A STUDY OF THE ACQUISITION OF CONNOTATIVE MEANING
BY JAPANESE SPEAKERS OF ENGLISH

by

RICHARD JOSEPH MARSHALL

B.A., The University of British Columbia, 1975
Dip. App. Ling., The University of British Columbia, 1984

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Department of LANGUAGE EDUCATION

The University of British Columbia
Vancouver, Canada

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ABSTRACT

A Study of the Acquisition of Connotative Meaning by
Japanese Speakers of English
by
Richard Joseph Marshall

The purpose of this study was to discover how well
adult Japanese speakers of English had acquired the
connotative meanings of 39 selected English animal, bird and
colour terms.

Seventy subjects from Iwate Prefecture in northern
Japan were given three elicitation instruments to complete.
On one instrument each subject stated what they believed the
connotative meanings of the terms are. On the other two
instruments the subjects selected from the choices given the
choice which best conveyed the connotative meanings of the
terms.

Among the more noteworthy findings are: 1. The
subjects had acquired very few connotative meanings of the
39 terms. 2. The number of connotative meanings the
subjects had acquired varied with semantic field. 3. Older
subjects and those who had studied English longer or had
resided in an English speaking country had acquired more
connotative meanings. 4. Male and female subjects had
acquired the same number of connotative meanings. 5. There
were inconclusive indications that the subjects transferred
connotative meanings from Japanese to English and that
context helped the subjects to select the connotative meanings of the selected terms.

The major implication of the findings is that unless Japanese speakers of English are explicitly taught connotative meanings there is little likelihood they will acquire many connotative meanings. Therefore it was concluded that efforts must be made to teach Japanese speakers of English connotative meanings.
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CHAPTER ONE
INTRODUCTION

THE PROBLEM:

Second language learners (SLL) find words used with connotative meanings difficult to understand. Native speakers (NS), however, experience little difficulty understanding words when they are used with connotative meanings. NSs possess lexical knowledge which enables them to process words which are used connotatively. Thus NSs are able to understand words used connotatively. SLLs, since they often do not possess the requisite lexical knowledge, experience difficulty understanding words used connotatively. This is a serious problem for SLLs as NSs use words connotatively extensively in normal everyday conversation.

THE NEED FOR THE STUDY:

Virtually no research on the acquisition of the connotative meaning of English words by SLLs has been conducted. Hence very little is known, for example, on when SLLs begin to acquire connotative meanings; on the order in which they acquire connotative meanings; about which connotative meanings it would be most useful for them to know; about how lack of knowledge of connotative meanings can cause SLLs problems or about the lexical items of which they know the connotative meanings. It would be useful for second language teachers (SLT) to know these things. If they knew these things, they would possess knowledge which would enable them to prepare their students more adequately
for life in the English speaking world.

AN OUTLINE OF THE STUDY:

This study was designed to reveal the extent to which adult Japanese speakers of English (JSE) had acquired the connotative meanings of 39 English animal, bird and colour terms. The subjects were required to complete one of three sets of elicitation instruments in which the 39 terms were stimulus prompts. Each set of elicitation instruments was divided into three sections. In the first section the subjects were required to state what they believed the connotative meanings of the 13 terms from one of three semantic fields noted above were. In the second section the subjects were required to select which of the one word definitions which accompanied the 13 terms from one of the other two semantic fields conveyed the connotative meanings of the terms. In the third section the subjects were required to select which of the explanatory sentences which accompanied the 13 terms from the remaining semantic field conveyed the connotative meanings of the terms.

RATIONALE AND HYPOTHESES:

Researchers in education often analyse data across a number of variables. Among these variables are age, gender, amount of education, variations in the task etc. (Borg and Gall, 1983 ch.13). Second Language Acquisition (SLA) researchers often analyse data on SLLs on the basis of the length of time they spent in formal second language study, the frequency they use the second language, the length of
time they spent in a native speaking environment etc. (Gass and Selinker, 1983; Littlewood, 1984). The hypotheses in this study are formulated in terms of such variables. They are also based on the fact SLLs, particularly with regard to phonology and vocabulary, may transfer native language forms to the second language (Klein, 1986 p.27).

**INTERFERENCE HYPOTHESIS:** JSEs shall not transfer connotative meanings from Japanese to English.

**INSTRUMENT HYPOTHESIS:** There shall be no differences in JSE scores due to type of elicitation instrument.

**CONTEXT HYPOTHESIS:** There shall be no differences in JSE scores due to context.

**SEMANTIC FIELD HYPOTHESIS:** There shall be no differences in JSE scores due to semantic field.

**AGE, GENDER HYPOTHESES:** There shall be no differences in JSE scores due to age or gender.

**EXPERIENCE HYPOTHESES:** There shall be no differences in JSE scores due to the length of time JSEs have spent in English speaking countries, the length of time JSEs have studied English, the frequency JSEs use English, the JSEs’ level of fluency or the amount of formal education JSEs have received.

**MISCELLANEOUS HYPOTHESES:** Native speakers of Japanese (NSJ) and native speakers of English (NSE) shall agree on the connotative meanings in their respective languages.
DEFINITION OF TERMS:

CONNOTATIVE MEANING:

1. Doctor Smith is a butcher.
2. Steven is a cold person.
3. Sally is shallow.
4. The company is in the black.

These four sentences, in most normal contexts, do not make much sense, if any, if BUTCHER, COLD, SHALLOW and BLACK are taken literally. Taken literally sentence #1 could be interpreted to mean Doctor Smith is a doctor who works in a butcher shop and sentence #2 to mean Steven is cold to the touch. Both are plausible interpretations. No NSE would deny the possibility of their being true. No such plausible interpretations of sentences #3 and #4, however, are possible. It is impossible for a person to possess the literal physical characteristics of shallowness or for a company to be in a colour. But sentences #3 and #4 are not meaningless. Indeed, they are meaningful if it is assumed SHALLOW and BLACK have metaphorical meanings. And sentences #1 and #2 become more meaningful if metaphorical meanings for BUTCHER and COLD are also assumed.

When looked at in this manner NSE’s interpret sentence #3 to mean Sally is a person who is superficial and #4 to mean the company is profitable. In the same way NSE’s interpret sentence #1 to mean Dr. Smith is probably a surgeon who loses more than his share of patients and may operate unnecessarily (Fromkin and Rodman, 1983 p.171) and sentence #2 to mean Steven lacks the human emotions of sympathy, remorse, compassion etc. It is non-literal
meanings like these, which in this study, shall be known as connotative meanings.

To summarise abstractly the ideas expressed in the examples, connotative meaning is: 1. A type of non-literal meaning. 2. A type of meaning which is often the type of meaning one must access in order to comprehend the meaning of common metaphors. This is particularly true for dead metaphors. 3. A type of meaning only predicate nouns, predicate adjectives, prenominal adjectives and objects of prepositions possess. 4. A type of meaning as arbitrary as any other type of meaning. 5. A type of meaning difficult to decode or derive from a logical and literal examination of the expressions in which it occurs.

SECOND LANGUAGE LEARNER: As used in this study SECOND LANGUAGE LEARNER refers to people who have learnt or are learning a language which is not their native language. Of course, FOREIGN LANGUAGE LEARNER, in some respects, denotes the subjects of this study more accurately.

ACQUISITION: ACQUISITION as used in this study refers indiscriminately to both the unconscious acquisition and the conscious learning of language. In this study the emphasis is on what SLLs know; not on how they came to know it.

LEXICAL ACQUISITION: This term is used to refer to the process by which SLLs learn or acquire the semantic content of a language. This is despite the fact VOCABULARY ACQUISITION is virtually synonymous with LEXICAL ACQUISITION. There are two reasons why this was done.
First, LEXICAL ACQUISITION is more consistent with the terminology employed in semantics. Second, LEXICAL ITEM is a more accurate term than WORD in that it encompasses multi-word expressions -- phrasal verbs, multi-word idiomatic expressions and two word compounds -- which in reality can only be interpreted or understood correctly if they are viewed as complete lexical units.

METAPHOR: METAPHOR as used in this study is a very simple concept. There are numerous lexical items in English which when substituted for 'X' in: "He/She is (a/an) 'X'." or for 'Y' in "(determiner) 'Y' NOMINAL" noun phrases or for 'Z' in "preposition (determiner) Z" prepositional phrases cause the resultant sentences to become ambiguous. The ambiguity derives from the fact the lexical items substituted for 'X', 'Y' or 'Z' have two distinct types of meanings: a literal meaning and a metaphorical meaning. The literal meaning is based on the normal semantic properties of the lexical items substituted for 'X', 'Y' or 'Z'. The metaphorical meaning is based on semantic properties of 'X', 'Y' or 'Z' which are inferred or provide some kind of resemblance (Fromkin and Rodman, 1983 p.171). In this study metaphorical and connotative meanings are considered to be synonymous.

A metaphor in this study is an expression which is semantically ambiguous and which some of the ambiguity is attributable to the connotative meaning of one of the lexical items in the expression. It is also an expression which appears only in the syntactic structures noted above.
DEAD METAPHOR: There are two essential types of metaphors: original metaphors and dead metaphors.

Original metaphors are metaphors which are new and original. They create new and fresh images or associations. Great poets try to create them. They cannot, by their very nature, remain fresh and original. If they are used too frequently, they become dead metaphors. An example of a recent metaphor which has ceased to be original is IRON LADY. When first applied to Margaret Thatcher, it was original. Now it is simply a dead metaphor all NSEs know. Original metaphors, or more specifically, their meanings, however, are not the focus of this study.

Dead metaphors are not new and original. They are old and stale. All NSs are familiar with them. Examples of dead metaphors are the metaphorical expressions discussed in the definition of connotative meaning. The meanings of a certain set of dead metaphors are the focus of this study.

LEG in THE LEG OF THE TABLE and HEAD in THE HEAD OF THE COUNTRY and other similar expressions are not dead metaphors in this study. They are not dead metaphors because their meanings can be logically deduced by knowing just the denotative meanings of LEG and HEAD.

DENOTATIVE MEANING: Denotative meaning is the normal semantic properties which a lexical item possesses. In practice this usually means: 1. The meanings most NSs first think of when they are asked to define lexical items. 2. The meanings given most prominence in dictionaries.
The denotative meanings of the four lexical items discussed in the definition of connotative meaning are: BUTCHER: a dealer in meat. COLD: having low or decidedly subnormal temperature. SHALLOW: not deep, especially of water. BLACK: the colour which characterizes objects which neither transmit or reflect light. 1

NON-LITERAL MEANING: In this study NON-LITERAL MEANING shall be regarded as a synonym for CONNOTATIVE MEANING.

LITERAL MEANING: In this study LITERAL MEANING shall be regarded as a synonym for DENOTATIVE MEANING.

LIMITATIONS OF THE STUDY:

This study investigates an aspect of second language acquisition, the acquisition of connotative meaning, which has been virtually ignored. Consequently, the study which is described here is exploratory. Hence, the results should be regarded as inconclusive or tentative.

Only the knowledge the subjects have of connotative meaning is examined in the present study. Hence, no attempt is made to examine the process or steps involved in learning connotative meaning.

The majority of the subjects in the study were students or faculty at a small university in northern Japan. In addition, the subjects were not randomly selected. Hence the sample selected is representative of only the subjects

1. The definitions are based on the definitions provided in the 1974 edition of the Merriam-Webster Pocket Dictionary.
who participated in the study. Any generalisations to other JSEs should be made with great care.

The connotative meanings of only 39 animal, bird and colour terms were investigated in this study. Generalisations on the acquisition of the connotative meanings of other terms should be made with care.

A relatively small number of well educated NSEs was employed to establish what the connotative meanings of the terms investigated have in English. The meanings which they ascribed to the terms may not be representative of those an average NS would ascribe to them.

In the present study the subjects' underlying receptive competency is examined rather than their productive competency. Hence the study does not examine the subjects' ability to actually use terms with connotative meanings. It is possible, however, that some of the subjects have a productive competency.
CHAPTER TWO
A REVIEW OF THE LITERATURE

PRELIMINARY REMARKS:

Very little research on the acquisition of connotative meaning by SLLs exists. Hence the amount of literature immediately relevant to the study of the acquisition of connotative meaning by SLLs is limited. That little has been written on it, however, is not an obstacle to conducting a review of the literature. Extensive literature in related fields makes it possible to conduct an adequate review. Among these fields are: connotative meaning, the teaching of vocabulary, connotative meaning and second language teaching, second language acquisition, first language acquisition, the connotative meanings of animal, bird and colour terms, metaphor, the acquisition of metaphor, linguistic interference and cultural differences in connotative meaning. Instead of a review of an extensive literature in a single field, this review consists of an overview of the literature in several related fields.

While there are no intrinsic problems in conducting such a review, writing the review in the normal fashion is difficult. One cannot simply conduct a routine historical review. Some fields like metaphor have a long history and fields like linguistic interference have a relatively short history. Nor can one conduct the review from a conceptual approach. Concepts important in one field are not important in another. To overcome such difficulties, the review has
been divided into several sections. Each section reviews literature in one just one of the aforementioned fields.

**CONNOTATIVE MEANING**

**JUSTIFICATION FOR INCLUSION:**

Connotative meaning is not easy to define precisely and concisely. Despite the fact it is a concept with which most NSEs are familiar, there is no consensus of opinion on what connotative meaning is. Scholars define it in various ways. The average person who uses it cannot define it clearly and precisely. This is an unsatisfactory situation. In order to clarify things, a little of the literature on connotative meaning is reviewed. This review will broaden the readers' understanding of connotative meaning and help clarify what is being studied in the present study.

**THE REVIEW:**

It is common to hear phrases like: "I don't like the 'connotations' of that." or "It has the 'connotations' of ..." People have little difficulty understanding what these expressions mean. But when semanticists discuss connotative meaning, it is not always clear what exactly is being discussed. As John Lyons notes: "The reader should be on his guard whenever he meets the term 'connotation' in semantics" (Lyons, 1977 p.176). Semanticists use connotative meaning as a cover term for several quite distinct phenomena. In effect, there are several different types of connotative meaning.
The most familiar type of connotative meaning is non-philosophical connotative meaning (Lyons, 1977 p.176). In this type of connotative meaning particular lexical items convey desirable or undesirable emotive features. Lexical items with desirable connotations are: democracy, motherhood, freedom fighter etc. Lexical items with undesirable connotations are: despotism, spinster, rebel etc. This type of connotative meaning shall be referred to as TYPE 1 connotative meaning.

Since lexical items like the ones above have accepted connotative meanings, there is a tendency for people to use lexical items with positive connotations to refer to themselves. Hence, the leaders of most countries say they are democrats and few women admit to being spinsters. And if lexical items with positive connotations do not exist, expressions are coined which do. Thus REBELS became FREEDOM FIGHTERS; PROSTITUTES became WORKING GIRLS; and TAX INCREASES became REVENUE ENHANCEMENTS.

Not all words have only positive or negative connotative meanings. Some words possess both negative and positive connotative meanings. As Lyons notes, in Britain CHURCH and CHAPEL do (Lyons, 1981 p.150). It depends on whether one is a member of the Church of England or a member of a dissenting protestant sect. Similarly, lexical items like CHASTITY, COP, Government etc. possess contradictory connotative meanings. Their connotative meanings depend on
whether one views the things they denote positively or negatively (Gairns and Redman, 1986 p.18-19).

This popular conception of connotative meaning, however, is not the conception of connotative meaning most semanticists have. For semanticists, connotative meaning is a philosophical concept first discussed by John Stuart Mill in 1843 (Lyons, 1977 p.175). While scholars view this type of connotative meaning differently, there is agreement on its core properties (Lyons, 1977 p.176). Most scholars would accept Geoffrey Leech’s definition of connotative meaning as the "... communicative value an expression has by virtue of what it refers to, over and above its purely conceptual content" (Leech, 1974 p.15). While this definition is confusing, at least, for those with little knowledge of semantics, the example he gives clarifies it.

On the purely denotative a woman is simply an adult, female human. On the connotative level, however, a woman is much more. As Leech notes:

... there is a multitude of additional, non-critical properties that we have learnt to expect a referent of woman to possess. They include not only physical characteristics ('biped', 'having a womb'), but also psychological and social properties ('gregarious', 'subject to maternal instinct'), and may extend to features which are merely typical rather than invariable concomitants of womanhood ('capable of speech', 'experienced in cookery', 'skirt or dress wearing') (Leech, 1974 p.14).

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1. This type of connotative meaning shall hereafter be referred to as TYPE 2 connotative meaning.
In addition, other assumed attributes of women are also subsumed under connotative meaning. Such attributes include being frail, prone to tears, cowardly, emotional, irrational, inconstant, gentle, compassionate, sensitive and hard-working (Leech, 1974 p.14).

While Leech's list of connotations of 'woman' is both extensive, it is not a list which would obtain universal agreement. It is not satisfactory for connotations vary according to culture, historical period and the experience of the individual (Leech, 1974 p.15). The extent to which connotative meanings differ between cultures is evident from Hammerly's comparison of the connotative meanings which MILK has in English speaking North America and Latin America (Hammerly, 1982 p.456). The connotative meanings of particular lexical items in Victorian Canada and modern Canada vary considerably. Victorians, for example, associated SEX with much less positive connotations than modern Canadians do. And there is no guarantee any two people will agree on the connotative meaning of any particular lexical item. As Leech notes: "... to an English speaking misogynist WOMAN will have many uncom-plimentary associations not present in the minds of speakers of a more feminist persuasion" (Leech, 1974 p.14).

Neither of these types of connotative meaning, however, is the focus of the present study. The type of connotative meaning which is the focus while it has not attracted the
scholarly attention of the other types, has attracted significant attention.

J.J.A. Mooij notes a way of looking at metaphors is to assume metaphorically used lexical items possess a secondary type of meaning which extends the denotative meanings which they possess. Lexical items which cannot be used metaphorically do not possess this extended meaning. It is this extended meaning which Mooij refers to as 'connotative meaning' (Mooij, 1976 ch.7). This type of connotative meaning shall hereafter be referred to as TYPE 3 connotative meaning (T3CO). Henceforth 'connotative meaning' shall refer to connotative meaning in a general sense.

According Reichling, whom Mooij quotes, a lexical item which possesses a T3CO is AAP, the Dutch word for MONKEY. When used with its normal literal or denotative meaning it denotes a member of a primate group. When used metaphorically with its T3CO and applied to a boy, it has the meaning of RASCAL (Mooij, 1976 p.88). This is the type of connotative meaning which is the focus of the present study. It is the same despite the fact Mooij views connotative meaning as an extension of denotative meaning rather than a separate distinct entity as has been done in the present study. The above example and the examples used in the previous chapter indicate, there is no essential difference between Mooij’s conception of connotative meaning and the conception which is the focus of the present study.
While other scholars of metaphor do not admit the existence of this type of meaning, it is clear from the examples which they discuss that T3CO is the type of meaning which they deal with. David Sapir notes the Haya of Tanzania use EEL to describe devious men (Sapir, 1977 p.7). Roger Tourangeau shows a cruel and rapacious man is a WOLF (Tourangeau, 1978 p.22). Max Black notes brave mean are LIONS (Black, 1962 p. 36). The meaning exemplified in each of these examples is clearly T3CO.

THEORY ON THE TEACHING OF VOCABULARY

JUSTIFICATION FOR INCLUSION:

In most studies of SLA researchers use data collected in previous studies to provide a rationale for their studies. Unfortunately, this could not be done in the present study. The paucity of empirical data on the acquisition of T3CO by SLLs prevents it. Thus another type of data was needed to provide the rationale for the present study. While several types of data can be used to provide a rationale one of the soundest ways to obtain the data is to review the literature on language teaching theory. By reviewing this literature one discovers what language teaching theorists have written on the teaching of vocabulary in general and the teaching of T3CO in particular. This helps develop a rationale for the study.
THE REVIEW:
The modern era in the teaching of second languages began sometime during the latter half of the nineteenth century. During these fifty years ideas modern SLTs take for granted were first proposed. Among these ideas are the division of language into the four basic skills; an emphasis on oral work in the early stages of language learning, an inductive approach to the teaching of grammar and a belief language learning is an active rather than a passive activity (Howatt, 1984 ch.13). While second language teaching has evolved over the past century, some modern ideas about second language teaching are remarkably similar to those expressed much earlier. This is particularly true with regard to the teaching of vocabulary. Many modern second-language theorists view it much as their nineteenth century predecessors did. Carter and McCarthy repeatedly show modern ideas on vocabulary teaching are remarkably similar to those of the past (Carter and McCarthy, 1988).

Theorists in the nineteenth century believed: 1. strict and severe limits should be placed on the type and number of lexical items which should be taught; 2. vocabulary should be taught primarily to foster the learning of the grammar and pronunciation; 3. just denotative meanings of lexical items should be taught (Howatt, 1984). These are beliefs the majority of theorists have held since.
In the Mastery System of language teaching developed by Thomas Pendergast the teaching of vocabulary was clearly subordinate to the teaching of grammar. Vocabulary was controlled with regard to both the number of lexical items taught and the kinds of meanings taught. SLLs were exposed to the denotative meanings of a very limited number of lexical items (Howatt, 1984 p.156-161). Francois Gouin also felt vocabulary should be strictly controlled. He advocating exposing SLLs to the literal meanings of a large number of verbs and a much smaller number of nouns and adjectives (Howatt, 1984 p.161-167). Henry Sweet had similar views on the teaching of vocabulary. He believed SLLs should be exposed to a limited vocabulary of about 3,000 words (Sweet, 1899 p.160). He also believed meanings should be kept simple and easy to understand (Sweet, 1899 p. 160). And while he wrote about the need of including idiomatic meanings in learner dictionaries, but he does not clearly define what he means by idiomatic meanings (Sweet, 1899 p.145). Perhaps he considered T3CO as a type of idiomatic meaning; perhaps he did not. But based on the examples he gave there is reason to assume he did not advocate the teaching of T3CO. Other theorists of the late nineteenth century also did not advocate the teaching of T3CO. Vietor, Klinghardt and Berlitz clearly did not advocate teaching it. They, like Pendergast, Gouin and Sweet, felt teachers should concentrate on teaching simple
denotative meanings to a limited number of lexical items (Howatt, 1984).

