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An investigation into some of the processes and strategies underlying the receptive behaviour of the interlanguage speaker

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**AN INVESTIGATION INTO SOME OF THE PROCESSES AND STRATEGIES
UNDERLYING THE RECEPTIVE BEHAVIOUR OF THE INTERLANGUAGE SPEAKER**

by

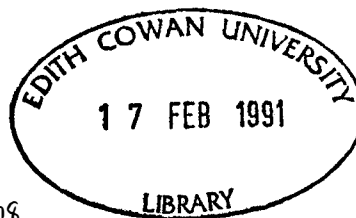
Kaye Malcolm

**A Thesis Submitted in Partial Fulfilment of the
Requirements for the Award of**

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**at the School of Education, Western Australian
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Abstract

This study is based on Selinker's (1972, revised 1988) paper which describes the construct of interlanguage. Selinker claimed that the learner's interlanguage could be accounted for on the basis of three psycholinguistic processes and two strategies. He demonstrated how the operation of these processes and strategies could be inferred from the data of the learner's interlanguage performance in relation to the relevant first and second language systems. The processes and strategies identified by Selinker were: the processes of language transfer, overgeneralization and transfer of training, and the strategies of second language learning and second language communication.

Selinker's claims relate to interlanguage behaviour overall, that is, production and reception. His work and that of others, however, focusses largely on production. There has been little attempt to systematically investigate the receptive behaviour of interlanguage speakers with a view to determining the relevance or otherwise to it of the five processes and strategies. This study attempts to develop procedures for observing the receptive behaviour of an interlanguage speaker and seeks to determine whether the five processes and strategies described by Selinker also underlie this aspect of language behaviour.

The study examines the receptive behaviour of a Chinese interlanguage speaker. The receptive behaviour is taken to be evidenced in responses made to the speech of a native English speaker. Primary data comes from three tasks which are designed to elicit response. Each requires the subject to reproduce target language input. The first task is the word by word reproduction of a tape prose passage, the second, the reproduction of verb forms and the the third, the reproduction of the content of a passage where the focus is on communication. Secondary data comes from introspective comments by the subject about his response to the tasks. Both sets of data are used in analysis.

Analysis of the data shows that the tasks devised are capable of eliciting responses in which receptive behaviour may be observed, and that the behaviour exhibits the five processes and strategies also observed by Selinker and others in interlanguage production. This finding has implications for second language teaching practice. These are briefly examined.

Statement of Authorship

This thesis contains no material published elsewhere or extracted in whole or in part from a thesis presented by me for another degree or diploma.

No other person's work has been used without due acknowledgement in the main text of the thesis.

This thesis has not been submitted for the award of any other degree or diploma in any other tertiary institution.

[REDACTED]

Kaye Malcolm

30 April, 1990

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I Introduction

Second language learners are developing both receptive and productive skills in spoken and written language. In both forms of language, reception is fundamental. Some input demands only reception, and some demands production which rests on reception. Incoming language may be beyond the learner's proficiency level, but s/he must try to make sense of it. Reception is a vital and difficult part of language learning. It is important to understand the processes which are central to it. Few studies, however, have attempted to do this. This study focusses on the second language learner's reception of speech and it investigates some of the processes and strategies which underlie it.

During the last twenty years, interest in second language learning has seen a change in emphasis from a study of the learner's language product, to a study of the processes involved in his producing language. Linguists have begun to look at language learning, rather than just at the language (or aspect of it) which was to be learnt. This is a recognition of the fact that second language learners are generally in process. Until they achieve native like proficiency, it seems that they operate with language which works to a greater or lesser degree as communication but which is not their first language, and which is clearly not the second language they are trying to learn. It is an approximation of the second language. This approximation was termed interlanguage (Selinker, 1972, 1988b). The language pro-

duced at any point by second language learners may be described as interlanguage.

The language which is produced at any point, comes about because of a knowledge which speakers have about that language. Chomsky's (1957) linguistic theories pointed to the fact that people produce language from a system of rules. They do not learn every sentence by heart. Instead, a finite set of rules enables them potentially to produce and understand an infinite set of sentences. Second language learners, like any other speakers, have an underlying system of rules which is realized in their language performance. Since this system is different from the system of both their first language and the second language, it is seen to be a system in its own right. Thus, the term interlanguage can apply not only to the state of learners' language at any one time, but to the system which they use to produce language; a system which changes over time, as they move closer to the target language, changing and adapting rules.

What this system is, has not been adequately described to date. An important corollary to there being a system is however, that language learning must be systematic. Research into language systems provides more information about the systematic nature of language learning.

Selinker's (1972, 1988b) study of interlanguage led him to believe that it is characterized by fossilization - a mechanism

which produces errors within the language which are not easily eradicated even by direct teaching. He postulated five central processes and strategies which are responsible for this fossilization, and hence which underlie second language acquisition and learning. They are the processes of language transfer, overgeneralization and transfer of training, and the strategies of second language learning and second language communication. Each of these is described more fully in the literature review.

Communication is a two way process between speaker and hearer; a matter of production and reception. If Selinker's processes and strategies are central to second language acquisition and learning, then they should be evident in reception as well as in production. As the literature review will indicate, however, quite a deal of work has been done to investigate the presence of such factors in production, but very little in reception. This is largely because production is so much easier to investigate. Reception cannot be observed directly. Only the effects of it can be seen, and the effects often show themselves in language production.

The present study focusses on the receptive abilities of the interlanguage speaker, and asks whether the processes and strategies suggested by Selinker do underlie them. Such a study will add to the understanding of second language learning in general.

II Research Question

Can it be empirically demonstrated that fossilizable items, rules and subsystems which occur in interlanguage reception are a result of the five processes and strategies described by Selinker? (1972, 1988b) Can this be demonstrated in the interlanguage of a Chinese speaker of English as he performs selected tasks involving response to the speech of a native English speaker?

Assumptions

1. All second language learners operate within the limitations of an approximative system (interlanguage) during the period of second language acquisition.
2. The interlanguage is exhibited in the productive output of the second language learner, from which a number of psycholinguistic processes may be inferred.
3. The interlanguage is also evidenced in the receptive linguistic behaviour of the second language learner; that is, the form in which he receives linguistic input in the second language.
4. One of the characteristics of interlanguage is fossilization, which is Selinker's term for the mechanism which results in

systematic errors. A legitimate focus of analysis from interlanguage data will thus be on systematic errors.

5. Selinker's suggestion of five central processes and strategies is one which is reasonable, but not necessarily exhaustive. The study is not assuming that Selinker's approach to understanding second language learning is the only one which is useful.

Objectives

1. To develop an observational methodology for the study of the processes and strategies underlying the receptive behaviour of the interlanguage speaker.
2. On the basis of the methodology devised, to analyse the speaker's interlanguage to determine whether or not the five processes and strategies proposed by Selinker (1972, 1988b) as underlying the performance of interlanguage speakers (and demonstrated to be present in productive language behaviour) can be evidenced in his receptive behaviour.
3. To determine the effectiveness with which the particular tasks devised for this study reveal the processes and strategies described by Selinker.

Definition of terms

Interlanguage: The linguistic system of a language learner which he uses at any point in time and which changes over time as he moves towards his target language.

Process: That which is distinguished from (linguistic) product - "A continuing development involving a number of changes" (Brown, in Faerch & Kasper, 1983, p.29).

Strategy: (Selinker's use) A process which is used strategically, that is, in a planned way. (Note that although Selinker uses the term this way, he says "a viable definition of it does not seem possible at present" [1988a, p.31]).

Production: The use of a linguistic system to give out linguistic utterances.

Reception: The use of a linguistic system to map form and meaning onto incoming linguistic utterances.

Reproduction: The spoken or written version of language produced by a speaker as a copy of that produced by another speaker.

Fossilisable linguistic phenomena: (Selinker's definition, 1988c, p.76) "Linguistic items, rules and subsystems which speakers of a particular native language will tend to keep in their interlanguage relative to a particular target language, no matter

what the age of the learner, or amount of explanation and instruction he receives in the target language".

III Review of literature

This literature review examines some approaches to the study of second language learning and focusses on one in particular, indicating the need for an extension of the work that has been done using that approach. It begins by a discussion of the work of Selinker (1988) and examines the approach underlying his work. It then discusses the data he uses, and the construct of interlanguage, by which he accounts for them. In the next section it looks at the study of processes and strategies which underlie interlanguage. It gives evidence from the literature which shows that these processes and strategies do in fact exist. Finally, it compares the volume of work done on processes and strategies underlying the production of interlanguage with that on the reception of it.

The work of Selinker in second language learning

Selinker (1972, 1988b) claims that in discussing second language learning, it is necessary to accept the existence of three language systems. These are: the native language of the learner, the second language which he is learning, and a third, separate system which he calls interlanguage. This is the system used by the learner as he moves from his native language towards the second language. Selinker says that there is a need to assume that the learner makes interlingual identifications as he uses this third system. In other words, he identifies items in

the native language with items in the language he is learning. Selinker postulates that the learner does this because he possesses in his brain a latent psychological structure which is genetically determined, and which allows him to make such identifications. By gathering data utterances relating to specific linguistic structures in each of the three systems, one can study the processes which establish the knowledge which underlie his interlanguage behaviour. These processes would exist in the latent psychological structure. Selinker names five such processes: language transfer, overgeneralization, transfer of training, strategies of second language learning and strategies of second language communication. Each of these is discussed in more detail in the section of the review on processes and strategies.

Selinker's approach to second language learning

Approaches to second language learning depend largely on what data are counted as acceptable and sufficient for study. Selinker believes that an examination of linguistic evidence will reveal how the second language learner learns. He claims that what is needed is an examination of a learner's language in a search for the processes and strategies which underlie his language behaviour. Other scholars (Schumann, 1976; Bialystock, 1978; Hammerly, 1982) also focus on linguistic evidence to look for understandings of second language learning.

Hellgren (1986), however, is critical of this approach in that its limits are linguistic. Writing from a cognitive perspective, he claims that although it adequately explains some aspects of second language learning, it is not comprehensive. He believes that an examination of language alone will not reveal underlying processes. He hypothesises that a learner has a mental model, which is beyond the linguistic level, of what it is he wants to produce, or of what is being received. The extent to which a speaker (even of a first language, but especially of a second language) is able to construct a correct mental model, is not always reflected in his language. He may use incorrect forms to express correct meanings. Hellgren uses a cloze test to examine underlying processes and finds that mental models are in fact used. He says, "Pupils operated at the level of mental models and propositions - not focussing on linguistic forms." (p.122). In other words, Hellgren says we cannot use linguistic sources alone to account for the processes underlying the expression of meaning in a second language.

Selinker in fact is not trying to account for meaning. He is using linguistic sources to look for processes which result in the form of the learner's language, not the meaning. The two are working at different levels: Hellgren is working from a cognitive psychological level to examine mental phenomena which account for the way a learner makes meanings, while Selinker is working from a linguistic level to examine mental phenomena which account for the way he produces and receives form. The one approach does not exclude the other.

In this connection McLaughlin (1987) evaluates various theories which seek to account for the nature of second language learning and says:

There can be multiple accounts of complex phenomena and these multiple accounts result in multiple truths ...Each theoretical approach is valid to the extent that it increases understanding. (p.161)

Selinker's data and the construct of interlanguage

Selinker's approach is inductive, using a particular range of data to draw limited generalizations. It does not attempt to be a complete explanation of second language learning. Rather, it is descriptive, taking the view that if explanations are to be made, then one must clearly describe what is to be explained. Selinker says that what needs to be described are three language systems, one of which is distinct both from the learner's first language, and the target language he is trying to produce. Selinker's term, **interlanguage**, has been widely accepted by scholars working in research on second language learning (Corder, 1976; Adjemian, 1976; Tarone, 1979, 1983; Davies, 1984; Bialystok & Sharwood-Smith, 1985; McLaughlin, 1987).

Central to the construct of interlanguage is the notion of systematicity. Systematicity has been attested to not only by Selinker, but by others such as Corder (1976), Adjemian (1976),

Hytenstam (1977), Anderson (1978), Tarone (1979), Bialystok & Sharwood-Smith (1985). Corder (1976, p.20) says:

It has now been well established that interlanguage may quite regularly exhibit systematic properties which show no obvious resemblance to the mother tongue or to any other language known to the learner.

There is also evidence for systematic (Tarone, 1983) and non-systematic (Ellis, 1985) variation. It is because of its systematicity that we may look for underlying processes, which in turn may tell us something about second language learning. Corder (1976) says that the concept of interlanguage is a useful one because studies have revealed that the approximative language of learners is systematic and that there are similarities between the approximative systems of different learners. This is claimed as evidence that "basic processes are at work in the acquisition of a second language". (p.30)

As a theory, interlanguage has been evaluated by McLaughlin (1987) as fruitful in generating much research into second language learning. He comments that it is difficult to say how well the theory fits the data, how consistent it is with related formulations, or how clear it is in its predictions. Perhaps this is because it is using a bottom up approach. More work still needs to be done to reveal behavioural patterns. A telling fact is that the data and related formulations do not to date deny the construct of interlanguage.

The study of processes and strategies underlying interlanguage

Selinker (1988b) claims that the system of interlanguage is the product of five cognitive processes and strategies. He elaborates:

If it can be empirically demonstrated that fossilizable items, rules and subsystems which occur in interlanguage performance are a result of the native language, then we are dealing with the process of **language transfer**; if these fossilizable items, rules and subsystems are a result of identifiable items in training procedures, then we are dealing with the process known as the **transfer of training**; if they are a result of an identifiable approach by the learner to the material to be learned, then we are dealing with **strategies of second language learning**; if they are a result of an identifiable approach by the learner to communication with native speakers of the target language, then we are dealing with **strategies of second language communication**; and finally, if they are a result of clear overgeneralization of target language rules and semantic features, then we are dealing with overgeneralization of target language linguistic material.

Selinker says that interlanguage differs from a first language, the acquisition of which does not result from such strategies. Adjemian (1976) claims that it can be described as rule governed behaviour, as can a first, or natural language. It is the product of grammatical rules. Tarone (1983) also sees interlanguage as a natural language, and as the product of rules, but rules which are based on contexts of use. First languages also vary according to context of use.

In fact three approaches are used to explore three aspects of the problem. It is not necessary for any of them to deny the validity of the others. Selinker is postulating psychological mechanisms which may well be present alongside the developing rule based grammar of the interlanguage, and which are responsible for the different outcomes of first languages and interlanguages; while Tarone's contexts of use could reasonably be seen to be another underlying influence on performance. Selinker is coming from a psycholinguistic point of view (though using linguistic data), Adjemian a linguistic one and Tarone a sociolinguistic one. Gass (1988) has attempted a comprehensive view in which these three perspectives interlock.

The reason researchers use different perspectives relates to the goals they have. Adjemian and Tarone are looking at interlanguage as a phenomenon that can reveal something about language in general. Selinker looks to interlanguage to discover something about language learning. Davies (1984) discusses these goals and adds a third, that of the educationist, who seeks to understand the learner's interlanguage so that he is more aware of his problems and presumably better able to assist him in the forward development of his interlanguage. Different scholars approach a situation from different angles and for different reasons. All can be valid and useful.

