

## Developments in the Case Study Approach to SLA Research

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### Introduction

As in many other areas of the social sciences, case studies (CSs) have played an important role in second language acquisition (SLA) research for several decades. They have generated very detailed accounts of the processes and/or outcomes of language learning for a variety of subjects, ranging from young children in bilingual home environments, to adolescent immigrants, adult migrant workers, and university-level foreign language learners. But it is not only the results or descriptions of these individual CSs that makes them so valuable; they have also promoted productive follow-up research, in the form of other CSs, experimental studies, or literature reviews of CSs identifying similar patterns in data from different types of subjects to determine, among other things, which language learning processes seem to be universal, and which seem to be learner-specific (cf. Hatch et al. 1985).

Research questions addressed in CSs in SLA have included, for example, the following: How do children manage to function with two linguistic systems at a time when most children are attempting to master one? Why do some learners fossilize in their acquisition of a second language (in some or all domains) while others continue to progress? In what ways do the forms and functions of constructions in a learner's interlanguage (IL) differ? What features characterize the prototypical "good language learner"? How do learners react to and/or benefit from different methods of instruction? Is there a critical period for SLA?

Owing to the historical importance and vitality of this approach in the field of SLA, and its future potential in applied linguistics research, Part I of this paper presents (1) a description of and rationale for the use of case study methodology (CSM) in the social sciences; (2) a discussion of the inherent strengths and weaknesses in this methodology; and (3) an overview of its development in our field, with particular reference to the acquisition of English. I will discuss how the scope of CSs in ESL has broadened in recent years, and will then propose possible areas for pilot studies in Japanese as a Second Language (JSL) research. Then to exemplify CSM (in the spirit of the methodology), in Part II I will present data from a longitudinal study of a Cambodian ESL learner in Canada, in which I trace the development of one prominent interlanguage (IL) form, has, and one major function, existential, over a period of more than two years.

## PART I: DEVELOPMENTS IN CSM IN SLA RESEARCH

### Description of Case Study Methodology (CSM).

The most common type of CS involves the detailed description and analysis of an individual subject, from whom observations, interviews, and (family) histories provide the database (Dobson et al. 1981; Shaughnessy & Zeichmeister 1985). CSM is particularly characteristic of some areas of psychological research, such as clinical psychology, which studies and aims to treat abnormal (e.g. anti-social) behaviour.

In principle, though, CSM may involve more than one subject (e.g. a series of CSs, cf. Meisel et al. 1981). It may be based on particular groups (e.g. group dynamics within a classroom); organizations (e.g. a summer intensive language learning program at a university); or events (e.g. a Japanese language tutorial at IUJ, where one could examine the amount of time a teacher speaks in either Japanese or English for class-management purposes). Any of these may provide what Lewin (1979:286) terms a "particular concrete instance" in which one finds the relationship of variables a researcher is interested in, or the "phenomenon" that Yin (1984:23) refers to when he defines a CS as: "an empirical inquiry that (1) investigates a contemporary phenomenon within its real-life context; when (2) the boundaries between phenomenon and context are not clearly evident; and in which (3) multiple sources of evidence are used."

The use of CSs to describe group behaviour or institutions of some kind figures prominently in sociology, anthropology, education, and business. However, in this paper it will generally be assumed that the object of analysis in a CS is an individual--i.e. a language learner--in keeping with the traditional use of CSM in psychology, the field from which SLA research has probably borrowed most heavily.

In CSs of individual learners, there are several possible approaches that researchers take, depending on the purpose and resources they have for conducting the research. First, one might investigate how a subject behaves at one particular point in time, and then provide a detailed description and interpretation of that behaviour (details of the focus of this description will come later). For instance, in one recent CS, Singleton (1987) studied the French IL of his subject, Philip, and tried to identify possible transfer effects from the other languages Philip knew. These errors were then classified and interpreted in terms of principles of psychotypological distance.

A second approach is to describe a subject's behaviour at one point in time, and then to compare that with behaviour observed at a subsequent point in time. The latter approach to CS research often necessitates multiple observations, as data are collected at regular (e.g. monthly) intervals over the course of

a year. This constitutes a longitudinal CS, where there is usually no conscious attempt by the researcher to provide any kind of 'treatment' (e.g. intervention or modification in the natural process of change). Rather, the data reflect natural changes in the learner's behaviour, influenced by numerous possible factors: environment, physical maturation, cognitive development, and so on, which the researcher therefore must also take into account. In fact, because the changes are essentially undirected by the researcher, longitudinal studies like this usually preclude the ability to make specific predictions about outcomes prior to the completion of the study (more to be said on this in the following section). Examples of longitudinal studies which will be discussed below are those by Sato (1985) and Huebner (1983), which followed closely the ESL development (e.g. morphology) of Vietnamese and Hmong immigrants, respectively, over a timespan of approximately one year.

### Advantages and Disadvantages of CSM

CSM is most often contrasted with experimental methods, the strengths of one tending to be the weaknesses of the other. As Lewin (1979:286) puts it, there must be "a trade off between the study of one or two variables in many cases and the study of many variables in one or two cases"--which, however, does not mean that every CS focusses on many variables, but simply that this is probably the most common practice. As Shaughnessy & Zechmeister point out (1985:138), the goals, methods and types of information obtained from the two approaches are simply different.

In SLA, the comparison is usually one of focussing on an individual versus focussing on many individuals, as in say, a large cross-sectional study, where there may or may not be any experimental treatment. The fundamental difference then is often just the sample size, which determines to a great extent the depth of analysis possible for each subject, and the confidence one has in generalizing the findings to other learners. For this reason, CSM is generally considered to be part of what is known as a "qualitative" research paradigm, and experimental methods (or studies with more subjects, at least) are considered part of a "quantitative" paradigm. The two frameworks are not completely distinct, however. Reichardt & Cook (1979:11) argue that the two paradigms are--and should be--much more interrelated than many proponents of one or the other would like to concede, and add that "...the conceptualization of the method-types as antagonistic may well be leading astray current methodological debate and practice". As long as one is aware of both the potential and limitations of CSM, and modifies one's claims accordingly, there is no reason why the approaches cannot be used to complement one another. Indeed, one source of data without the other may be inadequate or deficient, as the title of Reichardt & Cook's (1979) paper suggests: "Beyond qualitative versus quantitative methods" [emphasis theirs].

Five main strengths are associated with CSM: (1) the completeness and depth of analysis; (2) the hypothesis-generating nature of studies; (3) the role of 'unique' cases; (4) the role of cases which challenge/contradict current beliefs; (5) the potential for longitudinal research, which helps to confirm stages proposed on the basis of large cross-sectional studies.

First, it is clear that by concentrating on the behaviour of an individual rather than a group of individuals, it is possible to conduct a thorough analysis of that subject's behaviour. The reports of such analyses tend to be more like a biography than, say, a census. In focussing on one subject, it is possible to document the many factors which might account for the features that are observed. Detailed case histories (e.g. family background, previous learning, etc.) or interlanguage (IL) descriptions are feasible with one informant, whereas they might be unwieldy for a group. CSM may therefore also be viewed as less superficial and manipulative than larger (experimental) studies in which it is possible to examine only a limited corpus of data for each subject, sometimes generated by contrived tasks and performed in laboratory-like settings, for the sake of more efficient data collection.

Second, because it tends to be rather exploratory in nature, CSM has the potential to yield new areas for future research by isolating variables which have not previously been pinpointed for their possible influence on the behaviour under investigation. Thus, CSM generates hypotheses that can be tested later, possibly with a more rigorous research design (or in careful reviews of a number of CSS, as in Andersen (1983), which in turn, according to trends in research, might theoretically lead to computer modelling of the phenomenon in question (Lightbown and White 1987; Shaughnessy & Zechmeister 1985).

The CS approach to scientific inquiry is, for this reason, sometimes referred to as "data-driven research", which attempts to develop hypotheses, models, and ultimately theories on the basis of findings. This is contrasted with "theory-driven research", where one has already a theory to test, and hence can do so most efficiently and most scientifically by means of the standard procedures of random sampling, pre-testing, random assignment of groups to treatments, post-testing, and so on (where it is appropriate to examine the effect of some kind of treatment), or simply by means of a design with more subjects with a more focussed analysis.

An illustration of "data-driven research" from a CS is that of Alberto, a Costa Rican adolescent living in the United States, who was evidently not progressing in his use of English negation. On the basis of his performance, Schumann developed many ideas concerning fossilization, acculturation, pidginization, and so forth, some of which became well-known "models" of SLA (cf. Schumann 1978).

Third, individuals whose behaviour or background appears to be atypical can be studied. One well-documented case in language acquisition is that of Genie, who was deprived of a normal childhood with normal opportunities to acquire and use language. Curtiss's (1977) important and provocative CS of Genie (following a number of historical cases of other children who spent periods of their childhood without human language), has helped applied linguists and psychologists understand, among other things, the relationship between the development of general cognitive abilities and specific linguistic abilities. Curtiss's study has also been cited as evidence for a critical/sensitive period for primary language acquisition. This latter point is naturally very relevant to SLA researchers, who have for many years tried to argue for or against such a sensitive period, as a way of accounting for varying ultimate levels of attainment in a second language compared to a first language (cf. Krashen et al. 1979). Exceptionally good language learners have also been the subjects of CSs, as we will see in Obler's (e.g. 1989) work.

A fourth advantage of CSs is that they sometimes provide counterevidence to existing theoretical claims, which must be taken into account. For example, Schumann's Acculturation Model of SLA claims that the degree to which individuals from one culture adapt themselves to a new culture is the primary factor responsible for SL mastery (cf. Schumann 1986); and yet Schmidt's (1983) study of an apparently well-accultured individual who had not mastered L2 syntactic forms challenged this model. In the same way, if it is claimed that all learners necessarily acquire what is supposed to be an invariantly ordered set of morphemes in ESL, and yet there is evidence from cases in which this order is violated somehow (cf. Hakuta 1976), the earlier claim must be modified.

A fifth role for CSs, and longitudinal ones in particular, is that they permit the careful documentation of individual learners' development over time (e.g. in children's development of cognitive ability, or in their acquisition of particular linguistic forms and functions). This is also possible of course in large-scale, well-funded studies with many subjects, but since most SLA research seems to be conducted with more modest budgets, cross-sectional studies are the primary alternative to CSs. The problem with cross-sectional studies, however, is that developmental trends for subjects can only be inferred from the data rather than directly observed; and it is a well known fact that along some developmental continua (e.g. past tense morphology) learners commonly regress at a certain stage (i.e. from "went" to "goed") before having truly acquired a target construction (such as the irregular past tense form "went").