Harold Palmer wrote and lectured extensively on many aspects of language teaching. One of the aspects on which he wrote was the lexical component. As Howatt mentions, it interested him throughout his professional life (Howatt, 1984 p.231).

In *The Scientific Study and Teaching of Languages* and the *Principles of Language Studies*, he provided a detailed summary of his thoughts on semantics. He discussed what a word is, morphological aspects of lexical items and meaning. For him lexical meaning was a simple concept. A lexical item has a meaning or meanings which is/are encapsulated by its definition or definitions. A definition is basically a synonym of a lexical item (Palmer, 1917 p.21). He did not differentiate among different types of lexical meaning. If he distinguished T3CO from denotative meaning, he certainly did not state he did. The examples he used, however, make it clear meaning was synonymous with denotative meaning. Even when he remarks on what he referred to as the 'peculiarities' of each word it is clear he was not concerned with T3CO. (Palmer, 1921 p.114). While the use of this term suggests he was aware of other types of lexical meaning, he does not explicitly and precisely define it. Nor does he give any examples of words with these 'peculiarities'.
While it is unclear how Palmer's views on vocabulary influenced other ESL theorists, the views of his contemporaries were not dissimilar to his. Robert Cole and James Tharp in their *Modern Foreign Languages and Their Teaching* expressed views very similar to those of Palmer. They believed all a teacher needs to teach is denotative meaning (Cole and Tharp, 1937).

A quarter century later ESL theorists still thought of vocabulary and meaning much as Palmer did. Theodore Huebener and Nelson Brooks espoused views similar to Palmer's (Huebener, 1959 ch.5 and Brooks 1964 ch.13). They believed SLLs should be taught simple denotative meanings. They also believed the amount of vocabulary should be limited.

Not all theorists shared these views. In the 50s Lado demonstrated an awareness of the complexity of vocabulary and an understanding of the difficulties which SLLs have with vocabulary (Lado, 1955 and Lado, 1957). One aspect of vocabulary which he felt was particularly troublesome for SLLs was connotative meaning (Lado, 1955 p.37-39). But the kind of connotative meaning which he had in mind was TYPE 2 connotative meaning. He was concerned with the difficulty SLLs have with "...words that are harmless in connotation in the native language but offensive or taboo in the foreign language, or vice versa" (Lado, 1957 p.86-87).
During the 50s and 60s most ESL theorists said little about the teaching of vocabulary. They limited themselves to making a few remarks about denotative meaning. In the book edited by Allen and Campbell only one of the 44 articles (Lado's) treats vocabulary in any detail (Allen and Campbell, 1972). In the other articles vocabulary is viewed primarily as something which is used to teach structure and pronunciation (Lee, 1957). While this treatment of vocabulary shows a superficial understanding of the importance of vocabulary in second language learning, it is typical. R. Lord notes ESL theorists apparently lack an awareness of the nature of vocabulary. Hence, they give passing lip-service to the teaching of vocabulary (Lord, 1974). A few theorists were more aware of the nature and function of vocabulary.

Gerald Fleming in a 1966 article notes it is imperative teachers make their students aware of connotative meanings (Fleming, 1966). He believed if teachers do not do this, SLLs will probably not learn many connotative meanings. The consequences of not learning connotative meanings can be serious communication problems. Depending on the circumstances one can give insult, feel insulted, feel offended, give offense or just not understand what is said. Fleming’s definition of connotative meaning, however, encompasses two different types of connotative meaning. One is T3CO for he discusses the aspects of lexical meaning that
permit lexical items to be used metaphorically. The other is similar to Lado's conception of connotative meaning.

In the 70s and 80s ideas on the teaching of vocabulary began to change. Some theorists have become more aware of the nature and function of vocabulary. They began to discuss teaching SLLs more types of lexical meaning. The majority of theorists, however, still advocated just teaching denotative meaning.

Freeman Twaddell clearly recognises a need to teach T3CO (Twaddell, 1973). In his discussion of the problems which idioms present SLLs, while he never explicitly discusses T3CO, it is obvious he feels one of the problems with idioms is that it is often necessary to have an understanding of T3CO in order to comprehend them (Twaddell, 1973 p.75).

D.A. Wilkins also recognised the need for teaching other types of lexical meaning. In his Second Language Learning and Teaching he advocates the teaching of collocative meaning (Wilkins, 1974 p.22). Wilkins, however, did not discuss or mention the teaching of T3CO.

The recognition of a need to teach more than just denotative meaning, clearly evident in the work of Wilkins, is not present in the work of many of his peers. Kenneth Chastain, for example, views the teaching of vocabulary as primarily a matter of teaching denotative meaning (Chastain, 1976 p.340-341). Edward Allen and Rebecca Valette also view
the teaching of vocabulary in this manner (Allen and Valette, 1977 ch.7). So does John Haycraft (Haycraft, 1978 ch.5). Frederick Howlett merely provides suggestions on how to teach denotative meanings (Howlett, 1979). Johannes Vazulik and James Fox also concentrate on describing techniques to teach denotative meanings of lexical items (Fox, 1983 and Vazulik, 1983). Faerch et. al. just discuss teaching denotative and collocative meanings. (Faerch, Hastrup and Phillipson, 1984 ch.5). Michael Lewis and Jimmie Hill view the teaching of vocabulary as acquainting students with the denotative meanings of lexical items (Lewis and Hill, 1985 p.98-104).

Not all theorists in the years following Wilkins' book viewed the teaching of vocabulary as just a matter of teaching denotative meanings. Jack Richards clearly is aware more than the denotative meanings of a limited number of lexical items need to be taught (Richards, 1976). He notes: 1. SLLs need to be taught a much larger number of lexical items (Richards, 1976 p.84); 2. SLLs need instruction in the grammatical, social and cultural aspects of lexical items (Richards, 1976 p.85-87); 3. SLLs need to be taught connotative meaning (Richards, 1976 p.88). But it is not clear what Richards means by 'connotative meaning'. He does not clearly define the term. He says: "Vocabulary teaching thus involves showing how a word can take on emotional connotation in a particular context" (Richards, 1976 p.88). Unfortunately it is difficult to understand
what Richards means by this statement. He may mean something similar to Lado's conception of connotative meaning. He may also mean something similar to T3CO. He may also mean something completely different.

Betty Robinett also realises vocabulary teachers must teach more than denotative meaning (Robinett, 1978 ch.3). She states students should be made aware the special connotations lexical items have for particular individuals may not be shared by other members of their speech community (Robinett, 1978 p.113). SLLs should be made aware DOG, for example, "...may connote a lovable, happy, affectionate family friend to one person and ... a mischievous, dirty, dangerous enemy to another" (Robinett, 1978 p.113). While knowing this is useful, it is not the same as advocating teaching T3COs. If it were, SLLs she taught would learn that for most NSEs DOG has the T3CO of UGLY GIRL or that a DOG is something which is difficult to sell.

Wilga Rivers also discusses teaching 'socio-cultural meaning' (Rivers and Temperley, 1978 p.202-203) or 'connotative meaning' (Rivers, 1981 p.319-320). Hector Hammerly also stresses teaching connotative meaning (Hammerly, 1979 and 1982 ch.18). While both Rivers and Hammerly advocate teaching connotative meaning there are differences in their views of connotative meaning. Rivers views connotative meaning as those emotional overtones which particular lexical items may arouse (RIVERS, 1981 p.319).
She notes NSEs may conceive of LUNCH in ways which people from other cultures do not (Rivers and Temperley, 1978 p.203). Hector Hammerly, however, conceives of connotative meaning as consisting of two distinct parts. The first part is virtually identical to Robinett's conception of connotative meaning (Hammerly, 1982 p.450). The second part, as his listing of the different connotations English and Spanish speaking people associate with MILK, is similar to Rivers' conception (Hammerly, 1982 p.456).

Milton Azevedo recognises that: "Even before he has mastered the most elementary rules of grammar, the learner of a foreign language must wrestle with meaning, develop an awareness of the denotative and connotative properties of individual terms and idiomatic expressions, ..." (Azevedo, 1980 p.222). Unfortunately, he does not define 'connotative meaning'. Neither does he give any examples. Thus it is not clear which types(s) he would advocate teaching. And Ruth Gairns and Stuart Redman discuss the teaching both TYPE 1 and TYPE 2 connotative meanings (Gairns and Redman 1986 p.18-19). They, however, do not discuss teaching T3COs.

John Crow discusses how knowledge of TYPE 1 connotative meaning can effect reading comprehension (Crow, 1986 p.243). While he admits "Connotative knowledge helps the reader savor the literary flavor of prose or make judgements in areas such as diction, register etc ..." he believes a basic understanding of a text is possible without a knowledge of
connotative meaning (Crow, 1986 p.243). So he does not advocate the explicit teaching of TYPE 1 connotative meaning. And he says nothing about teaching T3C0s. And Ronald Carter, while he is aware of the various types of connotative meaning, never explicitly advocates teaching connotative meaning. While he notes, for example WHITE has a T3CO of PURE or CLEAN, he says nothing about teaching T3C0s (Carter, 1987 p.21). It is likely, however, that he would advocate teaching T3C0s. In the book he edited with Michael McCarthy there is an article in which A.P. Cowrie advocates teaching T3C0s (Carter and McCarthy, 1988). Cowrie in his discussion of the non-literal meanings of WOLF stresses it is difficult for SLLs to interpret them unless they possess the requisite lexical knowledge (Cowrie, 1988 p.130). He then notes teachers must either provide this lexical knowledge or else provide their students with the means and opportunity to acquire it (Cowrie, 1988 p.137).

While theorists like Carter, McCarthy, Gairns and Redman and others discuss different types of lexical meaning, some still inadequately differentiate the various types of lexical meaning. John Morgan and Mario Rinvolucri, while it is evident they are aware there are different types of lexical meaning, do not discuss or define them (Morgan and Rinvolucri, 1986). They just mention that for effective and motivated learning to occur 'dictionary meaning' is only a first step (Morgan and Rinvolucri, 1986 p.6). But they do not discuss in a clear and coherent manner just what comes
after dictionary meaning. Nor do they define 'dictionary meaning'.

This review on the teaching of vocabulary has revealed several things: 1. most language teaching theorists have little interest in the teaching of any type of connotative meaning; 2. the few who discuss teaching connotative meaning do not explicitly discuss T3C0; 3. those who discuss connotative meaning just discuss TYPE 1 and TYPE 2 connotative meanings. Hence, if the beliefs of language teaching theorists influence what happens in second language classrooms, it is prudent to assume SLLs who receive formal language instruction have very little knowledge of T3C0. Of course, SLLs who receive their instruction in the host environment learn some T3C0s outside the classroom. But SLLs who receive their instruction in places where the target language is not used, can be expected to know very few T3C0s. Hence, one can expect the Japanese subjects of the present study to possess little knowledge of the T3C0s which basic colour, bird and animal terms have in English.

CONNOTATIVE MEANING AND SECOND LANGUAGE TEXTBOOKS

JUSTIFICATION FOR INCLUSION:

SLLs learn language through formal study in school, by using language in the real world or through some combination of both. What they learn in these environments can be different from what they would learn if they were taught by theorists. Thus it is useful to know something about SLLs'
encounters with T3CO in each of these language learning environments. Unfortunately, there are no data on SLLs' encounters with T3COs in the real world. But it is possible to learn something about SLLs' encounters with T3COs in the classroom. One simply examines the textbooks they use.

**THE REVIEW:**

Authors of language teaching textbooks commonly write extensive introductions in which they outline the philosophical and theoretical foundations of their books and provide teaching suggestions. Very few, if any, authors of language teaching textbooks, however, write much on the teaching of vocabulary. Most make only a few cursory comments. L.G. Alexander and R.H. Kingsbury merely note students need not acquire an active command of all the words used in the text (Alexander and Kingsbury, 1975 p.11). O’neill et. al. simply state vocabulary should be challenging and students should be encouraged to guess at the meaning of words they do not know (O’neill, Kingsbury and Yeadon, 1971). Val Black et. al. just mention the vocabulary used in the text can be used in discussions on a number of topics (Black, McNorton, Malderez and Parker, 1986). Lesley Gore simply notes some words have multiple meanings and that dictionaries should be used to obtain more precise meanings (Gore, 1979 p.vi).

Other authors of language teaching textbooks say even less. Jill Hadfield says absolutely nothing about
vocabulary (Hadfield, 1984 and 1987). Rod Ellis and Brain Tomlinson also say nothing about vocabulary (Ellis and Tomlinson, 1987). Robert O'neill and Roger Scott do not discuss vocabulary at all. Neither do the authors of **Challenge to Think** (Frank, Rinvolucrri and Berger, 1982). Bernard Seal and Megan Webster and Libby Castanon also say nothing about vocabulary (Seal, 1980 and Webster and Castanon, 1980).

Even the authors of the few vocabulary textbooks on the market generally say little on the nature of vocabulary and how to teach it. Peter Watcyn-Jones limits his comments to explaining how the exercises should be done (Watcyn-Jones, 1982). L.A. Hill in his **Word Power** series of vocabulary books merely notes words have meanings (Hill, 1982a, 1982b, and 1983). Bernard Seal in his introduction to **Vocabulary Builder 1 and 2** merely notes there are good reasons for studying vocabulary through "lexical sets" (Seal, 1988). Rudzka et. al., while they exhibit more awareness of the complexity of the lexical component of language, are only concerned with collocative meaning (Rudzka, Channell, Putseys and Ostyn, 1985).

That the authors of language teaching textbooks do not discuss the lexical component of language in any depth, does not mean they have no views on the nature of vocabulary and how it should be taught to SLLs. It just means they do not explicitly share their views with the users of their
textbooks. Since they do not share their views, one must examine their textbooks in order to determine their views. One way of determining their views is to examine the glossaries which the authors of a few language textbooks include in their textbooks. Such an examination reveals these authors only provide denotative meanings for the lexical items they include in their glossaries.

Robert O’Neill provides the students who use his *Kernel Lessons Plus* with just a limited number of denotative meanings (O’Neill, 1973). Robert O’Neill and Roger Scott use glossaries in much the same manner in *Viewpoints* (O’Neill and Scott, 1974). Their glossaries provide simple and easily understood denotative meanings for lexical items like WITNESS, GAMUT or SENILE. They do, however, occasionally provide some additional information. The entry for NAUGHTY, for example, tells the learner it is used primarily with children (O’Neill and Scott, 1974 p.31).

Most authors of the specially written textbooks used in schools and universities in Japan include a bilingual English-Japanese glossary in their textbooks. Instead of giving the meanings in English, the authors of these books usually provide translation equivalents in Japanese. The translation equivalents generally give just a translation the denotative meanings the glossed lexical items have in English.
The New Horizon series of junior high school textbooks gloss every word or expression used in the textbooks. By using the glosses SLLs can obtain a limited understanding of only one or two of the denotative meanings which each word or expression has in English. They can learn that DESK, DOG and GOVERNMENT are TSUKUE, INU and SEIFU respectively in Japanese. But they cannot learn that DESK in English cannot refer to or denote, as TSUKUE can, a paper strewn table. And they also cannot learn that DOG can connote AN UGLY GIRL and that liberals and conservatives view the proper role of government differently (Ota, Ito and Kusakabe, 1986). The manner vocabulary is handled in other textbooks used in Japan does not differ noticeably from the manner it is handled in the New Horizon textbooks. The glossaries provide Japanese translation equivalents to enable SLLs to learn a little of the denotative meaning of the English words used in the texts. The textbooks do not explain how the denotative meanings of the English words and their Japanese equivalents differ. The textbooks do not instruct SLLs on other types of meaning the glossed words possess (Ogawa et. al., 1983, Hirano et. al., 1983, Shimizu et. al., 1983, Takanashi et. al., 1983 and Kamiyama et. al., 1982).

The glossaries in the English textbooks used in universities in Japan are similar to the ones in the textbooks used in Japanese junior high schools. They provide SLLs with denotative meaning equivalents. They do not provide SLLs with information about other types of
meaning which the glossed lexical items have (Burleigh, 1987, Kuzumi, 1986 and Posener, 1987).

SLLs who rely solely on the glossaries in their textbooks to learn the meaning(s) of lexical items acquire a very inadequate understanding of their meanings. They acquire only denotative meanings. They do not acquire other types of meanings. This is not enough to help them to use and understand lexical items fluently.

For the authors of language teaching textbooks who provide glossaries, it is relatively easy to determine which types of meaning they consider important enough to teach. One only notes the types of meaning they give the lexical items in their glossaries. With authors who do not provide glossaries -- they are the overwhelming majority -- it is difficult task. With them it is necessary to examine the stories and dialogues they include in their texts.

Authors of language teaching textbooks almost always use lexical items in contexts where knowledge of just denotative meanings is sufficient to understand the texts. Seldom is a knowledge of any other type of meaning necessary. In texts used by elementary and low intermediate students, this emphasis on denotative meanings is understandable. As Hammerly notes, language learners must first become acquainted with the denotative meanings of lexical items (Hammerly, 1979 p.569).
Hence it is not unexpected to discover that for texts like: \textit{Crosstalk Book 1}, \cite{WebsterCastanon1980}, \textit{Kernel Lessons Intermediate} \cite{ONeillKingsburyYeadon1971}, \textit{Mainline Progress A} \cite{Alexander1973}, \textit{Beginning Composition Through Pictures} \cite{Heaton1975}, \textit{Activities} \cite{Seal1980} and the texts used in high schools in Japan all one needs to be able to understand the stories and dialogues is a knowledge of denotative meaning. One, however, should not expect to discover that all that is required to understand texts designed for high intermediate and advanced students is knowledge of denotative meaning. In these texts some knowledge of other types of meaning should be necessary. Instead, one discovers all one needs to understand texts like: \textit{Crosstalk Students' Book 3} \cite{WebsterCastanon1980d}, \textit{Functional English} \cite{White1979}, \textit{Challenge To Think} \cite{FrankRinvolucriBerer1982}, \textit{Mainline Skills B Students' Book} \cite{AlexanderKingsbury1976a}, \textit{I Think You Think} \cite{AlexanderKingsbury1976b}, and the texts used in universities in Japan is a greater knowledge of denotative meaning. The only major difference between the vocabulary of most textbooks designed for advanced students and those designed for elementary students is the greater number of technical and abstract lexical items and idiomatic expressions in those designed for advanced students. There is no difference with regard to meaning, however. For all levels of language teaching textbooks denotative meaning is the only type of meaning authors expect students to know.
SLLs whose sole exposure or acquaintance with the lexical component of the English language is the lexical entries in their textbooks acquire a very limited and narrow knowledge of the English lexical system. The textbooks which they use do not provide them with the information which they need to use lexical items fluently. In particular they cannot acquire T3COs. They cannot acquire meanings which are not presented in their textbooks.

SECOND LANGUAGE ACQUISITION

JUSTIFICATION FOR INCLUSION:

Since the study of lexical acquisition is certainly a legitimate area in the field of SLA and T3CO is most certainly an aspect of lexical meaning, it is natural to examine the literature on SLA in order to discover what, if anything, SLA researchers have written on the acquisition of T3CO by SLLs.

THE REVIEW:

Ten or fifteen years ago very little was known about the manner in which second languages are acquired. Over the last decade or two, however, the study of SLA has undergone exponential growth. Despite all the growth, however, there are still areas of SLA about which comparatively little is known. Unfortunately, lexical acquisition is one of these areas.

It is a common practice for the authors of introductory books on the teaching of ESL to discuss SLA. They summarise
and comment on the results of SLA research on the acquisition of phonology, syntax and morphology (Rivers, 1981 and Krashen, 1981); the affective and situational factors which influence SLA (Brown, 1980); the relationship between learner characteristics and SLA (Hammerly, 1981 and Stern, 1983) and the effect variables like age and gender have on SLA (Krashen, 1981 and Krashen et.al., 1982). Very little of the research they report on deals with lexical acquisition. None deals with the acquisition of T3CO. The research on lexical acquisition deals almost exclusively with denotative meaning (Rivers, 1983). And the primary reason they do not discuss the acquisition of lexical meaning more thoroughly is lexical acquisition has not been studied very deeply or thoroughly.

Pit Corder does not deal with lexical acquisition in his book (Corder, 1981). Nor does William Littlewood (Littlewood, 1984). Rod Ellis also neglects lexical acquisition (Ellis, 1984 and 1986). Stephen Krashen also ignores lexical acquisition (Krashen, 1981). Dulay et. al. also say nothing (Dulay, Burt and Krashen, 1982). Wolfgang Klein also says little about lexical acquisition (Klein, 1986).

While these writers say little specifically about lexical acquisition, they do make a few comments on how SLLs handle the lexical component of language. Klein notes SLLs make lexical errors (Klein, 1986 p.27, 145). Krashen notes
that without some vocabulary knowledge not much language
earning can occur (Krashen, 1981 p.80). Ellis discusses
the acquisition of semantic roles such as 'agent' and
'instrument' (Ellis, 1984). He also mentions a few
techniques SLLs use to learn vocabulary (Ellis, 1986 p.104).
Their comments, however, are only tangentially related to
lexical acquisition for they never discuss the knowledge
SLLs have of lexical meaning.

They have little to say on lexical acquisition because
they can only discuss what other researchers have done. If
there was an extensive amount of research on lexical
acquisition they would have treated it in more detail. An
examination of some of the numerous books of articles on
SLA, however, reveals little research on lexical acquisition
exists. At least, there are few articles on lexical
acquisition in the these books.

Jack Richards' book does not contain a single article
on lexical acquisition (Richards, 1974). The book edited by
John Schumann and Nancy Stenson contains little on lexical
acquisition (Schumann and Stenson, 1974). This neglect of
lexical acquisition is also evident in the book compiled by
Evelyn Hatch (Hatch, 1978). And it is evident in the book
edited by Rosario Gingras (Gingras, 1978).

In none of these books is there even one article in
which the primary emphasis is on lexical acquisition.
Lexical acquisition, at best, rates only a few comments in
the occasional article. Gingras, in one of his own articles, for example, merely notes that without knowledge of vocabulary not much learning can occur (Gingras, 1978 p.90). And in the articles which deal with lexical acquisition only the acquisition of denotative and/or collocative meaning is discussed. In no article is there any mention of the acquisition of T3CO. And collections of articles published in the 1980s are very similar to the ones published in the 1970’s. They contain few articles on lexical acquisition.

