	.33	.62	.28	.61	.13	.61	.03	.33
3	1	.50	.80	.42	.52	.49	.57	.35	.22
	2	.88	.72	.56	.75	.64	.66	.44	.46
4	1	.53	.90	.35	.73	.46	.70	.32	.61
	2	.84	.83	.72	.79	.59	.84	.27	.51
5	1	.97	1.00	.70	.76	.76	.94	.26	.39
	2	1.00	.84	.94	.80	.86	.64	.32	.75

The Tell About Task, Time 1

The results from the tell about (picture description) task are displayed in graphs in Figures 3 and 4. Other oral production task results appear in Figures 5-10.

It is significant that on every oral production task at Time 1, the past progressive achieved 0% accuracy at the lowest level of proficiency, level 2. If a form advantage existed for the past progressive, it might be expected to show up in form accuracy at an early stage of past tense learning. But on the contrary, it is the simple past which is produced with the greater accuracy

(33% at Level 2) even though it is used with almost identical frequency as the past progressive (51% and 49% respectively) at level 2. This may reflect difficulty with the correct use of the auxiliary and still indicate an advantage of some sort for the past progressive at early stages of past tense learning, as may be revealed in this experiment by the equally high frequency of use of the past progressive and the simple past at level 2 (and level 5). On the other hand, superior simple past accuracy may be a sign that the simple past is receiving most of the learner's attention for past tense use.

At level 3, the accuracy of the past progressive rose to 49% although its frequency was only about two-thirds that of the simple past. At level 4, past progressive accuracy fell slightly to 46% while its frequency stayed the same as at level 3. At level 5, the past progressive was 76% accurate compared to 94% for the simple past while the frequency of the two structures was virtually equal.

The accuracy pattern was somewhat clearer than the frequency pattern: the simple past was consistently more accurate than the past progressive although the development of each was roughly parallel.

The Tell About Task, Time 2

As can be seen in Figure 4, the simple past and past progressive underwent considerably more interaction

at Time 2 as evidenced by the alternate divergence, convergence and interchange of position of their accuracy levels. The past progressive pattern across levels was practically a carbon copy of its development at Time 1 but at each level it was a little more accurate. At level 2, simple past accuracy was remarkably high, having risen from 33% to 61%, an impressive testimony of the appeal of the simple past to beginning learners. At level 3, simple past and past progressive accuracy came together at around 65% (66% and 64% respectively) which represented a leveling off of the simple past and an enormous spurt of past progressive form mastery. (The frequency growth of the past progressive at Time 2 was a steady tortoise-like narrowing of the gap with the simple past.)

The past progressive accuracy spurt at level 3 is most likely an early stage of form mastery preceding function mastery, possibly an extension strategy from earlier present progressive learning (as predicted by experimental hypothesis #3, Chapter one). It will be seen again in the writing accuracy results at Time 2. As with writing, the past progressive form mastery diminishes slightly on the following proficiency level, probably due to the increased frequency rate. This reflects an expansion of the number of different verbs being used beyond the typical early preformulated expression stage of language learning, where a few familiar lexical items are

repeated over and over with great accuracy that appears to be categorical form mastery.

Thus at level 4 we have accuracy levels of the simple past and past progressive diverging again to 84% and 59% respectively. More will be said about that later. But the level 5 results throw into confusion the most basic assumptions about form acquisition. It is understandable that the past progressive rose from 59% accuracy to 86% accuracy at a high level of proficiency. One could simply assume that learners had finally "got it together", especially when frequency rates of 50% past progressive to simple past use suggest that this is a point of overgeneralization of past progressive usage. And a high degree of practice at this point would explain why the past progressive would be produced especially accurately. What cannot be explained so easily is the concommitant fall of simple past accuracy from 84% at level 4 to 64% at level 5.

A learning interaction of this magnitude tends to confirm a markedness theory of grammar acquisition. These two structures are apparently being learned in relation to each other. As has been seen before (Eisenstein, Bailey and Madden (1982)), learning in one part of the grammar can be delayed because a closely related form/ function is competing for the learner's attention. According to this analysis, the past progressive could take attention away

from the simple past at a high level of development and cause it to undergo a temporary regression in accuracy and frequency. We will see this occurring in other tasks to add to the strength of this analysis. The poet Marge Piercy has said that "nothing living resembles a straight line" (1973:63). Older studies of second language acquisition have tended to view grammar development as linear while this study clearly demonstrates that this is not the case. Furthermore, one would not normally expect linearity in any learning study. (Also see the Special Analysis 3 of simple past error types below.)

It was in looking at the results on level 5 that I identified a critical crossroads in past tense learning (i.e. simple past regression). Several additional analyses suggested themselves which will be explained in greater detail in the additional analyses at the end of the accuracy results. One analysis was to quantify the various types of errors that were being made in the simple past to see if any one type predominated. Another was a serendipitous investigation of a simple past characteristic that struck this researcher as highly relevant, namely its irregularity. Somehow a grammar learning contrast such as the simple past and past progressive, colored as it is by the touted regularity of the past progressive and the stunning irregularity of the simple past, has to be affected by this form difference. It has

been argued previously that the irregularity of the simple past could very well work in its favor in the early stages of learning, when irregular forms would attract attention to themselves as separate vocabulary items do. Before we study this we must answer the question of how the regular simple past is learned in relation to the irregular.

In the process of preparing a breakdown of irregular vs. regular simple past frequency and accuracy patterns, an additional count suggested itself: the breakdown of regular or irregular verb usage in past progressive results as well as simple past. This analysis would test an intuition about the ultimate reasonableness of arguing for the relevance of form to grammar acquisition; form being a fundamental aspect of the form/meaning relationship which constitutes language.

The Ask About Task, Time 1 and 2

As Figures 5 and 6 graphically show, the simple past was much more accurate than the past progressive at the higher levels in the ask about task at Time 1 and on all but level 3 at Time 2. The reason for greater simple past accuracy may be that the form of the simple past is simpler. It may be that the regular use of did for all persons in the past is simpler for learners than is the selection between was and were as auxiliaries in the past progressive. At Time 2 we are especialy aware of the discrepancy between form and use because the more accurate

question structure, the simple past, is not the more frequently used (just as the less accurate irregular simple past [see Special Analysis 2] is more frequently used than the regular simple past).

The Oral Story, Time 1

Simple past accuracy was greater than past progressive accuracy on every level on the oral story at Time 1 (see Figure 7). At levels 3 and 5 the difference between simple past and past progressive accuracy was quite small, less than ten percent. At levels 2 and 4 it was twenty-five percent and thirty-five percent, respectively. The level 2 gap could be explained by the initial difficulty of the past progressive form, but not the level 4 drop. The two past structures were at their widest divergence in accuracy at level 4. Apparently at this point contrastive or mirror image learning was occurring, whereby the gain in one structure (in this case the simple past) was the loss in the other structure. When the simple past picked up in accuracy, the past progressive slipped behind, as if the learners' minds could not focus on the correct formation of both structures at one time. By level 5 the accuracy of the simple past and past progressive were very nearly equal.

The Written Story, Time 1

Figure 9, which represents the written personal story results at Time 1, beautifully matches the

trajectory of the oral (personal) story results at Time 1, although at a higher level. The differences between them clearly illustrate the comparison that has already been made in respect to frequency results, namely, that grammatical accuracy in writing production seems to be in advance of that in oral production. Contrasting Figure 7 with Figure 9, it will be observed that the simple past levels off in writing instead of dropping between levels 3 and 4 (as it did at Time 1). Also the simple past peaks sooner in writing--at the third level instead of the fourth. The accuracy results for the entire writing graph (with the exception of level 2, where the simple past is actually less accurate in writing than orally) is at a much higher level than the the oral results by twenty or thirty percent.