Despite the benefits of the pioneering, in-depth orientation to research outlined above, several fundamental weaknesses must also be noted. The five to be examined here are: (1) the lack of

generalizability; (2) the use of 'abnormal' cases to construct a model of 'normal' behaviour; (3) objectivity of the method; (4) data-driven rather than theory-driven approach; and (5) constraints on quantitative (statistical) analysis. [note 1]

The first and foremost of these disadvantages is that it is not possible to generalize from a hand-picked, "convenience sample" of one ( $n=1$ ). According to Kazdin (1980, cited in Shaughnessy & Zechmeister 1985:144), "[t]he ability to generalize from a single case depends on the degree of variability in the population from which the case was selected". But Dobson et al. (1981:32-33) are much more critical of the ability to generalize from a CS, which in their view "is not so much a sample of one, but rather a population of one: the study is descriptive and valid only for its subject". Compared to experimental studies, CSM lacks control over extraneous variables (Shaughnessy & Zechmeister 1985). With  $n=1$ , it is virtually impossible to disentangle the possible role of a number of factors which might have influenced learning outcomes or performance: e.g. L1 transfer, overgeneralization, or instruction focussing on form.

Of course, this limitation is the basis of a great rift in the philosophy of science which is referred to in discussions of whether psychology meets the criteria for being considered a full-fledged science. In one camp are the proponents of nomothetic research, who seek to make broad generalizations from which to formulate general laws or principles; and in the other camp are the proponents of idiographic research, whose focus is the individual: that which is unique, rather than that which is common (cf. Allport 1961, cited in Shaughnessy & Zechmeister 1985, one of the most vocal defendants of the latter approach and the "science of biography", and Dobson et al. 1981, who compare "historical science" and "generalizing (natural) science"; see also D. Long 1986).

Owing to this constraint on CSM, researchers should caution readers against generalizing from the findings in their CSs. At the end of their CS of Schmidt's own learning of Portuguese, for example, Schmidt and Frota wrote, in no uncertain terms (1986:307):

We remain aware of the problems inherent in the self-report data ... as well as the general limitations of case studies for both proposing and evaluating general theories and models [of SLA]. Each learner's biography is not only unique but also complex, so that the relative importance of variables hypothesized to be important in language learning cannot be completely unraveled.

A second weakness, related to the first, concerns the use of abnormal or deviant cases as the primary data source for the construction of a theory (or model) of normal behaviour. This

issue is often raised in the context of generalizing from studies of aphasics to the neurolinguistic functioning of normal subjects. Likewise, we must be cautious in drafting a formula or model for the relative contribution of factors involved in optimal SLA derived from a few studies of the neuro-psychological make-up or professed cognitive strategies of exceptionally good or exceptionally poor language learners (cf. Obler 1989).

Another criticism that is levelled against CSM is that it lacks objectivity, either on the part of the researcher---who selects the subject, sets up the tasks, makes observations, and then samples data for qualitative analysis from a large corpus, and finally imposes an interpretation on the findings---or on the part of the subject, who is sometimes asked to give retrospective accounts of experiences, perceptions of his/her own needs/abilities/emotions. (Of course many of the same problems arise with other, ostensibly less subjective research methods, too.)

A fourth drawback to CSM is that it is often unguided, unplanned, and unmotivated theoretically. As we saw above, this constitutes the "data-driven" versus "theory-driven" approach to research and theory construction. Because it may be difficult to predict what the outcome of the CS will be, in practical and theoretical terms it may not be a very cost-effective method for the researcher. Thus there are certain risks to be taken. For instance, when Huebner began his study of a Hmong subject's ESL development (Huebner 1983), his goal was to analyze the evolving tense-aspect system in the subject's English. However, as it turned out, there was no such development in this domain, thus Huebner had to abandon his original focus and find another area to study instead.

An additional risk, in a longitudinal study especially, is "mortality" or "attrition". It is usually important that subjects participate for the duration of a study, and mortality means that for some reason the subject(s) have dropped out. In Brown's (1973) study, mortality was a factor, because after a year one of his on-going project, one of his his three subjects, Eve, moved away to Canada.

The last disadvantage of using CSM in SLA research that I will mention (there may be more) relates to the type of analysis that is possible. In the previous section, differences between qualitative and quantitative analysis were touched upon. By virtue of the fact that a CS is an analysis of the same subject's behaviour e.g. on several tasks, or at different times, or in producing different structures at one time, it is by definition a repeated measures ("within-subject") design, which violates some of the basic assumptions for use of even common non-parametric statistics, such as the chi square statistic. And while implicational (e.g. Guttman) scaling is possible in studies of the acquisition of target-like forms for one or more individual

learners, it precludes the analysis of non-targetlike forms, and hence may be too target-oriented for some IL analyses. These facts plus the historically qualitative focus of CSSs help explain why studies which do have some form of quantification usually contain percentages or ratios only.

### A Historical Overview of CSM

Detailed and very important CSSs of children are found in the natural sciences (e.g. biology), although they are more plentiful in the developmental psychology literature. As early as 1781-1783, for example, Dietrich Tiedemann conducted and later published one of the first CSSs of its type: an in-depth "scientific observation" of the physical and psychological changes his infant son over the first months of his life. Darwin, too, did a study of his son, which he published in 1877 (both cited in Lamberth et al. 1976). If Freud had had a neurotic son, he probably would have followed suit and studied him. However, his most famous CS was, rather, that of a friend's patient, Anna O, which provided the foundation for the theoretical framework of psychoanalysis; in this branch of psychology, CSSs are the primary method for the analysis and treatment of patients. Another leading psychologist, Piaget, founded much of his theory of cognitive development on CSSs of his own children, and the theoretical generalizations he made on the basis of those observations have, as a result, been challenged by some on the grounds that they lack objectivity (Dobson et al. 1981).

Chomsky, for his part, has for years been basing his principles of theoretical linguistics on the judgments of an individual native speaker (i.e. his own metalinguistic intuitions concerning English syntax) for theory-testing purposes, although his technique is not usually associated with CSM. And in the twenty years or so since Chomsky began his introspections, there have been a wealth of child language CSSs undertaken by proud and ambitious parents (often in PhD programs) which have shaped our understanding of how children acquire their native language. As these have directly influenced CSM in SLA, some of them will be discussed below.

### Early Developments in CSSs of Language Acquisition

With this background, then, it is not surprising that SLA researchers have followed suit---like many of their L1 acquisition counterparts, producing children and dissertations, usually in that order, in an effort to inform the scientific community on matters such as how children develop linguistically in bilingual communities. Early examples include those by Gregoire in 1937, Leopold from 1939-49 (of simultaneous acquisition of English and German), Ronjat in 1913 (simultaneous acquisition of French and German), Kenyeres & Kenyeres in 1938 (Hungarian child learning French), and Pavlovitch in 1920



(simultaneous acquisition of Serbian and French). Hatch's (1978) annotation of these and other CSs is very useful. Owing to the structural linguistic framework that prevailed in the first half of this century when these studies were conducted, they tend to focus on the development of phonology and lexis, rather than syntax.

Of these first CSs of child bilingualism, Leopold's classic longitudinal study of his daughter's acquisition of English and German has probably been the most influential (Leopold 1939, 1947, 1949). It is comprehensive in scope and analysis, which has made it possible to compare Leopold's findings with much more narrowly focussed work many years later. Brown (1973), for example, whose work is outlined below, was able to draw upon Leopold's careful study of Hildegard's first two years of development to compare the orders of acquisition of morphemes for his subjects and for Hildegard.

As one might expect, many of these early investigations were exploratory, since acquisition research was not really a priority at that time. Then, these early (L1) CSs gave rise to larger cross-sectional studies from about 1940 to 1960, to determine, among other things, normal levels of vocabulary acquisition for children at various ages, for the purposes of standardized educational testing and curriculum development (Lightbown and White 1987). Later, with the advent of Chomskyan linguistics, portable tape recorders, and methodological developments in field linguistics and sociolinguistics, applied linguists had new means to achieve their research objectives, which of course had taken off in many new directions. Of interest now, for example, were correlations between transformational complexity and processing time and between complexity and acquisition orders (e.g. for question formation, active-passive equivalents). In many of the child language studies, it became possible to study more children at stages beyond just one- and two-word production, owing to the availability of audio and video equipment (Lightbown and White 1987). Indeed, language acquisition research was not restricted to human subjects; a number of CSs involving chimps and other primates were also conducted.

#### Natural Order CSs and Early Performance Analysis (PA)

In the late 1960s and early 1970s, several very important CSs were conducted by child (first) language acquisition researchers. Roger Brown and colleagues and several other groups of child language researchers brought Adam, Eve, and Sarah on the scene and the findings that were generated from that productive work set a new research agenda for other language acquisition studies. At about the same time, a number of longitudinal studies were conducted with children acquiring languages other than English (for a change); namely, Finnish, Samoan, Swedish, Spanish, Luo and German (cf. Brown 1973).

As reported above, the normal progression of research tends to shift from CSs to larger, more experimental studies to allow for greater generalizability from findings. Accordingly, cross-sectional studies were then conducted by e.g. de Villiers & de Villiers (1973), whose database included hundreds of utterances from 21 English speaking children to test the "remarkably invariant order" Brown had found in his three subjects' acquisition of English morphemes (Brown 1973:57). When it was found that the rank orders of morphemes across studies correlated highly, SLA researchers jumped on the methodological bandwagon and undertook parallel research.

SLA had, after all, started to make a name for itself by this time, thanks largely to the observations and reflections of Corder (1967), Nemser (1971), and Selinker (1972), who introduced the notion that a learner's evolving linguistic system can be studied synchronically in the same way as any other natural language. This new focus on the learner generated CSs as well as larger cross-sectional studies in which learners' errors were classified by types, as it had now been recognized that IL forms might have a number of sources.

Despite the historical importance of this stage in SLA research, however, the 1960s and 1970s--the Contrastive Analysis (CA) and Error Analysis (EA) eras of SLA--were often misguided and a-theoretical, from a linguistic point of view (see Long and Sato's 1984 review of methodological issues in interlanguage studies, and Lightbown and White's 1987 review of the theoretical basis of linguistic research). Furthermore, they tended to be very superficial, taxonomic, and target-oriented in nature (Singleton's 1987 study, though much more recent, is similar in many respects to research from this period). This tendency continued somewhat even when research entered the new era of Performance Analysis (PA), which initially avoided descriptions of learners' incorrect production (i.e. their "errors"), focussing instead on what they in fact produced correctly.

#### Late PA Studies: Forms & Functions, Developmental Continua, and Individual Differences

Because of the hand-me-down research agenda and methodology of the morpheme studies from Brown's L1 acquisition paradigm and the target-referenced criterion for acquisition, major interesting developments that were occurring within learners' systems over time were being overlooked (cf. Long and Sato's 1984 review for more details). But as PA became more popular, there were a handful of CSs published (e.g. in Hatch 1978), and fortunately some of these were refreshing departures from the general fixation on morpheme orders that others were pursuing in larger cross-sectional studies.