The book edited by Stephen Krashen, Robin Scarella and Michael Long, for example, contains no articles that explicitly deal with lexical acquisition (Krashen, Scarella, and Long, 1982). Nor does the book edited by Nessa Wolfson and Elliot Judd (Wolfson and Judd, 1983). Neither does the one edited by Susan Gass and Carolyn Madden (Gass and Madden, 1985). Bernhard Kettemann and Robert St Clair’s book also contains no articles which deal with the acquisition of lexical meaning by SLLs (Kettemann and St. Clair, 1980). Not all collections are like this. A few contain articles on lexical acquisition.

Second Language Acquisition Studies edited by Kathleen Bailey, Michael Long And Sabrina Peck contains one article on lexical acquisition (Bailey, Long and Peck, 1980). This article by Charles James, however, is concerned exclusively with the acquisition of denotative meaning (James, 1983).
The same is also true of the three articles which deal extensively with lexical acquisition in Betty Robinett and Jacquelyn Schachter's anthology (Robinett and Schachter, 1983). All three articles deal exclusively with denotative meaning (Prator, 1983, Duskova, 1983 and Stenson, 1983).

While recent collections of articles SLA contain articles on lexical acquisition, such articles are still rare. Articles on the acquisition of syntax, variables which effect SLA, the type of input necessary for acquisition to occur, how teachers can influence acquisition, etc. are more numerous. While this neglect of lexical acquisition cannot be condoned, it is understandable. The articles published in journals are similar to those which editors have included in their collections. The tables of contents of journals like Tesol Quarterly, Language Learning, ELT, etc. reveals accounts of research on lexical acquisition by SLLs are exceedingly rare. And articles on the acquisition of T3CO are rarer still. The researcher has not found one article which deals exclusively with the acquisition of T3CO.

This may change in the future. In the last few years research on lexical acquisition is coming of age. All the articles in the June 1987 issue of Studies in Second Language Acquisition, for example, were on lexical acquisition. While the articles did not deal with the acquisition of connotative meaning, that they were published
indicates the study of lexical acquisition is significant. And John Crow comes close to actually examining how TYPE 1 connotative meaning is acquired (Crow, 1986). Is it too much to expect research on the acquisition of T3CO to follow?

That is for the future. At the present time the assertions of Meara and Levenston are basically correct. The study of lexical acquisition by SLLs has been severely neglected (Meara, 1982 p.100 and Levenston, 1979 p.147). In addition the little research on lexical acquisition by SLLs has been very narrowly conceived. The acquisition of denotative meaning has received the most attention. The study of the acquisition of the other types of lexical meaning has been bypassed or overlooked.

FIRST LANGUAGE ACQUISITION

JUSTIFICATION FOR INCLUSION:

A review of some of the work on first language acquisition is useful in several ways. 1. It could help clarify at what point in the development of a second language the acquisition of T3COs could be expected to occur. If such acquisition occurs early in first language development, it might also occur early in second language development. If, on the other hand, it occurs late in first language development, it could also occur late in second language development. 2. It could help second language researchers determine the order in which the various types
of connotative meaning are acquired. 3. It might help second language researchers determine whether the acquisition of T3COs varies with semantic field.

THE REVIEW:

First language acquisition researchers have neglected the study of the acquisition of T3CO just as completely as their second language colleagues. This is despite the fact there is an extensive literature on lexical acquisition by first language acquisition learners. Their interest just does not extend to the acquisition of T3CO. Their primary interest -- just as it is for second language researchers -- is the acquisition of denotative meaning.

John Hayes, for example, did not select even one article on the acquisition of T3CO in the collection of articles he edited. (Hayes, 1970). Neither did Philip Dale and David Ingram (Dale and Ingram, 1976). Victor Lee also did not select one (Lee, 1979). And there is nothing on the acquisition of T3CO in the book edited by Th. B. Seiler and W. Wannenmacher (Seiler and Wannenmacher, 1979).

The authors of extended works on first language acquisition have not dealt with the acquisition of T3CO either. Roger Brown does not even mention, let alone discuss the acquisition of T3CO (Brown, 1973). None of his peers in the 1970s discuss it either (Moerk, 1977; de

2. The de Villiers provide an excellent, concise summary of the research on first language lexical acquisition in their Early Language (de Villiers and de Villiers, 1979).
Villiers and de Villiers, 1978 and 1979; Clark; 1978). And first language acquisition researchers have continued to ignore or overlook it so far in the 1980's. (Elliot, 1981; Beck, 1982; Anisfeld, 1984) None of them says anything about the acquisition of T3CO.

First language acquisition researchers have neglected the acquisition of T3CO just as their second language colleagues have. Their neglect of it is understandable since they are primarily interested in studying the development of language in the very young. They cannot study the acquisition of T3CO when their subjects are still acquiring denotative meanings. But if, as seems logical, the T3COs of lexical items are acquired relatively late more research should be done on the development of lexical meaning in older children and adolescents.

CONNOTATIVE MEANING OF COLOUR, BIRD AND ANIMAL TERMS

JUSTIFICATION FOR INCLUSION:

Since the present study is concerned with the acquisition of the T3COs of colour, animal and bird terms by Japanese speakers of English (JSE), it would be useful to know the T3COs the terms have in Japanese and English. It would permit the compiling of: 1. a list of the T3COs the items have in English against which to measure the acquisition of their T3COs by adult Japanese; 2. a list of the T3COs which the terms have in Japanese against which to
measure the degree adult JSEs transfer the T3COs the terms have in Japanese to the English equivalents.

THE REVIEW:

A perusal of the literature on semantics, metaphor, vocabulary teaching, etc. quickly reveals this is something which has received little attention. Only occasional isolated comments on the T3COs of the terms exist. This, however, does not indicate no research has been done. Some research, has been done for such meanings are included in dictionaries.

The *Merriam-Webster Dictionary* lists T3COs for a number of colour, animal and bird terms. BLUE is listed as having the T3COs of DEPRESSING, PURITANICAL and INDECENT, and the T3CO, A STUPID PERSON is ascribed to ASS and it is noted that a supporter of a warlike policy is a HAWK. And The *Concise Oxford Dictionary* has GREEN with the T3COs of INEXPERIENCED, JEALOUS, and SICKLY; LION with that of COURAGEOUS PERSON and GOOSE with that of SIMPLETON.

Some T3COs listed in dictionaries, however, are out of date. The *Concise Oxford Dictionary*, for example, lists JEALOUS as a T3CO for YELLOW and POMPOUS PERSON as a T3CO for TURKEY. These are not meanings many modern NSEs presently ascribe to YELLOW and TURKEY. In addition, numerous common T3COs are not listed in either of the dictionaries. The *Concise Oxford*, for example, does not include NAIVE or SIMPLETON as T3COs of TURKEY. The *Merriam-
Webster Dictionary does not note that BEAVER has the T3CO of HARD WORKER. Even the Longman Dictionary of English Idioms does not list the T3COs of the lexical items examined in the present study. In fact, it does not note any T3COs.

Larger and more comprehensive dictionaries like the Shorter Oxford do provide more complete listings of T3COs. Their more complete listings of T3COs, however, would not necessarily provide the type of data needed. Dictionaries, even pocket ones, contain entries or definitions with which few people are familiar. There is no guarantee the T3COs listed in a dictionary are meanings known even the overwhelming majority of adult NSEs. But the present study is based on the assumption there are T3COs of colour, animal and bird terms all adult NSEs know. And there is no guarantee the T3COs listed in a dictionary are up to date. It is possible recent T3COs would not be listed in a dictionary. This is a serious inadequacy for lexical items acquire new T3COs quite quickly. It was not long ago, for example, that TURKEY did not possess its present T3CO. Dictionaries do not provide complete and accurate listings of the T3COs with which adult NSEs are familiar.

And the situation with regard to their T3COs in Japanese is very similar. There is no accurate listing of the T3COs which colour, animal and bird terms have in Japanese. As in English little research has been done in this area. And Japanese dictionaries are not better at
noting the T3COs which adult NSJs know. At least, bilingual Japanese-English dictionaries do not note T3COs.

Hence the only way of determining the T3COs of these terms in either contemporary English or Japanese or is to poll a statistically significant number of adult NSEs and NSJs. This is the simplest and most practical way to determine the English and Japanese T3COs of the selected colour, bird and animal terms examined in the present study.

**METAPHOR**

**JUSTIFICATION FOR INCLUSION:**

T3CO is the type of meaning which dead metaphors possess. But what are the qualities and characteristics of dead metaphors? What distinguishes dead metaphors from other metaphors? What is the relationship between T3CO and dead metaphors? What meanings do dead metaphors have? Where can answers to these questions be found? One place they could be found is in the literature on metaphor.

**THE REVIEW:**

Questions like the above are not dealt with in the literature on metaphor. Most scholars of metaphor barely touch on questions like these. Instead they construct theories of metaphor or else attempt to account for the genesis and functioning of literary metaphors. Very few have much to say on dead metaphors and T3CO.
I.A. Richards devotes a very substantial portion of his lectures on metaphor to establishing a theoretical framework to explain how metaphors function (Richards, 1936 ch.5&6). Hence he does not discuss the type of meanings lexical items must possess in order for them to have the potential to be employed metaphorically very thoroughly. He simply notes lexical items have literal and metaphorical meanings (Richards, 1936 p.119). Nowhere does he clarify what the qualities or characteristics of either literal or metaphorical meanings are. His comment that DUCK can have the meaning of a CHARming or DELIGHTFUL OBJECT indicates one aspect of his metaphorical meaning is very similar to T3CO (Richards, 1936 p.117). It is also significantly different from T3CO, for he assumes one can arrive at an understanding of a metaphorical expression by a logical reasoning process. But it is an assumption of the present study that T3COs are arbitrary. As such there is no guarantee one will logically decipher the T3CO of a lexical item. If it were possible, SLLs would not have problems coping with T3COs.

Richards' conception of 'dead metaphor' is also not clear. While he uses the term and examines a couple dead metaphors (Richards, 1936 p.101-102, p.117-118), he does not define the term. His examples, however, make clear his conception of dead metaphor differs significantly from the one used in the present study. For him STRONG in STRONG LIGHT and LEG in THE LEG OF A CHAIR are examples of dead metaphors (Richards, 1936 p.101 and p.117). But, as was
made clear in Chapter One, such expressions are not dead metaphors,

One of the points Richards iterates is most interesting. He states that "...metaphor is the omnipresent principle of language ..." (Richards, 1936 p.92). He claims metaphor is so pervasive that it is difficult to find short passages which do not contain metaphors (Richards, 1936 p.92). If he is right, there is no doubt of the value of the present study.

Richards' preoccupation with theory is also shared by Max Black. In his two famous essays, as Richards did, he establishes a theoretical framework to improve the understanding and discussion of metaphor (BLACK, 1962 and 1979). Black, however, places more emphasis on meaning than Richards. He notes in order for metaphors to succeed, they must trigger meaningful associations in the minds of the receivers of the metaphors (Black 1977 p.28-29). These associations are similar to T3CO. He notes that a metaphor like MAN IS A WOLF depends upon associating the fierceness of wolves with man (Black, 1962 p.40). Black, however, does not view these associations as being permanently recorded in the lexicon, as it is assumed in the present study that T3COs are. Instead, he views them as things which readers or listeners must fashion afresh each time they encounter a metaphorical expression. (BLACK, 1962 pt.5). As such, he has little interest in T3COs and dead metaphors. In fact,
he states dead metaphors are not really metaphors at all (Black, 1977 p.26). Perhaps they are not really metaphors since their meanings are recorded in the lexicon.

The concerns of Richards and Black with theory are also shared by most modern scholars of metaphor. Owen Thomas constructs a very philosophical theory of metaphor (Thomas, 1969). Roger Tourangeau is concerned with constructing a psychological theory to explain how metaphors are understood (Tourangeau, 1978). F.C.T. Moore, on the other hand, attempts to refute some traditional assumptions about metaphor (Moore, 1982). David Sapir discusses and outlines some modern approaches to the study of metaphor (Sapir, 1977). Christopher Crocker writes about the social role metaphor often plays (Crocker, 1977).

A few scholars, however, view metaphor differently. They attribute the metaphoricalness of dead metaphors to T3C0. John Condon, for instance, notes that: "Dead metaphors that were once fresh and bright become legitimate words in the vocabulary without a thought to their metaphorical qualities" (Condon, 1966 p.46). And Glucksburg et. al. suggests some metaphoric 'vehicles' are 'stock phrases' which are more lexical than they are metaphoric (Glucksburg, Gildea and Bookin, 1982 p.95). And Roland Bartel notes connotations are essential aspects of many metaphors. (Bartel, 1983). None of these scholars regards T3C0 as a central part of metaphor.

J.J.A. Mooij, however, does. In his *A Study of Metaphor* he clearly and concisely reviews connotation theories of metaphor developed by Monroe Beardsley, Jean Cohen and Anton Reichling (Mooij, 1976). He states connotation theories "...explain the meaning of metaphorical expressions on the basis of part of the meaning of these words in literal use" (Mooij, 1976 p.35). And this 'part of the meaning' is connotative meaning (Mooij, 1976 p.81). T3C0 and Mooij's conception of connotative meaning, however, are not identical. In the present study T3C0 is a distinct type of meaning which is independent of other types of lexical meaning. Connotation theorists on the other hand, view connotative meaning as a sub-type of literal meaning (Mooij, 1976 p.85). In the present study it is assumed only lexical items used in dead metaphors possess T3C0s. For
connotation theorists, however, metaphorical words in fresh and novel metaphors are also possessors of connotative meanings (Mooij, 1976 p.83). Nevertheless there are similarities between T3CO and Mooij's concept of connotative meaning.

This review of the literature has revealed: 1. most scholars are primarily interested in constructing theories; 2. most assume one can arrive at an understanding of metaphors through some logical process. 3. most deny the existence of T3CO. 4. while most theorists recognise the existence of dead metaphors, they say little about them. 5. there is no consensus on how metaphors work. 6. connotation theorists view connotative meaning much as it is viewed in the present study. 7. the literature on metaphor is not the place to look for a list of T3COs. Even Mooij, despite his interest in connotative meaning only notes FOX and WOLF have the T3COs of SLY and CRUEL respectively.

This review has indicated there are sound reasons for studying the acquisition of T3CO by SLLs. If language is really as metaphorical as Richards claimed, a study on the acquisition of T3CO is a good way discover to how well SLLs handle the very extensive metaphorical aspects of English. This is particularly true, if the most numerous and frequently occurring metaphors in English are dead metaphors. While there is no evidence to support this assumption, it is the researcher's belief most language
create infrequently create original metaphors. Study into the acquisition of T3COs could also be used to determine SLLs' level of fluency. If language is so metaphorical, one cannot be fluent without a good command of metaphor.

**ACQUISITION OF METAPHOR**

**JUSTIFICATION FOR INCLUSION:**

Since the present study is concerned the acquisition T3CO, it is useful to review the literature on the acquisition of metaphor. Such a review could reveal something about the acquisition of dead metaphors and thus indirectly something about the acquisition of T3CO. It could even reveal something about the acquisition of the T3COs of the colour, animal and bird terms examined in the present study.

**THE REVIEW:**

The literature on the acquisition of metaphor contains little on the topic of the present study. The aspects of the acquisition of metaphor in which the researcher is most interested, the acquisition of dead metaphors and the T3COs lexical items in dead metaphors possess have not been studied. Instead, the acquisition of the ability to generate and interpret original metaphors has been studied.

Ellen Winner et. al. studied how the ability to comprehend and interpret complex original metaphors develops

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3. All of the literature cited deals with the acquisition of metaphor by first language learners. There has been no research on the acquisition of metaphor by SLLs.
(Winner, Rosenstiel and Gardner, 1976). A few years later Gardner and Ellen traced both the development of the ability to interpret complex original metaphors and the ability to generate them (Gardner and Winner, 1979). Vosniadou et. al. also studied the development of the ability to interpret original metaphors (Vosniadou, Ortony, Reynolds and Wolfson, 1984). None of the authors of these studies indicates interest in tracing how children develop or acquire the T3COs necessary to comprehend dead metaphors. This lack of interest in dead metaphors is not easy to understand. It is logical to assume the ability to comprehend dead metaphors appears before the ability to comprehend original ones. All one needs to acquire is an extended aspect of lexical meaning. Surely it is much easier to acquire an extended aspect of lexical meaning than it is the ability to interpret and generate original metaphors.

One of the findings of this research is quite relevant to the topic of the present study. The ability to comprehend complex original metaphors does not develop completely until well into adolescence (Gardner and Winner, 1979). Hence SLLs should be able to acquire the T3COs of lexical items used in dead metaphors some time before they obtain near native speaker fluency. This is particularly true for the T3COs of the lexical items of concern in the present study for they are among the most common of dead metaphors. The only problem is there is nothing to indicate just when SLLs are capable of acquiring the T3COs of these
terms. Perhaps they are capable of acquiring them quite early in their studies. Perhaps they are not capable of acquiring them until they are relatively fluent.

LINGUISTIC INTERFERENCE

JUSTIFICATION FOR INCLUSION:

Over the last few decades a pervasive assumption about second language learning has been that the native language of the learner interferes with the learner's acquisition of a new language. That is, a certain portion of the errors SLLs make in the target language can be attributed to the transfer of certain aspects of the syntax, morphology, phonology or semantics of the native language to the target language. Hence, a review of the literature on linguistic interference could reveal whether SLLs transfer the T3COs of lexical items in their native language to equivalent lexical items in the target language.

THE REVIEW:

Unfortunately, there is little in the literature on the topic of the present study. There are two reasons for this. 1. scholars have begun to believe only a small portion of the errors SLLs make can be attributed to linguistic interference. Krashen et. al. note most grammatical errors and a substantial number of phonological errors cannot be attributed to interference (Krashen, Dulay and Burt, 1982 p.97-98). Hence, less research on linguistic interference has been done in recent years. 2. a negligible amount of
the research on linguistic interference has focused on the lexical component of language. In fact, so little research on lexical interference has been done that Krashen et. al. do not mention it. Most research has focused on the phonological, syntactic and morphological components instead (Krashen, Dulay and Burt, 1982 ch.5).

S.N. Sridhar in a 1981 article reviews the types of research on interference which have been done (Sridhar, 1981). And as he puts it: "The area of vocabulary has hardly been touched at all" (Sridhar, 1981 p.217). One study he cites, however, is most interesting. Osgood and Hofstatter, the authors of this article conclude: "...interferences are likely on the non-denotative meaning level of the second language..." (Sridhar, 1981 p.218). Such a conclusion clearly suggests there is merit in conducting the present study.

The few other articles on lexical acquisition all deal with denotative meaning. Clifford Prator compares adjectives of temperature in English with those in several other languages (Prator, 1983). Christian Adjemian examines the extent to which selectional restrictions encoded in the lexicon are transferred to the target language (Adjemian, 1983). Josh Ard and Taco Homburg discovered that some SLLs transfer native language denotative meanings to the target language (Ard and Homburg, 1981).
The meagre amount of research in this area, makes it difficult to make claims about the transferability of lexical properties without qualifying them in some manner. Nevertheless, the article by Osgood and Hofstatter indicates there are good reasons for assuming many learners transfer the T3COs of their native language to the target language. Osgood and Hofstatter studied the transfer which occurred between German and Swedish. If such transfer occurs between German and Swedish, two very similar languages, is it not probable such transfer will also occur between English and Japanese, two very dissimilar languages?

CULTURAL DIFFERENCES IN CONNOTATIVE MEANING

JUSTIFICATION FOR INCLUSION:

Since one of the objectives of the present study is to discover the extent Japanese people transfer T3COs from Japanese to English, it is natural to review this type of literature. It is a good way to determine whether it is reasonable to expect Japanese people to transfer T3COs from Japanese to English? If T3COs vary greatly from culture to culture, transfer and its resulting misunderstandings are possible. But if T3COs vary little from culture to culture, transfer is less likely to be a problem.

THE REVIEW:

Max Black notes people from different cultures may not understand each other’s metaphors. The reason -- although he does not use the term -- is that the T3COs of lexical
items may differ from culture to culture (Black, 1962 p.40). While he does not give any evidence to support his statement, there is no reason to doubt its validity. The research of Hai-Li Li and Keith Basso certainly support it.

Li notes several differences in T3CO between English and Chinese (Li, 1982). BATS have a very negative T3CO in English. In Chinese, however, they have a positive T3CO. In fact, they are associated with good fortune (Li, 1982 p.93). CAT, which in English has no T3CO, is used by Chinese people to refer to children who are lazy (Li, 1982 p.93). RUNNING DOGS is used to refer to those who try to curry favour with the powerful (Li, 1982 p.93). And WHITE connotes sadness (Li, 1982 p.95). All of these meanings, as any NSE knows, are completely foreign to English. How many English people have heard or read the term, RUNNING DOGS, and did not know what it really meant?

Basso in a paper on the metaphors of the Western Apache very clearly and precisely demonstrates vast differences in T3CO do exist across cultures (Basso, 1976). The differences in T3COs between English and Western Apache are so great it is extremely unlikely any NSE would come up with the T3COs which lexical items have in Western Apache. RAVEN in Western Apache, for example, has the T3CO of WIDOW (Basso, 1976 p.249). DOGS and BUTTERFLIES have the T3COs of CHILDREN and GIRLS respectively (Basso, 1976 p.249). It is
difficult to imagine NSEs who would not have difficulty deciphering the T3C0s of these terms.