This is a very clear demonstration of the benefit which learners derive from the chance to monitor and self-correct their grammar when they're writing as opposed to when they're speaking. It is notable that only on the writing task (Time 1 and Time 2) did the simple past achieve one hundred percent accuracy by level 5. A generalization could be made here that, given a certain level of proficiency on the part of the learner, it is the task (and the nature and frequency of practice on that task) which will determine the level of accuracy which a learner can attain in their grammar.

The Oral Story, Time 2

The design of the oral story at Time 2, was somewhere between the oral personal story and the tell about task. It was more structured than the personal story and more stimulating for story telling than the tell about task. It will be recalled that the oral cartoon story at Time 2 elicited a disproportionately greater amount of simple past use than the tell about task, although both tasks displayed a gradual narrowing of the gap between simple past and past progressive production across levels.

Accuracy results for the oral cartoon stories also showed a gradual diminishing of the differences between the simple past and past progressive, more gradual, in fact, than on any other task. This could have something to do with the nature of the task, which consisted of segments of oral story alternating with segments of sentence imitation. The intermitent imitation may have taken some of the jigs and jogs out of the learning and resulted in a smooth linear progression of improvement of the past progressive and something a little more irregular for the simple past. From levels 2 to 3 and 3 to 4 the gap between the simple past and the past progressive gradually narrowed and between 4 and 5, did a flip flop. As on the tell about task, the past progressive was a great deal more accurate than the simple past at level 5.

One difference between the two interactions was that the simple past leveled off rather than regressed on the oral stories.

The slow-starting, steadily-growing accuracy of the past progressive on this task is a clear example of the tortoise-like development of the past progressive in relation to the simple past. Also, the greater accuracy of the past progressive at the highest proficiency level testifies to the greater ease with which learners can master the past progressive form (once its function is learned) as compared to the uncertainties that plague learners about simple past form. This will be discussed later in this chapter.

The Written Story, Time 2

The controlled composition written on the Nasreddin anecdote at Time 2 was the only task on which the past progressive exceeded the simple past in accuracy on three out of four levels (levels 3 through 5) and all at above eighty-percent accuracy. (See Figure 10.) As with the written composition at Time 1, much higher accuracy was achieved in writing than in speaking. The past progressive made an early jump to high proficiency at level 3 while the simple past was especially accurate at level 4, an effect found on practically every production task at both Time 1 and Time 2. The past progressive regressed to practically equal accuracy with the simple

past (84% vs. 83%) at level 4 and then the simple past levels off to 84% on level 5. The past progressive, on the other hand, reached one hundred percent accuracy.

The zigs and zags of written accuracy at Time 2 are a final underscoring of the constant interaction of the simple past and the past progressive in the dynamics of their development.

SPECIAL ANALYSES

ANALYSIS 1:

A Breakdown of Simple Past Errors

On three different production tasks at Time 2, the simple past was less accurate than the past progressive at the highest level of proficiency, level 5. (The only task on which this was not true was the ask about task.) Lower accuracy on the simple past than the past progressive represented an actual regression of simple past accuracy (from Time 1) on two of the tasks: tell about and the written story. Since this is a point of obvious interaction, it was decided to investigate more fully the nature of the simple past errors that were made in order to be more specific about what was causing this interaction.

For purposes of comparison, errors on the tell about task were analyzed for both levels 4 and 5 at Times 1 and 2. It was discovered that they fell into the following four main categories:

1) regularizations: tooked, waked, bringed

2) past progressive overgeneralizations: was call, was throw, was arriving

3) present tense: needs, seems

4) unmarked: think, see, take, fight

The results of the error count are presented in Table 4. The overwhelmimg majority of the errors were unmarked verbs. On the tell about task, the breakdown of percentage of error on the two largest error types across levels and times was as follows:

TABLE 4

SIMPLE PAST ERROR TYPES

UNMARKED VERBS

Level four, Time 1: 68% Level five, Time 1: 60%

Time 2: 88% Time 2: 71%

REGULARIZED VERBS

Level four, Time 1: 9% Level five, Time 1: 30%

Time 2: 6% Time 2: 14%

OVERGENERALIZED PAST PROGRESSIVE

Level four, Time 1: 3% Level four, Time 1: 10%

Time 2: 0% Time 2: 14%

On levels 4 and 5, the largest category of errors is unmarked verbs. The most predictable error type is overgeneralization. On level 5 at Time 2, when the past progressive is produced with 86% accuracy on the **tell about** task as compared to 64% for the simple past, it is understandable that overgeneralization errors would increase. The increase in regularized verbs on level 5 opens up another avenue of investigation.

SPECIAL ANALYSIS 2:

Irregular Verbs

The irregularity of the simple past has been hypothesized in this experiment to be a form difficulty which will not interfere with the earlier learning of the simple past in relation to the past progressive. The earlier learning of the simple past has, in fact, been confirmed despite the irregularity of past tense forms. Nevertheless, the role of irregularity is worthy of further investigation, since it is a major form anomaly and regularization has shown itself to be a major error type.

Both the simple past and the past progressive verbs were analysed for their irregularity since progressives have simple past counterparts which, if they are irregular, could interact with past progressive learning.

All of the verbs that were used on the **tell about**

task at Time 1 and Time 2, simple past and past progressive, were categorized according to whether they were irregular or regular. This was done for all four levels, and for frequency as well as accuracy. The information is presented in Tables 5 and 6.

Almost exactly inverse ratios of irregular to regular frequency of verb use were found for the simple past and past progressive. Averaging Time 1 and Time 2 together, the simple past averaged 67% irregular verb use and the past progressive averaged 33%. In other words, two-thirds of simple past use consisted of irregular verbs while one-third of past progressive use was with irregular verbs.

Among past progressive verbs used, accuracy was the same for irregular and regular verbs (about 52%). Among simple past verbs, accuracy was slightly lower for irregular verbs (about 60% for irregular verbs to 67% for regular verbs).

The subjects of this experiment have demonstrated that they favor irregular verb usage to regular (67% to 33%) but they have more trouble producing irregulars accurately (60% to 67%). Apparently, difficult form has neither deterred them from 1) learning the simple past nor 2) using irregular forms.

Ironically, the irregular may have a greater deterrent effect on past progressive learning than on

simple past learning. While there may be other explanations of the inversely skewed irregular to regular verb use in the past progressive, it seems to be the case that learners of English avoid the use of irregular verbs in the past progressive because their principal association with them is in the simple past. They may be uncertain as to how to transpose them into the regularly formed progressive. This avoidance severely limits the verbs available for past progressive use.

If it is true that learners are experiencing a backlash effect of the form of the simple past on the use of the past progressive, then function has certainly demonstrated its dominant role over form. In effect, irregularity has been preferred to regularity in the sense that it has emerged as the unmarked form in what are obviously symbiotically related areas of grammar learning. Form has played a clear role in the learning of this grammar, but not in the way expected. Irregularity has not proven to be an obstacle to grammar acquisition and regularity has proven to be a limitation to the extent that past progressive function and form seem to be selected in terms of the simple past.