Compared to the emphasis on commonalities in SLA fostered in the early PA period, work from the mid-seventies onward began to

take into account more idiosyncratic, creative, functional aspects of SLA than before. The relationship between linguistic forms and their functions was reconsidered, using a variety of non-Chomskyan approaches to describing language systems (e.g. Givón 1979), revealing that the two did not always correspond. Wagner-Gough's (1978) discussion of her subject Homer's overextended, but evolving use of the progressive morpheme -ING helped draw attention to this mismatch, and was, therefore, at the forefront of what is now known as form-to-function analysis (cf. Long and Sato, 1984).

A second particularly influential study from that era was the functional analysis of certain forms in the IL of Huebner's subject (Huebner 1979, 1983). At the outset of the study, Ge, a Hmong immigrant to Hawaii, used the forms da ('the') and isa (copula and topic marker) in unusual ways, reflecting both elements of the target language and elements of his own IL. And it appeared that over the initial one year study the use of these forms changed both qualitatively and quantitatively. In his observations of how da production increased with definite subject NPs (where previously Ge had not used da, presumably because he considered the NPs already definite according to their sentence-initial position), and of how isa decreased in environments following sentence topics where a copula would not be expected, Huebner urged researchers to examine IL as a more dynamic, evolving, autonomous system (see also Part II of this paper for another CS of this sort).

At the same time as fine-tuned, narrowly focussed micro-analyses of IL like Huebner's were underway, the focus in SLA CSs was also broadening. The deficiencies of early PA research, coupled with the theoretical monotony, plus a growing interest in sociolinguistics and conversational analysis, motivated more discourse-level analyses of syntax and also an examination of the role played by conversational interaction in its development (cf. Hatch 1978, 1983; Schmidt & Richards 1980; Larsen-Freeman 1980). For this purpose, descriptive methods used in conversational analysis were adopted. Although syntax continued to be the main focus of attention in SLA, speech acts and other aspects of language production grew in popularity.

In Huang's study of his son Paul (Huang and Hatch 1978), for example, the relationship between input structures and output structures was analyzed, suggesting that through imitation, Paul was producing unanalyzed or chunked phrases. Several years later, Peters (1981) took note of the way children acquire their first language in terms of 'gestalt' versus 'analytical' ways, from the top-down and the bottom-up. Her CS of Minh showed how a child over time analyzes previously chunked expressions, highlighting that language is not simply analyzed and acquired in a word-by-word, structure-by-structure manner. Scollon & Scollon's (1980) discussion of the relationship between the production of vertical and horizontal constructions, based on their CS of a young

relative, Brenda, was also pertinent to discussions of scaffolding in learners' production. It was suggested on the basis of such CSS that the scaffolding of discourse by participating adult native speakers might have a causal role in the acquisition of a second language (cf. Peck 1978; Hatch 1978).

The fact that children evidently do not all proceed with the task of learning a first or second language in the same fashion (despite all the evidence of common stages, etc.) was further highlighted in Wong-Fillmore's (1979) study of several children learning English in California. She noticed that one subject, Nora, was much more aggressive socially and more successful linguistically than the other five children; there appeared, then, to be considerable individual differences across these young learners. Another study, by Itoh and Hatch (1978), observed how a young Japanese child in America coped with living in a new linguistic environment. They identified a long L2 rejection phase initially, followed by a repetition stage, and finally a spontaneous production phase. Below we will return to this notion of individual differences, in the discussion of variable success among adult learners.

In the later part of the PA era, then, target forms produced to a predetermined criterion were not of central importance; rather, the way learners used what (limited) linguistic means they had was of greater concern to many SLA researchers. The actual mechanisms of learning and a sound theory of grammar were, however, missing from many accounts, since it was easier to describe linguistic forms and functions than to determine what psycholinguistic processes were responsible for them.

In addition, a new set of function-form studies emerged investigating changes in ESL learners' negation and question-formation over time (cf. Cazden et al.'s 1975 project). This represented a different kind of natural order, one based on interim stages as well as target forms. Thus, an interest in product or target forms in SLA was complemented by an interest in process or transitional stages encountered by learners before mastering target forms. The now-famous negation continuum generated by that project was based on the findings of a longitudinal study of six Spanish-speaking subjects who acquired negation and question formation by traversing essentially similar stages.

However, in that study, there was one learner who never mastered these structures, and this deviant case became the subject of much subsequent research and discussion. Alberto, the Costa-Rican learner, appeared to have fossilized at an elementary level of English negation, and Schumann (1978) sought an explanation for his subject's behavior. He posited acculturation (a social-psychological variable) as the causal factor accounting for Alberto's lack of success in English, namely no+verb negation, uninverted question-formation, no AUX, and null

subject. Alberto's IL seemed to be unalterable (owing, Schumann claimed, to his social-psychological distance from the target English-speaking American culture), and even after intensive instruction in negation, there was no lasting improvement in the negation in Alberto's spontaneous speech. Schumann (1978, 1986) may not have been able to "destabilize" Alberto's fossilized IL, and yet he may have been instrumental in "destabilizing" SLA research at that time. Based on his CS (and supporting research from sociolinguistics), Schumann also proposed that early SLA represents a kind of pidginization process, noting similarities between early IL and many of the features of attested pidgins in various parts of the world.

Schumann's claims stirred up much controversy, and counterexamples undermining the acculturation model appeared. One such study was carried out by Schmidt (1983) of his friend Wes, a Japanese artist in Hawaii. Wes satisfied all the criteria for being well-motivated, acculturated, exposed to sufficient quantities of English input and interaction in Hawaii, and so on, but nonetheless, did not seem to acquire targetlike morphology and syntax. In fact, Schmidt's study revealed that learners may be very competent communicators in their L2 without having acquired many of the fundamental linguistic structures in the language.

Individual differences, learner-specific communication or learning strategies, variable success, and so on, became a new preoccupation in SLA research in the late 1970s and early 1980s (in fact, as Goldfield & Snow 1985 point out, SLA research has also influenced first language acquisition research in this area). What became increasingly obvious was that all normal children eventually (in spite of individual strategies, etc.) acquire their first language and, if they are young enough, are also able to acquire a second or third language (but see Humes-Bartlo, in press, for research on variable SLA success among children). However, adults are not guaranteed the same degree of success in learning a second language.

As this variability is probably most evident among adult immigrants (e.g. in the U.S.), a number of CSs have emerged with this underlying theme, such as Shapira's (1978) article entitled "The Non-Learning of English: Case Study of an Adult". Like Alberto, Shapira's Guatemalan subject, Zoila, progressed very little in English, even after three years. Her strategy appeared to be one of ignoring redundancies (e.g. function words) in the language, and focussing rather on "big words" (i.e. content words).

With advancements in second language classroom research in the late 1970s, the sometimes unusual behavior of individuals in classrooms has also attracted attention. Allwright (1980), for example, tried to pinpoint the relationship between class participation by individuals and their language acquisition. He

examined the performance of a talkative Russian student, Igor, who spoke up more in his ESL class than his classmates. Yet Igor did not seem to have acquired more than them as a result of that behaviour.

At this time, a number of CSs (diary studies) of applied linguists attempting to learn foreign languages appeared, again attesting to the complexity and interaction of linguistic and social-psychological factors in adult SLA and also the variable success in terms of outcomes (cf. Bailey 1983). Besides diary studies, other introspective and retrospective accounts of foreign and second language learning were published, looking at protocols for writing, translating, searching for lexical items, or for processing learning tasks, and so on (Faerch & Kasper 1983; Hosenfeld 1979a, 1979b).

One of the most comprehensive and analytical CSs in recent years, a variation of diary study, was carried out by Schmidt & Frota (1986). The study describes Schmidt's attempts to learn conversational Portuguese while in Brazil for several months. The data are analyzed from two points of view, i.e. the learner's (Schmidt), and a more objective native speaking observer's (Frota). Their work is very informative in a review of developments in CSM for several reasons. One striking feature of the research is the scope of the investigation and the discussion of how it relates to a number of current issues in SLA theory. Unlike many of the CSs examined above, Schmidt and Frota focus both on communication in general, as well as on particular aspects of sentence structure. Their analysis ranges from Schmidt's production of clarification requests, to lexical verbs, to past tense morphology, and formulaic speech (in fact, the analysis may be too ambitious in scope, because it tries to do too much at once). For reasons of space, I will simply summarize below some of the important contributions of the study; (1-5) deal with points/levels of analysis, and (6-10) deal with theoretical issues which the study addresses and interesting methodological aspects.

#### Points of Analysis

1. conversational ability
2. discourse-pragmatic ability
3. grammatical ability
4. vocabulary: production of lexical verbs
5. use of formulaic speech, and subsequent analysis of same into smaller, productive units

#### Methodology Used and Issues Addressed

6. both qualitative and quantitative analysis [note 2]
7. two points of view of the same learning process: Schmidt's (the learner) and Frota's--a Portuguese NS, also an applied linguist (his interlocutor); learner perceptions of input and output
8. comparison of input and intake/output

9. theoretical proposals: e.g. 'notice the gap' principle to account for acquisition of new forms
10. addresses state of the art questions re: role of instruction, interaction, correction and formulaic speech in acquisition

In addition to studies of individual differences in terms of learners' social-psychological characteristics and their success in SLA, important new work is being carried out to determine possible neuro-psychological correlates to exceptionally good or successful SLA, on the one hand, and exceptionally poor SLA on the other hand. It is thought that an understanding of the relationship between the neural substrate and linguistic behaviour might help account for some of the individual differences in SLA that otherwise cannot be explained. CSSs have been done on aphasics for some time, pinpointing areas of lesions and related language dysfunctions, with an attempt to extrapolate from these studies to an understanding of the functioning of the normal human brain.

Studies of talented individuals, musical and mathematical geniuses, individuals with photographic memories, and child proteges have also been carried out, usually with post-mortem analysis of the subject's brain (cf. Diamond & Scheibel's 1985 examination of Einstein's brain; Scheibel, personal communication). But aside from a few large scale "good language learner" studies in the 1970s (e.g. Naiman et al. 1978), which tended to be very general and non-technical, there have been few investigations of talented/untalented language learners from the perspective of neuropsychology.

Obler and her colleagues have been among the most prolific neurolinguists working in this area. In one study of an exceptionally good language learner (Novoa et al., in press; Obler 1989), the subject was a 29 year old, Caucasian American male graduate student whose L1 was English. From the time he was fifteen, "CJ" had studied the following languages in succession: French, German, Spanish, Latin, Moroccan Arabic, and Italian, some of which he learned at school, and others which he learned while abroad, and he was judged to be very proficient in some of these languages by native speakers. Since there is unfortunately no way to get inside the brain of a living subject for such research purposes, Obler relied on details of CJ's personal history, related to what is called the "Geschwind cluster" (Geschwind & Galaburda 1985) of factors that seem to be linked to fetal hormonal levels, which are believed to have behavioural correlates. For CJ these factors included the following: he was left-handed, had allergies, was a twin, was homosexual, and had a maternal grandfather who was diagnosed as schizophrenic.