Li and Basso examined just a few metaphors in two very different cultures. The results of their research indicate T3C0s in English, Chinese and Western Apache differ greatly. But is that all their research indicates? Can it be assumed the differences in T3C0 they observed are characteristic of all cultures? While it is an extreme position to take, there is some evidence which suggests it is not such an extreme position. It is widely known, or at least widely believed, TYPE 2 T3C0s differ greatly from one culture to another. Geoffrey Leech, for example, notes not only do connotations (TYPE 2) vary from society to society, they also vary from one historical period to another (Leech, 1974 p.14). Thus TYPE 2 connotative meanings in Japanese could be expected to differ from their counterparts in English not only because of cultural differences, but also because in some ways Japanese people and English speaking people live in different historical periods. In Japan women occupy a much more traditional role than they do in most English speaking countries. In England, on the other hand, women become prime ministers. And this is unlikely to happen in Japan in the foreseeable future. Hence, it is possible the TYPE 2 connotative meanings of WOMAN differ substantially between English speaking countries and Japan. No doubt the connotative meanings of other lexical items also differ. Indeed they do. Even a casual acquaintance with Japanese
and things Japanese reveals HOUSE and DEMOCRACY, for example, do not have the same TYPE 2 connotative meanings as they have in English. HOUSE for Japanese people connotes tatami floors, no central heating, family altars and numerous other things and one of the TYPE 2 connotative meanings of DEMOCRACY in Japanese is that the opposition must consent to all legislation before it can be passed.

The literature on the manner in which TYPE 2 and TYPE 3 connotative meanings differ from culture to culture is not substantial. All that is needed is enough to indicate it is plausible to assume there are differences in T3COs between English and Japanese. And there is enough to indicate this. The literature indicates cultural differences in T3COs do exist between Chinese and English and between Western Apache and English. While these differences do not prove such differences exist between English and Japanese, there is no reason not to expect them to exist. If TYPE 2 connotative meanings differ between Japanese and English, is it not reasonable to expect similar differences in T3COs to exist? If they do not exist, it would be most surprising for Japanese and English are different in a lot of other ways. But while it may be logical to assume differences in T3COs exist between Japanese and English, is it logical to assume the T3COs of colour, bird and animal terms differ? It is, but there is no way of knowing until some research is done.
SUMMARY:

This review of the literature has revealed T3CO has received little attention. Language teaching theorists have completely ignored it. The authors of ESL textbooks have not allocated space for it in their textbooks. First and second language acquisition researchers have not investigated it. Scholars of metaphor regard it to be of little interest. Scholars who have investigated the acquisition of metaphor have ignored it.

Nevertheless, the review has revealed: 1. T3CO is an important type of lexical meaning. 2. It is characteristic of fluency. 4. SLLs are unlikely to acquire many T3COs in formal language study. 5. T3CO varies from culture to culture. 6. T3CO poses problems for SLLs. 7. No accurate list of T3COs exists for English or Japanese. 8. Little on the acquisition of T3COs by SLLs is known.
CHAPTER THREE
RESEARCH DESIGN AND METHODOLOGY

The present study was designed to provide some data on the acquisition of T3C0s by adult Japanese speakers of English. It was conducted at Iwate University, a national university in northern Japan. Three different sets of elicitation instruments were designed and given to the subjects to complete in order to provide data on the acquisition of the TYPE 3 connotative meanings (T3C0s) of 39 common English animal, bird and colour terms by JSEs. While the three sets of elicitation instruments were different, they differed only in the amount of context which accompanied each individual stimulus item. Each set of elicitation instruments required the subjects to state what they believed the T3C0s of the 39 terms used in the study were.

THE SUBJECTS:

Ninety-three subjects were asked to complete the elicitation instruments. Eleven of the subjects were professors of English at Iwate University. Three of them were professors of agriculture at Iwate University who use English extensively. Eleven were junior and senior high school teachers who belonged to the Japan Association of Language Teachers (JALT). Sixty-eight were second, third and fourth year English students at Iwate University.

Only 70 of the subjects actually completed the elicitation instruments, however. And as the subjects were
not asked to state their name or to provide any occupational information, it is not possible to know with absolute certainty who did and who did not complete the instruments. All that can be said is that the subjects who completed the instruments did differ in various ways. Thirty-two were male and 38 were female. Seventeen had lived in an English speaking country and 53 had not. Sixteen had more than sixteen years of formal education, 53 had between 12 and 16 years and one claimed to have had fewer than 12 years. Twenty-five had studied English more than ten years and 45 for between five and ten years. Three were under 20 years of age, 51 were between twenty and 30 years of age and 16 were more than 30 years of age. Thirty-nine used English more than once a week and 29 used it less often. Sixteen thought their English skills were advanced and 50 thought they were intermediate. 1

In addition 14 NSEs and 28 NSJs respectively were employed to establish or determine what the T3COs of the terms employed in this study are in both Japanese and English. The NSEs were all adults. Eight were male and six were female. Four were from Canada and ten were from the United States. Eleven had more than 16 years of education. To determine the meanings in Japanese, 28 first year English students at Iwate University were employed. Eighteen were

1. A more complete breakdown of these statistics is given in the appendix.
male and ten were female. They were all about 20 years of age and all were from the Tohoku area of northern Japan.

SELECTION OF THE SUBJECTS:

The pool of subjects accessible to the researcher was limited in size. Only 100 to 150 potential subjects were available to the researcher. These included the students he taught, the English professors with whom he worked, the small number of English teachers whom he had met through JALT and a few other people he had met who spoke English quite fluently. The researcher was therefore required to use these people as subjects. And since the pool of subjects was so small it was not possible to randomly select the subjects. He therefore selected as subjects those who were most conveniently accessible.

To summarise, the subjects were all at least 18 years of age. They were all native speakers of Japanese. They all possessed at least a low-intermediate level of fluency.

A general term like 'low-intermediate' has been used to describe the fluency of the subjects even though it is not very reliable. While there is wide disagreement over what a term like low-intermediate means, the use of such terms was unavoidable. The use of a standardised test to determine the fluency of the subjects was too expensive and the listing of explicit criteria for each general level would have been too cumbersome and confusing for the subjects.
THE STIMULI:

Thirteen animal, 13 bird and 13 colour terms were employed as stimuli in this study. The following criteria were used to select them: 1. the terms are ones with which intermediate level students of English are familiar; 2. a large number of the terms have T3COs; 3. not all of the terms have T3COs; 4. plausible T3COs could be constructed for those terms which do not have T3COs; 5. plausible sentences with imaginary T3COs could be constructed for those terms which do not have T3COs; 6. the vast majority of NSEs are familiar with the T3COs of the terms which have T3COs; 7. the terms which have T3COs are used with their T3COs quite frequently in normal conversational exchanges in English. The 13 animal terms were: buffalo, cow, snake, elephant, fox, monkey, beaver, deer, wolf, horse, dog, bear, and tiger. The 13 bird terms were: chicken, swallow, goose, crane, eagle, swan, turkey, pigeon, hawk, sparrow, owl, duck and crow. The 13 colour terms were: red, purple or violet, pink, orange, blue, gold, green, white, brown, silver, grey, black and yellow.

Only 13 animal, bird or colour terms were used since the 11 basic English colour terms plus SILVER and GOLD total 13. The 11 basic English colour terms according to Brent Berlin and Paul Kay are white, black, brown, green, yellow, blue, red, orange, grey, purple and pink (Berlin and Kay, 1969).
CONSTRAINTS ON THE STIMULI:

In this study only the T3COs which the terms have if they can be substituted for the word in parentheses in the following sentences were investigated.

- John is a (wolf).
- John is (wolf).
- John is a (wolf) <something>.
- John/it is <preposition> the (wolf).
- John has a (wolf) <something>.

WOLF is used here only as an example. It is not meant to imply all of these sentences are meaningful. Indeed, only the first sentence is meaningful.

By doing things in this manner, expressions like the following were eliminated from consideration.

- John is as wise as an owl.
- John has the memory of an elephant.
- John moves like a bull in a china shop.

In addition to the above grammatical constraints, the animal, bird and colour terms in two word combinations like: white knight, green thumb, blackmail, lone wolf, night owl etc. were deemed not to possess T3COs. Instead they were viewed as not having any meaning in their own right, but to only have meaning when combined with the nouns which they modify or with the adjectives which modify them. Thus such terms were not examined or of interest in this study.

THE INSTRUMENTS:

In this study seven different types of instruments were employed. (Copies of the instruments are included in the appendix.) The first of these was a set of three
questionnaires which was employed to gather some relevant background information on each of the subjects. The second type was a cloze reading test. There were also three types of elicitation instruments which the JSEs had to complete. Each of these elicitation instruments, which consisted of a different type of multiple-choice and/or free responses to stimulus prompts, was employed to elicit the subjects' knowledge of the T3C0s of the selected terms. And in addition the NSEs and NSJs each had their respective elicitation instrument to complete.

The background information instruments were quite typical of those employed in survey studies of this type. They simply requested the subjects to provide the researcher with some personal information to facilitate analysis of the data obtained from the elicitation instruments.

The principal subjects of the study, the JSEs, were asked questions on their age, gender, area of Japan which they were from, years of formal education, years of formal English study, their perception of their level of fluency, length of time spent in English speaking countries and the frequency with which they used English for communication.

The NSEs were asked very similar questions. The only difference is they were not asked questions about their study and use of English. Instead they were asked which type of English they were a native speaker of.
The NSJs were asked questions similar to the ones the NSEs were asked. They were asked about their age, gender, years of education and the part of Japan they were from.

The cloze reading test was given only to the JSEs. The test was given so the results obtained from it could serve as the 'covariate' in ANCOVA calculations. The test consisted of three reading passages which had every sixth or seventh word deleted. 2 The deleted words were listed on a separate page in random order. The subjects were required to put the deleted words back in their proper place in the passages.

The three types of elicitation instruments which the Japanese speakers of English had to complete were also quite typical. Instruments similar to them, as Borg and Gall note, have been employed extensively in survey research (Borg and Gall, 1983 ch.11).

There was a complete set of elicitation instruments for each of the three semantic fields investigated in this study. Each set consisted of three types of elicitation instruments. The first type in each set simply required the subjects to decide whether the terms being studied in this study possessed T3COs. And for each term which they decided had a T3CO, they were required to state what they thought

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2. The passages were taken from American Streamline: Departures by Bernhard Hartley and Peter Viney; Headway: Intermediate by John & Liz Soars and Speaking Elementary by Rob Nolasco.
its T3CO(s) is/are. The second type consisted of the same 13 single word stimuli. But instead of being required to state what the T3CO(s) of each term is/are, the subjects were required to select which of the five responses provided best reflected their knowledge of the T3COs which each term has. The first three responses given were single words which were possible T3COs. If they believed the term had one of these meanings, they were to select it. If they believed the term had no T3CO, they were to select the fourth response. And if they were unsure, they were to select the fifth response. The third type of each set also consisted of the same 13 single word stimuli. This time, however, instead of being required to provide a single word response or to select the most suitable single word response, the subjects were confronted with a slightly different task. As in the second part, they were given five possible responses. The first three responses were sentences in which the term was used with possible T3COs. If they believed the term had one of these meanings they were to select it. If they believed the term had no T3CO or they were not sure it had a T3CO, they were to select the fourth or fifth response respectively.

In both the second and third types if a term had a T3CO, one of the first three responses contained it. If a term had more than one T3CO, only one was used.
The elicitation instruments which the NSJs and NSEs had to complete were different from those the JSEs had to complete. Instead of being required to complete three different types of elicitation instruments, they had to complete only one type. In effect the NSJs and NSEs were required to complete an expanded version of the first type of elicitation instrument which the JSEs had to complete. They were simply given a list of the 39 animal, bird, and colour terms used in the study and required to do two things. First, they had to decide whether each of the terms had or did not have a T3CO in their native language. They were also given the option of stating they were unsure whether the terms had T3COs. If they decided a term had a T3CO, they had to write down what they thought its T3CO(s) was/were.

All of the elicitation instruments were accompanied by detailed instructions and directions. The instructions explained in clear, simple terms which a non-specialist could understand what T3CO is. Several lexical items which have T3COs were used as examples in the instructions. The directions explained how to complete the elicitation instruments.

The directions and instructions were given in the native language of the subjects. The NSEs were given instructions and directions written in English. The NSJs and the JSEs were given instructions and directions written
in Japanese. The Japanese instructions and directions were translated from the English instructions and directions. The instructions which the JSEs received, aside from being in Japanese, were identical with those the NSEs received. The instructions which the NSJs received, however, were a little different. Instead of using the examples taken from English, examples taken from Japanese were used. And because Japanese grammar differs significantly from English grammar, the grammatical environments in which the terms appear in Japanese do not correspond exactly to the English environments. The directions which accompanied each elicitation instrument, however, were basically the same. The JSEs, since they were the only subjects to complete the second and third types of elicitation instruments did receive directions which the other subjects did not receive. The directions for these two types of elicitation instruments, however, were first written in English and then translated into Japanese.

The NSJs were permitted to write their responses in Japanese. They were then translated into English by a native speaker of Japanese.

THE CONNOTATIVE MEANINGS OF THE STIMULUS TERMS:

In order to construct the two different types of multiple choice elicitation instruments, the researcher had to decide which of the 39 terms used in the study have T3C0s. Then he had to decide for the terms which have T3C0s
just what their T3COs are. In the case of terms which have more than one T3CO he also had to decide which of their various T3COs to use. And it was not always easy to make these decisions since research on these aspects of T3CO, as was previously noted, is extremely limited.

The researcher relied primarily on his own judgement in deciding whether the terms have or do not have T3COs. He also used his own judgement in deciding what T3COs the terms have. When he had any doubts, he discussed them with colleagues who were native speakers of English. He made his final decisions on the basis of these discussions. Some terms have multiple T3COs. Yet only one T3CO could be used on the multiple choice instruments. When deciding which of these T3COs to select, he selected the T3COS he believed are the most widely used in modern English. He relied on his own judgement to make these decisions.

THE METHODOLOGY:

The methodology consisted primarily of having the subjects provide written responses to stimuli. The stimuli were the 39 terms previously noted. The responses they made were used to determine their knowledge of the T3COs of the terms. As such the methodology provided, it is hoped, a relatively accurate profile of the subjects' conscious knowledge of the selected terms' T3COs rather than a profile of the perhaps more valid, relevant and important unconscious and spontaneous knowledge of the subjects.
The first step was to request all the subjects to complete one of the three slightly different personal information questionnaires. One questionnaire was for the NSEs. The second questionnaire was for the NSJs. And the third questionnaire was for the JSEs. The questionnaires were stapled to the elicitation instruments. Hence the subjects were given the questionnaire and their elicitation instrument(s) at the same time.

The next step depended on whether the subjects were NSEs or NSJs or whether they were JSEs. If they were NSEs or NSJs they proceeded to complete their respective elicitation instrument. If they were JSEs they proceeded to do the cloze reading test.

The NSEs and NSJs had to complete only one elicitation instrument. The NSJs were all students in a first year English class at Iwate University. And as their professor was most cooperative, they were able to complete the instrument during class time. They were given the instrument and asked to read the instructions. In addition they were given an explanation in Japanese. And if they did not understand something, they were encouraged to ask questions. They were given as much time as they needed to complete the instrument. And when they were finished, they handed them into their professor who in turn handed them to the researcher.
The procedure with the NSEs was slightly different. Since it was not possible to gather them all in one place, the researcher either mailed the instrument to them or handed it to them personally. In either case they were allowed to complete the instrument at home at their leisure. When they had completed the instrument, they were given the option of handing them back to the researcher personally or mailing them to him.

While the NSJs and NSEs had only one elicitation instrument to complete, the JSEs had to complete a set of three different elicitation instruments and the cloze reading test. They were required to complete the cloze reading test first.

The following procedure was used with those subjects whom it was possible to supervise. Most were students of the researcher at Iwate University; a few, however, were students of another teacher at Iwate University. The cloze reading test was handed out to them. They were given a few minutes to read the directions and to familiarise themselves with what was required of them. Then they were given 15 minutes to complete the test. At the end of 15 minutes the tests were handed in to the researcher. But before they handed them in they were instructed to write a four digit identification number of their choice on the top right corner of the test. They were also instructed to write the same number on their elicitation instruments. Having the
subjects identify the instruments they completed this way, made it possible to match up the reading tests and the elicitation instruments with the subjects who completed them.

For some of the JSE subjects, those who were mailed the instruments, the English teachers and professors and a few others, it was not possible to supervise the reading test. With them it was left to their integrity and honour to take only 15 minutes.

By giving the subjects only 15 minutes to do the test, it was felt that most of the subjects would be unable to complete it. Thus it was felt there would be more variation in how well the test was done. It was felt a test which produced larger amounts of variation in results would function better as a covariate than a test which did not.

While there are nine different elicitation instruments, none of the subjects was required to complete all nine of them. Instead, each subject had to complete only a set which consisted of three of the nine elicitation instruments. The primary reason for having the subjects complete only three of the elicitation instruments is quite simple. Having the subjects complete only three of the elicitation instruments was the only way of ensuring each subject completed both one of each type of instrument and one from each of the three semantic fields. The three
possible combinations are:

1. Animals - free word choice.  
   Colours - sentence multiple-choice.  
   Birds - word multiple-choice.

2. Animals - word multiple-choice.  
   Colours - free word choice.  
   Birds - sentence multiple-choice.

3. Animals - sentence multiple-choice.  
   Colours - word multiple-choice.  
   Birds - free word choice.

There were also several additional advantages to doing things in this manner. First, it greatly reduced the amount of time the subjects required to complete the instruments. Second, it eliminated the possibility of the subjects using knowledge they gained from doing one instrument to help them complete one of the other instruments. Third, it permitted a greater variety of hypotheses to be developed. Fourth, it significantly reduced the number of subjects required to complete the study. Fifth, it permitted a more complex analysis of the results to be conducted.

The elicitation instruments were randomly distributed to the subjects. Hence which set of elicitation instruments a subject received was entirely a matter of chance.

The subjects were allowed to take their time in completing the elicitation instruments. They were allowed to take them home -- of course those who were mailed the instruments received them at home -- if they wished. They could then mail them in to the researcher or hand them in personally. It was their choice.
The instructions which the subjects were given emphasised three points. 1. It was emphasised all the results would be kept strictly confidential. In fact, it was explained to them the purpose of the research was to determine what they knew as a group and not what they knew as individuals. 2. It was emphasised the elicitation instruments were not tests. It was emphasised the instruments were only designed to determine what they knew. Hence, they were instructed not to guess at any of the answers. 3. It was emphasised they should not check their answers in any way or discuss them with anyone.

SCORING PROCEDURE FOR THE CLOZE READING TEST:

An answer was deemed to be correct if the word inserted in any blank was the exact same word which the author of the passage had used.

SCORING PROCEDURE FOR THE ELICITATION INSTRUMENTS:

For the free word choice elicitation instruments completed by the JSEs, an answer for any of the 39 terms was deemed to be correct if the answer given met either of the two following criteria:

- the answer given was one which at least four of the 14 NSEs had given. This criterion recognises the fact the NSEs did not list all of the possible T3COs of the terms which possess multiple T3COs.
- the answer given was one which, even if fewer than four native speakers of English had given it,
the researcher had to in good conscience accept as a legitimate T3CO. This criterion recognises the fact the NSEs sometimes overlooked or forgot legitimate T3COs.

For the word multiple-choice and the sentence multiple-choice elicitation instruments an answer was deemed to be correct if the answer selected was the one which the researcher had decided was correct. The decisions on which answers would be accepted as correct were made before giving the subjects the elicitation instruments to complete.

**ACCEPTABILITY OF RESPONSES BY THE NSs OF ENGLISH:**

A response given by a NSE was deemed acceptable if it satisfied the grammatical and collocational restraints outlined on page 95. If a response, in the judgement of the researcher, did not satisfy these restraints, it was disregarded.

**ACCEPTABILITY OF RESPONSES BY THE NSs OF JAPANESE:**

All of the responses given by the NSJs were discussed with a Japanese professor of linguistics from Iwate University. While there are some T3COs the subjects noted which he regarded as doubtful, it was difficult for him to categorically deny they were not acceptable T3COs. Hence it was decided to regard all the T3COs the subjects gave as acceptable T3COs in Japanese. It is understood, however, that some of the T3COs the subjects gave are unlikely to be T3COs with which all NSJs are familiar. Besides the purpose
of having the NSJ subjects complete their elicitation instrument was simply to establish a list of T3COs in Japanese which could be used to determine whether the responses of the JSE subjects on the free choice elicitation instruments were due to interference. And the criteria for interference were established so that a few anomalous T3COs could not signal interference.

THE HYPOTHESES:

There are 12 hypotheses. Ten of the hypotheses are statistical hypotheses. These hypotheses permit the scores the JSEs obtained on the elicitation instruments to be compared against a number of variables. The variables are: set of elicitation instruments, semantic field, amount of context, gender, age, years of education, residency in an English speaking country, years of English study, level of English fluency and the frequency English is used. Two of the hypotheses are not statistical hypotheses. The first of these two hypotheses permits the responses the JSEs gave on the free choice instruments to be compared with the responses the NSJs gave on their elicitation instrument. The other permits the responses of the NSEs on their elicitation instrument to be compared and the responses of the NSJs on their elicitation instrument to be compared.

INTERFERENCE HYPOTHESIS:

HYPOTHESIS #1
The JSE subjects shall not transfer T3COs from Japanese to English.
ELICITATION INSTRUMENT HYPOTHESIS:

HYPOTHESIS #2
The JSE subjects' elicitation instrument scores shall not vary due to type of instrument.

CONTEXT HYPOTHESIS:

HYPOTHESIS #3
The JSE subjects' elicitation instrument scores shall not vary due to context.

SEMANTIC FIELD HYPOTHESIS:

HYPOTHESIS #4
The JSE subjects' elicitation instrument scores shall not vary due to semantic field.

AGE HYPOTHESIS:

HYPOTHESIS #5
The JSE subjects' elicitation instrument scores shall not vary due to age.

GENDER HYPOTHESIS:

HYPOTHESIS #6
The JSE subjects' elicitation instrument scores shall not vary due to gender.

EXPERIENCE HYPOTHESES:

HYPOTHESIS #7
The JSE subjects' elicitation instrument scores shall not vary due to level of fluency.

HYPOTHESIS #8
The JSE subjects' elicitation instrument scores shall not vary due to the number of years of formal study of English.

HYPOTHESIS #9
The JSE subjects' elicitation instrument scores shall not vary due to residency in English speaking countries.

HYPOTHESIS #10
The JSE subjects' elicitation instrument scores shall not vary due to the frequency they use English.

HYPOTHESIS #11
The JSE subjects' elicitation instrument scores shall not vary due to amount of formal education.
MISCELLANEOUS HYPOTHESES:

HYPOTHESIS #12 a
The NSE subjects shall agree on what the T3COs of the selected terms used in the study are in English.