While form may follow function, it is still important to note that form has a surprisingly significant role to play in the learning of the past progressive. This role can be seen especially clearly at the highest

level of proficiency in this experiment. At level 5, Time 2, the past progressive becomes more accurate than the simple past. And at this point irregular verb usage becomes greatly more frequent than it had been at other levels and at other times. For example, on level 4 at Time 2, the irregular accounted for only 33% of past progressive use. On level five at Time 1, it accounted for 41%, and at Time 2, for 56%!

Going back to the simple past and the regression phenomena which inspired this analysis of errors, it will be noted that at the very point (level 5, Time 2) where past progressive frequency is up and its accuracy reaches 89%, simple past irregular accuracy plummets to 57%. Suspecting that there was an interaction going on, this researcher graphed irregular accuracy percentages for all four levels at Time 2 (see Figure 11). The result was an alternating of high accuracy for the irregular whereby levels 2 and 4 have more accurate simple past than past progressive irregular verbs and levels 3 and 5 have more accurate past progressive than simple past.

What this appears to mean is that learners are sufficiently sensitive to form to produce patterns in their learning that reflect variable rules. In concrete terms, while learners are achieving high accuracy in simple past irregular verbs, they come up with lesser accuracy for past progressive irregular verb use. And

when past progressive verb use and accuracy in general improve (as they both did on level 5 at Time 2) it is not surprising that the simple past would regress and that that regresion would occur in just such ways as added past progressive overgeneralization, simple past regularization and much lower accuracy on irregular verb forms than was true at a lower proficiency level (level 4, Time 2) when the simple past was being overused and irregular accuracy was very high (90%).

FIGURE 11

ACCURACY OF IRREGULAR VERBS, TIME 2:
PAST PROGRESSIVE AND SIMPLE PAST

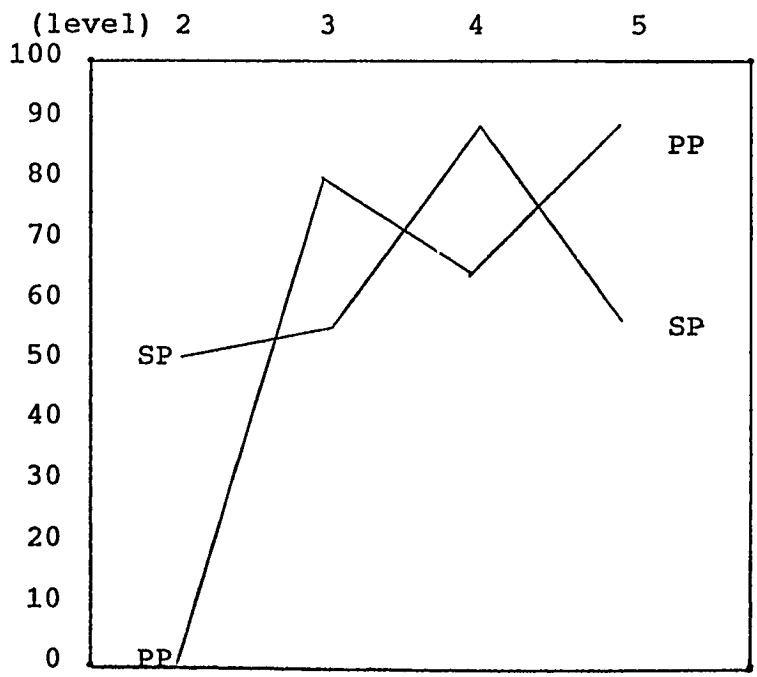


TABLE 5

PAST PROGRESSIVE, IRREGULAR VS. REGULAR VERB USE, FREQUENCY AND ACCURACY

Time 1

Levels		2	3	4	5
Irregular	Frequency	30	18	39	41
	Accuracy	0	50	46	80
Regular	Frequency	70	82	61	59
	Accuracy	4	60	47	74

Time 2

Irregular	Frequency	32	38	33	56
	Accuracy	0	81	65	89
Regular	Frequency	68	62	67	44
	Accuracy	27	58	60	100

TABLE 6

SIMPLE PAST, IRREGULAR VS. REGULAR VERB USE, FREQUENCY AND ACCURACY

Time 1

Levels		2	3	4	5
Irregular	Frequency	69	72	73	70
	Accuracy	30	67	69	60
Regular	Frequency	31	28	27	30
	Accuracy	33	57	73	90

Time 2

Irregular	Frequency	65	62	66	62
	Accuracy	50	55	90	57
Regular	Frequency	35	38	34	38
	Accuracy	65	74	71	73

SPECIAL ANALYSIS 3

Clause study

The question of past progressive learning in relation to complex sentences was not directly investigated in this study, but some evidence can be cited. Two aspects of this question can be addressed, namely, the order of main and subordinate clauses and the choice of *when* and *while* as subordinate conjunctions. This information has direct bearing on the learnability of the past progressive and the simple past, since the past progressive is an aspect that occurs in relation to the simple past and this relationship is frequently expressed by combining two clauses into one sentence. Therefore, the development of learners' complex sentences was studied for a better understanding of what learners find difficult about the past progressive.

In order to investigate learner preference for the order in which the main clause and the subordinate clause occur in the sentence, as well as to get an idea of their order of acquisition of *when* and *while*, all of the two-clause utterances occurring on the oral story at Time 2 (the cartoon story telling task) were analyzed. This meant looking at Time 2 data for all levels and Time 1 plus Time 2 data for level 5, since that group was asked to tell stories about Louie cartoons at both testings.

Two-clause sentences were divided into two

categories: those with the main clause first and those with the subordinate clause first (see Table 7). It was discovered that the subjects of this experiment predominantly chose to position the subordinate clause before the main clause in their complex sentences.

These same sentences were further subdivided into those that used while and those that used when as subordinate conjunctions. As can be seen in Table 7, when was the most frequently used. Indeed, while doesn't even appear until level 4. Interestingly enough, level 4 uses while more than level 5 does, possibly due to overuse during initial learning.

A third major difference which was discovered through this analysis was that subordinate clauses were most heavily used in sentences with two simple past verbs rather than with one simple past and one past progressive. This suggests that learners may begin to acquire subordination by using the more familiar simple past and then expand from there to contrast the simple past and past progressive in one sentence.

Evidence in support of the hypothesis that the past progressive is best understood by the learner as background information can be seen in the heavy use made on level 4 of sentences with a past progressive subordinate clause preceeding a simple past main clause. The majority of these sentences are conjoined by while,

which was apparently learned in tandem with the past progressive.

An explanation which occurs to this researcher for the apparent learning order of subordinate clause before main clause, has appeared in a slightly different form elsewhere in the literature (Hakes and Cairns 1970). That is that the meaning of a sentence with the subordinate clause first may be easier to process, due to the fact that when the subordinate conjunction occurs in the initial position in an utterance it may serve as a signal that more is to come.

TABLE 7

PATTERNS OF CLAUSE PRODUCTION

		Level 2	Level 3	Level 4	Level 5 Time 1	Level 5 Time 2
wh pp,sp	when	3	7	9	3	3
	while	0	0	11	2	3
wh pp,pp	when	2	2	1	0	1
	while	0	0	2	1	1
wh sp,sp	when	20	13	25	14	14
	while	0	0	7	0	0
wh sp, pp	when	0	5	3	0	0
	while	0	0	2	0	0
sp wh pp	when	1	0	0	0	0
	while	0	0	6	0	0
pp wh sp	when	1	0	8	5	13
	while	0	0	0	0	0
pp wh pp	when	0	0	1	0	2
	while	0	0	1	1	1
sp wh sp	when	1	0	2	4	2
	while	1	0	0	1	0

IMITATION RESULTS:

PRINCIPAL FINDINGS

1) The past progressive was imitated more accurately than the simple past throughout the imitation task in first clause position (ANOVA on the significance of the effects of structure x sentence x clause).