The battery of psychological tests CJ was given revealed that his musical and visuo-spatial aptitude were only average, contrary to folk myths about the correlation with language

ability, his IQ was normal, and his language aptitude as judged by the MLAT was average for most sections. He did, however, seem to have superior aptitude for learning new language-related codes, completing patterns, and remembering verbal information. Besides these factors, CJ seemed to be a risk-taker, although not a particularly empathetic one.

This CS yielded a fascinating neuropsychological profile for an exceptional learner, which needs to be corroborated with further studies. As was emphasized in the first part of this paper, it is not possible to generalize from one such case to all left-handed, twin, homosexual males with allergies and schizophrenic grandparents--and who knows how large that population is anyway! Nor should all other language learners who do not fit this profile be discouraged. In keeping with the typical developmental pattern in research, a cross-sectional study of 46 learners has been conducted by Humes-Bartlo (in press) following Obler's research, looking at neuro-cognitive factors and rate of SLA by children. Clearly if we are to answer some of the questions related to optimal periods for language learning and variable success among adult learners, more such research should be undertaken [note 3].

Although CSs in SLA whose focus is linguistic competence have, naturally, been linked historically to current linguistic theory, most of the studies reported above have been conducted within a functional linguistic framework, rather than a formal one. While Transformational Grammar gave rise to discussions of Universal Grammar and other recent versions of generative grammar, most acquisition research designed to test these principles has involved cross-sectional studies of children's production and/or comprehension of highly focussed constructions. Naturalistic observation has not really been suitable since most of the sentences of interest to the theory would probably not be produced spontaneously by subjects, and this would therefore be an inefficient method for testing such claims.

One applied linguist who has used CS data to analyze evidence for the PRO-drop (PD) parameter posited by Chomsky is Hilles (1986), whose research has examined whether the PD parameter (and other proposed parameters of Universal Grammar, by implication), attested in first language acquisition, is operative in SLA. Using data from a Spanish-speaking adolescent named Jorge, Hilles noted separately the emergence of sentence subjects and expletives, on the one hand, and lexical material in AUX, on the other hand, suggesting that as learner language changes from having no subjects (+PD), to having subjects and expletives (-PD), lexical material also appears in AUX. It was unclear whether this pattern would hold true for ESL learners of different ages, though, and Hilles has since continued her study with a sample size of six learners, from children to adults.

I will briefly mention two other areas of SLA that have



received attention in recent years. One is the proposal of cross-(linguistic) level interaction, suggested by Hatch (1983) and Hatch et al. (1986), which encourages cross-level analyses of IL. Hatch et al. claim that according to the goals of the speaker (and researcher, for that matter), the relevant levels of linguistic/conversational analysis may differ, as the following pairs illustrate:

<u>Goal</u>	<u>Level of analysis</u>
1. How to interact	Conversational structure
2. How to organize experience	Frames and text types
3. How to identify concepts	Lexicon + lexical rules
4. How to highlight/emote	Suprasegmental rules
5. How to make relations clear	Pragmatics/syntactic organization
6. How to be explicit/accurate	Morphosyntax, phonology

Sato's (1984, 1985) CS of two Vietnamese learners' ESL morphology illustrates this principle, at the level of pairs 5-6 above, in particular. Sato found that because English morphemes tend to fall in consonant clusters word-finally, for many learners whose L1 reflects the universal tendency for open syllable structure the non-production of morphemes does not necessarily indicate the non-acquisition of those morphemes. Rather, it shows how phonology interacts with--or in this case, pre-empts--morphology. A similar cross-over or level-leaking was reported in the encoding of past tense morphology and the use of topicalizing scene-setting temporal and locative phrases. Because learners could unambiguously establish time reference through preposed adverbials, they omitted many markers of tense/aspect in their morphology. Thus, Sato's study called for the analysis of data which incorporates multiple levels of language.

A final area of research was developed by Meisel et al. (1981) and Pienemann (1984) on the basis of their original ZISA project work in Germany, and later tested with ESL learners in Australia. Through a number of CSSs, conducted by a team of researchers, Meisel et al. charted out stages of acquisition of various aspects of grammar for the children of migrant workers learning German as L2. They then tried to see what effect the instruction of (target) forms at various levels of difficulty (i.e. putative developmental stages) would have on learners' rate of acquisition. Their work generally confirmed the notion put forward by Krashen (1985), that learners are ready to learn only those structures a stage ahead where they are currently (the 'i + 1' hypothesis'). Owing to the nature of work that attempts to determine the effect of instruction of acquisition, it is of course natural to carry out further research of this type in controlled settings with large number of learners. As exploratory work, though, this has been very fruitful.

## Summary and Conclusion

This overview of CSM, and of trends in SLA research in general, has been an attempt to present a historical sketch of the role of CS research in SLA, and also how this methodological approach has complemented and fostered more rigorous experimental approaches. I pointed out that CSs typically precede larger-scale studies, partly because of their exploratory, hypothesis-generating potential. But in the area of IL analysis in particular (e.g. the examination of learners' morphosyntactic forms and their sentence or discourse-level functions), I noted that CSs complement larger studies in that they allow for a closer analysis of an individual system, and enable us to see specific changes within that system over time in longitudinal studies. We cannot generalize from the individual form-function relationships we find to other subjects' IL, however we can learn about the dynamics of change within a given learner's language system. Reviews of such longitudinal CSs then make it possible for us to see how every system manifests certain regularities and irregularities, even though the individual forms and functions analyzed be different across studies.

In SLA, the following progression in CSs was reported:

---

### Time Frame

(1900-50s)

(1960s-1970s)

(late 1970s-present)

### Focus

phonology, --> morphology --> morpho --->  
lexis syntax

formulaic speech  
discourse-level syntax  
sentence-level syntax  
morpho-phonology  
conversation/pragmatics  
interaction  
learner strategies  
psycho-social variables  
neuro-cognitive var's

### Theoretical Linguistics

Structural  
Linguistics

Transformational  
(Generative) Grammar

Universal Grammar  
Typological Universals  
Functional Grammar  
Discourse/Conversational  
Analysis

### Psychology

Behavioural

Cognitive

Cognitive  
Neuropsychology

### Approach to IL Analysis

CA --> EA -->early PA -->late (and post-) PA

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Current SLA research is becoming increasingly experimental in its orientation and methodology, which is an important development, especially for applied purposes--i.e. for establishing relationships between classroom activities and acquisition outcomes, curriculum/syllabus development, pedagogical grammar, proficiency testing, and so on. And eventually, in Lightbown and White's (1987) assessment, this should lead to computer modelling in some areas [note 4]. But CSs will certainly continue to play a significant role in model/theory development.

Since research in Japanese as a Second Language (JSL) is in its infancy, it would be natural and useful for CSs to be undertaken in this field as well. A limited amount of larger-scale, theory-testing research has also begun (e.g. Doi 1988), and both approaches should be encouraged. A few areas which in my opinion might yield valuable CS research in JSL are listed below.

(1) The acquisition of formulaic speech and its later analysis into smaller syntactic units. This theme has intrigued me for some time, because Japanese conversation, for the novice, is full of useful formulas which can be adopted as chunks and used very productively to accomplish a wide range of functions--from greetings, to words of appreciation before and after meals, to assurances that all is well. In many cases, learners seem to pick up these phrases and use them for many months before knowing what they literally mean (as happens in the acquisition of other languages, of course), and also before realizing that parts of the expressions surface in other social or linguistic contexts: e.g. oyasuminasai --> yasumi/yasumu [note 5].

(2) Acquisition of sociolinguistic features, e.g. levels of politeness and honorific forms. Although JSL learners usually claim that it is fairly easy to pick up basic conversational language skills, it is much more difficult to master the various honorific forms, male versus female language, and so on. Indeed, it is my understanding that this aspect of the language is difficult for NSs as well, which is why new office personnel in public relations are often coached in the use of sociolinguistically appropriate language. Therefore, it would be interesting to have studies focussing on this aspect of language use.

(3) Form/function IL analyses. As in many of the Performance Analysis studies presented in this part, autonomous examination of how individual learners create IL systems for themselves in JSL--and then providing possible explanations for their behaviour--would be a welcome addition to the collection of other studies of that type. An examination of the interplay of typological factors affecting language transfer, L2-specific factors, communication strategies, and so on, would be very worthwhile.

(4) Standard analyses of IL syntax. Few studies have examined the acquisition of e.g. relative clauses, negation, word order (and redundancy reduction) in JSL. Yet the study of these constructions with other target languages, such as Swedish, have proved very enlightening in discussions of universal tendencies in the acquisition of negation, word order, and so on.

Other areas of study could parallel, say, the work done by Doi (1988) on the acquisition of Japanese particles and their functions. A longitudinal study of this type would help validate the present formulation for an acquisition hierarchy (implicational scale) for e.g. wa, o, and ga (in that order). Other morphosyntactic structures, likewise, could be examined.

(5) Learner strategies. As in ESL research, studies carefully documenting strategies used by (e.g. successful) language learners are lacking; more general profiles of these more or less successful learners would also be helpful. A review of Schmidt & Frota (1986) offers various possibilities for similar research.

## PART II: A CASE STUDY OF THE CASE STUDY METHOD

To illustrate some of the characteristics of current SLA CSs whose focus is IL syntax, I will outline a longitudinal study of one Cambodian ESL learner in Canada, which I have been conducting for several years. The study grew out of my interest in the production of existential constructions, such as "There are a lot of people in Japan", by Asian learners (cf. Rutherford 1983; Duff 1985). And it was also inspired by the the kind of form/function analysis found in Huebner's work, described earlier. His "dynamic paradigm" approach (Huebner 1979) is very appropriate in the present study because at the outset there was no guarantee that the subject would ultimately attain the target stage in THERE BE construction, although this was expected to happen. And although the subject never produces that target construction in the study, there is little doubt that he has quite consistently adopted a small set of structures to be used in its place. In particular, he typically uses "has", with or without a subject, for existentials. But as we shall see, this same form "has" is also used in other ways, most notably to show possession. This mapping of the form "has" and the function "existential" will be reported below.

To make this discussion more concrete, let us turn to some data from my subject, who I will refer to as JDB (an abbreviation for the name of the king found in the first excerpt). In Excerpt #1, taken from one of our first meetings (within three months of JDB's arrival in Canada), notice how the form "has" is used primarily in possessive constructions: "has name JDB"; "JDB has the two son"; "has fighting".

### Excerpt #1

And because many many year ago + the Cambodian + big of country yes. And after that- and after Thai + they fighting take the Cambodian one part and Vietnam takes one part. But because Cambodia(n) + maybe many year ago has the king + has name Jayavaramandibrombol (JDB). Yeah JDB + god of King. But after that JDB has the two son. When the JDB die + and two son has fighting. Because the ol- old son he want to + king yes. And ah you- young son, he want to the same. So he must fighting. And uh young son, he leave from Thailand. And after that he has the many soldier to fighting take the Kampuchea of one part. And after that, Vietnam, yes, Vietnam saw and Vietnam has- has name, yes, and Vietnam also they fighting take the Cambodian of one part.