HYPOTHESIS #12 b
The NSJ subjects shall agree on what the T3COs of the selected terms used in the study are in Japanese.

DATA ANALYSIS:

The results obtained by the Japanese speakers of English on the elicitation instruments which they had to complete and the cloze reading test study were analysed by Analysis of Covariance or ANCOVA. The use of ANCOVA enabled the researcher to determine whether the variables allowed for in the study (type of instrument, context, semantic field, gender, age, years of education, years of English study, time spent in English speaking countries, level of English ability, and the frequency one uses English) were statistically significant. A total of 14 different comparisons were made. Three semantic field comparisons were made. And three context comparisons were made. Just one comparison was made for each of the other variables.

All of the ANCOVA calculations were two-tailed.

The level of significance for all the ANCOVA calculations was set at .05.

ANCOVA was used to analyse all of the hypotheses except for the interference and the miscellaneous hypotheses.
In order to do the ANCOVA calculations it was necessary to delete randomly the scores of some of the subjects. This was necessary in order to ensure that in the analyses the subjects who completed each set of elicitation instruments were represented equally. If this had not been done some unintended bias could have skewed the results of the ANCOVA calculations.

The following criteria were used to accept or reject the interference hypothesis. 1. Interference was defined as the transference of a Japanese T3CO for one of the terms to the equivalent term in English. 2. Interference, however, did not occur if the T3CO in English and Japanese were the same. Thus since BLACK has the T3CO of EVIL in both English and Japanese, no transference was possible for this term. 3. For at least ten of the 39 terms employed in the study, 25% of the responses had to be due to interference. 4. If less interference occurred the hypothesis was accepted. 5. If this much or more interference occurred the hypothesis was rejected. Only the responses of the subjects on the FREE CHOICE instruments were examined for interference. The responses on the other instruments were not considered. On the MULTIPLE CHOICE instruments no attempt was made to ensure that at least one of the possible choices for each term was a Japanese T3CO.
In order for the null forms of the context and semantic field hypotheses to be rejected, it was necessary for each of the three comparisons to be statistically significant.

The following criteria were used to accept or reject the miscellaneous hypotheses: 1. If for at least 30 of the 39 terms employed in the study, the NS subjects exhibited at least 75% agreement on what the T3COs of the terms are, the hypotheses were accepted. 2. If less agreement was exhibited the hypotheses were rejected.

**SUMMARY:**

The 70 JSE subjects in the study were given one of three different sets of elicitation instruments to complete. Each set of elicitation instruments was designed to reveal how well the subjects had acquired the T3COs of 39 frequently used English animal, bird and colour terms. The elicitation instruments, while different, did test the same thing. It is just that the amount context which accompanied the terms from each of the three semantic fields varied. For example, on one set of instruments the animal terms were accompanied by no context. On one of the other two sets of instruments they were accompanied by a word of context. And on the other instrument they were accompanied by a sentence of context.

The subject were all adult native speakers of Japanese. They were either studying English at university or else teachers or professors of English. NSs of Japanese and
English were employed to determine what the T3COs of the 39 terms are in Japanese and English respectively.

Since the subjects were not randomly selected, a cloze reading test was used to act as the covariate in ANCOVA calculations. The level of significance used was .05.

The hypotheses were designed to determine whether the elicitation instrument scores of the subjects varied due to the set of instruments they completed, semantic field or context. They were also designed to reveal whether the subjects' scores varied due to age, gender, level of English ability, years of English study, years of education, frequency English is used or residency in an English speaking country.
CHAPTER FOUR

ANALYSIS AND DISCUSSION

The results of the study are presented in this chapter. A brief examination of the results of the elicitation instruments completed by the JSE subjects are presented first. Next, the results of the cloze reading test completed by the JSE subjects are presented. Then, a brief summary of the data obtained from the elicitation instruments completed by the NSE and NSJ subjects are presented. Then, the T3C0s in Japanese and English are compared. Each hypothesis is then analysed separately. The chapter closes with a discussion of the results.

JAPANESE SPEAKERS OF ENGLISH

TABLE #1
ELICITATION INSTRUMENT RESULTS

<table>
<thead>
<tr>
<th>N</th>
<th>Total</th>
<th>MEAN</th>
<th>S.D.</th>
<th>RANGE</th>
<th>CORR</th>
<th>SS</th>
</tr>
</thead>
<tbody>
<tr>
<td>70</td>
<td>598.00</td>
<td>8.54</td>
<td>4.59</td>
<td>1-22</td>
<td>0.28</td>
<td>1455.37</td>
</tr>
</tbody>
</table>

A brief glance at the above table quickly reveals the JSEs, the primary subjects of the study, have acquired relatively few of the T3C0S of the 39 animal, bird and colour terms used in the study. The mean number of correct responses was only 8.54. Taken as a group the subjects had acquired the T3C0S of fewer than 25% of the terms used in the study. Even the best of them had acquired the T3C0S of only slightly more than half of the terms. Only four had of the 70 subjects had acquired the T3C0s of 40% of the terms. Just 28 had acquired the T3C0s of ten of the terms. Fifteen
had acquired the T3CO of five or fewer terms. The worst had acquired a T3CO of only one of the terms.

This lack of knowledge was not evenly distributed. There were a few terms, particularly colour terms, for which a relatively large number of subjects had acquired the T3COs. Forty-eight of the subjects had acquired, for example, MELANCHOLY or SAD as a T3CO of BLUE. Twenty-three had acquired Bad or Evil as a T3CO of BLACK. Eighteen had acquired WAR-LIKE as a T3CO of HAWK and 21 had acquired INDUSTRIOUS as a T3CO of BEAVER. Other terms which at least 15 of the subjects had acquired at least one T3CO are CHICKEN, YELLOW, GREY, WHITE, RED, SNAKE, MONKEY and TIGER.

There were other terms, however, for which very few of the subjects had acquired the T3COs. Only six of the subjects, for example, had acquired FAT and UGLY as a T3CO of COW. Only three of them had acquired OBSCENE as a T3CO of PURPLE. Just four had acquired NAIVE, SIMPLE, STUPID etc. as a T3CO of TURKEY. And only seven had acquired UGLY as a T3CO of DOG. Other terms fewer than ten of the subjects had acquired one T3CO are: WOLF and PIGEON.

In the previous two paragraphs only terms which have T3COs were examined. Several of the terms, as was noted previously, do not have T3COs. If anything, it was more difficult for the subjects to identify the terms which do not have T3COs than it was to decide what the T3COs of terms which have T3COs are. Of the 15 terms which do not have
T3COs, the subjects were able to identify only one of them reasonably well. Twenty-three of the subjects correctly noted ORANGE does not have a T3CO. None of the other 14 terms which do not have T3COs were correctly identified by even 20 subjects. Only 18, for example noted Brown has no T3CO. Just five, four and three respectively were aware SWALLOW, SPARROW and OWL do not have T3COs. Seventeen, fifteen and eleven respectively noted DEER, HORSE, and BUFFALO have no T3COs.

One of the more noteworthy results of the study is the number of NOT SURE answers which the subjects gave. Fully 1369 of the answers given were NOT SUREs. For some items the percentage of NOT SUREs greatly exceeded 50%. Over 70% of the answers given for CRANE, CROW and SPARROW were NOT SUREs. Between 60% and 70% of the answers for TURKEY, SWALLOW, GOOSE, PIGEON, DUCK PURPLE ORANGE BROWN and BEAR were NOT SUREs. And at least 50% of the answers for an additional eight terms were NOT SUREs. Fifty percent of the answers for 20 of the 39 terms in the study were NOT SUREs.

RESULTS OF THE CLOZE READING TEST

TABLE #2
READING TEST RESULTS

<table>
<thead>
<tr>
<th>N</th>
<th>Total</th>
<th>MEAN</th>
<th>S.D.</th>
<th>RANGE</th>
<th>CORR</th>
<th>SS</th>
</tr>
</thead>
<tbody>
<tr>
<td>70</td>
<td>1739.00</td>
<td>24.84</td>
<td>8.44</td>
<td>6-40</td>
<td>0.28</td>
<td>4915.27</td>
</tr>
</tbody>
</table>

The above table indicates the subjects found the close reading test relatively easy. Several of the subjects did
very well on it. In fact, 31.4% or 22 of the subjects filled in at least 75% of the blanks correctly. Two even obtained a perfect score. Only seven of the seventy subjects filled in fewer than 40% of the blanks correctly. And only two filled in fewer than 25% of the blanks correctly.

When the results of the cloze reading test are examined with regard to gender and which of the three sets of elicitation instruments the subjects completed, difference are evident. The worst result, a mean of 20.85, was by the female subjects who completed the COLOURS, BIRDS and ANIMALS instruments. The best result, a mean of 29.10, was by the males who completed the BIRDS, ANIMALS and COLOURS instruments. The four other gender and instrument means were: 22.09, 23.92, 27.50 and 24.85. These means are much closer to the grand mean of 24.84.

RELIABILITY OF THE INSTRUMENTS

To determine the reliability of the elicitation instruments and the cloze reading test the Kuder-Richardson 21 formula was used. The Reliability Coefficient for the elicitation instruments was 0.70. The Reliability Coefficient for the cloze reading test was 0.89. The Standard Error of Measurement for the elicitation instruments was 2.51. The Standard Error of Measurement for the cloze reading test was 2.80.
INSTRUMENTS COMPLETED BY NSs of JAPANESE AND ENGLISH

TABLE #3
ENGLISH NS INSTRUMENT *

<table>
<thead>
<tr>
<th></th>
<th>TOTAL</th>
<th>MEAN</th>
<th>S.D.</th>
<th>RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>273.00</td>
<td>19.50</td>
<td>4.69</td>
<td>11-28</td>
</tr>
<tr>
<td>NO</td>
<td>231.00</td>
<td>16.50</td>
<td>5.69</td>
<td>7-28</td>
</tr>
<tr>
<td>NOT SURE</td>
<td>42.00</td>
<td>3.00</td>
<td>3.26</td>
<td>0-10</td>
</tr>
</tbody>
</table>

* The unacceptable YES responses have been converted to NOs on this chart.

As is evident from the above table, the NSE subjects did not agree unanimously on what the T3COs of the 39 animal, bird and colour terms used in the study are. One of the subjects thought 28 of the terms have T3COs. Another subject, however, thought 28 of the terms do not have T3COs. And still another subject was unsure whether ten of the terms have or do not have T3COs. Despite this overall lack of agreement, however, the subjects did exhibit some agreement on what the T3COs of a number of the terms were.

All the subjects, for example, noted CHICKEN has the T3CO of COWARD or AFRAID; BLUE has the T3CO of MELANCHOLY, DEPRESSED or SAD and that one of the T3COs of FOX is SLY, CUNNING or CRAFTY. For other terms, while the subjects did not exhibit unanimous agreement, they did exhibit substantial agreement. All but one of the subjects felt YELLOW has the T3CO of COWARD or AFRAID. All but one of the subjects felt CRANE and ORANGE do not possess T3COs and SNAKE, WOLF and RED do possess T3COs, although there was some disagreement on what their meanings are. And all but two stated SWALLOW and SPARROW do not possess T3COs. And
ten of the 14 subjects noted GREEN has the T3CO of INEXPERIENCE. And nine of the subjects noted BLACK has the T3CO of BAD or EVIL.

For other terms, however, there was wide disagreement. While some stated a term has no T3CO, others were unsure whether it has a T3CO. And others, while convinced it has a T3CO, disagreed on just what it was. Eight of the subjects, for example, felt CROW has no T3CO; two were not sure and four felt it has the T3CO of SLY, SMART, OLD, HARPING or SHRILL. (Some of the T3COs of CROW and the other terms noted in this paragraph were not accepted as T3COs by the researcher.) Four of the subjects felt PINK has the T3CO of HEALTHY; two felt it has the T3CO of HOMOSEXUAL. Others thought it has COMMUNIST, HAPPY, DELIGHTED or FEMININE for T3COs. Three thought it has no T3CO and two more were not sure. The subjects also gave diverse meanings for MONKEY. Two thought it has no T3CO. The others thought it has the T3COs of MISCHIEVOUS, SILLY, WILY, ACROBATIC, FOOLISH or the LIFE OF THE PARTY.

In addition there are obvious T3COs which did not occur to most of the NSE subjects. Most NSEs accept BLUE has the T3CO of PORNOGRAPHIC. Indeed, a large percentage of NSEs have probably at various times in their lives either used or have heard other people use BLUE with this meaning. Yet only four of the subjects noted BLUE has this T3CO. And despite the fact John Tower during his Secretary of Defense
confirmation hearings in January 1989, expressly referred to himself as a HAWK, fewer than half of the 14 subjects noted an ardent supporter of the military is often called a HAWK. And surprisingly, only one noted GREEN has recently acquired the T3CO: ENVIRONMENTALLY CONSCIOUS or CONCERNED. Yet this is a meaning with which most NSEs are familiar. Cotton Timberlake in an article in the March 1 1989 issue of The Japan Times used GREEN with this meaning several times. He obviously believed his readers knew what A GREEN CONSUMER, A GREEN BUSINESS OPPORTUNITY, The GREEN MOVEMENT and A GREEN PRODUCT are as he assumed they knew ENVIRONMENTALLY CONSCIOUS is a T3CO of GREEN. And only seven of the subjects noted COMMUNIST is a T3CO of RED; INDUSTRIOUS is a T3CO of BEAVER and only six noted GULLIBLE is a T3CO of PIGEON. And just one subject noted PURPLE has the T3CO of OBSCENE. But these T3COs are T3COs which it is difficult to believe most NSEs would not understand if they encountered these terms used with them.

One other interesting result is the male and female subjects differed widely on what the T3COs of a few of the items are. Four of the six female subjects and only two of the eight male subjects, for example, felt ELEPHANT does not have a T3CO. Six of the males and only one of the females felt DOG has the T3CO of UGLY WOMAN. Four of the males and none of the females felt SWAN does not have a T3CO and that HAWK has the T3CO of WAR-LIKE. And four males and only one female felt SILVER does not have a T3CO. It should,
however, be pointed out the mean number of terms which the
NSEs thought have T3C0s did not vary much with gender. The
mean for the male subjects was 19.75 and the mean for the
female subjects was 19.17.

<table>
<thead>
<tr>
<th></th>
<th>TOTAL</th>
<th>MEAN</th>
<th>S.D.</th>
<th>RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES:</td>
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<td>8.63</td>
<td>1-35</td>
</tr>
<tr>
<td>NO:</td>
<td>276.00</td>
<td>9.85</td>
<td>10.45</td>
<td>0-37</td>
</tr>
<tr>
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<td>437.00</td>
<td>15.61</td>
<td>10.06</td>
<td>0-37</td>
</tr>
</tbody>
</table>

* Since four of the subjects did not provide a response for
every item, the total number of responses is nine fewer than
the 1092 there would have been if every item had received a
response.

Table #4 clearly indicates the NSJ subjects exhibited
much less agreement, on what the T3C0s of the 39 terms are
in Japanese than the NSE Subjects exhibited for the terms in
English. The NSE subjects were relatively confident about
their knowledge of the T3C0s of the terms used in the study.
They were not sure whether a term had a T3CO only 7.7% of
the time. The NSJ subjects, in contrast, were not sure just
over 40% of the time. They were not sure more often than
they were sure a term had a T3CO or than they were sure it
did not have a T3CO. And the range of YES and NO answers
given by the NSE subjects, while large, was not nearly as
large as the range of scores given by the NSJ subjects.
Some subjects believed only a few of the terms have T3COs.
Other subjects, however, believed most of the terms have
T3COs. Whereas the NSE subjects agreed on the T3C0s of
several of the terms, the NSJ subjects agreed on the
meanings of relatively few of the terms. The level of agreement also did not approach the level of agreement the NSE subjects displayed.

Eighteen or 64% of the subjects noted BLACK has the T3CO of EVIL or CRIMINAL. Twenty or 71% of the subjects agreed WHITE has the T3CO of PURITY, INNOCENCE or GOOD. Seventeen of the subjects felt FOX has the T3CO of SLY, TRICKY, CUNNING etc. Fourteen of the subjects noted PIGEON has the T3CO of PEACEFUL or GENTLE. These are the only terms which at least 50% of the subjects agreed on the T3COs.

At least 25% of the NSJ subjects were in agreement on what the T3COs of a number of other terms are. Eight subjects believed YELLOW has the T3CO of SHRILL, HIGH PITCHED, NOISY or a LOUD METALLIC VOICE. Nine thought LOYAL or FAITHFUL is the T3CO of DOG and DANGEROUS or VIOLENT is the T3CO of WOLF. Ten thought SWANS are BEAUTIFUL or ELEGANT. Seven noted a COMMUNIST is a RED. Eight thought BLUE has the T3CO of INEXPERIENCED or YOUNG.

There was more agreement on which terms do not have T3COs than there was on which terms have T3COs. There are eighteen terms which at least 25% of the subjects thought do not have T3COs. There were four terms which half of the subjects felt do not have T3COs. These 18 terms are BUFFALO, ELEPHANT, BEAVER, DEER, BEAR, CHICKEN, SWALLOW,
GOOSE, CRANE, TURKEY, SPARROW, OWL, DUCK, PURPLE/VIOLET, PINK, ORANGE, BROWN and SILVER.

Uncertainty was more common than certainty. There are 18 terms which at least 25% of the subjects were not sure whether they have T3COs. Of these 35 terms, there were 11 which at least 50% of the subjects were not sure have T3COs. These 11 terms are: ELEPHANT, MONKEY, DEER, TURKEY, SPARROW, OWL, DUCK, PURPLE/VIOLET, GOLD, GREEN, and SILVER. The four terms for which at least 25% of the responses were not NOT SUREs are: FOX, BEAVER, WOLF and SWALLOW.

There were also noticeable differences in the responses of the male and female subjects. Three of the ten female subjects thought DOG has the T3CO of SUBMISSIVE. None of the 18 male subjects thought it has this meaning. Eleven of the males thought PIGEON has the T3CO of PEACEFUL or GENTLE. Only three of the females thought it has this meaning. And six of the males and none of the females thought EAGLE has the T3CO of SHARP. Four of the males and none of the females noted BLUE has the T3CO of MELANCHOLY. Nine males, but only one female, were unsure whether RED has a T3CO. And eleven of the males, but only two of the females were unsure whether PINK and YELLOW have T3COs. And four females, but only one male, thought HORSE does not have a T3CO. As with the NSE subjects, the mean number of terms which the NSJ subjects thought have T3COs did not vary much with gender. The mean for the male subjects was 13.78 and
the mean for the female subjects was 12.20. So on average the male subjects thought one and a half more terms has a T3CO than the female subjects did.

Just as the NSE subjects forgot to note some T3COs, the NSJs also forgot some. Learners of Japanese very soon after their arrival in Japan learn PINK has the T3CO of PORNOGRAPHIC in Japanese. Yet only six of the NSJ subjects noted PINK has this meaning. Several Japanese people have noted to the researcher that BLUE can mean SAD in Japanese. Only three of the subjects, however, noted it has this meaning. Several of the JSE subjects, after they had completed the their elicitation instruments informed the researcher SWALLOW has a T3CO of YOUNG LOVER in Japanese. Just three, and perhaps four, of the NSJ subjects, noted it has this meaning. And only seven noted RED has COMMUNIST as a T3CO. And one of the researcher’s students recently told him a person who likes shiny things is a CROW in Japanese. None of the NSJ subjects, however, noted CROW has this meaning.

COMPARISON OF CONNOTATIVE MEANINGS:

The data compiled from the elicitation instruments completed by the NSE and NSJ subjects reveals few of the 39 animal, bird and colour terms employed in the study have similar T3COs in Japanese and English. Among those which have at least one meaning in common are: FOX, SNAKE, RED, WHITE and BLACK. There are a few other terms which, based
on the data, may have a meaning in common. These are terms to which only a few of either the NSE or NSJ subjects attributed a meaning which the terms definitely have in the other language. Among these terms are: BLUE, TIGER, MONKEY, WOLF, BEAR, HAWK, GOLD, and GREY.

A number of terms in both Japanese and English do not have T3COs. For most of the NSE and NSJ subjects the following terms do not have T3COs: BUFFALO, DEER, SPARROW, DUCK, ORANGE, BROWN and SILVER. There are also some terms which probably do not have T3COs in either English or Japanese. While some of the subjects noted these terms have T3COs, no consensus was established. Only a few of the NSE and NSJ subjects noted they have T3COs. Among these terms are: ELEPHANT, HORSE, EAGLE and CRANE.

Other terms possess quite different T3COs in Japanese and English. Among these terms are: CHICKEN, YELLOW, DOG, PIGEON, BLUE and GREEN.

Still other terms possess T3COs in one language, but not in the other language. Among these are: BEAVER, GOOSE, SWALLOW, SWAN, TURKEY, CROW.

A most interesting difference in the T3COs of the 39 terms employed in this study is that in Japanese it is possible for a term to possess a large number of quite different T3COs. CHICKEN, for example, was noted by at least one and sometimes two NSJ subjects as having at least
one of the following T3COs: FORGETFUL, SLOW, EARLY RISER, NOISY, RESTLESS AND FOOLISH. GREY was noted as having the T3COs of MELANCHOLY, SUSPICIOUS, EVIL, OPAQUE, HOPELESS, WALL, DULL/DARK, FADED, NOT FUN, SPOTTED, CLOUDY, MUDDY and BURDENSOME by between one and three subjects each. COW was thought to have the T3COs of SLOW, FAT, PRODIGAL, QUIET AND STUPID. Terms were not attributed such a range of T3COs the NSE subjects. While some terms like FOX and WOLF, for example, did garner a number of responses from the NSE subjects, most of the responses were synonyms.

ANALYSIS OF THE HYPOTHESES:

HYPOTHESIS #1: The JSE subjects shall not transfer the connotative meanings which particular terms have in Japanese to the equivalent terms in English.

The following two criteria were used to determine whether transfer had occurred: 1. At least 25% of the responses for a term had to be due to transfer. 2. Twenty-five percent of the responses for ten of the 39 terms employed in the study had to be due to transfer. Only the responses on the FREE CHOICE instruments were examined. Hence only the response of the 24 subjects who completed the ANIMALS FREE instrument and the responses of the 23 subjects who completed each of the BIRDS FREE and COLOURS FREE instruments were examined.