2) The simple past was more accurate than the past progressive in the second clause position in sentences with contrasting clauses at Time 1 (ANOVA, time x clause x sentence type x combination x structure).

3) The simple past was more accurate than the past progressive in questions with contrasting clauses on the higher levels (4 and 5). (ANOVA, structure x sentence type x level x combination).

4) Two past progressive clauses were imitated more accurately than two simple past clauses in sentences with non-contrasting clauses on the higher levels (ANOVA, combination x level x structure x sentence type.)

5) The past progressive was overgeneralized (i.e., substituted) more for the simple past than vice versa. This was especially true at the higher levels at Time 2.

The data upon which these findings were based is contained in Tables 8 and 9 below. An ANOVA table listing the significant effects on the imitation task appears in the Appendix as Table 12. Sentences illustrating the findings above can also be found in the Appendix.

TABLE 8

IMITATION RESULTS

Contrasting Clauses*

	Statement					Question				
		clause 1		clause 2			clause 1		clause 2	
		.....		.....	**		.....		.....	
Level/Time		pp	sp	pp	sp	Level/Time	pp	sp	pp	sp
	1	.36			.11	1	.33			.04
2			.39	.04		2		.33	.00	
	2	.61			.46	2	.64			.36
			.54	.25				.71	.07	
	1	.63			.50	1	.50			.50
3			.46	.41		3		.44	.17	
	2	.75			.46	2	.54			.46
			.62	.58				.58	.25	
	1	.97			.84	1	.56			.50
4			.69	.56		4		.83	.63	
	2	.97			.88	2	.84			.66
			.72	.78				.88	.66	
	1	1.00		1.00		1	.65			.75
5			.70	.75		5		.87	.93	
	2	1.00			.90	2	.85			.65
			.80	1.00				1.00	.90	

*Each sentence for imitation contained two clauses. The results presented here represent those sentences with contrasting clauses.

**The dotted line connects clauses presented in one sentence where the past progressive preceeded the simple past in clause order and the solid line, the opposite.

TABLE 9

IMITATION RESULTS

Non-Contrasting Clauses*

	Statement					Question			
	clause 1		clause 2			clause 1		clause 2	
Level/Time	pp	sp	pp	sp	Level/Time	pp	sp	pp	sp
1	.43			.14	1	.29			.29
2		.29	.14		2		.29	.00	
2	.93			.42	2	.71			.57
		.64	.21				.36	.00	
1	.66			.33	1	.67			.22
3		.58	.08		3		.56	.17	
2	.75			.58	2	.75			.42
		.25	.42				.42	.25	
1	1.00			.31	1	.69			.58
4		.56	.63		4		.88	.44	
2	1.00			.50	2	.88			.69
		.56	.81				.94	.81	
1	1.00			.70	1	.50			.80
5		.70	1.00		5		.67	.70	
2	1.00			.80	2	1.00			.70
		.70	1.00				.90	.80	

*See notes, page 124, Table 8.

DISCUSSION OF PRINCIPAL FINDINGS OF THE IMITATION TASK

Finding 1

The past progressive was produced more accurately than the simple past in clause one on the imitation task at both Time 1 and Time 2. This represents a major difference from production results, where the simple past was more accurate than the past progressive in the majority of sentences produced. There are two probable reasons for the greater accuracy of the past progressive in imitation than in production. One is that the past progressive may be easier for learners to produce when they do not have to decide when to use it, as is the case in the imitation of sentences. Therefore, the more regular form of the past progressive may give it a slight advantage for accurate reproduction.

But this reason would seem to be subordinate to the other possible reason, namely, that the meaning of the past progressive is especially well understood when it is used in the first clause of a contrasting clause statement. In sentences in which the past progressive occurs in the first clause and the simple past in the second (as in Finding 2), the background nature of the past progressive event is in correct chronological order with respect to the foreground nature of the following simple past event. The fact that sentences for imitation which were presented in the order of past progressive

before simple past were imitated with greater accuracy than sentences presented in the opposite order argues strongly for the importance of meaning in language learning. Form may play a facilitating role when the meaning and use of the past progressive is clear.

Finding 3

The simple past was more accurate than the past progressive in some questions for imitation, especially those with contrasting clauses. In production this was true only after level 3 at Time 1. (It will be noted, though, that the simple past question was slightly more accurate than the past progressive on the lower two levels in imitation.) This could mean that the form of the simple past is easier in questions than the form of the past progressive, due to the consistency of did use as opposed to the variability of was and were use in past progressive questions. Again this explanation based on form seems subsidiary to a meaning explanation, since the simple past has been shown to be produced more accurately than the past progresssive throughout the production tasks in this experiment. The fact that past progressive questions begin to be produced more frequently than simple past questions at Time 2 on level 3 and in non-contrasting clauses has been explained previously as having to do with the isolation of questions from a larger, more contrastive context of use. Questions frequently form a single

sentence (and single clause) utterance.

When the past progressive was in both clauses of questions for imitation, the past progressive was imitated better than in contrasting clauses. For example, "What was the dog doing while she was cleaning up the floor?" (was imitated better than) "What was his wife doing in the kitchen when he arrived home?"

The reason why lack of contrast was an easier condition under which to imitate the past progressive will be discussed below.

Finding 4

In sentences with non-contrasting clauses, statements with two past progressives were imitated more accurately on the upper two levels than sentences with two simple pasts. Upon examining these two kinds of sentences, it was perceived that sentences with two progressives such as "Louie was reading the paper while he was eating breakfast" were as easy to understand in the opposite order; i.e., "Louie was eating breakfast while he was reading the paper". On the other hand, sentences containing two simple pasts, which involve punctual, completed and hence chronologically ordered events rather than concurrent overlapping actions, as in sentences with two past progressives, would probably be understood better in chronological order. For instance, in the sentence "Louie's wife ran toward him when he came home from work",

the two events are not presented in their actual order of occurrence. Far easier to understand would be the sentence, "When he came home from work, Louis's wife ran toward him". The need for the order of mention of events to follow their order of occurrence is the very likely and surprising conclusion that can be drawn to explain the greater accuracy shown on past progressive imitation in sentences with non-contrasting clauses.

Finding 5

Overgeneralized use of the past progressive and the simple past (see Figure 13) was easily observed on the imitation task because the target structure was established by the task itself. The substitution of one structure for the other constituted overgeneralization.

A clear pattern emerged from this analysis (see Figure 11).

1) The past progressive was substituted for the simple past more than vice versa (simple past overgeneralization exceeded past progressive overgeneralization on level 2 at time 2 only).

2) The substitution pattern conformed to the U-shaped curve predicted for past progressive learning whereby the lowest level at time 1 and the highest level at time 2 showed the greatest tendency to overuse that construction.

The fact that the past progressive was

overgeneralized more than the simple past indicated to me that these learners were actively working on the past progressive and were still unsure of its use.