(Interview #1, Feb. 2, 1986)

The picture description of a beach scene several weeks later, found in Excerpt #2, illustrates the locative-existential (presentative) use of "has"; only the first "has" in "man who has the glasses" is purely possessive. Examples of existentials are: "behinds him has the three children"; "and over the sky has alot of bird", and so on.

### Excerpt #2

The old man is- the old man who + has the glasses and + with- and with hat + they sitting on the chair. They reading a newspaper. And behinds him has the three children. One girl and two boy. Maybe they dancing because the radios turn on- turn ons about music. And they happy. They dancing. And over his head has a + ball. And behinds far away + him has a + alot of people. And some people + they sitting + on the chair. And some people they standing ... And over the sky has alot of bird flying on the sky.

(Interview #3, Feb. 23, 1986)

This study, then, aims then to account for the distribution of these "has" constructions, and then traces the acquisition of more targetlike existentials and possessives over the two and half years studied.

### Research Questions

1. How is the form has used in JDB's discourse at various points in time?
2. In addition to using the form has, what are other ways that existentials are constructed?
3. What explanation can be given for the findings?

### Hypotheses

1. Existentials will develop according to the following sequence:

I ---&gt;

II ---&gt;

III ---&gt;

IV

Has NP loc  
Loc has NP

NP has NP

There has NP

There is/are NP

This prediction is based on several previous studies: Huebner 1983, whose subject produced only the first construction over several years of study; Rutherford 1983, and Duff 1985, for development of existentials in instructed Chinese and Japanese university students' written production from the first type through to the fourth; and also Duff 1988 for low-level Chinese learners' production. The hypothetical third stage has not been reported widely, however.

2. As existentials evolve in the direction of the English target, i.e. when "has" is used less for existentials, the subject's use of has will also become more targetlike.

### The Subject

The subject of the study was a 28 year old Cambodian man, now in his early thirties, who immigrated to Canada in November 1985 from a Thai transit camp. At the time of our first meeting, JDB had studied English for a total of about six months in refugee camps and in schools in Cambodia before 1975. As in most CSSs, I chose JDB for several reasons, not the least of which was convenience: he had, afterall, simply appeared at my door collecting money for the newspaper the second day after I returned to Canada in January, 1986. The initial difficulties I had communicating with JDB convinced me that he might be an ideal subject for a longitudinal study. These practical reasons for selecting JDB, and other more theoretical ones, follow:

- (1) His L1 and background were similar to those of Huebner's subject, which therefore provided a nice basis for comparison. In Huebner's study, however, the subject was at a lower level, as he had received no formal instruction in English.
- (2) I knew of no previous SLA work which had analyzed (instructed) Cambodian-English IL.
- (3) JDB's English proficiency level was high enough to lend itself to syntactic analysis, but still low enough to reveal interesting IL patterns. From the first month, for example, (see excerpt #1) it appeared that he was using the form "has" for various functions, and it remained to be seen how that usage would evolve.
- (4) As JDB was beginning to receive several hours of ESL instruction each day when the study began, it seemed likely that his IL would develop more rapidly than with ordinary

untutored learners, who until now have been the focus of most form-function and function-form studies.

- (5) Because JDB lived near my home (and delivered the newspaper everyday), I could spend time with his family (a wife and two children) and help him out when various problems arose, as well as conduct research on his English.

### Method

Interviews with JDB were conducted from January, 1986, to June, 1988. During the first six months, I thought JDB would make great gains in language learning because he was receiving several hours of ESL instruction a day, plus interacting with Manpower counselors, Immigrant Aid workers, and various other Canadians. For this reason, one hour interviews were conducted on a roughly weekly basis for the first half year. In the following year, the interviews were held less frequently, once ever two or three weeks, when JDB was receiving less instruction and while I was out of the country. The last two interviews were taped one year apart, during the summers when I returned to Canada.

The subject was paid on an hourly basis for all interviews. I told him that my purpose in meeting with him was, first, to help him learn English by giving him a chance to talk about topics I proposed, and second, to help me learn more about Cambodians, their culture, history, and recent resettlement in Canada and the U.S. He knew that I was interested in his progress in English, and I often inquired about the language classes he was taking, and the textbooks he was using.

Interviews took place in my home and were audio-recorded with a SONY Professional tape recorder and microphone. Most interviews consisted of several tasks: free conversation, narratives, picture descriptions, and paraphrases of Cambodian texts. For the purpose of this paper, I will not treat task as an independent variable, but rather, as a means of generating a maximum quantity and range of language [note 6]. Indeed, the study could not have proceeded as well as it did on the basis of free conversation alone. JDB is rather quiet as a rule, and tends to answer direct questions about himself very briefly (sometimes with just a nervous laugh), although he was otherwise very cooperative. He responded better to more structured tasks, which in turn led him to speak at length about himself, his opinions, experiences, and so forth. He was genuinely interested in learning English well and hoped to attend a technical school to study mechanics upon completion of his language courses. Over the course of this study, JDB had a series of part-time jobs (each of which he terminated after a few months), in addition to delivering the newspaper. And the rest of the time, he was attending daytime language classes offered by the government.

Here, I will report on findings for five sets of data from the following dates:

```
-----  
1st yr: Interview # 9  4/13/86  (30 min) = TIME I  
          Interview # 20 7/19/86  (45 min) = TIME II  
          Interview # 25 10/18/86 (60 min) = TIME III  
-----  
2nd yr: Interview # 35 8/7/87   (30 min) = TIME IV  
-----  
3rd yr: Interview # 36 6/15/88  (90 min) = TIME V  
-----
```

Because of differences in the amount of data I have for each tape, it is really not meaningful to compare raw frequencies across interviews for structures under investigation. Rather, this analysis focusses on the nature of the forms that were used, how functions were achieved by different forms, and how these form-function relations changed over time. Quantification is limited to the relative proportion of uses of a particular form for a particular function.

### Analysis

The taped interviews were transcribed and coded for instances of existentials (function) and for constructions with has(a) (form), serving the functions of existentials, possessives, auxiliaries, and so on. Examples of some of the relevant features follow:

1. NP (NP) (verbless existentials)
  - a. All the restaurant + dishwashers two.
  - b. No one to help me.
  - c. And I think maybe a hundred family in Japan.
  - d. But in refugee camp alot of book.
2. Loc (PP) has NP
  - a. And in Phnom Penh has a one park.
  - b. In Phnom Penh has alot of fruit alot of fish meat rice.
3. O has NP
  - a. They talk about uh so many years ago has two families
  - b. And has a- a building beside a river and some house, so they like to look and they like to look the Phnom Penh city has light has alot of car
4. NP has NP
  - a. Because the bridge never has accident.
  - b. He has own house.
5. They has NP
  - a. Because uh they has a monk from Montreal.
  - b. Yeah they like because they has job.



- c. And + usually on Saturday Saturday + they has a sing-a-song or dancing + for one hour yes or one thirty.
6. Any other has/have VP/NP
- We have to wake up at five o'clock.
  - The government must have uh sixty year of fifty year + work.
  - He has been in Calgary for five years.

## Results

The results will be presented here in terms of my two original hypotheses. Many of the examples which are cited below are taken from the excerpts found in Appendix I.

### Hypothesis #1

Hypothesis #1 predicted that JDB would progress along a developmental continuum for existentials as follows:

I	II	III	IV
Has NP loc Loc has NP	NP has NP	There has NP	There is/are NP

There was only partial support for this hypothesis, because JDB did indeed appear to progress from the proposed stage I to II, above, but he did not proceed further in accordance with the prediction. On the contrary, in the five tapes analyzed for this study, spanning more than two years, JDB seemed to proceed (roughly) along a different continuum, which I will elaborate upon below.

I	II	III	IV
{ (loc) has(a) NP { [-anim] NP has NP { "no problem"	{ they has NP { [+hum] NP has NP { "no problem" { verbless existentials { (e.g. "alot NP loc")	{ -'S NP { NP {has} NP { {have} { [+poss]	

### STAGE I

Initially, then, JDB produced existentials with an optional, sentence-initial locative, no subject NP, and the form "has(a) NP", as in (1) [note 7]:

- (1) a. 0 has a robber one group into the camp.  
 b. Because in refugee camp has house long long uh long house  
 (Appendix I, Excerpt #1)

In addition to these subjectless constructions, others of the form "NP has NP" were produced (see Appendix I). But the

majority (6/1 ratio) of these subjects at Time I were not human (i.e. they are inanimate); compare this with the (3/8) ratio of inanimate/human NPs in comparable constructions found at Time II.

- (2) a. A big fire has a two + the big truck  
b. and the fireman has a two group they want to put out the fire.  
c. Because the bridge never has accident.

The initially high proportion of these two types of has constructions is illustrated in Figure 1.

A third kind of construction that occurred in Stage I, which in many instances coincided with either existential or possessive meaning, is the formulaic use of "no problem". As Appendix III shows, this phrase was used in isolation, as in (a) below, in answer to a question, or as part of a sentence, as in (b).

- (3) a. But now [your sister is] very thin?  
--> No, no problem.  
b. If my country change the reason [=regime?], teacher is maybe no problem with the new government.  
c. My old- my old sister no problem maybe the same me.

This expression was very productive, especially at Time II (7/19/86), where it occurred six times. This usage gradually declined though, as JDB's IL became increasingly syntacticized, such that in the final tape, "no problem" was primarily reserved for reported speech. In short, by the end of the study, JDB had apparently acquired additional vocabulary and grammatical devices (e.g. more targetlike negation and verb morphology) by which to express the same meanings, and thus no longer relied on this phrase to the same extent.

## STAGE II

The second general stage of development in the study is characterized by a gradual progression from subjectless has NP constructions to those with an often ambiguous nonspecific "they" as the subject (see Table 1 and Figure 1; notice, too, that Table 1 is set up as a sort of IL implicational scale). The pronoun is ambiguous in that it does not always denote any referent that is recoverable from the discourse context; note that the same non-specific usage exists in colloquial English, as in "They say that...", or "They don't make X the way they used to".

In the majority of cases, though, it is possible to recover or assume a referent, and in many cases it is explicitly provided as a locative topic in the Topic-Subject VP construction (where the subject is they, in a left dislocation of the referent). Examples of this follow in (4).

- (4) a. In Canada they has everything
- b. Usually in countryside they has a- a oil lamp
- c. Montreal they has temple
- d. Students they has a sing-a-song
- e. All the people + they has job only their family

However, the referent of they is not always third person plural. Thus at Time I, 1/1 token had a singular referent; at Time II, 2/8; Time III, 4/15; Time IV, 1/6; and Time V 3/8. Often, then, they is a stock pronoun serving as a pronominal placeholder-copy of the Topic, regardless of number. This usage is found in Appendix I (see also Excerpt #2 at the beginning of this case study). Owing to the prominent and highly productive use of "they" in combination with has, it was tallied separately from other NP has NP constructions.