Hellgren (1986) claims that Selinker's work only focusses on error analysis and that this is not comprehensive enough to reveal the processes and strategies underlying interlanguage.

Selinker does not in fact only focus on error analysis, as in his paper, "Language Transfer" (1988a) he discusses evidence of positive language transfer, which results in nonerror in the learner's interlanguage (as well as negative transfer, which results in error, and neutral transfer which may or may not result in error). It is true however, that although errors can reveal underlying processes, they will not necessarily reveal all those processes, especially those which underlie correct, native like language use. Selinker acknowledges this, but maintains that errors can be useful when they seem to represent the learning strategies that are being used (1988a, p.39). The practice is acceptable if its limitations are recognized and stated.

Selinker describes each of the identified processes and strategies which he believes underlie interlanguage. Each will be presented in turn and the findings of other authors examined for evidence of the existence of that process/strategy.

Selinker first discusses the notion of language transfer, which he says is a process underlying interlanguage production. The items and rules operating in the interlanguage may be the result of the influence of the native language. Selinker gives examples of a Hebrew speaker learning English (Selinker, 1988a, p.8) where this transfer may be phonological: the Israeli commonly substitutes a voiced velar fricative for the English retroflex /r/; syntactic: the Israeli commonly makes word order

mistakes, such as 'I like very much cats', which is thought to be attributable to a Hebrew pattern; semantic: the Israeli produces the wrong word or lexical item whenever one Hebrew word covers the same semantic area as do two English words, e.g. ezrax 'citizen, civilian'. He reports on an experiment at the syntactic level, where speech is elicited from Israelis speaking Hebrew, Israelis speaking English and Americans speaking English. The results show statistically significant evidence of syntactic transfer from Hebrew to English in the interlanguage of the Israelis.

Transfer from first language has been attested to by scholars such as Hocking (in Oller & Richards ,1973, p.95), who says, "It is not, in my experience, uncommon to find speakers of English as a second language whose only surviving errors are of this kind". Early studies seemed, however, to overemphasise the extent of language transfer. Richards (1974) is one others who claimed this. He reports a study showing that language transfer did occur but that only one third of the deviant sentences from second language learners could be attributed to it. By 1979, Susan Gass, finding language transfer "generally accepted by both theoreticians and language teachers" (p.237), undertook a study to examine in more detail the exact nature of it. Sharwood Smith (1979), Rutherford (1984) and Littlewood (1984) show similar acceptance, and concentrate on discovering what language transfer really consists of, what transfer of training actually consists of, what is transferred, and how it occurs.

The second factor which Selinker postulates, is the process of overgeneralization by the interlanguage speaker of rules and semantic features of the target language. He gives examples, of the former, (1988b, p.30) with: 'What did he intended to say?', where the past tense morpheme -ed is extended to apply to an environment where it logically could, but in fact does not apply; and the latter, with: 'After thinking little I decided to start on the bicycle as slowly as I could as it was not possible to drive fast', where the overgeneralization of the use of 'drive' to apply to all vehicles seems to have been made.

Littlewood (1984) discusses the process of overgeneralization and accepts it as a process underlying second language learning. He points out that it in fact underlies the way in which people make sense of our world in general. Categories are constructed and rules formed about which part of reality fits which category. Rules are often overgeneralized and incorrect predictions made.

Richards (1974) discusses overgeneralization as a characteristic of language acquisition in general (that is, first language learners also overgeneralize, and produce, for example, 'goed' rather than 'went'. Dulay and Burt (in Richards, 1974) point out that it is sometimes difficult to decide whether an error is evidence of transfer from the first language or overgeneralization of a rule in the second. Le Compagnon (1984,

p.41) suggests that this difficulty does exist, but it does not explain why "second language learners of particular first language backgrounds make certain overgeneralizations and why these same generalizations are not made by first language learners, nor by second language learners of a different first language background". She argues that it is because of the second language learner's knowledge of his particular native language that he makes particular overgeneralizations. That is, overgeneralization is something which occurs within the interlanguage framework, but it is influenced by the first language framework.

The third process Selinker postulates as underlying the language of the learner, is that of transfer of training. Rules and subsystems of the speaker may be due in part to training procedures. Selinker gives the example of Serbo-Croatian speakers who use the he form rather than she where it would be required, because textbooks and teachers always present drills with he and never she. Richards (1974) gives other examples of evidence of transfer of training. He says that learners who have teachers who place special emphasis on the present continuous form, may overuse it, at the expense of the simple present tense. Littlewood (1984) also discusses errors due to teaching, and classes such errors as special instances of overgeneralizations.

A fourth factor which Selinker classes as a strategy, is the strategy of second language learning. The learner's system may be a result of an approach by him to the material to be learned.

Selinker gives the example (1988b, p.31) of a learner adopting the strategy that all verbs are either transitive or intransitive and producing interlanguage forms such as:

I am feeling thirsty

Don't worry. I'm hearing him.

This example results from a strategy of second language learning which is just one of many noted by other researchers. Chamot (in Wenden & Rubin, 1987) notes twenty five learning strategies. Some of them, like the one above, which would be described by Chamot as deduction ("consciously applying rules to produce or understand the second language" [p.77]), could result in either correct or incorrect language. Others would produce only correct target language forms (for example, Chamot's request for clarification: asking a teacher or other native speaker for repetition, paraphrasing, explanation and/or examples). Selinker's focus on incorrect forms means that he is using the term learning strategies narrowly, to refer only to those strategies which can result in error. Other researchers use the term more widely. Chaudron (1988) discusses the work of seven researchers, all of whom have used the term in its wider sense, to apply to strategies which may produce only correct language forms as well as to those which may produce correct or incorrect forms. This wider sense seems to come from a difference in the concept of interlanguage. Selinker sees it as a system which is primarily characterized by its fossilizable items. Others see it as a system which is characterized in this way, but which just as importantly, contains correct forms.

In spite of this difference in emphasis, the literature supports Selinker's contention that learning strategies exist, and that they underlie performance in interlanguage.

The fifth factor which Selinker describes is the strategy of second language communication, that is, an approach used by the learner to communicate to native speakers of the target language. He gives the example (1988b, p.32) of interlanguage speakers avoiding the use of grammatical formatives such as articles, plural forms and past tense forms because they do not seem necessary for communication.

There are some differences of opinion as to what communication strategies are. Faerch and Kasper (1983, preface p.X) define communication strategies as "potentially conscious plans for solving what to an individual presents itself as a problem in reaching a particular communicative goal". These strategies, say Faerch and Kasper, may be productive or receptive. Tarone (in Faerch and Kasper, 1983, p.2) says a communication strategy is "a mutual attempt of two interlocutors to agree on a meaning in a situation where requisite meaning structures do not seem to be shared". She sees communication strategies as separate from production and reception strategies, the former being interactional in nature, and the latter being restricted to the learner's attempt to use his linguistic system effectively.

If Selinker's example (above) is considered in the light of Tarone's definition, then it is not a communication strategy, as

there is no "mutual attempt...to agree". It would rather be classed as a production strategy. If it is considered with respect to Faerch and Kasper's definition, it does not seem to fit exactly either. The avoidance of certain grammatical formatives could result from potentially conscious plans, but those plans would not be "to solve a problem in reaching a particular communicative goal". Rather, they would be more general calculations of what target language rules and usages could be flouted without threatening communication, or without there being "a problem in reaching a particular communicative goal". In other words, no adjustment to the interlanguage would be seen as necessary for communication. Faerch and Kasper's approach assumes that the speaker sees it as necessary to adjust or expand his interlanguage in order to achieve communication. Selinker's focus is on language which is not adjusted, and thus is in incorrect form. It is so because of the speaker's perception that correctness/incorrectness is redundant to meaning.

The literature reveals then, that the term **communication strategies** is a common one, and is variously defined. Selinker's use of the term is, as with learning strategies, determined by his focus on fossilizable items in the interlanguage.

All of the processes and strategies Selinker proposes as underlying the behaviour of interlanguage speakers are then attested to by other researchers, though the strategies are operationally defined rather differently. Selinker's list of

five may not be exhaustive, and he, in fact, states (1988b, p32) that "there are many other processes which account to some degree for the surface form of interlanguage utterances". The five he describes do, however, appear to be centrally involved in second language learning.

Focus of data collection - production and reception

Attention turns now to the sort of interlanguage data which has been used to discover these underlying processes and strategies. The literature indicates that the focus has largely been on the behaviour of language production, rather than on reception.

Selinker (1988c, p.87) says that the focus has been so because of the difficulty of isolating receptive abilities.

It is extremely difficult to apply the standard method of gathering speech data samples to inferences about the systemic basis for speech comprehension abilities. Most investigators of language acquisition have ignored the problem, and the very term 'language acquisition' is typically misapplied to refer only to the manifestations of language production capabilities in overt speech performance.

An examination of studies on each of the five processes bears out that the focus has been on production.

With respect to the first factor, language transfer, Selinker notes the need to test for both production and reception, on the basis of Lado's dictum (in Selinker, 1988, p.1) that:

....individuals tend to transfer the forms and meanings, and the distributions of forms and meanings of their native language and culture to the foreign language and culture...both productively when attempting to speak the language and to act in the culture, and receptively when attempting to grasp and understand the language and the culture as practised by natives.

However, Selinker's (1988a., p11) study on transfer within the interlanguage of an Israeli speaker of English focussed on "the Israeli's production ...of interlanguage sentences". The study elicited certain sentences in the native language and then the same sentences, under the same experimental conditions in the target language. Reception was not under consideration.

Richards (1974) uses Selinker's processes and strategies as a basis for an account of errors in the interlanguage behaviour of speakers learning English. His analysis is of speech produced by learners who were given short texts in English to read and then required to relate the content in their own words. Although reproducing content does depend on reception, Richards sees the task as revealing production, and looks particularly for instances of transfer and overgeneralization in production.

Gass (1979) has a two pronged approach, in that learners' receptive and productive knowledge of relative clauses is tested. Receptive knowledge is tested by subjects being required to mark sentences containing relative clauses as acceptable or unacceptable. The basis for marking is seen to be congruence with native language structure - and hence a case of language transfer.

Gass (1984) reports on other studies on language transfer, all of which seem to focus on production, namely; Schumann (1976), Zobl (1982), Wode (1977), Schachter (1974), Schachter and Rutherford (1979). Littlewood's (1984) examples are also taken from seeing the learner as producer. There is a need for further study of the learner as receiver with respect to language transfer.

The examples of overgeneralization given by Selinker (1988b) are all in language production. Richards (1974, p.174) says, "Overgeneralization covers instances where the learner creates a deviant structure on the basis of his experience of other structure in the target language" (emphasis mine). Dulay and Burt (in Richards, 1974, p.121) say, "The relationship between 'production' and 'comprehension' is still opaque to language acquisition researchers. We will thus make no assumptions about the relation and deal only with themes and data about children's speech rather than about what they are capable of comprehending". Le Compagnon (1984) studied the language production of learners, but also administered grammaticality judgement tests to the same learners to determine the extent to which overgeneralization and/or interference was present in the interlanguage. The latter tests focussed on processes underlying reception. It is suggested that more testing of this sort is in order.

With respect to the matter of transfer of training, Selinker refers to Serbo-Croatian speakers using he where a choice needs to be made between he and she. How do these speakers then

interpret he? Would they assume that he could refer to either sex? Richards (1974) reports on the over-use of the present continuous tense, due to excessive attention being given by teachers to this form. How then, do these learners interpret the use of the present continuous tense when it is used by native speakers? There do not appear to be any studies looking at transfer of training from the point of view of the learner as receiver.

Concerning the strategy of second language learning, Selinker's example (1988b. p31) of 'Don't worry. I'm hearing him', is of a productive learning strategy. Kasper (in Davies, 1984) discusses the difference between productive and receptive learning strategies. He says that hypothesis formation by the interlanguage speaker comes about from cognitive strategies, which may be receptive, where two sources - input and existing knowledge are combined; and productive, where the only source is existing knowledge. Hypothesis testing can be contributed to by interactive strategies, which again can be productive - output matched against feedback (communicative or metalinguistic); or receptive - input (communicative or metalinguistic) matched against hypothesised rules.

Most studies which have looked at learning strategies have taken account of both receptive and productive aspects (Wenden and Rubin, 1987; studies described in Chaudron, 1988), but they have looked at correctly interpreted input. None appears to have examined incorrect interpretations to determine whether learning strategies were in operation. There is a need for some focus in this area.

With respect to the strategy of second language communication, we find researchers stating the need for work on receptive strategies. Candlin (in Faerch and Kasper, 1983, preface p.X) says, "The present focus on performance and production will have to be matched by an equal interest in the learner's interpretive strategy". Faerch and Kasper themselves say in this volume, (p.xvii) "We have so far been unsuccessful in finding studies which look at speech reception from the particular angle of how learners cope with problems in the reception of speech. This is clearly an area in need of close investigation". Chen, (1988, p33) who has done a study on the communication strategies in interlanguage production by Chinese learners of English as a foreign language, says, "The other side, communication strategies in target language reception, also deserves attention".

At all points it seems that the emphasis has been on processes and strategies as evidenced in the interlanguage speaker's production of language. To redress the balance, it is clear that reception should be a focus of study.

Summary

This review began with a presentation of the perspectives from which second language learning is studied. It noted that the work of Selinker has a linguistic perspective. This approach helps to build up an understanding of the phenomenon of second

language learning. The review also looked at the construct of interlanguage, which was proposed by Selinker to account for the system which second language learners have, and which differs from both the native language and the target language system. The literature indicated a wide acceptance of the construct. An examination was made of the underlying processes which may account for the knowledge an interlanguage speaker possesses. Selinker sees psycholinguistic processes, while other scholars see linguistic and sociolinguistic processes. Again, Selinker's approach was seen to be acceptable and useful in building up understanding. Each of the five processes and strategies he postulates was examined and evidence for its existence provided from other sources. It was shown finally that the evidence provided comes largely from examination of the interlanguage speaker's productive repertoire. The present study looks at his receptive abilities and at the processes and strategies which may underlie them in the belief that this will add to an understanding of second language learning.

IV Conceptual framework

The conceptual framework is that adopted by Selinker (1988b). This is that the data which are relevant in a study of second language learning are "those behavioural events which would lead to an understanding of the psycholinguistic structures and processes underlying meaningful performance in a second language" (Selinker, 1988b, p.25). The behavioural events are seen to be the utterances produced by a learner when he attempts to produce target language, together with corresponding utterances in the learner's native language and target language utterances produced in the target language by a native speaker of that language. The first mentioned utterances can be seen to differ from both the other corresponding sets of utterances. This compels the hypothesis that there is a separate linguistic system, which results from the learner's attempts at target language production. This system may be referred to as interlanguage.

A study of the data of interlanguage will enable the researcher to see how the learner makes interlingual identifications between the first and the target language. It appears that the learner cannot be taught how to make such identifications, but that he acquires them because he possesses some sort of latent psychological structure which is activated when he is learning a new language. An examination of the relevant behavioural events makes it possible to discover the processes which are present in the latent psychological structure.