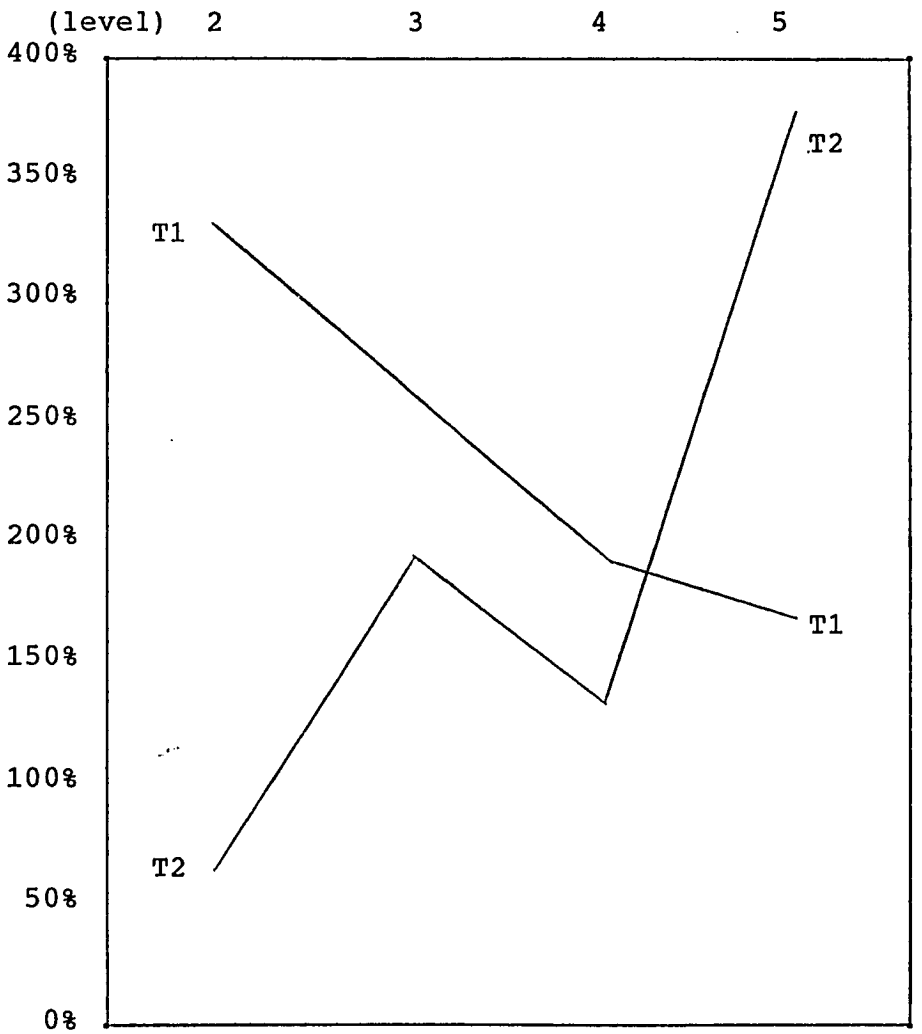
The U-shaped curve conformed to my predictions. Low level learners demonstrate by their overgeneralization of the past progressive for the simple past that they were attempting to transfer the progressive from the present to the past. By Time 2 they overgeneralized the simple past excessively, which indicates to me that they had chosen to learn the simple past as their preferred past aspect. (This analysis is borne out by production task results.)

Level 5, Time 2, however, overgeneralized the past progressive more than the simple past for the reason that they were now actively learning it and were overusing it. This late mastery point for the past progressive has been observed on the production tasks as well.

FIGURE 12

OVERGENERALIZATION ON THE IMITATION TASK

TIME 1 AND TIME 2



(These results represent the proportion of past progressive overgeneralization to simple past overgeneralization, with the greatest percentage of past progressive overgeneralization being expressed as the highest percentage.)

CHAPTER IV

DISCUSSION

Summary of Findings

The hypothesis that meaning constrains learning more than form was found to be true in this experiment because the simple past was learned ahead of the past progressive, as measured by overall accuracy and frequency of production. The pathways by which these target structures reached increased accuracy and frequency were anything but direct, however. Not only were these routes winding and tortuous, involving regressions at advanced proficiency levels, but virtually every aspect of the usage of the target structures played a role in their eventual mastery. Hence clause order (as examined on the imitation and oral cartoon story tasks) turned out to be an important factor in past progressive learning. Irregular verb forms somewhat paradoxically appear to

affect past progressive as well as simple past production. Writing emerged as a more advanced skill than oral production, and consequently writing was the task which best confirmed the prediction that the past progressive develops later than the simple past. Contrary to assumptions which have previously been made in the literature, the past progressive is not acquired simply and easily as an extension of present progressive learning. Rather, the simple past appears to be acquired before the past progressive because it is a contrast to the present progressive and highly distinctive from it. The past progressive receives only a fleeting initial benefit at a low level of proficiency from the transfer of present progressive form.

Specific hypotheses were made concerning certain tasks, among which was the prediction of proportionately greater past progressive accuracy and use at both the beginning and ending of the proficiency range under examination (a U-shaped curve). As has been discussed, low level subjects evidenced an early past progressive preference at Time 1, which was completely replaced at Time 2 with a simple past preference. Even on the imitation task, level 2 subjects demonstrated a reversal of focus from Time 1 to Time 2 in their production of substitute (overgeneralized) forms (i.e., at Time 1, level 2 subjects heavily substituted the past progressive where

the simple past should be and at Time 2 they did the reverse). Evidence of this U-shaped behavior lends strong support to the hypothesis that past progressive proficiency has been falsely inferred to be acquired before simple past proficiency on the basis of a limited sample. If learning is investigated on intermediate and high levels of proficiency as well as the beginning level, a different picture emerges.

Intermediate level learners (levels 3 and 4) strongly favored the simple past over the past progressive on all the production measures with the exception of the ask about task, where formal and pragmatic variables intervened. High level learners (level 5) confirmed the hypothesis that at an advanced stage of proficiency, learners will begin to favor the past progressive.

That is, they use it more frequently and more accurately than lower level learners while the simple past concomitantly regresses. On all but the ask about task, Time 2 data reveal a spurt of past progressive accuracy at the apparent expense of simple past accuracy (which regresses from Time 1 accuracy and falls short of past progressive accuracy in total reversal of the results at lower levels of learner proficiency).

The ask about task confirmed the expectation that form would be a major factor in the accuracy results on questions. After levels 2 and 3 at Time 1 (where do

support in simple past questions was apparently a detriment to simple past production as predicted), the simple past was more accurate than the past progressive. It was predicted that this would occur because of the regularity of did as an auxiliary form as compared to the choice learners must make between was and were as past progressive auxiliaries. Questions are major form transformations for language users/learners so it is not surprising that a form irregularity would have a strong affect on accuracy of production. Nevertheless, form did not predict the surprisingly greater frequency of the past progressive than the simple past on the higher levels of proficiency at Time 2. This could only be accounted for as a meaning effect. The alternation of question and answer utterances with their less complex discourse structure is apparently why learners could more easily choose to use the cognitively more difficult, relational past progressive in questions than in statements; the meaning of the past progressive is apparently easier for learners to understand in questions.

In conclusion, the principal findings of this thesis indicate that second langauge learning is a complex and non-linear process. The whole of grammar is related to the learning of its parts. A very wide perspective is not only immensely informative but required when the acquisition of grammar is examined as a reflection of the

language learner's mind.