The NP has NP constructions that were produced (i.e. not including they has) by what I'm calling Stage II tend to have human possessors rather than inanimate ones, which is a more targetlike usage of has for possession. Still, has or its variant has-a frequently do not agree in number/person with the subject NP. Examples of this construction are:

- (5) a. but I has problem with eye and my head.
- b. I + has a ++ um ++ hundred soldier under me.
- c. All the- all the village + a few people has a small house.
- d. If their mother has no money no problem.

A third kind of construction which became more pervasive at this stage is the verbless existential (excluding some instances of "no problem", which also continued to appear--in fact peaking in Stage 2). This usage is found in (1) "alot" existentials and (2) NP NP existentials (see Appendices for examples).

NPs with "alot" are extremely common in the tapes; many times the phrase introduces a topic, as in:

- (6) a. Alot of people, they has farm.

But the existential use of "alot" includes the following sorts of sentences (taken from Appendix IV, Tape III); only the last of these stands as an independent utterance which seems to function in the same way as (6) as topicalizer:

- (7) a. But in refugee camp alot of book.
- b. Kampunchenang Province alot of mountain + and wood.
- c. So alot of Khmer rouge.
- d. Lot of apartment for rent.
- e. Alot of people in my country. Some people they born until they die they never know never be to the city.

A glance at the following list of verbless existentials from

Times III and IV reveals an obvious fact: this construction was predominately used with quantification, and especially with quantifier negation (and thus "no problem" represents just a subset of this type).

- (8) a. Sometime no- no bus no car no train.  
b. No post office.  
c. No cars no buses just oxen  
d. He build twenty years ago but no accident.

(Tape III)

- (9) a. And then the manager said, "Oh no more job in here".  
b. All the restaurant + dishwashers two.  
c. But that restaurant just one.  
d. I think Calgary more [Cambodians] than Ottawa.

(Tape IV)

### STAGE III

As I pointed out at the beginning of this section, JDB did not develop existentials with there, in combination with either BE or some form of HAVE. Perhaps this will appear at some point in the future. What has developed, however, in Tape V is a new form, 's NP, which did not appear in earlier tapes (in fact, there was one token at TIME IV, but it was not quite the same as the later usage). Examples of this construction (from Appendix V) follow; see also Figure 2.

- (10) a. 'S lot of friend he work in Edo.  
b. 'S many place in Calgary.  
c. But he said 's not many Cambodian live.  
d. And 's many rock by the river.  
e. Yeah because uh in Cambodian in the countryside 's no bank.

As Table 1 indicates, 11% of JDB's production of some form of has at TIME V took this form (of course, it could be argued that 's is a reduction of is, not has, but 's is used in the same kinds of contexts as has was previously, and thus it seems to be derived from that form. Compare this with 32% of total production at the same time for [+human] NP has/have NP (see Appendix I and VI. Meanwhile, the relative proportion of they has constructions declines from 34% (TIME III) to 21% (TIME IV), and finally to 9% (TIME V); see Figure 1.

### Hypothesis #2

The second hypothesis predicted that as existentials become more targetlike over time (and thus has serves that purpose less), the production of has also becomes more targetlike. When I initially formulated this hypothesis, I had anticipated a kind of "trickling", to use Huebner's (1983) term, meaning that has would become much more limited in its use. In a sense, this in fact happened; (1) has came to be used more with subjects, and

(2) the semantics of the subjects increasingly included the features [+human, +possessor]. Thus, the production of has without subjects, or with inanimate subjects, decreased (note 8).

In another sense, though, the use of the verb HAVE (and its various forms, including has) "flooded" (to use another of Huebner's phrases. It came to be used in a wider range of target contexts, to serve an equally wide range of grammatical functions. Note that this is in accord with Andersen's predicted shift from a "One-to-One Principle" to a "Multifunctionality Principle". According to the One-to-One Principle (Andersen 1984:79):

an interlanguage system should be constructed in such a way that an intended underlying meaning is expressed with one clear invariant surface form (or construction) (Andersen, 1984:79).

Does JDB's IL use one invariant surface form for one underlying meaning? Elsewhere I have argued that possessives and existentials in fact have overlapping underlying semantic or logical features, something perhaps of a locative nature (cf. review of related literature in Duff 1989); and the invariant form has (a) is apparently used here to encode that meaning.

But as Andersen points out,

Where there is evidence in the input that an interlanguage form conveys only one of the meanings that the same form has in the input, try to discover the additional meaning for the form in the input (1988:7-8).

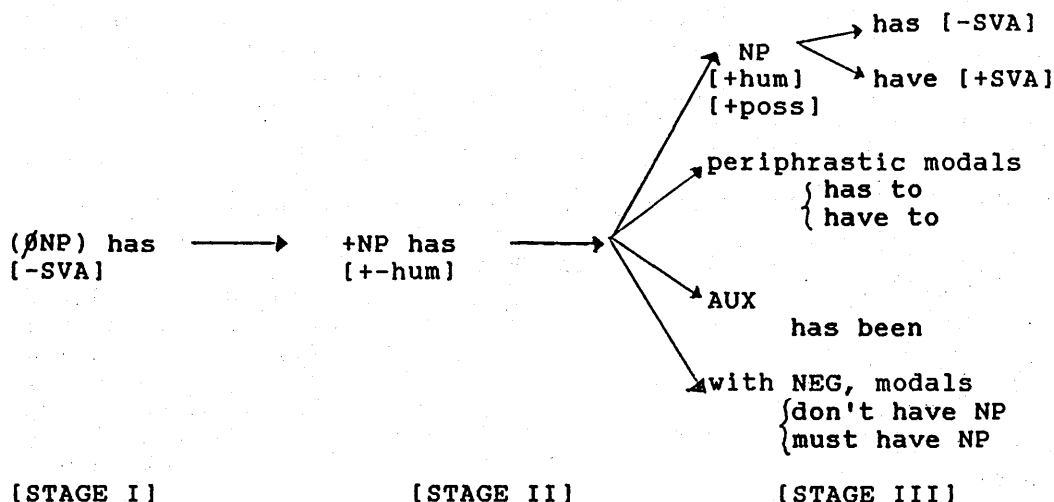
Figure 2 illustrates two changes in the use of has in this last stage, in ways that are consistent with the multifunctional principle above. This expanded mapping of the form "has" to more and more targetlike contexts (e.g. modals and AUX) supports Hypothesis #2. However, it would be misleading to suggest that all earlier-stage production ended by the fifth tape, because there is clearly some carry-over from his prior usage as well.

Among the developments, first of all, have emerged, in more or less complementary distribution with has in the "NP HAVE NP" construction. I say 'more or less' because while has was still being used with subjects other than third person singular (3PSg), have was used primarily with non-3PSg subjects.

Table 1 shows some of the other functions which HAVE came to assume: namely, periphrastic modals, in negation (with "don't" and "didn't"), past tense marker had, and past participle AUX. A good illustration of the interaction of these functions is found in Appendix 1, Excerpt #5, part of which is copied below in (11). Prior to TIME V, most of these functions were achieved by other means (i.e. forms), such as must in the case of modals.

(11) But I don't have much money in the bank... If I has my lot money I keep in the International Bank... Yeah ...if I has money in national bank I just go to national bank and tell them. But + but International Bank we have to put lots money... I has to send to him...and I have to give him fifteen dollar.

We can sketch this so-called flooding of HAVE roughly as follows (note SVA refers to subject-verb agreement):



### Discussion

In this section, I will first summarize the main findings from above, which relate to the following three basic questions: (1) What forms were used in JDB's existential constructions? (2) What functions were served by the form has? (3) And what changes and interaction occurred across form/function mappings? Second, I will consider a more difficult question: Why were the observed forms (and not others) acquired, and what caused the IL to evolve?

In the foregoing, we have seen that JDB used the IL form has (a) quite systematically in early stages to show both possession and existence, regardless of the nature or presence of its subject. Eventually, though, we saw that this construction gave rise to an IL form they has NP, used in contexts where we might expect an existential like there is NP. In addition to this, we saw that has took on a more clearly possessive semantic, over time, with a human possessor. Finally, a reduced form emerged in existential contexts: 's NP', possibly derived from has NP (but which, in fact, sounds more targetlike in colloquial speech).

Meanwhile, the function of "existential relationship" was also achieved by three types of verbless constructions: (1) the formulaic phrase "no problem" (negative existential/possessive), and other negative propositions; (2) verbless constructions with a lot of NP, and (3) other verbless NP (NP) constructions. It is quite conceivable that as the new form 's NP' and other grammatical constructions developed (e.g. analyzed negation), it became less necessary to use the previous IL existential forms (including, e.g. formulaic phrases such as "no problem"); thus, they were in the process of disappearing. The stock verb *has*, then, while still used in some existentials, came to be used in purely possessive constructions and in a number of new constructions as well: as modals, infinitives, and so on. The form *proto-HAS* also eventually split into two: *has* and *have*, of which the latter was used in more contexts with subject-verb agreement, while the former continued to be the base form.

But why did JDB adopt *has* (a) to serve the functions that I have identified? I will propose several interrelated explanations or sources for this usage, none of which alone can account for the present phenomena, and which appear unordered with respect to one another here: (1) common developmental continuum for ESL learners; (2) language transfer; (3) semantics of possessives and existentials; (4) salience of forms in input; (5) (other) cognitive & pragmatic strategies. My identification of this multiplicity of sources has clearly been influenced by Andersen (e.g. 1983) and his "cognitive-interactionist" perspective.

#### 1. Common Developmental Continuum in ESL

It is hardly surprising, actually, that JDB should produce existentials with some form of the verb *HAVE*, without subjects or with inanimate ones or simply with preposed locatives. Early production of existentials seems to be characterized by some variant of *HAVE* at the outset, for many ESL learners, as reported in Duff (1988). Examples from other CSs involving different L1 backgrounds are found in (12).

- (12) a. bat kaemp nam pong haeva sowjer  
'But there was a soldier at Camp Nam Phong'  
(Huebner 1979; Hmong L1)
- b. THERE HAVE NOT DEAF FOR TEACHER  
'There weren't any deaf teachers'  
(Cannon 1985; Polish/PSL L1)
- c. In Massachusetts have a man is bad, and he get the people  
(Andersen 1980; Spanish L1)
- d. Have football game in Stanford  
(Chesterfield & Levinson 1979; Portuguese L1)

In cross-sectional studies, the same tendency has been reported. In Duff (1988), sentences such as the one in (13-a) were very frequent in the writing of Chinese EFL students. And in Sasaki's (1989) study of 173 Japanese learners' written production of existential constructions, the trend for students to produce have existentials was also observed (see 13-b). Sasaki noted that roughly 50% of the existentials across four proficiency levels were formed with some kind of have-existential, rather than a targetlike there BE. It is noteworthy, though, that none of the subjects in Sasaki's study produced subject-less "0 has NP" with sentence-initial or sentence-final locative PP, which is very different from the data from other sources reported above.