V Procedure

Methodology

The design of the study is exploratory and interpretive. As such it is open ended, asking a question and analysing data to look for an answer. It is concerned with describing accurately the receptive abilities shown in the language behaviour of the interlanguage speaker, believing that such description is called for to answer the question. The limited nature of the investigation needs to be recognized. It is a case study, and as such can only reveal information about the language behaviour of the subject of the study. Its value can be seen in that this information adds to what is known about second language learning in general.

Subject

The interlanguage speaker in this study is a Mandarin Chinese speaker from Taiwan. He is eighteen years of age and studied English in Taiwan for six years. The approach used in teaching was the grammar translation method, that is, English was taught deductively from a set of rules which was learnt and applied. The subject moved to Singapore and studied in a language school for a year. The teaching approach in this school focussed on grammar and vocabulary building.

In 1988 he moved to Perth and studied in a language programme at a school catering specifically for non English speaking students. He has now moved to an ordinary high school where he has some extra English support classes as well as mainstream classes. The teaching of English in Perth has been functional/notional/communicative in approach. English has been taught through use. Tasks in subject areas have required the learner to master the language necessary for their completion. On the Australian Second Language Proficiency Rating Scale, which stretches from 0 (zero proficiency) to 5 (native like proficiency), the subject is estimated to be at level 2.

Instruments

The data are qualitative and are primary and secondary in nature. The primary data were collected through tasks deemed to tap the receptive language behaviours of the subject. A task is here being defined as in Richards, Platt and Weber (1985, p.289) as "an activity or action which is carried out as the result of processing or understanding language".

Three tasks were presented to the subject. (For a detailed description of these, see Appendix A.) The first was the reproduction of two taped prose passages, where the subject was required to repeat verbally what he heard, to write down what he heard and to read a transcript of the taped material. The second task was to reproduce in written form, the verbs which had been

used in one of the texts. The subject was given the complete written text and asked to fill blanks with the correct forms of the verbs. The stem of the verb was given in each case. The third task was to reproduce orally one of the texts without looking at it, with the purpose of communicating the content correctly. The first task was designed to indicate the presence or otherwise in reception, of the processes of language transfer, overgeneralization and transfer of training; the second to reveal strategies of second language learning and the third, strategies of second language communication.

The secondary data are introspective comments made by the learner and designed to add to what was revealed through the observable primary data.

Cohen (in Faerch and Kasper, 1987, p.32) describes three categories of learner report data: self report, self observation and self revelation. Self report refers to generalized descriptions by learners about their own language behaviour. Self observation refers to the inspection of specific language behaviour either while the information is still in short term memory, that is introspectively, or after the event, that is, retrospectively (after not less than twenty seconds or so). Retrospection can be immediate (within say an hour of the event) or delayed (a few hours, days or even weeks after the event). Self revelation consists of 'think aloud' stream of consciousness disclosure of thought processes while the information is being attended to.

In this study the methods of self observation and self revelation were used. While the subject performed the first task, he was encouraged to think aloud about what he was doing (self revelation). In the light of this and of the primary data itself, a tentative analysis was made of the processes seen to be present underlying reception. The researcher checked the analysis with a fluent English speaking Chinese native speaker who had a metalinguistic ability, at points where language transfer and transfer of training were suspected, and with the subject himself at points where overgeneralization (and again, transfer of training) were seen as possible underlying processes (delayed retrospective self observation). After performing the second task, the subject was immediately asked why he had so completed each of the verb forms (immediate retrospective self observation). While the subject was completing the third task, the researcher noted down obvious grammatical errors. When the subject had finished the description, the researcher pointed out these errors and asked the subject why he thought he had made them (immediate retrospective self observation).

Strengths and limitations of the data sources will now be examined. With respect to the primary data, discussion will begin with the first of the reproduction tasks.

Voss (1984, p.35) notes three variables which will affect the way input is received. These are: the nature of the material to be listened to, the conditions of the listening activity, and the nature of the task. The nature of these variables with respect to the task needs to be stated.

If the receptive behaviour of the learner is to be tested with material which is the sort he would be exposed to in every day life, then it needs to be of longer than sentence length input. Anything less than this, notes Voss, could force the listener to adopt procedures which would not normally be required (for example, the aid of context would be absent). The reproduction of a passage of connected prose would reveal processes which would normally occur. The limitation of prose which consists of specially constructed sentences means that it is not possible to generalize about processes operating outside of this sort of input. However this does not mean that planned speech (for example, news broadcasts) is not as much a part of what the learner hears as is unplanned speech.

Conditions under which the listening activity takes place can also affect the way input is received. Again, the attempt here was to give input under conditions which could be expected to occur in everyday life. For this reason, a reproduction of taped prose was chosen rather than, say, dictation. In the latter case, speech would be given out more slowly than usual, and the decision as to how the stream of speech was to be broken up would be taken by the speaker, rather than the hearer. Dictation also depends to a certain extent on memory of what was said. A reproduction of taped material, on the other hand, means that the subject receives the input at normal speed, and it is up to him to segment it meaningfully. The fact that he may repeat listenings means that his receptive processes, not his memory, is being tapped. One limitation of the conditions was that visual

clues were not available to the listener. However, it is pointed out that visual clues are not always available, as in radio broadcasts and telephone conversations. To test the extent to which visual clues did make a difference, the subject was asked, as a conclusion to the task, to read the text. It is true that the opportunity to repeat listenings is not normal. Voss (p.42) accepts this, but says, "If the intake of the listener is to be externalized - as would be convenient to obtain tangible data - some way must be found of giving the listener the chance of carrying out this task without the additional problems of time pressure and memory load".

If the conditions under which the listener operates are normal, then ordinary processes should be in effect. With the second language learner, these processes will not be the same as with the first language learner. Gumperz (in Baugh & Sherzer, 1984, p.127) says we have "proof that interpretation is always context bound". Sajavaara (1986, p.73) agrees with this, pointing out that "reception and interpretation of messages is not solely derived from speech input: information available through the input interacts with information available from memory, linguistic and non linguistic". He points out, however, that the second language learner does not always have information of this latter sort. Instead he has to rely on "native language knowledge, his general knowledge of human behaviour, language or communication, or what is more noteworthy, the explicit knowledge of the grammatical structures of the foreign language as taught in the foreign language classroom". (Emphasis mine) These

references are indications that a task which places the learner in a situation which is more or less normal to him as a receiver of his second language, could be expected to reveal the presence of the processes of language transfer, overgeneralization and transfer of training.

The structure of the task is the prime factor which will affect decoding processes. As has been mentioned, reception is an internal process, and therefore impossible to observe directly. It can only be inferred by comparing the input to the listener's output and assuming that that comparison will reveal underlying processes of reception. Variables affecting input (materials and conditions) have been discussed, but as Voss says, (p.38) "Even more severe limitations are imposed by output conditions, in that they need to consist of tasks to be performed by the listener which themselves may have little to do with the act of perception: the strategies needed to solve the task are not automatically identical with those needed to perceive language".

The three stands of the reproduction task each had an aspect which was more than that of perceiving language. The spoken reproduction of the text required the subject to make the sounds he heard. The written reproduction required him to spell the words which represented the sounds he heard. The read reproduction required him to recognize the orthographic representation of the sounds. The researcher's task was to make a distinction between each of these and the act of perception.

The three pronged task was designed to make this possible. If, for example, the subject heard the sound /θ/, but was unable to produce it, then his spelling of th could reveal that the problem was not one of perception. If he was unable to spell a word, then his spoken and read reproduction might well be enlightening. If he could not read a word, then the other two sub tasks might reveal this. The secondary data was also elicited to separate out elements of the task which were not relevant. The data was gathered in such a way as to eliminate as far as possible, everything but that which revealed the processes underlying reception.

The second task, which required the subject to fill in missing verb forms, was designed to reveal whether the strategy of second language learning underlay reception. The subject listened to the text (the second of the two used for the first task) being read. It was expected that the subject would take the input, match it against his own hypothesised rules and decide whether or not to adjust these rules. Where his forms of the verbs corresponded to the input, it would be assumed that either the input matched the rules he had arrived at through the strategy of second language learning, or that he had adjusted them in the light of the input. Where his forms of the verbs did not correspond, it would be assumed that he considered the rules he had applied were satisfactory in spite of the nature of the input. This would be evidence that the subject had employed strategies of second language learning in reception.

One of the texts which had been used for the first task was re-used for this task because it meant that the subject had the opportunity to take in the target language forms a number of times. If his completed tasks showed non-standard verb forms, this would then give greater weight to the conclusion that strategies of second language learning had been employed.

The third task required the subject to orally reproduce the content of one of the texts, having listened to it being read, having read it himself, and then put it out of sight. This task was designed to reveal whether strategies of second language communication underlay reception. The text described an octopus. The subject was asked to use the information from the text to describe an octopus so that a person who had never seen one would be able to picture one from the description. It was stressed that the purpose of the task was to communicate. The expectation here was that the subject, aware of the communicative purpose of the task, might choose to ignore aspects of grammatical form as he listened to and read the texts and to focus on the details of the description itself. This might then become evident in his output, pointing to the presence of strategies of second language communication.

Again, a text was re-used for this task to allow the subject to have maximum exposure to the input. He was also invited to re-read the text as many times as he wanted to before proceeding with the task. This was designed to ensure that what was being tested was reception, not memory.

In all of the tasks, the processes seen to be present depended on the particular texts chosen for reproduction. It may have been that the texts were not comprehensive and did not reveal all the processes which were present in the learner's brain. Or it may have been that they over-represented one or more of the processes. Those which were revealed were only true of the one speaker on the one occasion with respect to the tasks completed. In fact all the study seeks to do is to discover whether the processes appear. It does not expect to reveal the extent to which they appear.

The value of the secondary data is seen to lie in both the extension it afforded direct observation, and the triangulation of that method of data collection. The use of such data has, however, been seen to have limitations. Cohen (in Faerch and Kasper, 1987, p.36) notes that one objection to using verbal reports is that much of language learning takes place at an unconscious level and it is therefore inaccessible to mental probes. He points out in reply that there is also a certain amount of conscious processing to which we do not pay attention. It would seem that tasks like those set for this study require slow and controlled processing which can be fairly easily attended to and commented on by the subject. What conscious processing does take place should therefore be able to be described.

Because, however, some of the processing is unconscious, it is possible that what a learner reports may result from post-hoc

guessing, based on production, rather than on an actual knowledge of what processes were in operation. This possibility must be acknowledged in the present study.

The methods of verbal report do not equally encourage the learner to guess. The self revelation type reporting does not lend itself to manipulation. In this study, what the subject said in his think-aloud approach to the first task was not a statement about processes. It was merely a commentary given by the subject as he used processes. The researcher still needed to discover what those processes were.

The self observation type reporting is more subject to the possibility of being faulty. With the delayed retrospection which the subject made following the first task, it is possible that he guessed what was going on in his brain, or that he reported in a particular way because of suggestions made by the researcher, or because of what he thought the researcher wanted him to say. With the immediate retrospection following the second task, however, it was possible to take measures to prevent faulty reporting. The subject was not actually asked to say what strategy he thought underlay his reception, but rather to say why he had decided on a particular verb form. The researcher had then to make use of this information in deciding whether it appeared that a particular strategy of second language learning had been used. The immediate retrospection following the third task was an explanation by the subject of why he had made grammatical errors. The researcher used this explanation to

decide whether it seemed strategies of second language communication had been used. There was some safeguard here against expecting too much from the subject's reporting.

The verbal report data gathered from the subject are seen, then, largely as an addition to the primary data. They did not themselves uncover processes. The researcher needed to draw conclusions from them. It was not expected that the subject could accurately describe processes which underlay his language behaviour. He was not asked to do more than he was able to do. For this reason, the secondary data are seen as valid additional sources for analysis and for the drawing of conclusions from the results.

Data Collection Techniques

All the tasks were carried out in the researcher's presence. In the case of the first task, it was expected that this would encourage the subject to think aloud while he worked. He used a cassette tape recorder to transcribe, operating it at a pace to suit himself. As he worked, another tape recorder was set to record the procedure. With each section of the text, he gave a verbal reproduction, followed by a written one. When he had written out the whole text, he was asked to read the printed text from which the recording had been made.

The second task involved the reproduction, in written form, of the verb forms used in Text B. The text had been slightly modified for this task. In its original form there was a weather forecast in which complete sentences were not used. This was amended so that sentences were used throughout. The subject listened to a reading of the text and then filled in blanks in the written text with what he considered to be the correct verb forms.

The third task involved the subject's reproduction of the content of Text A. The task was introduced with explanations of words which may have been unknown, viz: fearful, jaws, beak, tentacles, underside, fasten, suction. The subject then listened to the tape once and read the text four times before retelling its contents in his own words. He had been requested to describe an octopus, using information only from the text, so that a person who had never seen an octopus, would recognize one. He was given the key words, head, arms, eyes, mouth, jaws, suckers on which to base the description. This was to avoid the testing of his memory, rather than his receptive abilities.

Data Analysis

The analysis is interpretive, rather than statistical. From the data, instances were recorded where responses to input seemed to indicate the presence of the processes and strategies under consideration.

Language Transfer:

This was seen to occur where in form or meaning the input was adjusted to fit the system of the subject's first language. The transfer was noted at phonological, morphological and syntactic levels. Judgement as to where transfer occurred was made with the assistance of a Chinese native speaker who was fluent in English and able to make metalinguistic comments.

Overgeneralization:

This was seen to occur when the subject's reception appeared to be the result of overgeneralizing the application of a rule within the second language, or overgeneralizing the use of a particular word or expression. It was noted at the phonological, morphological, syntactic and semantic levels.

Transfer of training:

This was documented when the subject's faulty reception was seen as the result of the teaching he had received. For example, if he reproduced a present tense verb as a verb in the present continuous form, this may have been due to the fact that his teaching had emphasised the present continuous form because there was no equivalent of it in the learner's first language. Help in analysis was given here by the Chinese linguist informant who had had experience in teaching English to Chinese students.

Strategy of second language learning:

This was noted when the incorrect language forms were seen to result from input being overridden by forms resulting from a strategy the learner had adopted as part of his attempt to form hypotheses and to develop a language system.

Strategy of second language communication:

This was documented at points of error when the subject was perceived to have ignored correct language forms because he was focussing on the demands of communication and because he felt the correctness of those language forms was not essential to communication.

It has been noted (McDonough, 1981; Littlewood, 1984) that it is not always possible to decide which of the processes and strategies is underlying a learner's language use. Language transfer and overgeneralization are sometimes difficult to differentiate, and may in fact occur together. Likewise, an overgeneralization could quite well be evidence of transfer of training. The learner may consciously call on first language knowledge, or overgeneralize as a communication strategy, or a communication strategy may at the same time be a learning strategy. The analysis has assigned what has appeared, in the light of the primary and secondary data, to be the most appropriate labels, acknowledging any uncertainties or overlapping.

Ethics

The subject gave his permission for the taping and transcription of his responses to the tasks. He was told that the purpose of the exercise was for the researcher to learn more about second language learning. He was assured that his name would not be used and that his identity would not be revealed.