Methodological Conclusions

It is difficult to see how a less complex methodology could have been used to reveal such complex learning. Because of the varied elicitation instruments which were used in this experiment, effects as far ranging as clause order, irregularity of form, and the advanced proficiency on the written vs. the oral tasks were discovered. If all of these various tests had not been used, many interesting results would have been missed. The outcome of individual tests, such as the greater accuracy of the past progressive on the imitation task, could seem paradoxical when taken in isolation but can be explained more easily when considered as one piece of information among many.

More significantly, use of both oral and written tasks allowed us to see that learners appear grammatically more advanced in written than in oral tests. This conclusion could have important implications for future research. It is possible that, especially for highly literate subjects, such as the university students used in this experiment, writing is a better reflection of what the learner actually knows and can produce than oral production. If subjects are given the time to monitor their output, they may be able to perform their competence

more securely. Since written data has not been very widely used in SLA research, the results of this experiment might lend themselves to a change in that direction. Also, this thesis underscores the need to obtain as much data as possible when conducting experiments on grammar acquisition, especially when testing highly literate subjects. The more aspects of grammar and learning that can be investigated together, the more we can know about the complex phenomena of Second Language Acquisition.

Theoretical Conclusions

The contribution which this research makes to the field of second language research is in the area of a larger concept of system building. I have shown how one particular but extended area of evolving grammar has been constrained more by simplicity of meaning than simplicity of form.

This is an important rule mechanism by which learners choose to pursue pathways of learning. They find that grammar structures with simple transparent meanings are the easiest to acquire.

This process of bifurcation in language learning relates to the more general cognitive process of differentiation. Generalization and differentiation are two of the most important ways in which humans learn. They are the ways by which much of the meaning of human

existence is discovered. It seems reasonable to expect that they would also be the way in which langauge meaning would be discovered. The field of language acquisition has typically focussed more on generalization than differentiation. I would suggest that this is so because differentiation is a less visible process. One can observe overgeneralization more easily than overdifferentiation, for instance. Even underdifferentiation, as in the much cited lack of a semantic contrast for the progressive -ing in its early stages of acquisition, is frequently overlooked as a first stage of differentiation.

A broad look at the development of the English verb system is necessary to be able to understand how the differentiation of temporary and nontemporary duration finally comes about. I have found that learners are not constrained by the formal grammar system in the way in which researchers frequently expect them to be. Researchers who expect that the simple present will be learned at the same time as the present progressive seem to think that learners are more influenced by the category tense than they are. But for developing speakers of English the meaning of aspect may be more salient and distinguishable.

Differentiation, like generalization, may tend to overdifferentiation at first. An unmarked item, such as

the present progressive aspect in relation to the marked simple present, may not be learned in opposition to its marked counterpart as much as in contrast to another unmarked item (i.e. the present progressive and simple past). Maximal contrast may explain much about how the verb system is learned. (Here the syntactico-semantic system resembles the phonological system, where it will be recalled that infants learn to say the word ma very early presumably because this word contains two of the most distinctly articulated phonetic segments.)

Research shows that both first and second language learners add the simple past to their repertoires shortly after acquiring the progressive -ing. In that way they may be making a distinction between marked and unmarked aspects.

It seems clear that contrast emerges gradually and broadly in language learning. In the building of the language system, learners appear to cut a very wide swath of grammar in choosing their pathways of learning. They perceive broad distinctions before small ones.

Language learners are not alone in this tendency to overdifferentiate in the early stages of system building. In this thesis I have distinguished rather drastically between meaning and form, aware even as I do so that there is a symbiotic relationship between the two. And yet, I would claim that there is a hierarchy. In

language as in architecture, form follows function (or meaning). Underlying the prodigious task of language learning is the basic drive to meaning which characterizes and distinguishes the human species.

APPENDIX

WRITING TASK: TIME 2

One day Nasreddin was cutting a branch off a tree in his garden. Another man was watching him while he was doing that. Finally the man said to him, "Excuse me, but if you cut off the branch like that you will fall down with it." He told him this because Nasreddin was sitting on the branch and he was cutting it between himself and the tree.

Nasreddin thought the man was going around the neighborhood and was telling people what to do and what not to do. That made him angry, so he didn't answer the man. Soon the man left and, of course, after a few minutes the branch fell and Nasreddin did, too.

"My God," he cried, "that man knows the future!" and he ran after him to ask him how long he was going to live. But the man had already gone.

SENTENCES FOR IMITATION: TIME 1

1.a. What was Louie doing when his wife brought him the newspaper?

b. What did Louie see while he was reading the help wanted ads?

c. What did Louie do while he was still relaxing in his bed?

d. What was the busy executive doing when Louie called?

2.a. A woman was carrying some food when she saw a small mouse.

b. She was running away from the mouse when the telephone rang.

c. The mouse sat in front of her the whole time she was talking.

d. Nothing bothered her when she was talking on the phone.

3.a. What did Louie buy when he was coming home from work one day?

b. What was he planning when he bought the thirty-day diet book?

c. What was his wife doing in the kitchen when he arrived home?

d. What did he do with the diet book when he smelled the good food?

4.a. Louie was sleeping on the couch when his wife came in the room.

b. His wife told him that she was waiting for him in the living room.

c. Louie laid down under the sink while he was working on it.

d. Louie was sleeping under the sink when his wife came back in.

5.a. What did Louie's dog see when it went out for the newspaper?

b. What was the dog holding while it was chasing away the cat?

6.a. Louie was reading the paper while he was having breakfast.

b. His wife changed her dress fast when she saw the ad for a dress sale.

7.a. What was the dog doing while she was vacuuming up his hair?

b. What did she do to the dog when she saw all the hair on him?

8.a. Louie's wife ran toward him happily when he came home one night.

b. She was running to the man who was delivering her dress.

SENTENCES FOR IMITATION: TIME 2

1.a. What did Louie buy when he was coming home from work one night?

b. What was he thinking about as he walked home from the bookstore?

c. What was his wife doing in the kitchen when he arrived home?

d. What did he do with the diet book when he smelled the good food?

2.a. What was the dog doing while she was cleaning up the floor?

b. What did she do to the dog when she saw all the hair on him?

3.a. What was Louie doing when his wife brought him the newspaper?

b. What did he see while he was reading the help wanted section?

c. What did Louie do while he was still relaxing in his bed?

d. What was the executive doing when Louie called him?

4.a. What did the dog see while it was getting the morning paper?

b. What was the dog holding while it was chasing after the cat?

5.a. Louie's wife ran toward him when he came home from work one night.

b. She was running to the man who was bringing her new dress.

6.a. Louie was reading the paper while he was having breakfast.

b. His wife changed her clothes when she read about the dress sale.

7.a. Louie's wife was carrying some food when she saw a small mouse.

b. She was running away from the mouse when she heard the telephone.

c. The small mouse sat right in front of her on the floor while she was talking.

d. She forgot about the mouse when she was talking on the phone.

8.a. Louie was sleeping on the couch when his wife came in the room.

b. His wife told him that she was waiting for him in the kitchen.

c. Louie rested on the floor while he was fixing the broken pipe.

d. Louie was sleeping under the sink when his wife came back in.

(Highlighted words represent changes from Time 1 to 2)

ILLUSTRATIONS OF MOST ACCURATELY IMITATED SENTENCES

Sentences designated with a plus (+) were imitated more accurately in each the pair. The past progressive verbs are highlighted and the simple past verbs are highlighted and underlined.

Contrasting clause statements

+Louie's wife was carrying some food when she saw a mouse.