When the terms for which transfer is not possible (those with the same T3COs in Japanese and English and those
which do not have T3COs in either Japanese or English) are eliminated only 19 terms remain.

COW has the T3CO of SLOW in Japanese. Only two of the 24 JSE subjects who completed the ANIMALS FREE CHOICE instrument, however, thought COW has this meaning in English. BEAVER has no T3CO in Japanese. Only four subjects said it has no T3CO in English. A DOG is LOYAL or SUBMISSIVE in Japanese. None of the subjects thought a DOG is LOYAL or SUBMISSIVE in English. In Japanese a WOLF is DANGEROUS. None of the subjects thought it has this meaning in English. A CHICKEN can be many things in Japanese. None of the subjects thought it was any of them in English. They also did not think a SWALLOW is a WOMAN's LOVER in English. Only three subjects thought a SWAN is BEAUTIFUL and a PIGEON is PEACEFUL in English. TURKEY has no T3CO in Japanese. Only six subjects thought TURKEY has no T3CO in English. HAWK has the T3CO of SHARP in Japanese. None of the subjects thought it has this T3CO in English. In Japanese EAGLE is associated with the manly virtues of BRAVERY, STRENGTH or STURDINESS. Only three subjects thought it has any of these meanings in English. The NSJ subjects said a CROW is EVIL, SLY, ILL-TEMPERED in Japanese. Only two thought CROW has these meanings in English. And just two thought GOOSE has no T3CO in English. And no subject transferred the T3CO for PURPLE in Japanese. PINK has T3COs of SEXUAL or LOVELY in Japanese. Fewer than six subjects thought it has similar meanings in English. GREY,
as noted previously, has a number of T3COs in Japanese. None of the subjects thought it has any of them in English. One of the T3COs of BLUE in Japanese is YOUNG or INEXPERIENCED. None of the subjects thought it has this meaning in English. GREEN has NATURE as a T3CO in Japanese. Only two subjects thought it has similar meanings in English. And none thought YELLOW has SHRILL or HIGH PITCHED as a T3CO in English.

For none of the 19 terms for which transfer was possible was there much indication that the JSE subjects transferred Japanese T3COs to equivalent terms in English. Since the criteria for interference are not satisfied, the null hypothesis is accepted. The JSE subjects in this study did not transfer the T3COs the 39 animal, bird and colour terms have in Japanese to their equivalent terms in English.

**HYPOTHESIS #2:** The scores of the JSE subjects on the elicitation instruments shall not vary due to which set of elicitation instruments they completed.

The scores of the JSE subjects on the COLOURS, BIRDS, and ANIMALS set of instruments; the ANIMALS, COLOURS and BIRDS set of instruments and the BIRDS, ANIMALS and COLOURS set of instruments were compared to determine whether the scores of the JSE subjects on the elicitation instruments varied with the set of instruments they completed.
### TABLE #5
INSTRUMENTS RESULTS

<table>
<thead>
<tr>
<th>N</th>
<th>TOTAL</th>
<th>MEAN</th>
<th>S.D.</th>
<th>RANGE</th>
<th>CORR</th>
<th>SS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COLOURS, BIRDS and ANIMALS INSTRUMENTS</td>
<td>23</td>
<td>209.00</td>
<td>9.09</td>
<td>4.52</td>
<td>3-21</td>
<td>0.48</td>
</tr>
<tr>
<td>ANIMALS, COLOURS and BIRDS INSTRUMENTS</td>
<td>23</td>
<td>184.00</td>
<td>8.00</td>
<td>4.15</td>
<td>2-20</td>
<td>0.24</td>
</tr>
<tr>
<td>BIRDS, ANIMALS and COLOURS INSTRUMENTS</td>
<td>23</td>
<td>202.00</td>
<td>8.74</td>
<td>5.14</td>
<td>1-22</td>
<td>0.35</td>
</tr>
<tr>
<td>TOTALS</td>
<td>69</td>
<td>595.00</td>
<td>8.62</td>
<td>4.58</td>
<td>1-22</td>
<td>0.32</td>
</tr>
</tbody>
</table>

* To ensure equal representation from each of the three sets of elicitation instruments one N was randomly deleted from the ANIMALS, COLOURS and BIRDS instruments.

The above table indicates the number of correct responses did not vary much. The highest mean was 9.09 and the lowest mean was 8.00. This is not a large difference. It shows the subjects who completed the COLOURS, BIRDS and ANIMALS instruments had acquired the T3CO of just one more term than the subjects who completed the ANIMALS, COLOURS and BIRDS instruments.

This, however, does not mean the number of correct responses did not vary. The higher standard deviation and sum of squares indicate the responses of the subjects who completed the BIRDS, ANIMALS and COLOURS INSTRUMENTS varied more than the responses of the subjects who completed the other two sets of instruments. A number of subjects who completed this set of elicitation instruments had a relatively large number of correct responses. A number of other subjects had relatively few correct responses. Very few subjects were clustered about the mean. On the other
two sets of elicitation instruments there were fewer high and low scores. A larger number of subjects were clustered about the mean.

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>df</th>
<th>SUM of SQUARES</th>
<th>MEAN SQUARE</th>
<th>F RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>BETWEEN</td>
<td>2</td>
<td>279.70</td>
<td>139.85</td>
<td>9.11</td>
</tr>
<tr>
<td>WITHIN</td>
<td>65</td>
<td>998.66</td>
<td>15.36</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>67</td>
<td>1278.36</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

.05 F 2,65 = 3.15 p<.001

An ANCOVA with 2 and 65 degrees of freedom was run on the data. The scores of the subjects on the cloze reading test was the covariate. An F-ratio of 9.11 was obtained. This is almost three times the F-ratio needed to indicate significance at the .05 level of significance. Therefore the null hypothesis is rejected. The scores of the subjects varied due to the set of elicitation instruments they completed. The adjusted means and the Standard Errors of Estimate are 9.87 and 0.84 for the COLOURS, BIRDS and ANIMALS instruments, 7.84 and 0.82 for the ANIMALS, COLOURS and BIRDS instruments and 8.16 and 0.84 for the BIRDS, ANIMALS and COLOURS instruments. The 0.90CI for each of the respective groups is 9.87 ± 1.45, 7.84 ± 1.41 and 8.16 ± 1.45.

**HYPOTHESIS #3**: The scores of the JSE subjects on the elicitation instruments shall not vary due to context.

Three different comparisons were made to determine whether the scores of the JSE subjects on the elicitation
instruments varied due to context. In each comparison the amount of context varied while the semantic field was kept constant. In the first comparison the scores on the ANIMALS FREE CHOICE, ANIMALS WORD MULTIPLE WORD CHOICE and ANIMALS SENTENCE MULTIPLE CHOICE instruments were compared. In the second comparison the scores on the BIRDS FREE CHOICE, BIRDS WORD MULTIPLE CHOICE and BIRDS SENTENCE MULTIPLE CHOICE instruments were compared. In the third comparison the scores on the COLOURS FREE CHOICE, COLOURS WORD MULTIPLE CHOICE and COLOURS SENTENCE MULTIPLE CHOICE instruments were compared.

FIRST COMPARISON:

<table>
<thead>
<tr>
<th></th>
<th>TOTAL</th>
<th>MEAN</th>
<th>S.D.</th>
<th>RANGE</th>
<th>CORR</th>
<th>SS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANIMALS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FREE CHOICE</td>
<td>23</td>
<td>39.00</td>
<td>1.70</td>
<td>1.77</td>
<td>0-5</td>
<td>-0.18</td>
</tr>
<tr>
<td>WORD MULTIPLE CHOICE</td>
<td>23</td>
<td>74.00</td>
<td>3.22</td>
<td>2.66</td>
<td>0-9</td>
<td>0.39</td>
</tr>
<tr>
<td>SENTENCE MULTIPLE CHOICE</td>
<td>23</td>
<td>76.00</td>
<td>3.30</td>
<td>1.61</td>
<td>1-6</td>
<td>0.38</td>
</tr>
<tr>
<td>TOTALS</td>
<td>69</td>
<td>189.00</td>
<td>2.74</td>
<td>2.17</td>
<td>0-9</td>
<td>0.14</td>
</tr>
</tbody>
</table>

* To ensure equal representation from each of the three sets of elicitation instruments one N was randomly deleted from the ANIMALS FREE instrument.

The data indicate the scores of the subjects varied with the amount of context. The more context, the more correct responses they had. The mean for the FREE CHOICE instrument was only 1.70. On the WORD and the SENTENCE MULTIPLE CHOICE instruments the means were 3.22 and 3.33 respectively. The FREE CHOICE instrument had only 20.64% of
the 189 correct responses. The WORD MULTIPLE CHOICE instrument and the SENTENCE MULTIPLE CHOICE instrument had 39.15% and 40.21% of the correct responses respectively. Such results clearly indicate it was much more difficult for the subjects who completed the FREE CHOICE instrument to arrive at a correct answer than it was for the subjects who completed the other two instruments. This does not mean it was easy for the subjects who completed the other two instruments to select the correct response. Indeed, it was not easy. Only 76 or 25.42% of the responses on the SENTENCE MULTIPLE CHOICE instrument, for example, were correct.

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>df</th>
<th>SUM of SQUARES</th>
<th>MEAN SQUARE</th>
<th>F RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>BETWEEN</td>
<td>2</td>
<td>40.62</td>
<td>20.31</td>
<td>4.85</td>
</tr>
<tr>
<td>WITHIN</td>
<td>65</td>
<td>272.42</td>
<td>4.19</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>67</td>
<td>313.04</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

.05 F 2,65 = 3.15 p<.025

An ANCOVA with 2 and 65 degrees of freedom was run on the data. The scores the subjects obtained on the cloze reading test was the covariate. An F-ratio of 4.85 was obtained. This is significant at the .05 level of significance. Therefore the null hypothesis is rejected. The scores of the JSE subjects on the ANIMALS elicitation instruments varied with the amount of context. The adjusted means and the Standard Errors of Estimate are 1.66 and 0.43 for the FREE CHOICE instrument, 3.14 and 0.44 for the WORD
MULTIPLE CHOICE instrument and 3.42 and 0.44 for the SENTENCE MULTIPLE CHOICE INSTRUMENT. The 0.90CI for each of the respective groups is 1.66 ± 0.75, 3.14 ± 0.75 and 3.42 ± 0.76.

SECOND COMPARISON:

<table>
<thead>
<tr>
<th>TABLE #9</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BIRDS FREE, WORD and SENTENCE RESULTS</strong></td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>23</td>
</tr>
<tr>
<td>23</td>
</tr>
<tr>
<td>23</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
</tr>
</tbody>
</table>

* To ensure equal representation from each of the three sets of elicitation instruments one N was randomly deleted from the BIRDS SENTENCE instrument.

The data clearly indicate the subjects had not acquired the T3COs of many of the bird terms employed in this study. They gave substantially fewer correct responses on the three BIRDS instruments than they did on the corresponding ANIMALS instruments. On the BIRDS instruments 87 fewer correct responses were given. Only 102 or 11.37% of the responses were correct. This compares with the 21.07% which were correct on the ANIMALS instruments. On the BIRDS FREE CHOICE instrument, the mean number of correct responses was less than one. On the WORD MULTIPLE CHOICE instrument, the mean was exactly 2.00. And on the SENTENCE MULTIPLE CHOICE instrument, the mean number of correct responses was 1.48. This is interesting for it is the reverse of what happened
on the ANIMALS instruments. The additional context on the SENTENCE MULTIPLE CHOICE instrument did not result in a larger number of correct responses.

### TABLE #10
**BIRDS: ANCOVA RESULTS**

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>df</th>
<th>SUM of SQUARES</th>
<th>MEAN SQUARE</th>
<th>F RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>BETWEEN</td>
<td>2</td>
<td>20.96</td>
<td>10.48</td>
<td>4.11</td>
</tr>
<tr>
<td>WITHIN</td>
<td>65</td>
<td>178.53</td>
<td>2.55</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>67</td>
<td>199.49</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ .05 F 2,65 = 3.15 \text{ p}<.025 \]

An ANCOVA with 2 and 65 degrees of freedom was run on the data. The scores the subjects obtained on the cloze reading test was the covariate. An F-ratio of 4.11 was obtained. This is significant at the .01 level of significance. Therefore the null hypothesis is rejected. The scores of the JSE subjects on the BIRDS elicitation instruments varied due to the amount of context. The adjusted means and the Standard Errors of Estimate are 0.81 and 0.34 for BIRDS FREE CHOICE instrument, 2.17 and 0.34 for the BIRDS WORD MULTIPLE CHOICE INSTRUMENT and 1.41 for the BIRDS SENTENCE MULTIPLE CHOICE instrument. The 0.90 CI for each of the respective groups is 0.81 ± 0.59, 2.17 ± 0.59 and 1.41 ± 0.58.
THIRD COMPARISON:

<table>
<thead>
<tr>
<th>N</th>
<th>TOTAL</th>
<th>MEAN</th>
<th>S.D.</th>
<th>RANGE</th>
<th>CORR</th>
<th>SS</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>87.00</td>
<td>3.78</td>
<td>2.09</td>
<td>0-9</td>
<td>0.21</td>
<td>95.91</td>
</tr>
<tr>
<td>23</td>
<td>109.00</td>
<td>4.74</td>
<td>2.40</td>
<td>1-10</td>
<td>0.12</td>
<td>126.43</td>
</tr>
<tr>
<td>23</td>
<td>106.00</td>
<td>4.61</td>
<td>2.71</td>
<td>1-11</td>
<td>0.18</td>
<td>161.48</td>
</tr>
</tbody>
</table>

**TOTALS**

| 69 | 302.00 | 4.38 | 2.41 | 0-11 | 0.19 | 396.20 |

*To ensure equal representation from each of the three sets of elicitation instruments one N was randomly deleted from the COLOURS WORD instrument.*

The subjects gave a greater number of correct responses on the COLOURS instruments than they gave on either the BIRDS or ANIMALS instruments. In fact, over 50% of all the correct responses given were on the COLOURS instruments. On the FREE CHOICE instruments 87 or 58.8% of the correct responses were given on the COLOURS instrument. On the WORD and SENTENCE MULTIPLE CHOICE instruments the respective percentages were 47.6% and 49.1%. Clearly the subjects had acquired the T3COs of more colour terms than they had of either animal or bird terms. While this is true, it is also clear the JSE subjects had not acquired the T3cos of many colour terms. Only 33.7% of their response on the three COLOURS instruments were correct.

On the ANIMALS and BIRDS instruments the number of correct responses was not distribute evenly. Few of the subjects gave correct responses on the FREE CHOICE instruments. They gave a much larger number of correct
responses on the WORD and SENTENCE MULTIPLE CHOICE instruments. On the COLOURS instruments, however, the correct response were distributed quite evenly. Of the correct responses on the COLOURS instruments 28.8% were on the FREE CHOICE instrument and 35.1% were on the SENTENCE MULTIPLE CHOICE instrument.

The standard deviations and sum of squared deviations varied little on the COLOURS instruments. The scores were clustered about the means of each of the three COLOURS instruments in an approximately equal manner. And the correlation coefficients did not vary much. On the ANIMALS and BIRDS instruments these statistics varied much more.

| TABLE #12 |
| COLOURS: ANCOVA RESULTS |

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>df</th>
<th>SUM of SQUARES</th>
<th>MEAN SQUARE</th>
<th>F RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>BETWEEN</td>
<td>2</td>
<td>8.21</td>
<td>4.11</td>
<td>0.72</td>
</tr>
<tr>
<td>WITHIN</td>
<td>65</td>
<td>373.69</td>
<td>5.75</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>67</td>
<td>381.90</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

.05 F 2,65 = 3.15 p<.25

An ANCOVA with 2 and 65 degrees of freedom was run on the data. The scores the subjects obtained on the cloze reading test was the covariate. An F-ratio of 0.72 was obtained. This is not significant at the .05 of level of significance. Therefore the null hypothesis is not rejected. On the COLOURS instruments the elicitation scores of the JSE subjects did not vary with regard to context. The adjusted means and the Standard Errors of Estimate are 3.91 and 0.52 for the FREE CHOICE instrument, 4.70 and 0.51
for the WORD MULTIPLE CHOICE instrument and 4.52 and 0.51 for the SENTENCE MULTIPLE CHOICE instrument. The 0.90CI for each of the respective groups is 3.91 ± 0.89, 4.70 ± 0.87 and 4.52 ± 0.88.

SUMMARY:

The null hypothesis was rejected on two of the three comparisons. Therefore it cannot be unequivocally stated the scores of the JSE subjects varied due to context. Variation in the scores on the ANIMALS and BIRDS instruments was due to context. On the COLOURS instruments the scores did not vary due to context. And as they varied on the COLOURS instruments, the null hypothesis was accepted.

HYPOTHESIS #4: The scores of the JSE subjects on the elicitation instruments shall not vary due to semantic field.

Three different comparisons were made in order to determine whether the scores of the JSE subjects varied due to semantic field. In each comparison the semantic field was varied while the amount of context was kept constant. In the first comparison the scores on the three FREE CHOICE instruments were compared. In the second comparison the scores on the three WORD MULTIPLE CHOICE instruments were compared. In the third comparison the scores on the SENTENCE MULTIPLE CHOICE instruments were compared.
FIRST COMPARISON: FREE CHOICE RESPONSES

<table>
<thead>
<tr>
<th>N</th>
<th>TOTAL</th>
<th>MEAN</th>
<th>S.D.</th>
<th>RANGE</th>
<th>CORR</th>
<th>SS</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>39.00</td>
<td>1.70</td>
<td>1.77</td>
<td>0-5</td>
<td>-0.18</td>
<td>68.87</td>
</tr>
<tr>
<td>23</td>
<td>22.00</td>
<td>0.96</td>
<td>1.30</td>
<td>0-4</td>
<td>0.21</td>
<td>36.96</td>
</tr>
<tr>
<td>23</td>
<td>87.00</td>
<td>3.78</td>
<td>2.09</td>
<td>0-9</td>
<td>0.21</td>
<td>95.91</td>
</tr>
</tbody>
</table>

**TOTALS**

| 69 | 148.00 | 2.14 | 2.10 | 0-9   | -0.08 | 300.55 |

* To ensure equal representation from each of the three sets of elicitation instruments one N was randomly deleted from the ANIMALS FREE instrument.

The above table clearly indicates the subjects had acquired the T3COs of more colour terms than animal or bird terms. In fact, 87 or 58.8% of the 148 correct FREE CHOICE responses were given by the subjects who completed the COLOURS FREE CHOICE instrument. The subjects who completed the ANIMALS and BIRDS FREE CHOICE instruments gave 39% and 22% of the correct responses respectively. In other words, the subjects who completed the COLOURS FREE CHOICE instrument gave nearly twice as many correct responses and the subjects who completed the BIRDS FREE CHOICE instrument approximately half as many correct responses as would have been expected if the number of correct responses had been divided equally among the three semantic fields.

If acquisition of T3CO is an indication of fluency, then the subjects who completed the COLOURS FREE CHOICE instrument had a more fluent command of English than the subjects who completed the ANIMAL and BIRDS FREE CHOICE
instruments. The data, however, do not support this conjecture. The COLOURS FREE CHOICE subjects did less well on the cloze reading test than the other subjects. Their mean score on the cloze was 22.09. This compares with the means of 25.17 and 26.70 by the ANIMAL and BIRDS FREE CHOICE subjects respectively. Based on these results, BIRDS FREE CHOICE subjects ought to have had the most correct responses. Instead, they had the fewest.

**TABLE #14**

**FREE CHOICE: ANCOVA RESULTS**

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>df</th>
<th>SUM of SQUARES</th>
<th>MEAN SQUARE</th>
<th>F RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>BETWEEN</td>
<td>2</td>
<td>99.91</td>
<td>48.96</td>
<td>15.85</td>
</tr>
<tr>
<td>WITHIN</td>
<td>65</td>
<td>200.72</td>
<td>3.09</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>67</td>
<td>298.63</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

.01 F 2,65 = 3.15 p<.001

An ANCOVA with 2 and 65 degrees of freedom was run on the data. The scores the subjects obtained on the cloze reading test was the covariate. An F-ratio of 15.85 was obtained. This is significant at the .01 level of significance. It is five times greater than that needed to indicate significance. Therefore the null hypothesis is rejected. On the FREE CHOICE instruments the scores of the JSE subjects varied with regard to semantic field. The adjusted means and the Standard Errors of Estimate are 1.69 and 0.37 for the ANIMALS FREE CHOICE instrument, 0.93 and 0.38 for the BIRDS FREE CHOICE instrument and 3.82 and 0.38 for the COLOURS FREE CHOICE instrument. The 0.90CI for each
of the respective groups is $1.69 \pm 0.64$, $0.93 \pm 0.65$ and $3.82 \pm 0.65$.

**SECOND COMPARISON: WORD MULTIPLE CHOICE RESPONSES**

<table>
<thead>
<tr>
<th>ANIMALS, BIRDS and COLOURS WORD RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>23</td>
</tr>
<tr>
<td>23</td>
</tr>
<tr>
<td>23</td>
</tr>
</tbody>
</table>

**TOTALS**

| 69 | 232.00 | 3.36 | 2.67 | 0-10 | 0.36 | 485.94 |

* To ensure equal representation from each of the three sets of elicitation instruments one N was randomly deleted from the COLOURS WORD instrument.

The data in the table clearly indicates the subjects who completed the COLOURS WORD MULTIPLE CHOICE elicitation instrument gave more correct responses than the subjects who completed the ANIMALS and BIRDS WORD MULTIPLE CHOICE elicitation instruments. Slightly more than 49% of the correct responses were given by the subjects who completed the COLOURS WORD MULTIPLE CHOICE elicitation instrument. Only 19.8% of the correct response were given by the subjects who completed the BIRDS WORD MULTIPLE CHOICE elicitation instrument. These results mirror the results obtained on the FREE CHOICE elicitation instruments. The subjects who completed the COLOURS instrument did better than the subjects who completed the ANIMALS and BIRDS instruments. And the subjects who completed the ANIMALS
instrument did better than the subjects who completed the BIRDS instrument.