VI Results

Results are discussed under the five headings of: language transfer, overgeneralization, transfer of training, strategy of second language learning and strategy of second language communication. For a detailed analysis of the data from which these results were drawn, see Appendices C and D. (See Discussion, Part A, regarding the presence of processes and strategies in tasks other than those designed to reveal them.)

Language Transfer

Task 1

There were 100 instances involving 31 items from two texts, where negative transfer from Mandarin Chinese was seen to result in incorrect interpretation. In all of these instances the errors refer to form, not meaning. 73 instances of the errors were in the spoken reproduction, 17 in the written and 10 in the read reproduction. With respect to the spoken reproduction, 29 items resulted in the 73 instances of error, some errors being repeated as the subject made more than one attempt to replicate the spoken text. 17 items resulted in the 17 written errors and 9 items resulted in the 10 reading errors. In the case of 8 items, error occurred only in spoken form; in 1 item only in written form and in 1 item only in read form. In 14 items, errors occurred in spoken and written form; in 5 items in spoken

and read form and in 2 items in spoken, written and read form. In most instances the incorrect form was not given 100% of the time; that is, some correct and some incorrect reproductions of an item were given. With 4 items, errors were made between 20 and 50% of the time; with 19 items, between 50 and 80% of the time and with 8 items between 80 and 100% of the time. (See Discussion, Part A, regarding the significance of these percentages.

Task 3

There were 11 instances in task 3 where the subject's errors were seen to result from language transfer as well as from strategies of second language communication.

Summary of areas of English where transfer possibly caused error

Task 1

AREA	ERROR	NUMBER OF INSTANCES
Morphological:	marking for person	4 out of 6
	marking for plurals	22 out of 32
	marking for gender	7 out of 10
	marking for tense	4 out of 6
	marking for aspect	4 out of 7
Syntactic:	articles	19 out of 24
	suffixes for comparatives	2 out of 3

	use of copula	2 out of 3
	subordinating conjunction	
	that	3 out of 4
Morphological/	use of past participles as	
Syntactic:	adjectives	6 out of 6
Phonological:	Final consonant	13 out of 21
	Consonant cluster	14 out of 16

Task 3

Morphological:	marking for plurals	3
	marking for person	1
Syntactic:	articles	7

These results were checked and confirmed by a Chinese native speaker who is also a fluent speaker of English, who has metalinguistic ability to discuss both languages, and who has taught English to Mandarin speaking Chinese students.

Overgeneralization

Task 1

There were 31 instances involving 11 items from the two texts where overgeneralization of rules of use of English was the possible cause of error. 16 instances of error were in the spoken reproduction, 9 in the written and 6 in the read reproduction. With respect to the spoken reproduction, 9 items resulted in the 16 instances of error, 9 items resulted in the 9 instances of written error and 5 items in the 6 instances of reading error. In the case of 1 item, error occurred only in spoken form; in 1 item only in written form and in 1 item only in read form. In 4 items, errors occurred in spoken and written form and in 4 items, in spoken, written and read form. With 3 items, errors were made between 20 and 50% of the time; with 2 items, between 50 and 80% of the time and with 6 items, over 80% of the time. These results were compiled from an analysis which took into account the subject's self-observation of his performance (See Appendix C).

Task 3

There were 3 instances in task 3 where the subject's errors were seen to result from the process of overgeneralization as well as from strategies of second language communication.

Summary of areas of English where overgeneralization possibly caused error

Task 1

AREA	ERROR	NUMBER OF INSTANCES
Morphological:	Form of indefinite article	1 out of 3
	Plural marker	9 out of 9
	Third person singular affix	3 out of 3
	Formation of past tense	2 out of 3
Syntactic:	Definite article	5 out of 9
Semantic:	Prepositions of place	5 out of 6
Syntactic/		
Semantic	Use of preposition	5 out of 6

Task 3

Morphological:	Plural marker	1
Syntactic:	Definite article	1
Semantic:	Preposition of place	1

Transfer of training

Task 1

There were 27 instances involving 8 items from the two texts, where transfer of training was the possible cause of error. 17 instances of the errors were in the spoken reproduction, 7 in the written reproduction and 3 in the read reproduction. With respect to the spoken form, 7 items resulted in the 17 instances of error; 7 items resulted in the 7 written errors and 2 items resulted in the 3 reading errors. There were 2 items where an item occurred only in spoken form; 1 where it occurred only in written form; 4 where it occurred in spoken and written form and 2 in spoken, written and read form. With 4 items, errors were made between 50 and 80% of the time and with 4 items errors were made between 80 and 100% of the time. These results were checked and confirmed by the Chinese linguist informant as well as by the subject (See secondary data, Appendix C).

Task 2

The incorrect use of tenses in task 2 was possibly due to transfer of training as well as to strategies of second language learning (See Discussion, Part A).

Summary of areas of teaching where transfer of training possibly caused error

Task 1

AREA	ERROR	NUMBER OF INSTANCES
Syntactic:	Sentence type (simple sentences)	6
	Word order (S V O or S V C)	5
	Word class (Subordinating conjunctions)	3
	(Adjectival classifier)	9
	Passive construction	4

Strategies of second language learning

Task 1

a) There were 68 instances involving 19 items from the two texts where the subject's employment of learning strategies in reception was seen to result in lexical error. 48 instances of the errors were in the spoken reproduction, 18 in the written and 2 in the read reproduction. With respect to the spoken reproduction, 17 items resulted in the 48 instances of error, 18 items resulted in the 18 written errors and 2 items in the 2 reading errors. In the case of 1 item, error occurred only in spoken form; in 1 item only in written form and in 1 item, only in read form. In 15 items, error occurred in spoken and written form; in 1 item in spoken, written and read form. With 2 items, error occurred between 20 and 50% of the time, with 7 items, between 50 and 80% of the time and with 10 items, over 80% of the time.

b) The 31 overgeneralization errors in task 1 may have also been a result of strategies of second language learning.

c) 6 transfer of training errors (viz. those where a preference for simple sentences resulted in error) may have also been the result of a learning strategy of simplification.

Task 2

In all 12 instances where verb forms were completed they were in error, and this was seen to have resulted from strategies of second language learning.

Summary of strategies of second language learning which were the possible cause of error

Task 1

STRATEGY (Resulting in lexical error)		NUMBER OF INSTANCES
Metacognitive: Priority given to form over meaning		68 (an overall strategy)
Cognitive: Use of acoustic information plus collocation		5 out of 6
Use of acoustic information plus known vocabulary		42 out of 59
Use of acoustic information only		21 out of 26

Task 2

STRATEGY	AREA OF ERROR	INSTANCES
Cognitive:		
Aspect makes no difference to meaning	Marking for aspect	1
Voice makes no difference to meaning	Marking for voice	3
Past tense is formed by placing was before verb stem or verb stem plus affix	Marking for past tense	2
Selection of tense:	Tense choice	6
Context may give a clue to time, and hence tense (e.g. predict has future meaning, so time must be future and tense must indicate this).		
If context gives no indication of change of time, stay with same tense.		

Strategies of second language communication

Task 1

The 100 instances of error resulting from language transfer and the 31 resulting from overgeneralization may have also occurred because of the employment of strategies of second language communication (see Discussion, Part A).

Task 3

There were 16 instances where the strategy of second language communication was seen to result in error. The conclusion that this strategy underlay the errors was strengthened by the subject's self observation that his overriding concern had been with making an accurate description, rather than with grammar.

Summary of strategies of second language communication which were seen as possible causes of error

Task 3

STRATEGY	AREA OF ERROR	INSTANCES
When reception of content is the purpose of the task, attend primarily to this and ignore details of grammar.	Syntactic:Articles	8
	Prepositions	1
	Morphological:	
	Plural markers	3
	Person markers	1
	Verb tense marker	2
	Semantic: Preposition	1

VII Discussion

The discussion will consist of two parts. The first part will deal with the results of the tasks with respect to the subject as an individual interlanguage speaker. The second part will deal with the research question more generally and will explore aspects of it related to the objectives of the study.

Part A

The results indicate that the five processes and strategies described by Selinker do appear to underlie the receptive behaviour of the interlanguage speaker who was the subject for this study. Three tasks were designed to reveal the presence of specific processes and strategies. However, an examination of the results showed that there was evidence of overlapping of processes and that processes and strategies were present in tasks other than in those designed to reveal them.

According to the results, language transfer was the process responsible for the greatest number of errors in the subject's interlanguage in Task 1 (100 instances of error from 31 items). The features which were most frequently transferred from Mandarin Chinese were: the absence of plural markers, the absence of articles and the absence of consonant clusters. Language transfer was also present in Task 3, where the subject may have

allowed it to occur as a strategy of second language communication. The process of overgeneralization was seen to be responsible in Task 1 for 31 instances of error involving 11 items. The feature which was overgeneralized the most frequently was the use of the definite article. The feature which occasioned the greatest number of instances of error was the use of the plural marker. Overgeneralization was also present in task 3, where it may have been permitted to occur as a strategy of second language communication.

Here it is relevant to note the apparent contradiction of language transfer resulting on the one hand, in the absence of plural markers and the absence of articles, and overgeneralization resulting on the other, in the incorrect addition of plural markers. This is not surprising, because interlanguage is at the same time systematic and variable. It is quite possible for different processes to be at work at different times and with respect to different items of language.

In the language sample collected from the subject in Task 1 it can be seen that his overgeneralization of the plural S came about from his correct generalization that year takes an S when a number before it is greater than one (in this case 18 and 40). He failed to take account of the fact that the noun year can function in more than one way. He overgeneralized where year was in the environment of being an adjectival classifier. This does not mean that he overgeneralizes the use of plural markers on other occasions. It appears in fact, that he is more likely to

omit plural markers because of the presence of the process of language transfer.

Overgeneralization of the use of articles occurred on some occasions because the subject was trying to implement English rules about the use of articles, while on other occasions he omitted articles because they are not used at all in Mandarin.

The process of transfer of training was seen to be the possible underlying cause of 27 instances of error which occurred in 8 items in Task 1. This process may have been present together with other processes or strategies. So, the reception of compound sentences as simple sentences may have been the result of a teaching emphasis (and this was confirmed by the subject), but it may also have resulted from a learning strategy of simplification. The subject's long arm was /tɛntɛkɔv/, may have resulted from a teaching emphasis of S V O or S V C word order (again, confirmed by the subject), but also the word tentacles was unknown, and could not be interpreted by the subject using a learning strategy, as anything but a group of sounds. If he had been familiar with the word, he may well have interpreted the phrase differently. The overgeneralized use of the plural on year has been mentioned, and this process was seen by the subject to have been brought into play by the sorts of examples used in the teaching programme. His learning strategy of using acoustic information plus known vocabulary to interpret, had to be brought into play with respect to being, which he received as been, because his teaching programme had not made him

familiar with the use of being in the passive voice.

Transfer of training may also have had an effect on reception in Task 2. Reception of incorrect verb forms in this task may have resulted from learning strategies which came into being because of transfer of training. Errors of tense occurred when the subject stuck to the simple past tense once he had begun in it and in the future, once he had changed to that. A teaching emphasis on consistency of tense may have been responsible for this.

The strategy of second language learning was seen to be in operation in the subject's performance of Task 2. However, it was also seen that it may have been in operation in the first task in a number of ways. Firstly, as mentioned above, the subject may have used the strategy of receiving language in simplified form. Secondly, he may have consciously employed as a learning strategy, the process of overgeneralization in, for example, his reception of nouns preceded by articles, as a sort of 'better to have too many than not enough' rule. Task 1 was particularly seen however, as one that occasioned the use of learning strategies with respect to the number of words which were unfamiliar to the subject. There were 68 instances of error involving 19 lexical items which were seen to have resulted from the subject's employment of strategies of second language learning.

His main strategy when faced with unfamiliar items was to make use of acoustic information plus his repertoire of English

vocabulary. In all cases except one (weather-wise heard as the weather of or the weather in) the resulting interpretations made no sense in context. It would seem that he had an overriding metacognitive learning strategy of selective attention: 'get the correct form at the expense of meaning'.

The second task was particularly designed to discover whether the subject used learning strategies in his reception of verb forms. The fact that none corresponded with the verb forms in the input, indicated that he had made use of learning strategies. That he did not even appear to attempt to make use of the verb forms in the input, seems to indicate the presence of another metacognitive learning strategy of selective attention here: 'make sense of the input apart from what form the verbs may have'. This strategy led not only to the reproduction of incorrect verb forms, but also to inaccurate comprehension (viz. that the first half of the weather forecast described past weather, rather than future weather).

Strategies of second language communication were seen to be in operation in the subject's reception of language in the third task. The errors which occurred in this task could be seen to result from the processes of language transfer or overgeneralization, but it seems that these were (possibly consciously) allowed to operate as a strategy, because the primary motivation was to communicate, not to achieve accuracy of form.

Strategies of second language communication were also possibly present in Task 1 as an unconscious carry over from the subject's using them so extensively in situations where the focus was on communication of meaning, not form.

The interlanguage of the subject which was revealed in his receptive behaviour was seen then to result from a considerable influence of the process of language transfer, to a lesser, but definite extent from the influence of the process of overgeneralization and from the process of transfer of training (which worked in conjunction with the process of overgeneralization and with learning strategies). It was also seen to result from metacognitive and cognitive learning strategies, and from communication strategies, especially when the primary focus was on the content words of a message.

The collection of data in spoken, written and read form was seen to strengthen the conclusion that the processes and strategies did underlie the subject's reception of language. In many cases, deviations from the target language norm occurred in more than one form, giving weight to the conclusion that an error rather than a mistake, had been made. It also helped to eliminate the testing of aspects of behaviour other than reception. It was seen that more errors occurred when the subject received spoken language than when he received written language, leading to the conclusion that the processes in question were in operation more frequently in spoken input than in written input. More of the spoken items (63) were in error than the written

items (50), as responses to the spoken input. This perhaps indicates that the subject takes more care in writing English than in speaking it.

With respect to the interlanguage of the subject, it is pertinent to note here, that it appears to be fossilized quite markedly at phonological, morphological and syntactic levels. This judgement is based on the results of the present study as well as the researcher's observations of the subject's language outside of the study. There is no intention to explore why this may be so, but the question arises as to whether one of the reasons could be that the subject seems to make much use of strategies of second language communication (strategy being defined by Selinker as: a process which is used in a planned way). This perhaps means that he allows processes such as language transfer and overgeneralization to take effect at times in addition to the times when they take effect without his allowing them to. The extent of fossilization in a speaker's interlanguage could thus be partly due to the extent of the presence of strategies of second language communication. This of course does not answer the question of why this speaker (or any other speaker with the same tendency) uses such strategies so extensively.

Part B

This part of the discussion is organized around the three objectives of the study.

Objective 1: To develop an observational methodology for the study of the processes and strategies underlying the receptive abilities of an interlanguage speaker.

On the basis of the definition of task as "an activity or action which is carried out as the result of processing or understanding language" (Richards, Platt & Weber, 1985, p.289) it was inferred that an appropriate methodology could focus on the nature of the completion of defined tasks. Since it is processes and strategies underlying the reception of the target language that is being examined, it is essential that the language to be processed in the tasks, is the target language (in this case, English). The carrying out of the tasks will require the subject to make use of his interlanguage system as he matches input of the target language against his own hypothesized rules.