She forgot about the mouse when she was talking on the phone.

Non-contrasting statements

+Louie was reading the paper while he was eating breakfast.

She changed her clothes when she read about the dress sale.

Contrasting clause questions

+What did he buy when he was coming home from work one night?

What was his wife doing in the kitchen when he arrived home?

Non-contrasting clause questions

+What was the dog doing while she was cleaning up the floor?

What did she do when she saw all the hair on him?

TABLE 10

PRODUCTION DATA FREQUENCY

Unweighted Means Analysis of Variance

Source	Sum of Squares	DF	Mean Square	F-Test	Significance*	% of Total Sum of Squares
Level	415.162	3	138.387	4.761*	0.011	1.17
Struc	4634.703	1	4634.703	88.532***under	0.001	13.12
State	6398.707	3	2132.902	115.884***under	0.001	18.11
Time	2426.324	1	2426.324	66.210***under	0.001	6.87
Struc x State	3129.486	3	1043.162	60.683***under	0.001	8.86
Struc x Time	438.341	1	438.341	14.582**	0.002	1.24
Level x Struc x Time	363.876	3	121.292	4.035*	0.021	1.03
State x Time	6337.8504	3	2112.501	86.880***under	0.001	17.94
Struc x State x Time	1697.437	3	565.812	31.014***under	0.001	4.80

*Only significant results reported.

TABLE 11

PRODUCTION DATA: ACCURACY

Unweighted Means Analysis of Variance

Source	Sum of Squares	DF	Mean Square	F-Test	Significance*	% of Total Sum of Squares
Level	277775.875	3	92591.938	5.508**	0.006	9.56
Struc	75780.250	1	75780.250	4.340*	0.050	2.61
State	120604.563	3	40201.520	4.554**	0.006	4.15
Time	25555.727	1	25555.727	21.467***	under 0.001	0.88
Level x Time	17448.086	3	5816.027	4.885**	0.010	0.60
State x Time	11510.680	3	3836.893	2.798*	0.048	0.40
Level x State x Time	35540.078	9	3948.897	2.880**	0.007	1.22
Struc x State x Time	13985.785	3	4661.926	3.891*	0.013	0.48

* Only significant results reported.

TABLE 12
IMITATION DATA

Unweighted Means Analysis of Variance
Table for Percent Accuracies

Source	Sum of Squares	DF	Mean Square	F-Test	Significance*	% of Total Sum of Squares
Level	320045.750	3	106681.875	16.858***	under 0.001	27.53
Time	29257.246	1	29257.246	37.433***	under 0.001	2.52
Level x Time	11160.426	3	3720.142	4.760*	0.011	0.96
Clause	59084.781	1	59084.781	35.072***	under 0.0001	5.08
Level x Clause	21227.965	3	7075.988	4.200*	0.018	1.83
Sentence type	6898.613	1	6898.613	20.869***	under 0.001	0.59
Time x Structure	3075.017	1	3075.017	6.359*	0.020	0.26
Clause x Structure	13011.922	1	13011.922	9.984**	0.005	1.12
Sentence type x Structure	13737.648	1	13737.648	14.578***	0.001	1.18
Combination x Structure	2663.094	1	2663.094	4.946*	0.037	0.23
Time x Clause x Sentence type	1800.007	1	1800.007	5.593*	0.028	0.15
Clause x Sentence type x Structure	4136.176	1	4136.176	6.329*	0.020	0.36
Level x Clause x Sentence type x Structure	7102.074	3	2367.358	3.623*	0.029	0.61
Time x Sentence type x Combination x Structure	2062.949	1	2062.949	4.485*	0.046	0.18

(level=1,2,3 or 4; time=1 or 2; cla=1 or 2; sentence type= =statement or question; structure= progressive or simple; combination=contrasting or non-contrasting clauses)

* Only significant results reported.

BIBLIOGRAPHY

BIBLIOGRAPHY

Adams, Marilyn. "Methodology for examining second language acquisition". In Second Language Acquisition: A Book of Readings, edited by Evelyn Hatch. Rowley, Mass.: Newbury House, 1978.

Andersen, Roger. "The Impoverished state of cross-sectional morpheme acquisition/accuracy methodology (or: The leftovers are more nourishing than the main course)". Working Papers in Bilingualism, 14 (1977), 47-82.

Bailey, Nathalie, C. Madden and S. Krashen. "Is there a `natural sequence' in adult second language acquisition?" Language Learning, 25 (1974), 235-244.

Bolinger, Dwight. Meaning and Form. New York: Longman, 1979.

Bronckhart and Sinclair. "Time, tense and aspect". Cognition, 2 (1973), 107-130.

Brown, Roger. A First Language: The Early Stages. Cambridge, Mass.: Harvard University Press, 1973.

Burnard, Bill. Present Day English, Picture Book 2, edited by E.F. Candlin. London: University of London Press, 1972.

Cancino, H., E. Rosansky and J. Schumann. "The acquisition of the English auxiliary system by native Spanish speakers." TESOL Quarterly, 9 (1975), 421-430.

Clark, Eve. "How children describe events in time". In Advances in Psycholinguistics, edited by F. D'Arcais and W. Levelt. New York: American Elsevier Publishing Co., Inc., 1970.

Clark, Herbert, and E. Clark. Psychology and Language. New York: Harcourt Brace Jovanovich, Inc., 1977.

Comrie, Bernard. Aspect. New York: Cambridge University Press, 1976.

de Villiers, J.. "Quantitative aspects of agrammatism in asphasics". Cortex, 10 (1974), 36-54.

de Villiers, J., and P.A. de Villiers. "A cross-sectional study of the acquisition of grammatical morphemes in child speech". Journal of Psycholinguistic Research, 2 (1973), 267-278.

Dewey, John. Democracy and Education. New York: Macmillan Co., 1957.

Dulay, Heidi and M. Burt. "Should we teach children syntax?" Language Learning, 23 (1973), 245-258.

_____. "Natural sequences in child second language acquisition". Language Learning, 24 (1974), 37-54.

_____. "Some remarks on creativity in language acquisition". In Second Language Acquisition: Issues and Implications, edited by William Ritchie. New York: Academic Press, 1978.

Eisenstein, Miriam, N.Bailey and C. Madden. "It takes two: contrasting tasks and contrasting structures". TESOL Quarterly, 16 (1982), 381-393.

Fathman, Ann. "Language background, age and the order of acquisition of English structures". In On Tesol 75: New Directions in Second Language Learning, Teaching and Bilingual Education, edited by M. Burt and H. Dulay. Washington D.C.: TESOL, 1975.

_____. "The value of morpheme order studies for second language learning". Working Papers in Bilingualism, 18 (1979), 179-200.

Frith, May B.. A study of form and function at two stages of developing interlanguages. Bloomington, Indianna: Indianna University Linguistics Club, 1977.

George, H.V.. Common Errors in Language Learning. Rowley, Mass.: Newbury House, 1972.

Hakes, D.T and H.S. Cairns. "Sentence comprehension and relative pronouns". Perception and Psychophysics, 8 (1970), 5-8.

Hakuta, Kenji. "Prefabricated patterns and the emergence of structure in second language acquisition". Language Learning, 24 (1974), 287-298.

_____. Mirror of Language, The Debate on Bilingualism. New York: Basic Books, Inc., 1985.

Halliday, M.A.K.. "The English verbal group". In Halliday: System and Function in Language, edited by Gunther Kress. London: Oxford University Press, 1976.