**TABLE #16
WORD CHOICE: ANCOVA RESULTS**

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>df</th>
<th>SUM of SQUARES</th>
<th>MEAN SQUARE</th>
<th>F RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>BETWEEN</td>
<td>2</td>
<td>77.58</td>
<td>38.79</td>
<td>7.31</td>
</tr>
<tr>
<td>WITHIN</td>
<td>65</td>
<td>345.38</td>
<td>5.31</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>67</td>
<td>422.96</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[.05 \text{ F } 2,65 = 3.15 \text{ p}<.01\]

An ANCOVA with 2 and 65 degrees of freedom was run on the data. The results are similar to the results for the first comparison. The F-ratio of 7.30 is more than twice as large as the ratio needed to indicate statistical significance at the .05 level of significance. Therefore the null hypothesis is rejected. The scores varied with regard to semantic field. The adjusted means and the Standard Errors of Estimate are 3.01 and 0.49 for the ANIMALS WORD MULTIPLE CHOICE instrument, 2.26 and 0.50 for the BIRDS WORD MULTIPLE CHOICE instrument and 4.82 and 0.49 for the COLOURS MULTIPLE CHOICE instrument. The 0.90CI for each of the respective groups is 3.01 $\pm$ 0.85, 2.26 $\pm$ 0.85, and 4.82 $\pm$ 0.84.
THIRD COMPARISON: SENTENCE MULTIPLE CHOICE RESPONSES

TABLE #17
ANIMALS, BIRDS and COLOURS SENTENCE RESULTS

<table>
<thead>
<tr>
<th>N</th>
<th>TOTAL</th>
<th>MEAN</th>
<th>S.D.</th>
<th>RANGE</th>
<th>CORR</th>
<th>SS</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>76.00</td>
<td>3.30</td>
<td>1.61</td>
<td>1-6</td>
<td>0.38</td>
<td>56.87</td>
</tr>
<tr>
<td>23</td>
<td>33.00</td>
<td>1.43</td>
<td>1.59</td>
<td>0-7</td>
<td>0.47</td>
<td>55.65</td>
</tr>
<tr>
<td>23</td>
<td>106.00</td>
<td>4.61</td>
<td>2.71</td>
<td>1-11</td>
<td>0.18</td>
<td>161.48</td>
</tr>
</tbody>
</table>

TOTALS
| 69 | 215.00| 3.12 | 2.40  | 0-11  | 0.27 | 391.07 |

* To ensure equal representation from each of the three sets of elicitation instruments one N was randomly deleted from the BIRDS SENTENCE instrument.

The above table clearly indicates the subjects who completed the COLOURS instrument had acquired more T3COs than the subjects who completed the ANIMALS and BIRDS instruments. In fact, they had acquired almost as many T3COs as the subjects who completed the ANIMALS and BIRDS instruments did combined. They gave 106 or 49.3% of the correct responses. The subjects who completed the ANIMALS instrument gave 35.4% of the correct responses and the subjects who completed the BIRDS instrument gave just 15.4% of the correct responses. Such results, especially since they are very similar to the results obtained in the first two comparisons, inevitably suggest they should be statistically significant.
An ANCOVA with 2 and 65 degrees of freedom was run on the data. The results are similar to the results for the first two comparisons. The F-ratio of 14.83 is almost five times as large as the ratio needed to indicate statistical significance at the .05 level of significance. Therefore the null hypothesis is rejected. The scores varied due to the effect of semantic field. The adjusted means and the Standard Errors of Estimate are 3.51 and 0.42 for the ANIMALS SENTENCE MULTIPLE CHOICE instrument, 1.39 and 0.41 for the BIRDS SENTENCE MULTIPLE CHOICE instrument and 4.44 and 0.42 for the COLOURS SENTENCE MULTIPLE CHOICE instrument. The 0.90CI for each of the respective groups is 3.51 ± 0.72, 1.39 ± 0.71 and 4.44 ± 0.72.

**SUMMARY:** Each of the three comparisons indicate the scores of the JSE subjects varied due to the effect of semantic field. Hence the hypothesis has been rejected. Scores do vary due to the effect of semantic field.

**HYPOTHESIS #5:** The scores of the JSE subjects shall not vary due to age.

The elicitation instrument scores of the JSE subjects who were 30 years of age or older were compared with the
elicitation instrument scores of the JSE subjects who were under 30 years of age. Seventeen of the subjects were at least 30 years of age. Fifty-three of the subjects were under 30 years of age. However, in order to ensure the subjects who completed each of the three sets of elicitation instruments were equally represented, only the scores of 30 of the subjects were used in the ANCOVA calculations. The elicitation instrument scores of two of the subjects 30 years old or over and two of the subjects under 30 years of age were randomly deleted.

<table>
<thead>
<tr>
<th>TABLE #19</th>
<th>AGE RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
<td><strong>TOTAL</strong></td>
</tr>
<tr>
<td>THIRTY AND OVER</td>
<td>17</td>
</tr>
<tr>
<td>UNDER THIRTY</td>
<td>53</td>
</tr>
</tbody>
</table>

The data clearly indicate the older subjects had acquired the T3COs of more of the terms employed in the study. The mean score of the older subjects is almost twice the mean score of the younger subjects. The older subjects, despite accounting for slightly less than a quarter of the subjects, gave 34.8% of the correct responses. Such results suggest the acquisition of the T3COs of the 39 terms employed in the study is a slow process which occurs over a number of years.

There is one anomaly to these results. The correlation coefficients are extremely low. For the subjects as a whole
the correlation coefficient was 0.28. When the subjects are divided according to age, however, the correlation coefficients are 0.03 and 0.09. There is no relation between the scores on the cloze reading test and the scores on the elicitation instruments when the subjects are grouped according to age.

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>df</th>
<th>SUM of SQUARES</th>
<th>MEAN SQUARE</th>
<th>F RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>BETWEEN</td>
<td>1</td>
<td>177.46</td>
<td>177.46</td>
<td>10.28</td>
</tr>
<tr>
<td>WITHIN</td>
<td>63</td>
<td>1087.24</td>
<td>17.26</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>64</td>
<td>1264.70</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\( .05 F 1,63 = 4.00 \ p<.01 \)

An ANCOVA with 1 and 63 degrees of freedom was run on the data. An F-ratio of 10.28 was obtained. An F-ratio this large is significant at the .05 level of significance. Therefore the null hypothesis is rejected. The elicitation instrument scores of the subjects varied due to the effect of age. The adjusted means and the Standard Errors of Estimate are 11.55 and 3.93 for the 30 and older subjects and 7.87 and 1.98 for the under 30 subjects. The 0.90CI for each age group is 11.55 ± 6.96 and 7.87 ± 3.33.

**HYPOTHESIS #6:** The scores of the JSE subjects shall not vary due to gender.

The elicitation instrument scores of the female JSE subjects were compared with the elicitation instrument scores of the male JSE subjects. Thirty-eight of the subjects were male and 32 of the subjects were female.
However, to ensure that the subjects who completed each of the three sets of elicitation instruments were equally represented, only the scores of 66 of the subjects were used in the ANCOVA calculations. The scores of two female subjects and two male subjects were deleted.

**TABLE #21**

<table>
<thead>
<tr>
<th>GENDER RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>FEMALE</td>
</tr>
<tr>
<td>MALE</td>
</tr>
</tbody>
</table>

The basic statistics on the male and female subjects did not vary much. The mean, standard deviation and correlation coefficient for the male subjects were slightly higher than they were for the female subjects. The ranges of the scores were almost identical. The male subjects, however, had a mean of 26.81 on the cloze reading test. The female subjects had a mean of 23.18. The scores of the male and female subjects, while not identical, were not dissimilar either.

While their scores did not vary, the responses they gave for individual stimulus items did occasionally vary. Three of the females on the ANIMALS SENTENCE instrument, for example, noted that WOLF has the T3CO of SEXUALLY AGGRESSIVE. None of the males did. On the BIRDS FREE instrument four of the males thought CROW has a T3CO. None of the females did. And on the COLOURS WORD instrument five
of the males but only one of the females thought the T3CO of PINK is HEALTHY. And there are a number of other terms on each of the various instruments for which similar differences are evident.

**TABLE #22**

**GENDER: ANCOVA RESULTS**

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>df</th>
<th>SUM of SQUARES</th>
<th>MEAN SQUARE</th>
<th>F RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>BETWEEN</td>
<td>1</td>
<td>1.82</td>
<td>1.82</td>
<td>0.10</td>
</tr>
<tr>
<td>WITHIN</td>
<td>63</td>
<td>1134.56</td>
<td>18.01</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>64</td>
<td>1136.38</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

.05 F 1,63 = 4.00 p>.25

An ANCOVA with 1 and 63 degrees of freedom was run on the data. An F-ratio of 0.10 was obtained. This is not significant at the .05 level of significance. Therefore the null hypothesis is accepted. The elicitation scores of the JSE subjects did not vary due to the effect of gender. The adjusted means and the Standard Errors of Estimate are 8.77 and 0.23 for the FEMALE subjects and 8.45 and 0.25 for the MALE subjects. The 0.90CI for each gender is 8.77 ± 0.39 and 8.45 ± 0.43.

**HYPOTHESIS #7:** The scores of the JSE subjects shall not vary due to level of fluency in English.

The elicitation instrument scores of the JSE subjects who considered themselves to have an intermediate level of fluency were compared with the elicitation instrument scores of the JSE subjects who considered themselves to have an advanced level of fluency. Sixteen of the subjects said they were advanced and 50 said they were intermediate. Four
of the subjects did not indicate their level. In order to ensure that the subjects who completed each of the three sets of elicitation instruments were equally represented, only the scores of 63 of the subjects were used in the ANCOVA calculations. The scores of two intermediate subjects and one advanced subject were randomly deleted.

**TABLE #23**

**LEVEL RESULTS**

<table>
<thead>
<tr>
<th></th>
<th>TOTAL</th>
<th>MEAN</th>
<th>S.D.</th>
<th>RANGE</th>
<th>CORR</th>
<th>SS</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTERMEDIATE</td>
<td>50</td>
<td>393.00</td>
<td>7.86</td>
<td>1-20</td>
<td>0.22</td>
<td>828.02</td>
</tr>
<tr>
<td>ADVANCED</td>
<td>16</td>
<td>177.00</td>
<td>11.06</td>
<td>3-22</td>
<td>0.22</td>
<td>470.94</td>
</tr>
</tbody>
</table>

The advanced subjects had acquired the T3C0s of more of the 39 terms than the intermediate subjects. The advanced subjects' mean score was 11.06. The mean of the intermediate subjects was 7.86. If there had been an equal number of intermediate and advanced subjects, the advanced subjects would have provided 58.5% of the correct responses. On the cloze reading test the advanced subjects had a mean score of 30.25 and the intermediate subjects a mean of 23.28. Clearly the advanced subjects had acquired a greater number of T3C0s and had a better command of English.

**TABLE #24**

**LEVEL: ANCOVA RESULTS**

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>df</th>
<th>SUM of SQUARES</th>
<th>MEAN SQUARE</th>
<th>F RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>BETWEEN</td>
<td>1</td>
<td>64.34</td>
<td>64.34</td>
<td>3.17</td>
</tr>
<tr>
<td>WITHIN</td>
<td>60</td>
<td>1217.17</td>
<td>20.29</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>61</td>
<td>1281.51</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

.05 F 1,61 = 4.00 p<.10
An ANCOVA with 1 and 60 degrees of freedom was run on the data. An F-ratio of 3.17 was obtained. This is smaller than the ratio needed to indicate statistical significance at the .05 level of significance. Therefore the null hypothesis cannot be rejected. The scores of the JSE subjects on the elicitation instruments did not vary due to the level of English ability. The adjusted means and the Standard Errors of Estimate are 7.95 and 1.18 for the INTERMEDIATE subjects and 10.44 and 2.16 for the ADVANCED subjects. The 0.90CI for each level is 7.95 ± 1.96 and 10.44 ± 3.82.

HYPOTHESIS #8: The scores of the JSE subjects shall not vary due to the number of years they have studied English.

The elicitation instrument scores of the JSE subjects who had studied English between five and ten years were compared with the elicitation instrument scores of the JSE subjects who had studied English more than ten years. Forty-five of the subjects had studied English between five and ten years and 25 more than ten years. For the ANCOVA calculations, however, the scores of 22 of the subjects were randomly deleted to ensure that the subjects who completed each of the three different sets of elicitation instruments were equally represented.

TABLE #25
ENGLISH STUDY RESULTS

<table>
<thead>
<tr>
<th>N</th>
<th>TOTAL</th>
<th>MEAN</th>
<th>S.D.</th>
<th>RANGE</th>
<th>CORR</th>
<th>SS</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-10 YEARS</td>
<td>45</td>
<td>341.00</td>
<td>7.56</td>
<td>3.69</td>
<td>1-14</td>
<td>0.06</td>
</tr>
</tbody>
</table>
Again one group of subjects had acquired more T3COs of the 39 terms than the other group. The subjects who had studied English more than ten years had acquired the T3COs of almost three more terms than the group who had studied English between five and ten years. Six of the subjects who had studied English more than ten years had acquired the T3COs of at least 14 terms. Thirteen had acquired the T3COs of at least ten terms. Thirteen of the subjects who had studied English between five and ten years had also acquired the T3COs of at least ten terms. However, only 25 of the subjects had studied English more than ten years. Forty-five had studied it between five and ten years. And those who had studied English more than ten years had a mean of 32.50 on the cloze reading test. This compares with the mean of 22.25 which the subjects who had studied English between five and ten years had.

**TABLE #26**

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>df</th>
<th>SUM of SQUARES</th>
<th>MEAN SQUARE</th>
<th>F RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>BETWEEN</td>
<td>1</td>
<td>143.08</td>
<td>143.08</td>
<td>7.80</td>
</tr>
<tr>
<td>WITHIN</td>
<td>45</td>
<td>825.10</td>
<td>18.34</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>46</td>
<td>968.18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

.05 F 1,45 = 4.08 p<.01

**HYPOTHESIS**

The elicitation instrument scores of the JSE subjects who had resided in an English speaking country were compared
with the elicitation instrument scores of the JSE subjects who had not resided in an English speaking country. Seventeen had lived abroad and 53 had not lived abroad. In order to ensure that the subjects who completed each of the three sets of elicitation instruments were equally represented, it was necessary to randomly delete the scores of four of the subjects for the ANCOVA calculations.

TABLE #27
LIVED ABROAD RESULTS

<table>
<thead>
<tr>
<th>LIVED ABROAD</th>
<th>MEAN7</th>
<th>r</th>
<th>RANGE</th>
<th>CORR</th>
<th>SSR</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOT LIVED ABROAD</td>
<td>386.00</td>
<td>7.28</td>
<td>1-21</td>
<td>0.28</td>
<td>798.75</td>
</tr>
</tbody>
</table>

Again there are obvious differences between the two groups. The mean of the subjects who had lived abroad was almost twice the mean of the subjects who had not lived abroad. Twelve of the 17 subjects who had lived abroad had at least ten correct responses. Only 16 of the subjects who had not lived abroad had at least ten correct responses. The mean of the subjects who had lived abroad on the cloze reading test was 31.53. The subjects who had not lived abroad had a mean of only 22.70. Clearly the subjects who had lived abroad were more fluent and had acquired the T3COs of more terms.
TABLE #28  
LIVED ABROAD: ANCOVA RESULTS

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>df</th>
<th>SUM of SQUARES</th>
<th>MEAN SQUARE</th>
<th>F RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>BETWEEN</td>
<td>1</td>
<td>285.86</td>
<td>285.86</td>
<td>19.16</td>
</tr>
<tr>
<td>WITHIN</td>
<td>63</td>
<td>940.04</td>
<td>14.92</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>64</td>
<td>1225.90</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

.05 F 1,63 = 4.00 p.<.001

An ANCOVA with 1 and 63 degrees of freedom was run on the data. An F-ratio of 19.16 was obtained. This is almost five times as large as the ratio needed to indicate statistical significance at the .05 level of significance. Therefore the null hypothesis is rejected. The scores of the JSE subjects on the elicitation instruments varied due to residency in an English speaking country. The adjusted means and the Standard Errors of Estimate are 12.54 and 4.71 for the subjects who have lived abroad and 7.08 and 2.42 for the subjects who have not lived abroad. The 0.90CI for each group is 12.54 ± 8.34 and 7.08 ± 4.07.

HYPOTHESIS #10: The scores of JSE subjects shall not vary due to the frequency they use English.

The elicitation instrument scores of the JSE subjects who used English more than once a week were compared with the elicitation instrument scores of the JSE subjects who used English less than once a week. Thirty-nine of the subjects used English more than once a week. Twenty-nine of the subjects used English less than once a week. Two subjects did not indicate how often they used English. In order to ensure that the subjects who completed each of the
three sets of elicitation instruments were equally represented, it was necessary to randomly delete the scores of 17 of the subjects for the ANCOVA calculations.

**TABLE #29**
**FREQUENCY RESULTS**

<table>
<thead>
<tr>
<th>N</th>
<th>TOTAL</th>
<th>MEAN</th>
<th>S.D.</th>
<th>RANGE</th>
<th>CORR</th>
<th>SS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MORE THAN ONCE A WEEK</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>350.00</td>
<td>8.97</td>
<td>4.66</td>
<td>2-22</td>
<td>0.30</td>
<td>824.97</td>
</tr>
<tr>
<td><strong>LESS THAN ONCE A WEEK</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>233.00</td>
<td>8.03</td>
<td>4.52</td>
<td>1-20</td>
<td>0.30</td>
<td>572.97</td>
</tr>
</tbody>
</table>

The basic statistics on the subjects who used English more than once a week and those who used it less than once a week do not vary much. There is only a 0.94 difference in their means. The standard deviations and ranges are virtually identical. The correlation coefficients are identical. Their means on the cloze reading test were 24.82 and 24.72. Of the subjects who used English more than once a week 38.5% had ten or more correct responses. The corresponding percentage for the subjects who used English less than once a week was 41.3%. By the standard measures, these subjects do not differ very much.

**TABLE #30**
**FREQUENCY: ANCOVA RESULTS**

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>df</th>
<th>SUM of SQUARES</th>
<th>MEAN SQUARE</th>
<th>F RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>BETWEEN</td>
<td>1</td>
<td>2.20</td>
<td>2.20</td>
<td>0.10</td>
</tr>
<tr>
<td>WITHIN</td>
<td>48</td>
<td>1062.73</td>
<td>22.14</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>49</td>
<td>1064.93</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

.05 F 1,48 = 4.08 p>0.25
An ANCOVA with 1 and 48 degrees of freedom was run on the data. An F-ratio of 0.10 was obtained. This F-ratio is less than the ratio needed to indicate statistical significance at the .05 level of significance. Therefore the null hypothesis is accepted. The scores of the JSE subjects did not vary due to the frequency the subjects used English. The adjusted means and the Standard Errors of Estimate are 9.12 and 0.07 for the subjects who used English more than once a week and 8.69 and 0.11 for the subjects who used English less than once a week. The 0.90CI for each group is 9.12 ± 0.13, and 8.69 ± 0.18.

**HYPOTHESIS #11:** The scores of the JSE subjects shall not vary due to the amount of formal education they have received.

The elicitation instrument scores of the JSE subjects who had received 12 to 16 years of formal education were compared with the elicitation instrument scores of the JSE subjects who had received more than 16 years of education. Sixteen of the subjects had received more than 16 years of education. Fifty-three had received between 12 and 16 years of education. One claimed to have received less than 12 years of education. Since all of the subjects had attended university, all of the subjects should have received more than 12 years of education. In any case, for statistical purposes, this subject has been grouped with the subjects who had received between 12 and 16 years of education. In order to ensure that the subjects who completed each of the three sets of elicitation instruments were equally
represented, it was necessary to randomly delete the scores of ten of the subjects for the ANCOVA calculations.

**TABLE #31**

**EDUCATION RESULTS**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>TOTAL</th>
<th>MEAN</th>
<th>S.D.</th>
<th>RANGE</th>
<th>CORR</th>
<th>SS</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-16 YEARS</td>
<td>54</td>
<td>403.00</td>
<td>7.46</td>
<td>3.56</td>
<td>1-14</td>
<td>0.02</td>
<td>673.43</td>
</tr>
<tr>
<td>MORE THAN 16 YEARS</td>
<td>16</td>
<td>195.00</td>
<td>12.19</td>
<td>5.81</td>
<td>3-22</td>
<td>0.46</td>
<td>506.48</td>
</tr>
</tbody>
</table>

A glance at the above two tables reveals the subjects with more than 16 years of education had acquired the T3COs of several more of the terms used in the study than the subjects with between 12 and 16 years of education. Eleven or 68.8% of the subjects with more than 16 years of education had at least ten correct responses. The corresponding percentage for the subjects with between 12 and 16 years of education was 31.5%. The subjects with more than 16 years of education had a mean of 29.50 on the cloze reading test. This compares with the mean of 23.46 which the other subjects had. The subjects with more education clearly are different from those subjects with less education. They have acquired more T3COs and they probably are more fluent. Eight of the 16 subjects with more than 16 years of education believed their English was advanced. Half of the subjects who considered themselves advanced had received more than 16 years of education.
An ANCOVA with 1 and 57 degrees of freedom was run on the data. An F-ratio of 23.50 was obtained. This ratio is statistically significant at the .05 level of significance. Therefore the null hypothesis is rejected. The scores of the JSE subjects on the elicitation instruments varied due to the amount of formal education the subjects had received. The adjusted means and the Standard Errors of Estimate are 7.53 and 2.69 for the subjects who had received between 12 and 16 years of education and 14.76 and 6.62 for the subjects who had received more than 16 years of education. The 0.90CI for each group is 7.53 ± 4.52 and 14.76 ± 12.58.

**HYPOTHESIS #12a:** The NSE subjects shall agree on what the T3COs of the thirty-nine terms are in English.

In order for this hypothesis to be accepted, it was necessary for 75% of the subjects to agree on the T3COs of 30 of the 39 terms employed in the study. Seventy-five percent of the subjects either had to agree on what one of the T3COs of a term was or agree that the term did not have a T3CO. Eleven or 75% of the subjects agreed on the T3COs of only ten of the terms. Therefore the hypothesis is
rejected. The NSE subjects did not agree on what the T3COs of the 39 terms are in English.