The tasks may or may not require the use of the oral or written form of the interlanguage. They may only require a response to the target language, but that response must rest on the interlanguage system. The nature of the tasks is thus not constrained by anything but that they are based on input of

target language material and give evidence of the nature of the interlanguage in their completion.

Objective two: On the basis of the methodology devised, to analyse the speaker's interlanguage to determine whether or not the five processes and strategies proposed by Selinker as underlying the performance of interlanguage speakers (and demonstrated to be present in productive language behaviour) could be evidenced in his receptive behaviour.

Discussion of this objective will be organized around three issues. Firstly, the focus of the analysis is discussed. Secondly, the process of analysis is examined. Thirdly, in the light of these two issues, the adequacy of Selinker's attempt to describe basic processes is explored.

Focus of the analysis

The analysis in this study focussed on linguistic forms which were in error when compared with the target language norm. This focus was an attempt to approach Selinker's own, which he says is on "fossilizable phenomena" (1988b, p.28). These he describes as:

linguistic items, rules and subsystems which speakers of a particular native language will tend to keep in their interlanguage, no matter what the age of the learner, or amount of explanation and instruction he receives in the target language.

The word fossilizable indicates a potential, rather than an actual state. If an item is fossilizable this means that it can be fossilized. This perhaps makes Selinker's notion of little practical significance. To describe an item as fossilizable says nothing more than that it, like all other items, can become fossilized. Selinker presumably uses the word fossilizable rather than fossilized because of the difficulty of assigning the latter description to an item with any certainty. Even if a longitudinal study is made of the continued use of an item, it is not possible to declare that its use over any particular length of time is enough to class it as fossilized.

When an examination is made of the examples given by Selinker of fossilizable items (1988b, p.30-31), it can be seen that they are errors which occur at points in time in the interlanguage of different speakers. They are, like any items, fossilizable, and may in fact become fossilized for varying periods. The present study, focussing on errors, can then, equally well be said to be examining fossilizable phenomena. The potential for the errors to become fossilized is in fact neither here nor there to the investigation of processes and strategies which underlie them.

Why then does Selinker describe errors as fossilizable items? It seems that it is because of his view that errors very often do fossilize. He says (1988c, p78) he has a belief in "the

virtual inevitability of the adult's failure to achieve target language norms and the probable persistence of fossilized linguistic features as a permanent condition". As evidence of this he points to the emergence of new dialects (for example, Indian English) where fossilized interlanguage competences are the normal situation.

The more often an error is made, the more likely it is that it is being, or is already at that point in time, fossilized. However, what is important to this study is not whether the errors were or were not fossilized, but that their frequency of use showed evidence of a system in use (that is, an interlanguage system). In the present study, note was made of how often errors occurred.

Results of the the analysis of Task 1 show that 27 of the 31 items which evidenced language transfer were in error 50 -100% of the time, 8 of the 11 items resulting from overgeneralization were in error 50 -100% of the time, and all 8 of the instances resulting from transfer of training were in error 50 -100% of the time. 17 of the 19 instances of lexical error resulting from learning strategies were in error 50 -100% of the time. It is recognized that the number of instances of error was not great (10 instances being the highest and 1 instance being the lowest). 1 out of 2 instances of error would thus rate as 50%. The high percentage incidence is thus a little misleading and is not so significant as it would be with a large sample of instances. Nevertheless, a lot of deviations did occur more than once, many

times in more than one form (for example, spoken and written form), indicating that they were errors, not mistakes.

Task 2 did not allow for the repetition of the linguistic items being tested. However, the items were delivered after the subject had spent some time considering the form they required, and given in his considered opinion, as correct. Deviant forms were seen then, as errors, not slips.

Likewise, Task 3 did not allow for specific deviations to be repeated. All the types of deviations were, however, repetitions of the types seen in Tasks 1 and 2, indicating that here too, deviations were examples of systematic errors.

It is concluded that the focus of study in the present analysis was on the same sorts of items as Selinker refers to, namely systematic, fossilizable errors in an interlanguage.

Process of analysis

The process of analysis involved an identification of processes which were possible causes of error. The tentative nature of the identification needs to be emphasized. Reference has already been made to the difficulty of knowing which process underlies which item (p.42). Selinker himself asks (1988b, p.33) "Can we always unambiguously identify which of these processes our observable data is to be attributable to?" He answers, "Probably not".

The analysis indicated that there are three reasons for the identification of processes being difficult. The first is that any one error may result from more than one process/strategy. It has been shown (Discussion, Part A) that language transfer and overgeneralization can be communication strategies, that transfer of training can be responsible for overgeneralization and particular learning strategies, and that particular learning strategies may reinforce errors which result from transfer of training. In other words, the processes/strategies are perhaps not unambiguously separate in cognition.

The second reason for difficulty of identification lies in the fact that underlying processes cannot easily be discerned in observable data. This has been shown in the tentative analysis (Appendix C). Some identifications made by the researcher were declared incorrect by the subject.

The third reason lies in the fact that the subject may not be able to, or may choose not to report on what was actually going on in his brain during the carrying out of a task. In some instances where the subject was asked to respond to the researcher's identifications he said he was "uncertain". In other instances he may have guessed or consciously or unconsciously reported wrongly.

However, the fact that identification is difficult and that some identifications may be incorrect does not mean that the exercise is either impossible or worthless. The results from

this study, for example, showed that in the interlanguage of the subject concerned, language transfer was responsible for more errors than was overgeneralization. Unless the identifications were wrong in a great number of instances, this finding is unaffected.

Finally, the objective of the study was merely to determine whether the processes and strategies were present in the data. There was no expectation that it would be possible to "unambiguously identify" which of the processes the data was attributable to.

Adequacy of Selinker's proposal

In the light of the above discussion, there are some matters to be considered concerning Selinker's proposition (1988b, p.29) that the five processes are "central to second language learning".

Firstly, it is important to clarify that Selinker's contention that the five processes underlie fossilizable items, does not imply that their fossilizability is in any way the result of the processes being present. Neither does it imply that if the event of fossilization occurs, this is a result of the five processes. That event is the effect of other processes (not yet fully explained, but see Selinker 1988c) acting upon the five which Selinker says are central to second language learning.

Secondly, it needs to be reiterated that there may be other processes which underlie fossilizable items. This study has not sought to look for other processes. On the one hand, there may be other processes underlying fossilizable items in production and reception, or, on the other hand, Selinker's five may be the basic ones underlying production, but others may underlie some aspects of reception. Ronowicz (1988,p.83) for example, in a two year study analysing the initial stages of phoneme acquisition, says concerning the influence of native language phonemes on the phonemes in an interlanguage, that this influence has been "found to be a minor factor in foreign speech perception altogether and a serious factor in foreign speech production only". There could be a difference then, between production and reception, with respect to the centrality of the processes in some elements of second language learning.

Thirdly, the five processes (or some of them) could be central not only in underlying fossilizable items, which are in error but in underlying the interlanguage speaker's reception and production of correct target language forms. Language transfer can be positive and can result in correct target language forms; learning strategies can certainly do so, although Selinker's focus on errors means that those which can, are ignored; communication strategies, of the type referred to by researchers other than Selinker, can result in correct forms. The present study has not sought to discover whether the processes underlie more of interlanguage than just fossilizable items which are in error.

Fourthly, and related to the fact that the processes may underlie correct as well as incorrect language, is Selinker's contention (1988b, p. 29) that "each process forces fossilizable material upon surface interlanguage utterances". As has been pointed out, the word fossilizable does not appear to say anything of practical significance about linguistic material. Perhaps Selinker's meaning is, 'each process forces fossilizable material which is in error and which is likely to be fossilized, upon surface interlanguage utterances'. If this is his meaning, then the evidence does not support it.

With respect to language transfer, this is clearly not the case. Selinker himself describes non error resulting from language transfer (1988a, p 23). Overgeneralization will force incorrect structures upon surface utterances, in that the word overgeneralization implies 'incorrect generalization'. With respect to transfer of training, learning strategies and communication strategies, Selinker's argument seems to be circular. He operationally defines these three as processes which result in incorrect structures. If they are so defined, then it will automatically be true that they will force incorrect structures upon surface interlanguage utterances. It has been noted that other researchers have seen learning strategies and communication strategies somewhat differently, resulting in correct target language forms in the former case and correct, or at least not incorrect (as in the case of paraphrase or circumlocution) forms in the latter. It would seem more accurate to say that the five processes can force fossilizable material which is in error upon surface utterances.

Fifthly, there is the question of whether Selinker's description of the five processes as separate entities is an accurate representation of what exists in cognition. Some indication of their fluid and co-operative nature would perhaps bring the description closer to what seems to be the situation.

Finally, if the five processes / strategies do underlie reception (and they appear to do so at least in the interlanguage of the subject in this study), then this may give insight as to one of the reasons why fossilization in interlanguage production occurs. If a learner receives input incorrectly, then it is not surprising that he produces it incorrectly. It may be that the processes / strategies transform target language forms into interlanguage forms as they are received, rather than as they are produced. This study indicates that deviation from target language norms can occur further back than at the production stage.

Objective three: To determine the effectiveness with which the particular tasks devised for this study reveal the processes and strategies which Selinker describes.

All the tasks required the subject to reproduce target language input. Deviations from that input in the reproduction, gave indication that at those points, one or more of the processes may have been present. The tasks were effective then, in pinpointing areas of reception which required analysis.

The first task required the subject to process the input word by word, which meant that there were as many instances as there were words, where the underlying processes could potentially have been observed. This task was seen to be effective in revealing the processes of language transfer, overgeneralization and transfer of training, which it was designed to do, as well as metacognitive strategies and cognitive strategies of second language learning. The employment of such strategies was not surprising as there were a number of words which were new to the subject. Also, the need to segment the input into separate words meant that sometimes, as the subject put into operation his learning strategy of 'attend to form before meaning' and 'rely heavily on acoustic rather than syntactic information', he segmented wrongly, receiving for example, softden for soft and; and not could for local. So, a task which requires the subject to segment the input himself, to focus his attention equally on every word, and which is slightly above his proficiency level in terms of content words, appears to reveal underlying processes of language transfer, overgeneralization, transfer of training, and the strategy of second language learning.

Although the first task was not designed to reveal the presence of strategies of second language communication, it has been mentioned that these were also perhaps in operation at some points. If this were the case in the first task, it is an indication of how great is the influence of these strategies in interlanguage. One would expect their presence where

communication was the primary focus, but here, as the subject was aware, the focus was on accurate representation of each word. The use of the strategy may become a habit which is sometimes used inappropriately.

The second task was seen to be effective in revealing strategies of second language learning at the morphological level. The task required the subject to focus specifically on the input of verb forms. The resulting worksheet revealed that the input had no effect on the way the subject received the forms. He put into operation strategies of second language learning, and these overrode the input.

The third task was seen to be effective in making the subject focus on communication, and hence to use strategies of second language communication. As he confirmed in his self report observation, he had seen the accuracy of description as being all important, over-riding in this task, the importance of accurate grammar. This task could perhaps have been made more communicative, with a third person, who had not been told that the description was of an octopus, taking notes or drawing and using the information to discover the subject of the description.

In summary, the tasks did reveal the particular processes and strategies they were designed to reveal, but they also revealed others of the five which they were not designed to reveal.

VIII Conclusions

The findings of the study, in terms of the objectives, are as follows:

1. Processes and strategies underlying the receptive ability of the interlanguage speaker could be detected through the use of a task based methodology using target language input.
2. The five processes and strategies proposed by Selinker as underlying the performance of interlanguage speakers (and demonstrated to be true of productive language behaviour) were found to underlie the receptive language behaviour of the subject.
3. The specific tasks selected for this study were effective in revealing the presence of the five processes and strategies described by Selinker.

Implications

The first finding of the study implies that it is possible to study reception in second language learning, so long as the language output of a learner is a direct result of his processing of input.

The second finding implies that interlingual identifications take place within a psychological structure which is activated not only, as Selinker says (1988b, p.27) "whenever they (learners) attempt to produce a sentence in a second language", but also when they receive a sentence in a second language. This means that when production rests on reception (and it does not always do so) an interlingual identification has already been made. In this case an error in production may be traced back to an error in reception. The production may be a duplication of what has been received.

The second finding also implies that as the same processes and strategies underlie both production and reception, the same surface structures with respect to any particular target language item are likely to be received as they are produced. Where this is the case the structures may be reciprocally reinforced by reception and production. Where the processes result in a particular item being received in error, this will reinforce the processes which tend to produce the same error. Where an item is produced in error and it meets with positive feedback or communicative success, then this may reinforce the processes which operate so that it is received as error.

This reciprocal reinforcement could be seen as one of the sources of fossilization. Selinker (1988c, p.80) points out that there is still much to learn about its sources. He says:

it is our belief that no single ontological factor, neither feedback or communicative success, nor acculturation into the target society, nor maturational stage...in and of

itself could possibly account for more than very limited aspects of fossilization in attempted target language learning.

It is possible that the ongoing reinforcement of errors in reception and production could work together with these factors to bring about fossilization.

Applications

The implication from the findings that the same processes underlie both reception and production has application to foreign and second language teaching in the areas of teacher preparation and in syllabus design.

Teacher preparation

Teacher preparation in recent years has included significant focus on the learner - what sort of person he is, why he learns and how he learns. This study adds to the knowledge of how the learner learns. It means in practice, that there can be a shift in focus by the teacher, from the response he wants the learner to make, to the response the learner actually does make. With respect to receptive skills, it means a probing behind misinterpretations to the processes which may have caused them. With respect to productive skills, it means an examination of reception on which the production may have rested. It means the teacher is equipped to show the learner what may underlie his errors and thus to give him more control over his own learning.

Syllabus design

If, as Selinker claims regarding fossilization, (1988c, p.81) "there appear to be many cases when individual learners have clearly had sufficient opportunity to use and practise the target language in communicative interactions and nevertheless have persisted with an interlanguage fossilized far from the target language norms", then conscious attempts to help learners de-fossilize may be in order. Such attempts would need to focus on those factors which could be controlled with respect to sources of fossilization. The reciprocal reinforcement of errors in production and reception is a factor which could be controlled to some extent. Tasks which force the learner to place equal emphasis on the monitoring, correcting and revising of both productive and receptive skills with respect to form should assist him to check at least this influence on his language.