- (13) a. Have four man in my family  
       'There are four people in my family'  
           (Duff 1988; Chinese L1)
- b. It has 27 students in Taro's school  
           (Sasaki 1989; Japanese L1)

## 2. Language Transfer

Unfortunately, one problem with my (1988) review of the literature to discover an acquisition continuum for existentials is that nearly all the subjects in the studies reported had L1s which used a verb equivalent to HAVE for existentials. Thus, the language transfer is a prime candidate in our search for an explanation. Indeed, as Appendix VII highlights, Cambodian, like Hmong, Mandarin, Polish, and other L1s, creates existentials with the equivalent of HAVE (not BE). Furthermore, Cambodian is a topic-comment language, which allows for rather loose relations between the topic NP and its predicate. This fact also supports the observation that topic-chaining is common. Another point about Cambodian grammar is that there is an "impersonal" form of the pronoun they, which may also account for the relatively early and productive usage of the they has construction in JDB's IL. These features of Cambodian grammar are strikingly similar to some of the grammatical features in JDB's IL. Thus, transfer must influence the learner's attention to and adoption of certain L2 lexical items or syntactic constructions in the ESL input to achieve such functions as existential and possessive expressions.

## 3. Semantics

Duff (1989) presents evidence from various sources which indicates that possessive and existential constructions naturally overlap, and this is why across many languages (e.g. most creoles, Hungarian, Hebrew, Chinese) the same form is used for both kinds of construction. Simply put, things that exist are located in time and space, and thus become a subset of some larger entity or domain.



#### 4. Salience and the potential for confusion based on the input

Certainly it is possible in English, albeit less natural than THERE-BE, to create sentences with inanimate subjects followed by HAVE, as in: 'His book has three pages missing'; or 'The building has three elevators'. Furthermore, English has an alternative "have" existential or "introducer" that is used with personal pronouns, but which is more marked than its THERE BE counterpart (Lightbown, 1987).

But given the above facts about Cambodian and about other learners' experiences with ESL existentials, why is that JDB adopts has as the basic verb form, and not have? Afterall, have is the more invariant form (i.e. base/infinitive), and presumably, the most frequent in the input as well. By contrast, has occurs only with [+3PSg] subjects, clearly in the minority in English. Without knowing details of his formal instruction, it is difficult to determine the quality and quantity of early input/practice JDB had, especially with reference to sentences with has; e.g. "John has three children"; "Jane has a good job". Without extensive focus on and practice with such forms, it would seem unlikely that this form would have been more frequent than have. However, with its sibilant ending, often followed by the indefinite article schwa since nominals in existentials are typically indefinite/generic, has-a must have been the more phonetically salient form. In any case, based on findings from other studies where "have" is the preferred base form of the verb, JDB's extensive production of "has" must be seen as learner-specific or idiosyncratic.

From a target-oriented perspective, we can also suggest why there existentials have not yet appeared in JDB's IL. First of all, there (e.g. in "There are alot of accidents on the bridge") tends to be reduced in oral discourse to something like /erax/, and "there is" (which is the more common form, anyway) becomes /erz/; this latter observation may account for JDB's late-arising use of 's a NP at TIME V.

#### 5. Cognitive/Pragmatic Factors

Thus, there in existentials does not carry any kind of meaning (e.g. locative), though it probably did at one time; it is simply a grammatical place-holder for subject. Slobin's operating principles (cited in Andersen 1983:179), "the use of grammatical markers should make semantic sense" and "underlying semantic relations should be marked overtly and clearly" are in opposition to the early use/acquisition of the unstressed preposed expletive in this type of construction. To prepose the important known information, such as scene-setting locative topics (e.g. (On) bridge), and to immediately assert something about the topic (e.g. alot of accidents), with or without a verb like has, is for JDB more pragmatically effective and

grammatically efficient than inserting "there". This topic-introducing strategy also eliminates redundant or semantically empty forms. The strategy is also reflected in topic-chains where, for example, the speaker introduces a topic and then makes several subject-less comments about the same topic: e.g. "In Phnom Penh has a big park has flower has anything in the park (10/18/86). For all of these reasons, it would seem to be more easily processed by learners as well, although this is merely psycholinguistic speculation, based on observed production (by NNSs and by NSs addressing them).

Similarly, JDB's use of the phrase "no problem" seemed to be very efficient. I understood easily what he intended to say, even though he lacked some of the target grammatical devices to do it. The source of this chunked expression most probably was input from JDB's interlocutors, both NSs and NNSs, as it is fairly common and functional among speakers who are trying to solve (or avoid) basic immigration problems. The fact that its productivity decreased over time does not, however, suggest that JDB's problems had simply disappeared; rather, his linguistic system had become more sophisticated.

### Conclusion and Evaluation of this CS

To follow up on the review of CSM which preceded this study in Part I, I would like to make a few evaluative comments about the present study related to some of the advantages and disadvantages I discussed earlier.

In many respects, this CS has been successful. My subject was cooperative, patient, and creative. He had many interesting experiences to discuss and had opinions on a variety of issues. From him, I learned a great deal about Cambodians and their culture, and I experienced vicariously the process of adjusting to life in a new country. "Mortality" wasn't a problem in carrying out the study [note 9].

This micro-analysis of one main form, *has*, and one main function, existential, has revealed several important findings with respect to the research questions and hypotheses. JDB's IL evidently had not fossilized; changes in his IL occurred, although not exactly as anticipated, and it was possible to observe systematicity in much of JDB's usage at any given time. Of course, there was some variability as well, but general trends were apparent. In a cross-sectional study of Cambodian learners, I may not have found the same interplay of *has*, *they has*, *have*, *'s*, *alot* and *no problem* (although this remains to be seen), and thus might not have discovered the intricacies and the dynamics of the changing IL as easily.

At the same time as conducting this CS, though, I also completed a large cross-sectional of Chinese middle-school students' production of similar constructions, and based on these

two approaches, plus several other studies (see above), I am beginning to see common patterns across these learners. Now, a larger cross-linguistic study (ideally involving several L1-L2 combinations) of the same would be valuable to help determine (or rule out) the effect of L1 and other inter-subject differences.

Of course this CS is limited in several ways, especially in terms of generalizability. Even though I imagine that other Cambodian learners at the same level as JDB might produce existentials with HAVE or without verbs, I cannot predict with any certainty based on this study exactly what form (e.g. of HAVE) these would take. Without controlling for the many variables involved in JDB's IL development, such as L1, formal/informal exposure to ESL, etc., it is impossible to speak authoritatively on a number of theoretical issues and we cannot posit any one causal variable for the findings; we could simply attribute them to "transfer plus".

Another main problem and possible deterrent in conducting such a CS is the risk factor that is involved; I hoped that JDB would proceed to develop along interesting IL routes, but I could in no way be certain that anything would come of the study. Indeed, I was convinced that after the first year JDB would be producing targetlike existentials with an unreduced form of there is--but this form has still not appeared! It is not that I am more concerned with the target (product) of his acquisition than the transitional forms (process), but it would have been nice to see the developmental continuum lead to some advanced target construction. The cost-effectiveness of such a "fishing expedition"--the time involved (e.g. approximately two and a half years here, plus transcription and coding) coupled with the uncertainty--may be formidable drawbacks for many potential CS researchers, and yet there is much to be gained from working so closely with one individual over an extended period.

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NOTES

1. The reader is referred to the discussion in Reichardt & Cook (1979), which points out that many studies conducted within the quantitative paradigm suffer from these some of these same limitations; that many times it is not possible to generalize from studies, that choice of categories, statistical procedures, and so on may be subjective, and so on.

2. There are, however, some problems in their quantification: there is no baseline for comparison across tapes, and the chi-square statistic is inappropriate for comparing frequencies based on repeated measures.

3. In fact, Obler has since conducted a second CS, this time dealing with an untalented second language learner (presented at the Second Language Research Forum, February 26, 1989).

4. One first step in this direction has been taken by Gasser (1988), who has attempted to program one Japanese woman's ESL language production by means of a localist-connectionist computer model.

5. At an anecdotal level, for example, I recall my first summer learning Japanese naturalistically, while staying with a Japanese family in a rural village in Gumma Prefecture. Having heard the structure "onakaga \_\_\_" in various constructions, e.g. onakaga ippai ('I'm full'), onakaga suite ('I'm hungry'), onakaga itai ('I have a stomach ache'), I somehow must have reasoned that the first part of this phrase, onakaga, itself invariant, must be equivalent to something like "I have/am", as in the French phrases, il fait ('it is') or j'ai ('I have') or c'est ('it is'). In our long evenings around the kotatsu, it appeared to be a very useful and common phrase, and also one that was easy to remember. Thus I used it productively, following my native speaking host family members, to express that I was full or hungry and so on, or that everything was all right, that it was nice out, etc. When my karate teacher broke his toe in a competition, for example, I remember asking him Onakaga daijoubu?, with the intended meaning, 'Are you all right?' Unfortunately, it was months later back in Canada when speaking to a Japanese friend about the November weather (saying something like onakaga samui desu ne?, meaning 'It's cold out, isn't it?'), that I was informed that the first part of the expression referred to 'stomach' (or insides), and the ga was the subject marker. Had I tape recorded my own production in those earlier months, it would have been interesting (and also embarrassing) to examine the range of contexts in which I used this and, no doubt, many other expressions.

6. In my initial examination of transcripts, tasks did not seem to determine the nature of structures generated, but rather the quantity of structures of a given type, e.g. locative existentials in a picture description (e.g. Excerpt #2 above). In many cases, for example, a picture description which elicited many "has a NP" constructions is followed by personal narrative, often related to the theme in the picture description, which also contains many of the same structures. There seems to be more of a connection, then, between discussion topic and structure, and I couldn't control for topic across all the interviews.

7. Transcription conventions: [+ ] is a pause; [- ] is false start.

8. However, agreement of has with its subject did not change a great deal: 33% at TIME II, 39% at TIME III, 36% at TIME IV, and finally 38% at TIME V.

9. Unfortunately, in the year following the last interview, however, JDB required emergency brain surgery and nearly died.