Hatch, Evelyn. "Second language--universals?" Working Papers in Bilingualism, 3 (1973), 1-17.

_____. "Discourse analysis, speech acts, and second language acquisition". In Second Language Acquisition: Issues and Implications, edited by William Ritchie. New York: Academic Press, 1978.

Hatch, Evelyn, and J. Wagner-Gough. "Second language acquisition". In An Introduction to the Teaching of English as a Second Language, edited by M. Celce-Murcia and L. McIntosh. Los Angeles: University of California, 1974.

_____. "Explaining sequence and variation in second language acquisition". Language Learning, Special Issue No. 4 (1976), 39-57.

Hegel, G.W.F. Reason in History. New York: Bobbs-Merrill Company, 1953.

Hill, L.A. Intermediate Stories for Reproduction. London: Oxford University Press, 1965.

Hopper, Paul. "Aspect and foregrounding in discourse". In Syntax and Semantics, Vol. 12: Discourse and Syntax, edited by Talmy Givon. New York: Academic Press, 1979.

Hopper, Paul and S. Thompson. "Transitivity in grammar and discourse". Language, 56 (1980), 251-299.

Huebner, Thom. "Order of acquisition vs. dynamic paradigms: a comparison of methods in interlanguage research". TESOL Quarterly, 13 (1979), 21-28.

_____. A Longitudinal Analysis of the Acquisition of English. Ann Arbor, Michigan: Karoma Publishers, Inc., 1983.

Hyltenstam, Kenneth. "Implicational patterns in interlanguage syntax variation". Language Learning, 27 (1977), 383-412.

_____. "On descriptive adequacy and psychological plausibility: a reply to Jordens". Language Learning, 32 (1982), 167-174.

Jordens, Peter. "Interlanguage research: interpretation or explanation". Language Learning, 30 (1980), 195-207.

Karmiloff-Smith, A.. "Children's problem solving". In Advances in Developmental Psychology, Vol. III, edited by M. Lamb, A Brown, and B. Rogoff. Hillsdale, N.J.: Erlbaum, 1984.

Keller-Cohen, Deborah. "The expression of time in language acquisition". Paper presented at the Annual Meeting of the Linguistic Society of America, New York, 1974.

Kellerman, Eric. "The problem with difficulty". Interlanguage Studies (1979).

Kellerman, Eric. "If at first you do succeed". In Input in Second Language Acquisition, edited by Susan Gass and Carolyn Madden. Rowley, Mass.: Newbury House, 1985.

Krashen, Stephen. Second Language Acquisition and Second Language Learning. Oxford: Pergamon, 1981.

Kuhn, Thomas. The Structure of Scientific Revolutions. Chicago: The University of Chicago Press, 1970.

Labov, William. Language in the Inner City: Studies in the Black English Vernacular. Philadelphia: University of Pennsylvania Press, 1972.

Larsen-Freeman, Diane. "The acquisition of grammatical morphemes by adult ESL learners". TESOL Quarterly, 9 (1975), 409-419.

_____. "An Explanation for the morpheme acquisition order of second language learners". Language Learning, 26 (1976a), 125-134.

_____. "ESL teacher speech input to the ESL learner". Workpapers in TESL, UCLA., 1976b.

_____. Discourse Analysis in Second Language Acquisition Research. Rowley, Mass.: Newbury House, 1980.

Lightbown, Patsy. Exploring relationships between develomental and instructional sequences in L2 acquisition". In Classroom Oriented Research in Second Language Acquisition, edited by Herbert Seliger and Michael Long. Rowley, Mass.: Newbury House, 1983.

_____. "Can language acquisition be altered by instruction?" In Modelling and Assessing Second Language Acquisition, edited by Kenneth Hyltenstam and Manfred Pienemann. San Diego, Calif.: College-Hill Press, 1985.

Lightbown Patsy and N. Spada. "Performance of an oral communication task by Francophone ESL learners". Paper presented at Seventh annual SPEAQ Convention, Montreal, Canada, 1979.

Long, Michael and C. Sato. "Classroom foreigner talk discourse: forms and functions of teachers' questions". In Classroom Oriented Research in Second Language Acquisition, edited by Herbert Seliger and Michael Long. Rowley, Mass.: Newbury House, 1983.

Madden, Carolyn, N. Bailey and M. Eisenstein. "Beyond statistics in second language acquisition research". In Second Language Acquisition Research: Issues and Implications, edited by William Ritchie. New York: Academic Press, 1983.

Naiman, N.. "The use of elicited imitation in second language acquisition research". Working Papers in Bilingualism, March 1974.

Olshtain, Elite. "The acquisition of the English progressive: a case study of a seven-year-old Hebrew speaker". Working Papers in Bilingualism, 18 (1979), 81-102.

Pica, Teresa. "Adult acquisition of English as a second language under different conditions of exposure". Language Learning, 34 (1982).

_____. "Linguistic simplicity and learnability: implications for language syllabus design". In Modelling and Assessing Second Language Acquisition, edited by Kenneth Hyltenstam and Manfred Pieneman. San Diego, Calif.: College-Hill Press, 1985.

Piercy, Marge. To Be Of Use. New York: Doubleday and Co., 1973.

Richards, Jack. "A non-contrastive approach to error analysis", English Language Teaching, 25 (1971), 204-219.

_____. Error Analysis: Perspectives on Second Language Acquisition. London: Longman, 1974.

Ross, Haj. "The center". A paper presented at the New Ways of Analyzing Variation in English Conference, Georgetown Unuversity, October 8, 1974.

Rutherford, William. "Markedness in second language acquisition". Language Learning, 32 (1982), 85-108.

Schachter, Jacquelyn. "An error in error analysis". Language Learning, 24 (1974), 205-214.

Schriffin, Deborah. "Tense variation in narrative". Language, 57 (1981), 45-62.

Schumann, John. "Second language acquisition: the pidginization hypothesis". Language Learning, 26 (1976), 391-408.

Slobin, Daniel. "Developmental psycholinguistics". In A Survey of Linguistic Science, edited by W.O. Dingwell. College Park, Maryland: University of Maryland Press, 1971.

Smith, Carlotta. "The acquisition of time talk: relations between child and adult grammars". Journal of Child Language, 7 (1980), 263-278.

Swain, Merrill, G. Dumas amd N. Naiman. "Alternatives to spontaneous speech: elicited translation and imitation as indicators of second language competence". Working Papers in Bilingualism, 3 (1974).

Taylor, Barry. "The use of overgeneralization and transfer learning strategies by elementary and intermediate university students learning ESL". In On TESOL '75: New Directions in Second Language Learning, Teaching and Bilingual Education, edited by M. Burt and H. Dulay. Washington, D.C.: TESOL, 1975.

Wagner-Gough, Judith. "Comparative studies in second language learning". M.A. Thesis. University of California, Los Angeles, California, 1975.

_____ and E. Hatch. "The importance of input data in second language acquisition studies". Language Learning, 25 (1975), 277-308.

Woisetschlaeger, Erich. A semantic theory of the English auxiliary system. Bloomington, Indiana: The Indiana University Linguistics Club, 1980.

Wong-Fillmore, Lilly. "The second time around: cognitive and social strategies in second language acquisition". Doctoral dissertation. Stanford University, 1976.

_____. "Individual differences research". Presented at Training Language Behavior Researchers Colloquium. 14th Annual TESOL Convention, San Fransisco, 1980.