Suggestions for further research

The present study suggests many directions for further research. These include the study of:

1. Other processes which may underlie the presence of fossilizable items in production and reception
2. The differences between the extent of influence of the processes on fossilizable items in production and in reception

3. The extent to which the five processes underlie correct language production and reception
4. The extent to which the five processes "force fossilizable material (which is in error) upon surface interlanguage utterances" (Selinker 1988b, p.29) compared with the extent to which they result in correct target language utterances.
5. The relationships between the five processes and strategies
6. The situations in which an interlanguage speaker uses strategies of second language learning and second language communication (as Selinker defines them), resulting in error in form
7. The level of language (phonological, morphological, syntactic, semantic) at which interlanguage speakers use strategies of second language communication (as Selinker defines them), and the situations in which they choose to use such strategies at particular levels
8. The effect on native language speakers when interlanguage speakers employ strategies of second language communication (as Selinker defines them)
9. Situations in which interlanguage speakers have judged wrongly that they could safely employ strategies of second language communication and where miscommunication has occurred as a result

10. Whether the extent of fossilization in a learner's interlanguage is affected by the extent of the presence of strategies (that is, planned use of processes)

11. Practical measures which teachers could use to counteract fossilization in reception - the designing of tasks to help learners recognise and deal with fossilization

Summary

This study has focussed on the receptive abilities of an interlanguage speaker, and found that underlying them are five processes and strategies: the processes of language transfer, overgeneralization and transfer of training and the strategies of second language learning and second language communication. This implies that interlingual identifications which occur in the brain do so as the learner receives language as well as when he produces it. The fact that an error in production may occur because an item has been received in incorrect form indicates the important role which reception has in second language learning. It also appears that interlanguage forms are likely to be reinforced by the reciprocal influence of reception and production. Both the theoretical findings and their practical applications suggest that the study makes a significant addition to the understanding of second language learning.

Appendix A
Description of tasks

Task 1

Listen to the whole text. Then listen to it section by section and repeat out loud each section. You may listen to a section more than once. When you have repeated a section orally, write it down. You may think out loud if you want to, about what you are going to say and write. Finally, read the copy of the text you have just listened to.

Text A

Line

1 An octopus appears to be just a huge head with eight long,
2 fearful arms. Its head is soft and rubberlike. Its eyes
3 stick out on stalks so that it can see in all directions.
4 Its mouth is on the underside of its body and has powerful
5 jaws shaped like a beak. The long arms, or tentacles, have
6 double rows of suckers. These can fasten on to objects with
7 such suction that they cannot be pulled off.

Text B

Line

1 A forty year old fisherman has died after being swept off
2 the rocks at Malabar this afternoon. He and an eighteen
3 year old were both swept into the sea. The eighteen year
4 old struggled to safety, but the older man died being
5 airlifted from the water to the Prince Henry Hospital.
6 Weatherwise for Sydney: continuing mild to warm conditions.
7 Cloudy at times. Local overnight fogs inland. The
8 predicted temperature ranges: 17-26 near the coast; 15-29
9 inland. Currently it's 25 degrees. Further outlook, sunny
10 and warm.

Task 2

Listen as I read this text. On the worksheet, fill in the verb forms as they were used in the text.

Text B (modified to contain full sentences)

A forty year old fisherman has died after being swept off the rocks at Malabar this afternoon. He and an eighteen year old were both swept into the sea. The eighteen year old struggled to safety, but the older man died being airlifted from the water to the Prince Henry Hospital. Weatherwise for Sydney: We'll have continuing mild to warm conditions. It will be cloudy at times. There'll be local overnight fogs inland. The predicted temperature ranges are: 17-26 near the coast; 15-29 inland. Currently it's 25 degrees. Further outlook is for sunny and warm weather

Worksheet

A forty year old fisherman _____(die) after _____ (sweep) off the rocks at Malabar this afternoon. He and an eighteen year old _____(sweep) into the sea. The eighteen year old _____(struggle) to safety, but the older man _____(die) _____(airlifted) from the water to the Prince Henry Hospital.

Weatherwise for Sydney: We _____(have) continuing mild to warm conditions. It _____(be) cloudy at times. There _____(be) local overnight fogs inland. The predicted temperature ranges _____(be):17-26 near the coast: 15-29 inland. Currently it _____(be) 25 degrees. Further outlook _____(be) for sunny and warm conditions.

Task 3

First listen to and read the text. Concentrate on the details of description. Now use those details to describe an octopus so that a person who had never seen an octopus would know what one was like. It is important that you describe it correctly. Use only the information from the text. Before you listen, look at these word meanings. They may help you to give a better description.

fearful: unpleasant, frightening looking

stalk: like a long stick (usually on a plant)

jaws: the part of the face below the mouth

beak: the hard pointed part of a bird's mouth which it uses
for picking up food

tentacles: the word used for octopus "arms"

fasten: to join

suction: the process by which two things are joined together when
the air between them is sucked out

Describe these parts of the octopus:

HEAD, ARMS, EYES, MOUTH, JAWS, SUCKERS

Text A

An octopus appears to be just a huge head with eight long, fearful arms. Its head is soft and rubberlike. Its eyes stick out on stalks so that it can see in all directions. Its mouth is on the underside of its body and has powerful jaws shaped like a beak. The long arms, or tentacles, have double rows of suckers. These can fasten onto objects with such suction they cannot be pulled off.

Appendix B

Primary Data

Performance of Tasks

Transcript of performance of Task 1 - Oral reproduction of texts

(The underlined words are the subject's reproduction of the text.
His other words are his stream of consciousness thinking aloud,
or information or questions directed at the researcher

B: refers to the subject

K: refers to the researcher

Tape: refers to the tape recorded text)

B: (After listening to text A) Do I need to this I write it down?

K: Yeah. Before you write, just say what you're going to write.

B: Ah, the first things I want to write...

K: No, but ...You can't say it yet. You've got to listen.

B: Oh, yes. 5

K: And then, then say exactly what you think that is saying.

Don't worry.

Tape: An octopus appears to be j... 10

B: An octopus appears...What?

K: Well, write that much. (Pause. B writes.) Now...

B: Keep on going or rewind?

K: Yes, you might need to rewind it again, mightn't you?

'Cause you might not get, you might miss a couple of words 15
if you don't rewind it.

Tape: An octopus appears to be just a...

B: An octopus appears to be just....What is it next?

Tape: An octopus appears to be just a...

B: An octopus appear just....What is it next?

Tape: ...huge head with eight long, fearful arms.

B: ...huge head with eight long fear arms. And er the first
bit I mix up two word, here. 5

K: Right, well maybe you, do you want to go back?

B: Oh yeah. Can I write it down first, those things?

K: Yes, right.

B: (writing) Er with huge head...with...eight long...eight
long arms. 10

Tape: An octopus-----huge head...

B: ...appear is just huge head (writing) huge head

K: Mm hm

B: Huge head, or something

K: Oh, well do you want to listen...er you seem to have that 15
bit.

B: Yeah, but the first bit, I when I was listen is...octopus
appear is just huge head.

K: You'd better listen again do you think?

B: Yeah 20

Tape: An octopus appears to be just a huge head...

B: To just be huge head...to just be huge head. But here have
got, is talking about huge head. (He has written "with huge
head" twice, and indicates this.

K: Well, keep listening. 25

Tape: ...eight long, fearful arms. Its head is soft and
rubber-like...

B: (writing) Its head sof-ten (/soften) soften soften d - den,

sofden I think.

K: Make sure I can read it. It's O.K. I can read that I think.

B: Is it all right?

K: Yeah

B: But there's lots of mistakes I think.

K: That's all right.

5

B: To just huge head. This bit I can't...

K: Well listen to that again if you want.

Tape: An octopus-----long, fear...

B: Double! (Realizes he has written **with huge head** twice.)

K Mm

10

B: With just, ah no, appear with, just with, eh, with just
huge head and...with or not? Do it again.

Tape: An octopus-----arms

B: Feet, feet long arm.

Tape: Its head is soft and rubberlike..

15

B: Sof ten / rɒvlar/

K: O.K.

B: /rɒv.../ I don't know how to spell /rɒvlar/

K: Doesn't matter about the spelling very much.

B: Be...I say is correct, or not?

20

K: Er, well um, I don't want to say whether it's correct or
not. But you just er, it doesn't matter very much about
the spelling. If you have got what you think the word is,
just spell it however you think is best.

B: All right.

25

Tape: An octopus -----its eyes...

B: Rubber, rubber like

K: O.K. Can you just tell me what what's this bit you've got here?

B: (reading) With eight long feet arms.

K: Right, just so I know what you're writing. (reading) eight long.... O.K. 5

B: (spelling) f e e t, feet

K: O.K. that's what you've written. Make sure I know, just er can see what it is. I got it. Right. O.K. O.K. Keep going then.

B: Just listen a little bit. 10

K: O.K.

Tape: Just a huge-----see in...

K: Now can you say what you're going to write?

B: Oh sorry, er, His eyes stick up on the stock.

K: O.K. 15

B: Stock. That's what I think

K: Right

B: (indistinct)...little bit ...(rewinding)

Tape: fearful arms-----directions...

B: It can see in all direction (writing) Sorry. It can see 20
in all direction, directions

K: Mm hm

B: This one er this one is rubberlike. Don't know how to spell.

K: Yeah, I got that.

B: Er rubberlike 25

K: (spelling) l i k e

B: Yeah

K: O.K.

B: It sound like it.

K: Right

Tape: ...huge-----directions

B: ...in all directions, in all directions. Yeah

K: Mm hm

5

B: A little bit ...(rewinding)

Tape: ...out on stalks-----body.

B: I can't, I can't heard the two word in front, I mean the
beginning the sentence, these two word.

K: Right

10

B: Better again I think

Tape: Rubberlike-----mouth is on the...

B: It's in love... Er don't think...It's must mean enough.

(Writing) is enough

Tape: ...eight long-----body

15

B: (indistinct - talking to self)

Tape: ..head is soft-----body

B: Underl.....I heard the last bit. Underlies his bodies

K: Right, well write down what you, that part.

B: (Writing) underlie his body

20

Tape: Its head-----body

B: Underside his body, underside his body, (writing) his body,

(spelling) d y

Tape: ...has powerful-----shaped like a...

K: Can I just ask you what that word is?

25

B: Underside

K: Oh yes, I see, right. Yes

B: Is it correct?

K: Yep.

B: Underside. Positive or negative?

K: (laughs)

Tape: ...Arms-----jaws...

B: It has a powerful /dʒɒdʒ/, power, it has a powerful 5
/dʒɒdʒ/, /dʒɒdʒ/.

Tape: On stalks-----beak

B: /dʒɒdʒ/, /fer laɪ bit / Er this one, what's this word?
/dʒɒdʒ/, /dʒɒdʒ/ It has a powerful.... /dʒɒdʒ/.

Tape: Its eyes-----beak... 10

B: /fer laɪ bi:/. Last word, I can't spell that.

K: Doesn't matter

Tape: The long-----doub...

B: The long arm was, was /tɛntəkɒʊ/ (writing) The long

K: That's it. Oh you pressed... 15

Tape: Suckers-----off...

K: That's the end of it, so you haven't gone far enough back.

B: Oh

K: You were pressing something else.

Tape: Eyes---double.... 20

B: Was /tɛntəkɒʊ/... (writing) tenteko, tenteko, I'm not sure
how to spell...

K: Mm hm

Tape: Its mouth-----suckers...

B: Double O suckers 25

Tape: Its mouth-----with su...

B: It can sucks, of the object (indistinct) I miss one word here

K: Oh

B: I think

K: Missed a word? It's very hard isn't it? Pretty difficult.

(B, rewinding) Is it going back? Sometimes it, gets stuck.

I think it gets stuck.

Tape: Its mouth-----off...

5

K: That's it.

B: Ah, It have the double O sucks, double O

Tape: ...underside-----object...

B: It can sucks all of object...

K: Mm

10

Tape: Beak-----off

B: Last bit.

Tape: ...mouth-----suction

B: Such /sɛsən/, such with such section. It's very similar

those two word. Sections

15

K: Right

B: Those three words

K: That's right

B: Its mix up S S

K: Yes. Too many S's

20

B: Yeah. Listen again.

Tape: Jaws-----off

B: They cannot be, they cannot be pull off. I think somewhere

have got one word.

K: Right.

25

B: This one again (tape gets stuck). I think it's not the
power's problem.

K: Maybe it's the tape recorder's problem, is it?

B: Yep

K: Oh that's it.

Tape: ...Its head-----off...

B: Such section Yeah I think...Can I check it over again? 5

K: Yeah. Listen to the whole thing.

(The subject listened to Text B. The researcher gave an introductory explanation that the recording was of a newsreader, giving some news)

B: I think it's introduction is in the newsreader say in this afternoon 40 years, 40 years old man die in th, I think it's the river with the 18 years old s...I think it's his child or something and er 18 years old, that guy or that girl is 10 was saved. And after that the reporter ah tell every...I mean tell people about the weather and er something about inland and 15-20 degrees or something like that.

K: Mm. Right. O.K.

B: That's what I think. 15

K: Mm, good. That's right. O.K. Now see if you can write down what it says.

Tape: A -----has died...

B: A 40 years old fisherman (writing) die.

Tape: After-----at Mala... 20

B; I ran out (?) here but I can't...

K: Yeah, missed the next word.

Tape: A 40-----at...

B: Has died, has been /farnət/ or something, in the rock, in rock. I think I listen again.

Tape: A 40-----at...

B: After been /swət/ off, /swət/ off, /swət/ off, yeah

Tape: A 40-----afternoon

5

K: Um O.K. What, what's this bit? After...?

B: Been. I can't realize this word, what is this word.

K: Oh, right.

B: It must be some word like...ah...some word like...we search or something.

10

K: Mm. Well just...

Tape: A 40-----after being...

B: /swət/ of the rock, /swət/, the rock

K: Mm

Tape: At Malabar this afternoon...

15

B: In /æləbə:/ I dunno how it...

K: Mm, it's the name of a place. It doesn't matter much.

B: /ænəbə:/ (writing) Annebay.

K: Right

Tape: He-----sea..

20

K: I think you missed a bit.

Tape: ...fisherman-----18 year old

B: This afternoon, er is it, you can read it, or not?

K: Yeah.

B: He and, he and something, 18 years old. I just write it 25 down first.

K: Right.

B: A little bit.

K: Yeah

B: A little bit.

K: Woo!

B: Yeah.

Tape: A-----sea...

5

B: /pɜswæt/ into the sea, /pɜswæt/ (writing) preswet) Ah.

K: What do you think that means?

B: Go to the sea, I mean go go to sailing or something with his girl.

K: Oh I see. Right. So that's the meaning of s...what you've got here. Right. 10

B: /pɜswæt/ to the sea. Go to the sea I think. Must be go.

K: Right.

Tape: The 18-----safety.

B: Er the 18 years old was safe 15

Tape: ...swept-----Prince...

B: The old man was die from.. I miss one word here. Miss one word.

K: Oh

Tape: He and an 18-----struggled to safe... 20

B: /strʌɡoʊ /safe...this word /strʌɡoʊ /, /strʌɡoʊ /,

K: Mm, what does that mean?

B: Because er its mean, this 18 years old was save.

K: Uh huh.

B: /strʌɡoʊ / 25

Tape: The older-----water

B: They (indistinct) from water

K: Mm

Tape: ...were both-----water...

B: /ɛli:bi:/ I still can't understand one word. Is it just
pass, or...cause I can't ...get clearly about.

K: Um, you can't get that word. All right. Well just do that,
that's... 5

Tape: ...Prince-----hospital...

B: Princess /ɛ ri:/ hospital, something hospital here.

K: O.K. sorry, you've done that, hospital. What's this word
here?

B: Water 10

K: Water, oh right. I'll just do that. (writing water more
clearly) O.K. Mm hm.

Tape: ...18 year old struggled -----hospital...