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Table 1            Summary of Production of "has"\*

FORM	Interview (TIME)				
	I 4/13/86 30 min	II 7/19/86 45 min	III 10/18/86 60	IV 8/7/87 30 min	V 6/15/88 90 min
0 has	10 (43%)	2 (8%)	15 (34%)	7 (24%)	9 (10%)
NP has [-anim]	6 (26%)	3 (12.5%)	5 (11%)	2 (7%)	4 (4%)
LOC(PP) has	2 (9%)	1 (4%)	5 (11%)		3 (3%)
they has	1 (4%)	8 (33%)	15 (34%)	10 (35%)	10 (11%)
NP has [+hum]	3 (13%)	9 (37%)	3 (7%)	9 (30%)	31 (34%)
- 's NP				1 (3%)	10 (11%)
has to V					18 (20%)
's got					2 (2%)
past part.(AUX)					1 (1%)
they's					1 (1%)
MISC/unclear	2 (9%)	1 (4%)	1 (2%)		1 (1%)
TOTAL # tokens	23	24	44	29	90
TOTAL %	(100%)	(100%)	(100%)	(100%)	(100%)

\*For display purposes, has includes both has (by far in the majority) and have; past forms and negated forms are not subclassified but are, rather, included in the affirmative category.

Appendix I: Excerpts Which Illustrate Developmental Trends  
(By TIME)

TIME I: personal narrative (1736-0764)

In the refugee camp + when I stay at + in refugee camp, at night maybe + maybe eight o'clock to nine o'clock, the- that- thats night is very bad because has a + robber one group into the camp. And then all the people stay there, leave from to + to stay and to sleep close the commander of Thai soldier and close the UNHCR. Maybe at eight fifty the fire + burns alot of house. And close my house too. A big fire has a two + the big truck and the fireman has a two group they want to put out the fire. When the- when they drives close the house on fire, the robber shoots... And some people they know and they saw. The fire + on the house maybe ten house. Because in refugee camp has house long long uh long house.

TIME II: personal narrative (0627-0653)

Because in the refugee camp, they has a university- no- high school for uh + in the temple + church + of Buddhist... Yes and the Japan has a high school for student. High school in- in- in the temple. Yes has a + grade- grade- grade six- six seven to until ten. And public high school + by International Committee Red Cross, lot of high school in refugee camp so alot of student + better than me.

TIME III: narrative based on Cambodian story (1031-1048)

Because some people they live in countryside. In the countryside they has no fruit no anything because has alot of field to make a rice. So belong (=along) the river they has alot of fruit and alot of I think maybe very beautiful the village belong + beside the river. So many people + they very surprise when they has no money to + for a walk in the Phnom Penh city. But now i(t)'s not good because the war broke alot of building.

TIME IV: personal narrative (0051-0164)

...and then the manager said "Oh no more job in here" about ten to fifteen + worker lay off include me...Yeah I like but they don't have job more + for me. You know all the restaurant + dishwashers two. But that restaurant just one. No all the restaurant they works two + two people. But here's just one me + just me. ... "He said "Oh try. Next time maybe + has some- + has other people help you". And about two week no. No one to help me...I was here for two month and they has no more job... [Next job! He- the manager send me to fry a cake.. So is- has a pan with pan for fires big + same this size two and I fry two pan + one time put uh cake one rack... So but I think is no problem for me but I has problem with eye and my head.

TIME V: personal narrative (2315-2512)

Yeah because uh in Cambodian in the countryside 's no bank. No, money or gold just keep on their wife. No bank. If we has money just keep in the house and + and the wife stay home... But I don't have much money in the bank... If I has my lot money I keep in the International Bank... Because uh in Phnom Penh has uh- now has a International Bank. Yeah one- one- two national bank in Phnom Penh and then my brother told me if I has money in national bank I just go to national bank and tell them. But + but International Bank we have to put lots money... I has to send to him...and I have to give him fifteen dollar.

Appendix II Sentences with "they has" by TIME (I-V)

A-II

They said they has a war  
Students they has a sing-a-song  
They has a 15 years old  
All the people + they has job only their family  
They has a big big house (2 times)

A-III

The people live beside the river and they has no rice  
and they has no garden  
and they has no farm (2 times)  
Alot of people + poor and they has no money  
in the countryside they has no fruit...  
they has no money (2 times)  
and some- some fishermen they has their machine + uh  
And some people they has the machine put their boat  
usually they has a + their brother or sister live in Phnom Penh

A-IV

they has medicine  
alot of people they didn't work hard because they has own farm  
in Canada they has everything  
they has no more job  
they has but I didn't read

A-V

if they has money they can come visit me then  
they has a monk from Montreal  
they has a + like society for lady  
they has a daughter um go to school  
they has much- alot money

-----

B-II

Because Heng Samrin they has only name is government

B-IV

Khao Larn Camp the King of Thailand they has a small camp

B-V

Yeah they like because they has job

-----

C-I

government they has a school for children

C-II

in the refugee camp they has a ... high school

C-III

So belong (=along) the river they has alot of fruit

?And front of- front of the building of King + and they has a  
same  
And front- around building of king, they has lot of light +  
green red yellow  
Usually in countryside they has a- a oil lamp

C-V

Montreal they has temple

Edmonton they has some people they work in Edmonton

### Appendix III Sentences with "no problem by TIME

#### TIME I

(And one brother maybe is dead you said before)

No, no problem.

They say + told me don't worry about them. Because they easy to live. Yeah in my home. No problem.

My old- my old sister no problem maybe the same me.

If my country change the reason, teacher is maybe no problem with the new government.

#### TIME II

But I think maybe No problem.

And usually on Saturday Saturday + they has a sing-a-song or dancing + for one hour yes or one thirty. No problem,

If I teach grade five + or grade four +

grade four no problem.

Usually grade five maybe I confuse sometimes. Grade four

I teach + no problem.

Yeah at first I teach grade three ... no problem.

So in my country no problem.

#### TIME III

And some people they- they saw a + yeah a plane I think no problem because has problem car and ship and tank.

And the- the king name of- name Meniyweng, he build twenty years ago but no accident. So no problem.

If their mother has no money no problem.

#### TIME IV

So but I think is no problem for me but I has problem with eye and my head.

#### TIME V

Now is no problem is uh if I + if I want to work I has friend.

I said "If I go to full time school so what do you think?"

And she said "No problem".

I- I ask him what happen in Cambodia now.

He said "Nothing no problem no problem."



#### Appendix IV Existential Sentences with "alot" by TIME

##### TIME I

lot of high school in refugee camp

##### TIME II

So alot of student better than me

##### TIME III

But in refugee camp alot of book.

Kampunchenang Province alot of mountain + and wood.

So alot of Khmer rouge.

Lot of apartment for rent.

Alot of people in my country. (Some people they born until they die they never know never be to the city).

But in refugee camp alot of people.

##### TIME IV

I said "Oh lot of (Cambodian food) in Chinatown".

Appendix V Sentences Without Existential/Possessive Verb, by TIME

TIME I

And my sister + my parent one photograph.  
And my old brother small photograph.  
My young sister he + the stomachache everyday.  
because he + pain his chest  
(my young sister maybe 20 years old)

TIME II

If they enough student + maybe I go to Catholic Board.  
They always no food yeah.  
So the Vietnam usually no food.  
Because in Canada no farm rice (=rice farms).  
No farm only employment- employer.  
Now a few (rice people).  
I think a few.  
No- no cook- their house no cook.  
And no gardens.

TIME III

Sometime no- no bus no car no train.  
No post office.  
No cars no buses just oxen  
He build twenty years ago but no accident.

TIME IV

And then the manager said, "Oh no more job in here".  
All the restaurant + dishwashers two.  
But that restaurant just one.  
No one to help me.  
Many kind of cake.  
But the communist Pol Pot no money.  
No pay but no medicine.  
I think Calgary more (Cambodians) than Ottawa.  
But here no Cambodian no work with government.  
and I think maybe a hundred family in Japan.

TIME V

Because uh + not too many people go to eat- went to eat.  
Because Connought just basic one two three (courses).  
Not many car.  
Maybe now than before.  
And his family only three person.  
The firs on- in the- in her apartment.  
No bank.  
If we change at bank, just a dollar one hundred.  
And Cambodian never- never (has had a leader) like Heng San  
before.  
(Heng Samrin about 40 years old).

Appendix VI Existentials with "'-s NP": TIMES IV & V only

TIME IV

But here's just one me + just me.  
(?But now they has- I think they's better than before.)

TIME V

'S lot of friend he work in Edo.  
'S many place in Calgary.  
South Centre Woolco + yeah I think 's a many place.  
(You can get enough Cambodian books there?) No 's not enough.  
'S one younger he's + he going to finish diploma this year.  
They's lot maybe four or five family move from Saskatchewan.  
But he said 's not many Cambodian live.  
(Where have you been?) (Only 's a Red Deer).  
And 's many rock by the river.  
Yeah because uh in Cambodian in the countryside 's no bank.  
Yeah I wrote- I wrote uh- I write down's fifteen dollar  
for + for him, and fifty dollar for my parent.

## Appendix VII Summary of Cambodian Grammar

Owing to limitations of space, it is not possible to provide a detailed introduction to Cambodian, JDB's L1, here. However, it is worth noting the following characteristics (Ehrman 1972):

1. basic topic-comment sentence structure;
2. preverbal aspectual auxiliaries (i.e. for completed, begun and unbegun action), e.g. 'already';
3. no inflection for agreement with number/person of subject;
4. preverbal negation;
5. no expletives comparable to English 'it' and 'there', but an impersonal 'indefinite' subject pronoun 'they';
6. existentials formed with the verb 'have';
7. an optional, but often deleted copula;
8. SVO canonical word order;
9. no inflection for voice (active/passive);
10. a small number of modals only.

Figure 1 - Selected Constructions with "has"/TIME

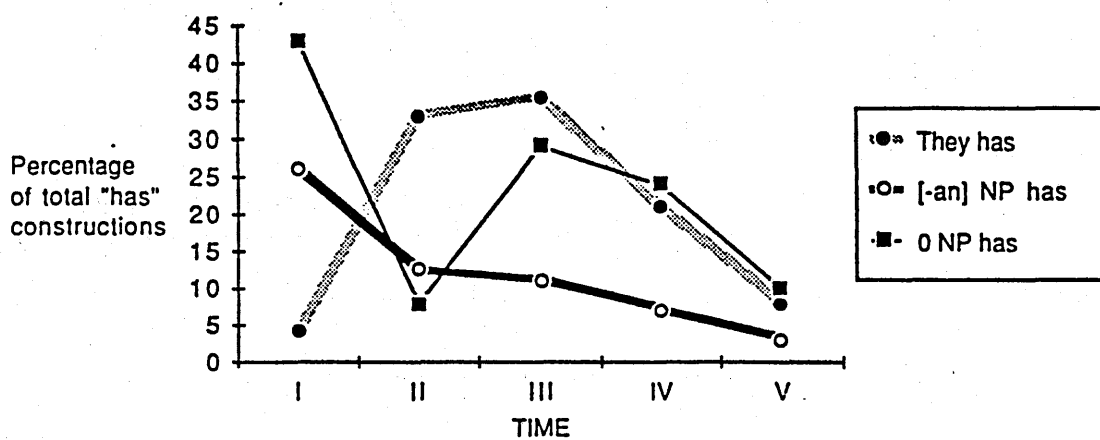


Figure 2 - New Uses of "has" in Stage III