B: Prince /ɛ ri:/ hospital

K: Now let me just make sure. It's the old man, man yeah I 15
see, water in...

B: Princess Margaret Hospital, Margaret

K: Oh yeah. Just let me put that. Right. O.K. now the next..

B: The weather of Sydney

K: Right. 20

Tape: ...year old-----hospital...

B: Prince Henry, not Margaret. Prince Henry. Henry.

(Spelling) H u n...

K: All right

B: Oh, just forget it (referring to the spelling) 25

K: Yes, O.K. I know that.

Tape: Weatherwise...

B: Continue /marl/ and warm. /marl/

Tape: The older man-----cloudy

B: Conditon. I got /mail/

K: What does that mean, that word that you're writing, or
you're trying to write?

B: Er, continue warm and er something not very cold. Just 5
cool or something

K: Just cool. Right.

B: And er warm condition. And now, talking about inland.

Tape: ...died----times

B: Cloudy at times. I better go a little bit because 10

Tape:Continuing-----fogs

B: What? not could overnight caught? (writing) not could. My
chance to write it. Overnight cold (indistinct) overnight
cold

K: Mm hm. Right 15

Tape:Continuing -----inland...

B: Fogs, overnight fogs. That one outside you know sometime.

K: Yeah.

B: If you get up very early at morning and you see a fogs.

K: Right. 20

B: Fogs. How do I spell?

K: Well it doesn't matter how you spell it. Right. What does
this bit here mean? After you've got cloudy at times?

B: Er new sentence is, mean overnight would be, is it different
mean from this part, I mean from not could? Overnight 25
fogs

K: What do you think?

B: What do I think? What do I think is...

K: Oh well, don't worry.

J: Just listen again.

Tape: ...to the Prince-----END

B: Again the overnight. The name the name place (that is, not
could is the name of a place) and er the last place is 5
sunny. Wait a minute (indistinct). Sunshine is all right.
Sunshine, shine shine shine. Oh, just listen again

Tape: ...cloudy----coast...

B: Near the course. I don't know this one here. too big.

K: Yes, well perhaps you'd better, you won't fit it in there 10
Perhaps you'd better...

B: I forgot. What is it? Near, near the course.

K: Perhaps you'd better just start this bit, this sentence here,
because you're not going to fit that all in, are you, because
it was quite a bit. 15

B: A lot

Tape: ...to the Prince-----range...

B: /prɪdɪk/ temperature range (writing) /prɪdɪk/ temper er
/prɪdɪk/ temperature range 17 to 19.

K: Mm, and what's this word here though, that you just said? 20

B: /prɪdɪk/.

K: Right, what does that mean?

B: About, temperature. I mean /prɪd k/ er no exact, I mean, no
very exactly, temperature range is 17 to 19.

K: I see, right. 25

B: Was it near course or something? Near, near what?

Tape: ...Continuing-----coast

B: Near the course.

Tape: 15 to 29 inland----25 de...

B: 15 to 25 inland.

K: Near, near the what, near what?

B: Course, near the course.

K: What does that mean?

5

B: Near, I mean, near the city?

K: Uh huh. Just write down what you think it sounded like.

(He crosses out course and writes city). Oh, that's what
you think it means. Right.

Tape: ...further outlook-----warm...

10

B: Further outlook sunny and warm. Further outlook. I dunno
how do you spell further outlook. Was sunny, sunny, sunny
(writes sun)

K: Anyway, I know you mean sunny. Right. So that, that the
end?

15

B: I think so.

K: Want to listen to it all?

Tape: ...local-----ranges....

B: /prɪdɪk/

K: Just write what you, how you think it's spelled so I'll
know what you...

20

B: /prɪdɪk/, that's not /prɪdɪk/

K: Right, that, that's good enough

B: Temperature, er temperature I know.

K: Mm hm

25

Tape: ...near-----sunny...

B: One word, one temperature

K: Yes, right. You'd better listen to the bit after this,

do you think?

Tape: ...predicted-----25 degrees...

B: /kʌri:/

K: Just write that here (at the bottom) and we'll know it goes

up here (after inland) 5

B: /kʌri:/ is 25 degrees. I don't know how to spell this

word (currently)

K: What does that mean, that, this word? (currently)

B: Is it a place or...?

K: Ah, do you want to listen to it again? Just that word? 10

B: Yeah

Tape: ...local-----25 degrees...

B: /kʌri:/, oh I can't remember

K: You haven't heard that one before?

B: Yep 15

K: O.K.

Tape: ...further outlook-----warm...

B: Further outlook is the, I mean next day is, next day was

sunshine. Further outlook was sunny and warm. And this

one I think twenty five degrees is the place. 20

K: O.K.

Written reproduction of texts - Task 1

Text A

A octopus appear with just huge head, ~~with huge head~~ with 8
~~feel~~ feet arms, It's head softenden rubberlike it eyes stick
up on the stock that ~~it~~ can see in all directions, it
~~enough~~ enough in underlight side his body it has a powerful
joge shark like bek The long arm was tenteko, have double 5
0 suckers. It can sucks of all of objects with such sections
~~not~~ can't be pull off

Text B

A forty years old fishman has died ~~had~~ after been swet in
Rock in Annebay this afternoon he and 18 years old preswet
into sea, The 18 yr old strgo safty. The old man was died 10
~~fre~~ been ____ from water in Prince Henry Hositbil The
weather ~~of~~ in Sydney. Conutinned mi and warm conditon,
couldy at times not could all over night caught cold fokes
innland ____ 17 - 19 15 -25
Predek tem- ranges 17 - 28 sun near ~~course~~ (city), 15 -29
inland Further ~~funth next day~~ outlike was sun and warm
____the place is 25

Reading reproduction of texts - Task 1

(The underlined words are the subject's reproduction of the texts. His other words are introspective comments or comments to the researcher)

Text A

An octopus appears to be just a huge head with eight
long fearful arms. Its head is soft and rubberlike. Its
eyes stuck up stuck up on the stalks so that it can be, it
can see in all direction. Its mouth is on the underside of
its body and has powerful jaws shaped like a /bri:/ like a 5
/bi:/. Long arms or tenta tentacles, tentacle tentacle have
double rows of the suckers. These can be /fa:stən/ on to
object with such section that they cannot be pulled off.

Text B

A forty years old fisherman has died after being swep
off the rocks on the (indistinct) this afternoon. He and 10
an eighteen years old were both swep into the sea. The
eighteen years old struggle - this struggled? Yeah,
struggled to safety but the older man die being air /laɪf/
this one I can't, from the water to the Princess Margaret,
Prince Henry Hospital. Weatherwise for Sydney: continuing 15
mild and warm, I know the meaning for this one. Conditions
/klaɪv/ at times /loʊkæ/ oh /loʊkæ/ overnight fogs inland.

The productive temperature range 17-29 near the coast, 15-29

inland. /kʌrən t li:/

K: Yeah. You know what that means?

B: Yeah. Exactly.

K: Oh, currently means exactly?

5

B: Yeah, exactly

K: Well, it really means now. Now it's 25 degrees.

B: Oh. Further outlook sunny and warm.

K: Yes. And what does this local mean?

B: Is it meaning like location?

10

K: Location?

B: Yep. Is it /lɒkæt/ is just the direction I think.

K: The direction of the fogs? O.K.

Performance of Task 2 - Written reproduction of verb forms

Text B

A forty year old fisherman dead (die) after swept (sweep) off the rocks at Malabar this afternoon. He and an eighteen year old sweepped (sweep) into the sea. The eighteen year old was struggled (struggle) to safety, but the older man was die (die) after airlift (airlift) from 5 the water to the Prince Henry Hospital.

Weatherwise for Sydney: We had got (have) continuing mild to warm conditions. It could be (be) cloudy at times. There was (be) local overnight fogs inland. The predicted temperature ranges will be (be): 17-26 near the coast; 10 15-29 inland. Currently it's going to be (be) 25 degrees. Further outlook should be (be) for sunny and warm conditions.

Transcript of performance of Task 3 - Oral reproduction of Text A

(This reproduction was for the purpose of communicating the content of the text.)

B: Um now I want to describe er the part of the octopus. The first thing I will describe is, head. The head um, about the head, it's got it had got a huge head and if you touch the head you can feel it is very soft and rubberlike. And when we looking when we are looking the arms they s...to 5 be ugly, like the fearful arms. And we see the next part, eyes, we can always see his, er its eyes stick up on the stalk and try to look all direction. And mouth is underside I mean, underside of octopus have got, is it suckers?

K: Um, the eyes? 10

B: No, mouth

K: No not the mouth I don't think

B: Oh right, so just underside of the octopus, octopus. And the jaw, jaws look like ah, a beak. And suckers. Next thing we talking about suckers. Er in the long arms er 15 every long arms they had got suckers and they can suck I mean if they want to stay on the stone they just use the long arm to suck on the stone. And if you if they want to call the fish or something else they can use suckers too, or arms.

Appendix C

Secondary Data

Subject's responses to tentative analysis of Task 1

Errors seen to result from overgeneralization

TEXT & LINE NO	TEXT	SUBJECT'S REPRODUCTION	AREA OF ERROR	SUBJECT'S RESPONSE
A1	An	A	form of indefinite article	Agreed
A3	on stalks	on the stalks	definite article	Agreed
A4	of	-	use of preposition	Agreed
A4	body	bodies	plural marker	No - misheard
A4	jaws	a /dʒɒdʒ/	definite article	No - thought /dʒɒdʒ/ was singular
A6	have double	have the double	definite article	Agreed
A6	can fasten	can sucks	third person singular affix	Agreed
A6	of suckers	of the suckers	definite article	Agreed
B1	40 year	40 years	plural marker	Agreed
B2	at Malabar	in on the Malabar	preposition of place	Agreed
B2	18 year	18 years	plural marker	Agreed
B4	died	was died	formation of past tense	Uncertain

B5 to the in preposition of
 place Agreed
 Errors seen to result from transfer of training

The subject agreed with all suggestions, as did the Chinese linguist informer. See Appendix D - Analysis.

Subject's self observation of Task 2 behaviour

LINE	TEXT	SUBJECT'S REPRODUCTION	SUBJECT'S SELF OBSERVATION
1	has died	dead	This is past tense because he die one time
1	being swept	swept	This is past tense
3	were swept	sweepped	Past tense - not sure how to spell it
4	struggled	was struggled	Past tense
5	died	was die	Past tense
7	will have	had got	This is talking about the time before the accident
8	will be	could be	Past tense - could indicates past
9	will be	was	Past tense
10	are	will be	Future
11	is	's going to be	Future
12	is	should be	Future

Subject's self observation of Task 3 behaviour

(Transcript of discussion)

K: Now when you were talking, you described it well, so that if someone who'd never seen an octopus listened to what you said, I think they would know what it looked like because you did describe it well...You did have some mistakes in the grammar that you used. Like you said, you started off talking in the present tense and then you said, it **had got**, and then you said, **the fearful**, and you hadn't said **fearful** before, so you used the definite article when we didn't really know what it referred to. Um, then you said, **it's eyes were stuck up on the stalk**. Well really there are two stalks for the two eyes, but you didn't put the **s** on. Now can you tell me why, when you were describing the octopus, you think you, you got all of the actual description right but you made some mistakes in the grammar?What's the thing that you're trying to do most correctly?

B: Describing

Appendix D

Data Analysis

Language transfer

Task 1

TEXT AND LINE NO.	TEXT	SUBJECT'S REPRODUCTION & INSTANCES OF ERROR	TRANSCRIPT PAGE AND LINE NUMBER	AREA OF ERROR
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(Under heading TRANSCRIPT PAGE AND LINE, S refers to spoken reproduction, W to written and R to reading.

Under heading INSTANCES OF ERROR, entry such as 6/7 indicates 6 instances of error out of 7 reproductions.)

A1	appears	appear 4/6	S85: 3 S85:12 S85:18 W100: 1	Morphological: Marking for person
A1	a	0 10/11	S85: 4 S85: 9 S85:12 S85:14 S85:22 (x2) S86: 6 S86:12 W99: 1	Syntactic: Articles
A2	is	0 2/3	S86: 1 W99: 2	Syntactic: Use of copula
A2	arms	arm 1/5	S86:14	Morphological: Marking for plurals
A2	rubberlike	/r vla / 2/6	S86:16 S86:18	Phonological: Final consonant
A2	its	his 1/3	S87:14	Morphological: Marking for gender

TEXT AND LINE NO.	TEXT	SUBJECT'S REPRODUCTION AND INSTANCES OF ERROR	TRANSCRIPT PAGE AND LINE NUMBER	gender AREA OF ERROR
A3	stalks	/stpk/ 2/4	S87:14 S87:16	Morphological: Marking for plurals
A3	directions	direction 3/7	S87:20 S87:21 R100:4	Morphological: Marking for plurals
A4	its	his 6/7	S88:18 S88:20 S88:22 (x3) W99: 4	Morphological: Marking for gender
A5	shaped	/fɛɪ/ 2/3	S89: 8 S89:11	Phonological: Final consonant
A5	beak	/bi:/ /bri:/ /bi:/ 3/4	S89:11 R100:5 R100:6	Phonological: Final consonant
A5	arms	arm 2/3	S89:14 W99: 5	Morphological: Marking for plurals
A6	objects	object 3/4	S89:27 S90: 9 R100:8	Morphological: Marking for plurals
A7	that	0 3/4	S90:23 (x2)	Syntactic: Subordinating conjunction
A7	pulled	pull 2/3	S90:23 S99: 7	Morphological: Marking for tense
B1	has died	die 1/3	S91:19	Morphological: Marking for aspect
B1	the rocks	the rock 5/6	S92: 1 (x2) S92:13 W99: 10	Morphological: Marking for plurals
B1	swept	/swɛt/ /swɛp/ 8/8	S92: 4 (x3) S92:13 (x3) W99: 8 R100:9	Phonological: Consonant cluster

TEXT AND LINE NO.	TEXT	SUBJECT'S REPRODUCTION AND INSTANCES OF ERROR	TRANSCRIPT PAGE AND LINE NUMBER	AREA OF ERROR
B2	the sea	sea 1/4	W99: 10	Syntactic: Articles
B4	older	old 2/3	S93:17 W99:10	Morphological: Suffixes for comparatives
B4	died	die 2/3	S93:17 R100:13	Morphological: Marking for tense
B5	the water	water 3/4	S93:27 S94: 9 W99:11	Syntactic: Articles
B5	the Prince Henry Hospital	Prince Henry Hospital 5/5	S94: 7 S94:14 S94:22 (x2) W99:11	Syntactic: Articles
B6	continuing	continue counutined 3/4	S94:28 S95: 5 W99:12	Morphological: Marking for aspect
B6	mild	/maɪl/ mi 3/4	S95:28 (x2) S95: 2 W99:12	Phonological: Consonant clusters
B6	conditions	condition 3/4	S95: 2 S95: 8 W99:12	Morphological: Marking for plurals
B7	local	/lɒkəl/ 2/2	R101:1	Phonological: Final consonant
B7	fogs	/fɒks/ (?) fokes 4/5	S95:17 (x2) S95:21 W99:13	Phonological: Final consonant
B7	predicted	/prɪdɪk/ predek productive 6/6	S96:18 (x2) S96:19 S96:21 W99:15 R101:2	Morphological/ Syntactic: Use of past participles as adjectives

TEXT AND LINE NO.	TEXT	SUBJECT'S REPRODUCTION AND INSTANCES OF ERROR	TRANSCRIPT PAGE AND LINE NUMBER	AREA OF ERROR
B8	ranges	range 3/4	S96:18 S96:19 R101:2	Morphological: Marking for plurals
B9	currently	/k ^h ri/ 3/4	S98: 3 S98: 6 S98:13	Phonological: Consonant clusters

Task 3

TRANSCRIPT PAGE AND LINE NO.	SUBJECT'S DEVIANT FORM	ERROR TYPE
103: 2	is 0 head	Article
103: 7	we can see the next part, eyes	Article
103: 8	stick up on the stalk	Plural marker
103: 8	all direction	Plural marker
103: 8	and mouth is	Article
103: 8	is underside	Article
103: 9	underside of octopus (x2)	Article
103: 9	have got	Person marker
103: 9	0 underside of the octopus	Article
103:18	the long arm	Plural marker

Overgeneralization

Task 1

TEXT AND LINE NUMBER	TEXT	SUBJECT'S REPRODUCTION AND INSTANCES OF ERROR	TRANSCRIPT PAGE AND LINE NUMBER	AREA OF ERROR
A1	An	A 1/3	W99: 1	Morphological: Indefinite article
A3	on stalks	on the stock on the stocks on the stalks 3/3	S87:14 W99: 3 R100:3	Syntactic: Definite article
A4	of	0 5/6	S88:18 S88:20 S88:22 (x2) W99: 4	Semantic: Use of preposition
A6	have double	have the double 1/3	S90: 7	Syntactic: Definite article
A6	of suckers	of the suckers 1/3	R100:7	Syntactic: Definite article
A6	these can fasten	it can sucks 3/3	S89:27 S90: 9 W99: 6	Morphological: Third person singular affix
B1	40 year	40 years 3/3	S91:19 W99: 8 R100:9	Morphological: Plural marker (See Transfer of training)
B2	at Malabar	in /ælə ba:/ in Annebay on the (?) 3/3	S92:15 W99: 9 R100:10	Semantic: Preposition of place
B2	18 year	18 years 6/6	S92:25 S93:15 S93:23 W99: 9 R100:11	Morphological: Plural marker (See Transfer of training)

TEXT AND LINE NO.	TEXT	SUBJECT'S REPRODUCTION AND INSTANCES OF ERROR	TRANSCRIPT PAGE AND LINE NUMBER	AREA OF ERROR
B4	died	was die was died 2/3	S93:17 W99:10	Morphological: Marking for past tense (See Learning strategies)
B5	to the	in 2/3	S94:14 W99:11	Semantic: Preposition of place

Task 3

TRANSCRIPT PAGE AND LINE NO.	SUBJECT'S DEVIANT TL FORM	AREA OF ERROR
103: 6	like the fearful arms	Syntactic: article
103:15	in the long arms	Semantic: preposition of place
103:16	every long arms	Morphological: plural marker

Transfer of training

Task 1

TEXT AND LINE NO.	TEXT	SUBJECT'S REPRODUCTION AND INSTANCES OF ERROR	TRANSCRIPT PAGE AND LINE NUMBER	POSSIBLE CAUSE OF ERROR
A3	so that	0 2/4	S87:20 S87:21	Simple sentences preferred
A4	and has	it has 4/5	S89: 5 (x2) S89: 9 W99: 4	Simple sentences preferred
A5	or tentacles	was /t nt ko / 5/6	S89:21 (x3) S89:22 W99: 5	Preferred word order: S V O or S V C, so that a verb & adjective would be expected after a noun
A7	that	0 3/4	S90:23 (x2) W99: 7	Subordinating conjunctions used infrequently
B1	40 year	40 years 3/3	S91:19 W99: 8 R 100:9	year not used as adjectival classifier
B3	18 year	18 years 6/6	S92:25 S93:15 W99: 9 W100:11 R100: 12 (x2)	
B1	being	been	S92: 4 S92: 7	Under emphasis on passive using
	being	been 4/6	W99: 8 W99:11	continuous form of to be (See Learning strategies)

Task 2: See Discussion, part A, page 59.

Strategies of Second Language Learning

Task 1

a) Lexical level

TEXT AND LINE NO.	TEXT	SUBJECT'S REPRODUCTION AND INSTANCES OF ERROR	TRANSCRIPT PAGE AND LINE NUMBER	POSSIBLE STRATEGY CAUSING ERROR
A2	fearful	feet 5/6	S86:14 (2) S87:3 S87:6 W99:2	Acoustic clues + collocation feet/arms
A2	soft and	/s ft n/ softden 6/7	S86: 1 (x4) S86:16 W99: 2	Acoustic clues + known vocabulary (See R100:7 for pronunciation of fasten)
A3	stalks	stock stocks 3/4	S87:14 S87:16 W99: 3	Acoustic clues + known vocabulary
A4	its mouth	it's in love enough it enough 4/5	S88:13 S88:13 S88:14 W99: 4	acoustic clues + known vocabulary
A4	jaws	/d dj/ 4/5	S89:6 S89:9 W99:5	Acoustic clues only
A5	tentacles	/t nt k / 5/6	S89:14 S89:21 (3) W99: 5	Acoustic clues only
A6	double rows	double O 4/5	S89:25 S90: 7 (x2) W99: 5	Acoustic clues + known vocabulary
A7	suction	section sections 5/5	S90:14 (x2) S90:15 W99: 6 R100:8	Acoustic clues + known vocabulary

TEXT AND LINE NO.	TEXT	SUBJECT'S REPRODUCTION AND INSTANCES OF ERROR	TRANSCRIPT PAGE AND LINE NUMBER	POSSIBLE STRATEGY CAUSING ERROR
B1	after being	after been 3/4	S92: 4 S92: 7 W99: 1	Acoustic clues + known vocabulary (See transfer of training)
B2	Malabar	/ l ba:/ Annebay	S92:16 W99: 9	Acoustic clues only
B3	both swept	/p sw t / preswet 3/4	S93: 6 S93:12 W99: 9	Acoustic clues only
B4	struggled	/str go / strgo 4/5	S93:21 (x3) S93:25 W99:13	Acoustic clues only
B6	weather- wise	the weather of the weather in 2/3	S94:19 W99:12	Acoustic clues + known vocabulary
B7	predicted	productive 1/5	R101:2	Acoustic clues + known vocabulary
B7	local	not could 3/4	S95:12 (x2) S95:25 W99:13	Acoustic clues + known vocabulary
B8	coast	course 7/8	S96: 9 S96:12 S96:26 S96:28 S97: 4 (x2) W99:15	Acoustic clues + known vocabulary
B9	currently	/k ri/ 3/4	S98; 3 S98: 6 S98:13	Acoustic clues only
B9	outlook	outlike 1/4	W99:16	Acoustic clues + known vocabulary

b) Syntactic level

(Possibly present together with transfer of training)

A3	so that	0	S87:20 S87:21	Strategy of simplification
A4	and has	it has	S89:5 (x2) S89:9 W99:4	

Task 2

LINE NO.	TEXT	SUBJECT'S REPRODUCTION	AREA OF ERROR	POSSIBLE STRATEGY CAUSING ERROR
1	has died	dead	Marking for aspect	Aspect makes no difference to meaning
1	being swept	swept	Marking for voice	Voice makes no difference to meaning
3	were swept	sweepped	Marking for voice	Voice makes no difference to meaning.
4	struggled	was struggled	Marking for tense	Past tense is formed by placing was before verb stem or stem plus affix
5	died	was die	Marking for tense	As above
5	being airlifted	airlift	Marking for voice	Voice makes no difference to meaning
7	will have	had got	Selection of tense	Use context if possible - new topic, therefore new time

LINE NO.	TEXT	SUBJECT'S REPRODUCTION	AREA OF ERROR	STRATEGY POSSIBLY CAUSING ERROR
8	will be	could be	Selection of tense	If context gives no clue to time, stay with same tense -i.e. past
9	will be	was	Selection of tense	As above
10	are	will be	Selection of tense	Use context - predict has future meaning, so time must be future and tense must indicate this
11	is	's going to be	Selection of tense	If context gives no clue to time, stay with same tense i.e. future
12	is	should be	Selection of tense	As above

Strategies of second language communication

Task 3

LINE	SUBJECT'S DEVIANT TL FORM	AREA OF ERROR	PROCESS WORKING WITH STRATEGY OF SECOND LANGUAGE COMMUNICATION
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(The strategy employed appears to be: when reception of content is the purpose of the task, attend primarily to this and ignore details of grammar.)

2	is 0 head	Syntactic: article	language transfer
3	it had got	Morphological: selection of tense	
6	the fearful arms	Syntactic: article	over- generalization
7	the next part, eyes	Syntactic: article	language transfer
8	up on the stalk	Morphological: plural marker	language transfer
8	all direction	Morphological: plural marker	language transfer
8	and mouth is	Syntactic: article	language transfer
8	is underside	Syntactic: article	language transfer
9	underside of octopus	Syntactic: article (x2)	language transfer
9	have got	Morphological: person marker	language transfer
13	underside of the octopus	Syntactic: Article	language transfer

LINE	SUBJECT'S DEVIANT TL FORM	AREA OF ERROR	PROCESS WORKING WITH STRATEGY
15	in the long arms	Semantic: preposition	over- generalization
16	every long arms	Morphological: plural marker	over- generalization
16	they had got	Morphological: selection of tense	
18	the long arm	Morphological: plural marker	language transfer

References

- Adjemian, C. (1976). On the nature of interlanguage systems. Language Learning, 26, 297-320.
- Anderson, J. (1978). An implication model for second language research. Language Learning, 28, 221-282.
- Bialystok, E. (1978). A theoretical model of second language learning. Language Learning, 28, 69-83.
- Bialystok, E. & Sharwood-Smith, M. (1985). Interlanguage is not state of mind: An evaluation of the construct for second language acquisition. Applied Linguistics, 6, (1), 101-117.
- Chaudron, C. (1988). Second language classrooms. Cambridge: Cambridge University Press.
- Chen, S. Q. (1988). A study of communication strategies in interlanguage production by EFL learners of English. Unpublished manuscript, Guangzhou Institute of Foreign Languages, Guangzhou.
- Chomsky, N. (1957). Syntactic structures. The Hague: Mouton.
- Corder, S.P. (1976). The study of interlanguage. Proceedings of the fourth International Congress of Applied Linguistics (pp. 9-34). Stuttgart: Hochschul Verlag.
- Davies, A., Criper, C. & Howatt, A. (Eds.). (1984). Interlanguage. Edinburgh: Edinburgh University Press.
- Dulay, H. & Burt, M. (1974). You can't learn without goofing. In J. Richards (Ed.), Error analysis: Perspectives on second language acquisition (pp. 95-123). London: Longman.
- Ellis, R. (1985). Sources of variability in interlanguage. Applied linguistics, 6, 118-131.
- Fakhri, A. (1984). The use of communicative strategies in narrative discourse: A case study of a learner of Moroccan Arabic as a second language. Language Learning, 34 (3), 39-68.
- Faerch, C & Kasper, G. (1983). Strategies in interlanguage communication. Essex: Longman.
- Faerch, C. & Kasper, G. (1987) Introspection in second language research. Clevedon: Multilingual Matters.
- Gass, S (1979). Language transfer and universal grammatical relations. Language Learning, 29 (2), 327-344.

- Gass, S. (1984). A review of interlanguage syntax: Language transfer and language universals. Language Learning, 34 (2), 15-132.
- Gass, S. (1988). Integrating research areas: A framework for second language studies. Applied Linguistics, 9, 198-217.
- Gumperz, J. (1984). In J. Baugh, & J. Sherzer (Eds.), Language in use: Readings in sociolinguistics (pp. 127-138). N.J: Prentice Hall.
- Hammerly, H. (1982). Synthesis in second language teaching: An introduction to linguistics. Washinton: Blaine.
- Hellgren, P. (1986). Thinking in a foreign language (Research Report 44). Helsinki: Helsinki University, Department of Education.
- Hyltenstam, K (1977). Implicational patterns in interlanguage syntax variation. Language Learning, 27, 383-411.
- Le Compagnon, B. (1984). Interference and overgeneralization in second language learning: The acquisition of English dative verbs by native speakers of French. Language Learning, 34, 39-68.
- Littlewood, W. (1984). Foreign and second language learning: Language acquisition research and its implications for the classroom. Cambridge: Cambridge University Press.
- McDonough, S. (1981). Psychology in foreign language teaching. London: George Allen & Unwin.
- McLaughlin, B: (1987). Theories of second language learning. London: Edward Arnold.
- Oller, J. & Richards, J. (1973). Focus on the learner: Pragmatic perspectives for the language teacher. Mass: Newbury House.
- Richards, J. (Ed.). (1974). Error analysis: Perspectives on second language acquisition. London: Longman.
- Richards, J., Platt, J. & Weber, H. (1985). Longman dictionary of applied linguistics. London: Longman.
- Ronowicz, E. (1988). Factors influencing the initial stages of foreign language phoneme acquisition. In Australian Review of Linguistics, 11, (1), 83-103.
- Rutherford, W. (1984). Description and explanation in IL syntax: State of the art. Language Learning, 34, (3), 127-156.

- Sajavaara, K. (1986). Transfer and second language speech processing. In E. Kellerman & M. Sharwood-Smith, Cross linguistic influence in second language acquisition (pp. 66-79). New York: Pergamon.
- Schumann, J. (1976). Second language acquisition: the pidginization hypothesis. Language Learning, 26(2), 391-408.
- Selinker, L. (1972). Interlanguage. In International Review of Applied Linguistics, 10, 3, 209-231
- Selinker, L. (1988). Papers in interlanguage. Occasional Papers No 44, Singapore: SEAMEO Regional Language Centre.
- Selinker, L. (1988a). Language transfer. In Papers in interlanguage (pp. 6-24). Occasional Papers No.44, Singapore: SEAMEO Regional Language Centre.
- Selinker, L. (1988b). Interlanguage. In Papers in interlanguage (pp. 25-36). Occasional Papers No 44, Singapore: SEAMEO Regional Language Centre.
- Selinker, L. (1988c). Two perspectives on fossilization in interlanguage learning. In Papers in interlanguage (pp. 76-95). Occasional Papers No 44, Singapore: SEAMEO Regional Language Centre.
- Sharwood Smith, M. (1979). Strategies, language transfer and the simulation of the second language learner's mental operations. Language Learning, 29, 345-362.
- Tarone, W. (1979). Interlanguage as Chamelon. Language Learning, 29, 181-191.
- Tarone, E. (1983). On the variability of interlanguage systems. Applied Linguistics, 4, 142-63.
- Voss, B. (1984). Slips of the ear: investigations into the speech perception behaviour of German speakers of English. Tübingen: Gunter Narr Verlag.
- Wenden, A. & Rubin, J. (1987). Learner strategies in language learning. New Jersey: Prentice Hall International.