**HYPOTHESIS #12b:** The NSJ subjects shall agree on what the T3COs of the thirty-nine terms are in Japanese.

In order for this hypothesis to be accepted, the same condition had to be satisfied. There was not even one term which 75% of the subjects agreed on what its T3CO is. No more than 71% of the subjects agreed on the T3CO of any one term. Therefore the hypothesis is rejected. The NSJ subjects did not agree on what the T3COs of the 39 terms are in Japanese.

**DISCUSSION**

**SCORES OF THE JSE SUBJECTS ON THE ELICITATION INSTRUMENTS:**

The scores of the JSE subjects on the elicitation instruments were low. Even the subject with the highest score did not do very well. She had only 22 correct responses. The subject with the lowest score had only one correct response. The average subject had only 8.54 correct responses. Clearly the subjects had not acquired the T3COs of many of the terms employed in the study.

Such results, however, are not surprising. In the review of the literature it was noted the authors of the textbooks used to teach English in schools and universities in Japan place little, if any, emphasis on the teaching of even the most common and elementary T3COs. Students who study English from these textbooks cannot be expected to
acquire many T3COs. When one studies English in a place where it is not used, the textbook one uses becomes the primary source of English. And one cannot learn something which is not in the textbook. Hence students who study English in Japan cannot be expected to learn many T3COs. Hence it is not surprising to discover the JSE subjects who completed the elicitation instruments in this study have not acquired the T3COs of many of the animal, bird and colour terms employed in this study. They were not taught T3COs. It is difficult to learn what one is not taught.

While it is difficult to learn what one is not taught, it is not impossible. The average subject had acquired 8.54 T3COs. How did they acquire them? Perhaps they acquired them from reading English novels. The average English student in Japan, however, has read very few books in English. Perhaps they acquired them from watching English movies. This, however, is unlikely as the English student in Japan does not have the requisite listening skills to understand a movie. The researcher does not know how they acquired the T3COs they had acquired. He would like to find out, however.

THE CLOZE READING TEST:

The scores on the cloze reading test indicate the subjects have a good knowledge of English grammar, vocabulary and discourse strategies. If they didn't, they would not have done as well as they did. And as extensive
knowledge of these things is necessary for fluency, it can be assumed most of the subjects have a reasonably good command of English.

Scores on cloze tests correlate quite highly with the scores obtained on standardised tests like the TOEFL test (Wordell, 1989 p.24). Thus scores on a cloze reading test should correlate quite highly with scores obtained, for example, on instruments which measure the acquisition of a particular type of linguistic knowledge. But the low correlation coefficient, 0.28, between the elicitation instruments and the cloze reading test used in this study indicates at least, not all aspects of language ability correlate highly with the results obtained on cloze reading tests. If all aspects of language ability correlate highly with results obtained on cloze reading tests, a higher correlation coefficient (perhaps 0.50) should have been obtained in this study. Isn’t knowledge of T3CO an aspect of language ability? But if SLLs acquire few T3COs until relatively late in the acquisition process, the low correlation coefficient is not surprising. This would mean that SLLs with intermediate levels of fluency could acquire an approximately equal number of T3COs as SLLs somewhat more fluent. This, at least, would explain the low correlation coefficient.
HYPOTHESIS #1: The JSE subjects shall not transfer the connotative meanings which particular terms have in Japanese to the equivalent terms in English.

This hypothesis was accepted as the criteria established for transfer were not met. The data, however, do not conclusively prove that transfer does not occur. It just proves that the JSE subjects in this study did not transfer Japanese T3COs to the equivalent English terms when simply asked to state what the T3COs of some English terms are. They were asked to consciously dredge up the English T3COs. If the task which had confronted the subjects had been more receptive in nature, the results might have been different. If they had been asked from a list of meanings which included all possible Japanese T3COs, all possible English T3COs and some distractor T3COs, the subjects might have transferred more Japanese T3COs. On the BIRDS WORD and SENTENCE CHOICE instruments one of the possible T3COs listed for SWAN was ELEGANT. This is one of the T3COs which SWAN has in Japanese. Twenty-two of the 47 subjects who completed one or the other of these instruments said the English T3CO of SWAN is ELEGANT. On the ANIMALS WORD and SENTENCE CHOICE instruments one of the T3COs listed for DOG was FAITHFUL. Fifteen of the 46 subjects who completed one or the other of these instruments said FAITHFUL was the English T3CO of DOG. FAITHFUL is a T3CO DOG has in Japanese. Such limited data indicate that given the right stimulus JSEs might transfer T3COs from Japanese to English.
Further research needs to be done to determine whether JSEs actually do transfer T3COs.

**HYPOTHESIS #2:** The scores of the JSE subjects on the elicitation instruments shall not vary due to which set of elicitation instruments they completed.

The null hypothesis was rejected as the ANCOVA calculations produced a statistically significant F-ratio. There is a possibility, however, a Type II error has been made.

That a significant F-ratio was obtained does not indicate there was some inherent flaw or bias built into the instruments. If the subjects had acquired the T3COs of an approximately equal number of animal, bird and colour terms, an F-ratio which was not significant would have been obtained. The problem is the subjects had acquired the T3COs of more colour terms than animal terms and more animal terms than bird terms. In addition, the subjects who completed the COLOURS FREE CHOICE instrument had 48 and 65 more correct responses than the subjects who completed the ANIMALS and BIRDS FREE CHOICE instruments. And while the subjects who completed the COLOURS, BIRDS and ANIMALS instrument did less well on the MULTIPLE CHOICE instruments than the subjects who completed the two other sets of elicitation instruments, it did not compensate for the overwhelming superiority they had on the FREE CHOICE instrument. And the subjects who completed the BIRDS SENTENCE MULTIPLE CHOICE INSTRUMENT did very poorly. Hence
the statistical significant F-ratio may reflect that the scores of the subjects on the elicitation instruments varied due to semantic field.

It is also possible that the distractors used on the different multiple choice instruments were not equal in all respects. Some may have been more salient than others. And if the degree of saliency varied with the instrument, this could partially account for the difference of the scores on the different sets of instruments.

**HYPOTHESIS #3:** The scores of the JSE subjects on the elicitation instruments shall not vary due to context.

The ANCOVA calculations confirm the scores of the JSE subjects varied due to context for two of the three semantic fields analysed in this study. The scores varied for the animal and bird terms. They did not vary for the colour terms.

This is an interesting result for it is not easy to explain. A constant in ESL is that additional context makes things easier to understand. But if this is true, the most correct responses should have been on the SENTENCE CHOICE instruments and the fewest correct responses should have been on the FREE CHOICE instruments. Only on the ANIMALS instruments, however, were the most correct responses on the SENTENCE CHOICE instrument and the fewest on the FREE CHOICE instrument. In addition, there should have been significantly more correct responses on the SENTENCE CHOICE
instruments than on the WORD CHOICE instruments. Instead, on the BIRDS and COLOURS instruments there were more correct responses on the WORD CHOICE than on the SENTENCE CHOICE instruments. And on the ANIMALS instruments there were only two more correct responses on the SENTENCE CHOICE instrument than on the WORD CHOICE instrument. And the number of correct responses on the COLOURS FREE instrument was only slightly fewer than the number on the other two COLOURS instruments.

Why the context results are ambiguous is not clear. It may be that small differences in the amounts of context are not large enough to make a difference in the scores of JSE subjects on elicitation instruments like the ones used in this study. Perhaps if the three amounts of context had been: no context, a little context -- perhaps a word or explanatory sentence -- and large amounts of context -- a short dialogue or a brief paragraph --, greater differences in the scores would have resulted. It may also be that since colours are more abstract than either animals or birds, the additional amounts of context did not help the subjects arrive at more correct responses on the COLOURS WORD and SENTENCE CHOICE instruments than they did.

**HYPOTHESIS #4:** The scores of the JSE subjects on the elicitation instruments shall not vary due to semantic field.

The ANCOVA calculations confirm the scores of the JSE subjects varied due to semantic field. For each of the
types of elicitation instruments employed in the study, the scores varied due to semantic field. They varied on the FREE CHOICE instruments. They varied on the WORD MULTIPLE CHOICE instruments. They varied on the SENTENCE MULTIPLE CHOICE instruments.

That ANCOVA confirms the scores of the JSE subjects varied due to semantic field is not surprising. The subjects who completed the COLOURS instruments had so many more correct responses than the subjects who completed the ANIMALS and BIRDS instruments that any other result would have been surprising.

One should, however, not attribute too much to these results. While the subjects did better on the COLOURS instruments than they did on the either the ANIMALS or BIRDS instruments, they did not do well on the COLOURS instruments. On the COLOURS FREE instrument only 29.1% of the responses were correct. On the COLOURS WORD and SENTENCE instruments the corresponding figures were 38.1% and 35.5%. These percentages, while low, are much higher than the percentages of correct answers on the other instruments. On the BIRDS SENTENCE instrument, for example, only 11.0% of the responses were correct.

While it is true the results indicate the subjects had not acquired many colour term T3COs, the results are, nevertheless, significant. They indicate it is easier to acquire the T3COs of some colour terms than it is to acquire
the T3COs of even one or two animal or bird T3COs. There are four ways to interpret these results. One way is to assume there is something in the nature of colour terms which makes the acquisition of their T3COs easier. Another way is to assume that colour terms are used more frequently than either animal or bird terms. Therefore SLLs have more opportunities to acquire their T3COs. Another way is to assume that colour terms are employed with T3COs more often than either animal or bird terms. Therefore it is easier for SLLs to acquire their T3COs. Still another way is to assume that colour T3COs are easier to acquire simply because the words for colours are among the first words SLLs are taught. The researcher, however, believes it is a combination of things which resulted in the subjects acquiring the T3COs of more colour terms than animal or bird terms.

**AGE AND GENDER HYPOTHESES:** The scores of the JSE subjects on the elicitation instruments shall not vary due to age or gender.

ANCOVA reveals that the scores of the subjects varied due to age and that they did not vary due to gender. One, however, needs to be wary in interpreting these results. To interpret them correctly certain factors must be taken into consideration.

While it is true that the language skills of adult SLLs improve with age, they do not improve because of age. They improve because older SLLs have had the kinds of experiences which permit them to improve. Because they are older, they
have had more opportunities to study the language, to live where the language is spoken, to become better educated, to use the language more frequently. In short they have had more opportunities to learn. That is no doubt why the older subjects in this study did better than the younger subjects. The older subjects had studied English longer. Sixteen of the 17 subjects over thirty years of age had studied English for more than 10 years. Eleven had lived in an English speaking country. Ten had more than 16 years of education. It is undoubtedly this kind of experience which resulted in the subjects over 30 years of age acquiring more T3COs than the younger subjects. Despite all this experience, however, the older subjects had on average acquired the T3COs of only 12.24 terms. Even age and experience do not result in the acquisition of a great many T3COs.

The mean score of the male subjects was 9.19 and the mean score of the female subjects was 8.00. These, however, are misleading figures. They have been inflated by the scores of the subjects who were over 30 years of age. If the scores of the 13 male and 4 female subjects over 30 years of age are not counted, the means are 7.00 for the males and 7.50 for the females. And for the subjects over 30 years of age the means are 12.39 for the males and 12.25 for the females. This clearly shows the robustness of ANCOVA. It was able to detect the scores of the male and female subjects did not vary due to gender even though the high scores of the older male subjects skewed the results.
**EXPERIENCE HYPOTHESES:** The scores of the JSE subjects on the elicitation instruments shall not vary due level of fluency in English, the number of years they have studied English, residency in an English speaking country, the frequency they use English or the number of years of formal education they have received.

One must be careful in interpreting the results of the experience hypotheses. While three of the five experience hypotheses were rejected, the differences which ANCOVA detected may be misleading. While it may be true that SLLs who have lived in an English speaking country, have more than 16 years of education or have studied English for more than 10 years acquire more T3COs than SLLs who have not lived in an English speaking country, have studied English for fewer than 10 years or have fewer than 16 years of education, it may not be true. The problem is that in this study most of the subjects who had more education, had lived in an English speaking country etc. were the older, male subjects. Thus it is possible that ANCOVA was really detecting age and sex differences.

Of the 25 subjects who had studied English for more than ten years, 15 were over 30 years of age and 16 were male. Of the 17 subjects who had lived abroad, 12 were over 30 years of age and 10 were male. Of the 17 advanced subjects, 11 were over 30 years of age and 12 were male. And of the 16 subjects with more than 16 years of education, 10 were more than 30 years of age and 10 were male. Just 45% of the 70 JSE subjects were male and only 24% of the subjects were over 30 years of age. Yet only when the
subjects were examined for frequency of use, did the percentage of males (41.0) and subjects over 30 (30.7) approximate the overall percentages. When the subjects were examined for the other variables, the percentage of males ranged between 62.5% and 70.5% and the percentage of those over 30 ranged between 58.8% and 70.5%. Clearly males and those over thirty are overrepresented. And since they are overrepresented the validity of the results need to be questioned.

While it is logical to assume that people who have studied English more than 10 years or have lived in English speaking countries have also have acquired more T3COs than people who have studied English for fewer than 10 years or have not lived in an English speaking country the results of this study do not conclusively prove they do. To prove it, it would be necessary to have a study where the ages and genders of the subjects were more evenly matched. To determine, for example, whether living in an English speaking country has a significant effect on the acquisition of T3COs, one could compare two groups of JSEs who varied only on one variable, that of having resided in an English speaking country.

It is natural to assume that the subjects with advanced levels of fluency would have acquired more T3COs than those subjects with lower levels of fluency. Indeed, it probably is true. The problem in this study, however, is that the
subjects were permitted to assess their level of fluency themselves. Some of the subjects may have overestimated their level of fluency; others may have underestimated it. Of course, it is also possible that the number of T3COs one has acquired does not vary with one’s level of fluency. To determine whether it does, it would be necessary to have a means of more reliably and accurately assessing the fluency of the subjects.

And with regard to education there is no a priori reason why Japanese people with more than 16 years of education should acquire more English T3COs than Japanese people with fewer than 16 years of education. It is certainly possible to become very well educated without acquiring a great many English T3COs. Someone who studied Japanese literature should not be expected to have acquired a great many English T3COs. But if someone had studied English at the graduate level, it is reasonable to expect that person to have acquired more English T3COs than someone with less education. Hence it is not surprising to discover that 15 of the 16 subjects with more than 16 years of education had also studied English for more than ten years. The subjects with more education did not have more correct responses on the elicitation instruments because they were better educated. They had more correct responses because they had studied English longer.
With regard to the frequency of use hypothesis, it is not surprising it was rejected. In Iwate JSEs have few opportunities to use English. Most of the subjects, since they were primarily teachers of English, used English outside the classroom very seldom. Hence it is not surprising that the scores of the subjects on the elicitation instruments did not vary with the frequency they used English. They used English relatively infrequently and when they did use it, it was in a teaching or learning situation. And as the review of the literature made clear, the classroom is not a place where one is going to acquire a great number of T3C0s.

HYPOTHESES 12a and 12b:

One of the premises of this study is that adult NSs of a language are all very familiar with the T3C0s commonly used in their language. It was assumed they know which terms have T3C0s and what their T3C0s are. The results of this study, however, belie that premise. The NSE and NSJ subjects employed in this study did not exhibit the degree of agreement on what the T3C0s of the selected terms examined in this study are that had been expected. There are several possible reasons why they did not exhibit more agreement.

NSs when asked to do what the NS subjects in this study were asked to do, may find this difficult to do. They may simply not recall all the T3C0s they know. Knowledge of
T3C0s may differ substantially from one native speaker to another. T3C0s which one NS knows may not be known by another NS. Some NSs may simply not have acquired some of the T3C0s of the terms used in this study. Perhaps there are generational differences in knowledge of T3C0s. Young people, for example, may have acquired T3C0s which older people have not. It may be difficult to separate the T3C0s which all NSs know from metaphorical meanings which all NSs can readily grasp and understand. This could account for the disagreement on what the T3C0 of ELEPHANT or other terms is. Some NSs may have a more accurate knowledge of which terms do not possess T3C0. The placing of grammatical restrictions may make it difficult for some NSs to decide whether a term has a T3C0. In addition, as the data indicate, there may be gender differences in knowledge of T3C0. Males may acquire T3C0s which females are less likely to acquire. And females may acquire T3C0s which males may be less likely to acquire.

With regard to the lack of agreement exhibited by the NSJs, however, there is another explanation. In Japanese it certainly is possible to say: 'X' is (a) 'Y'. The Japanese translation of this sentence is: 'X' wa 'Y' desu. As in English the 'Y' can have either a literal or a non-literal meaning. In Japanese, however, the 'Y' is less likely to have a non-literal meaning than it is in English. When 'Y' has a non-literal meaning 'X' wa 'Y' desu. is not a very productive structure.
In Japanese a much more productive structure is: ‘X’ wa ‘Y’ no yo da. The English translation is: ‘X’ is like (a) ‘Y’.

In Japanese this structure is often employed for dead metaphors. The structure, however, can also be employed for original metaphors. Hence it may be difficult for NSJs to decide whether a term has a T3CO.

VARIABLE INTERACTION:

One of the basic assumptions of ANCOVA is that the regression lines of the variables being compared are parallel. Unfortunately, it sometimes happens that the regressions lines are not parallel. And that is what happened in this study. For some of the independent variables, there were interactions between the covariate and the dependent variable. Perhaps this is due to the fact the various correlation coefficients ranged from a low of -0.18 to a high of 0.48. While this is to be regretted, it is not a disaster. Glass and Hopkins note that ANCOVA is normally robust enough to overcome such interactions. They state that the F-ratios in such instances are usually reliable. The adjusted means, however, may be cloudy. Too much reliance should not be placed on them (Glass and Hopkins, 1984 p.504).

SUMMARY:

The results of the present study reveal several things about the acquisition of T3CO by JSEs. First and foremost, it has revealed that the JSE subjects employed in this study
had not acquired the T3COs of many of the 39 animal, bird and colour terms employed in the study. The mean score of the JSE subjects on the elicitation instruments was only 8.54. Even the best subject had acquired the T3COs of only 22 of the terms. The worst subject had acquired the T3Co of only one of the terms. Even when the subjects were grouped according to age, gender, education, years of English study, residency in an English speaking country etc., it was always evident that they had acquired the T3COs of a very limited number of the 39 employed in the study. The group that had acquired the most T3COs was the group who had resided in an English speaking country. And even they had acquired just 12.47 T3COs.

Even though the subjects had acquired the T3COs of few of the terms, various things were discovered. The elicitation scores of the subjects varied with regard to the set of elicitation instruments they completed, semantic field, age, residency in an English speaking country, amount of education and years of English study. The scores did not vary with regard to gender, level of English ability, frequency of use and the amount of context. There are reasons, however, to be sceptical of some of the findings.

It was also discovered that the JSEs did not exhibit much tendency to transfer Japanese T3COs to the equivalent English terms. There was evidence, however, which indicated that in the right circumstances JSEs might transfer T3COs.
And it was also discovered that the NSJ and NSE subjects did not agree on the T3COs of many of the 39 terms employed in the study.

And one of the more interesting findings is that for individual lexical items the male and female JSE, NSJ and NSE subjects disagreed widely on what their T3COs are. The males would note that a term has a T3CO and the females would say that it does not have a T3CO. Or the males and females would ascribe different T3COs to the same term.
CHAPTER FIVE
SUMMARY, DISCUSSION AND IMPLICATIONS

SLLs have difficulty understanding lexical items when they are used with T3COs. NSEs know that someone who is a CHICKEN is AFRAID or that someone who is BLUE is SAD. SLLs, however, may not understand when lexical items are used with their T3COs. A few will understand; most will not. Yet while NSEs use lexical items with T3COs often in normal conversational exchanges, virtually no research on the acquisition of T3CO by SLLs has been conducted. Hence ESL teachers are unable to learn much about the acquisition of T3CO by SLLs. But they need to learn something about the acquisition of T3CO by SLLs in order to teach their students T3COs effectively and efficiently. With the research reported in this study, a step towards rectifying the neglect of the acquisition of T3CO in SLA research has been taken. This study reports the findings of some research on the acquisition of the T3COs of 39 English animal, bird and colour terms by 70 adult JSEs.

RATIONALE:

Previous researchers may have neglected the acquisition of T3CO because the emphasis in language teaching over the last few decades has been on teaching structure and functions and notions. They may have neglected it simply because they did not believe it was worth studying. They may have neglected it for a number of other reasons. Whatever the reason or reasons it has been neglected, the
neglect has not been justified. T3CO is an essential and important aspect of lexical meaning in English. One cannot be considered to be truly fluent in English unless one has a firm command of T3CO. If one does not have a firm command of T3CO, one will have difficulty understanding the dialogue in movies and television dramas; the content of a modern novel; the conversation of friends over a beer in a pub or even the remarks of one's superiors or colleagues at work.

SLA researchers and the authors of language teaching textbooks, however, have not appreciated the importance of T3CO. If one teaches only what SLA researchers have researched and the authors of language teaching textbooks have included in their textbooks, one's students will emerge from their course of studies (assuming students learn only what their teachers teach them) with a lifeless and sterile English. They will be able to conjugate their verbs; pronounce their vowels; write a business letter or reserve a hotel room on the telephone. But they will not have learnt what a GREY AREA is. And they should know what one is.

Teachers should teach their students the T3COs of GREY and other lexical items. To do this well, however, they must know something about the acquisition of T3CO by SLLs.

Such considerations prompted the researcher to conduct the research on the acquisition of T3COs by adult Japanese speakers of English which is reported here.
The 70 JSE subjects were given one of three different sets of elicitation instruments to complete. They completed the Animals: FREE WORD choice, Colours: SENTENCE MULTIPLE choice, Birds: WORD MULTIPLE choice instruments or the Animals: WORD MULTIPLE choice, Colours: FREE WORD choice, Birds: SENTENCE MULTIPLE choice instruments or the Animals: SENTENCE MULTIPLE choice, Colours: WORD MULTIPLE choice, Birds: FREE WORD choice instruments. On the free choice instruments the subjects were required to write down the T3COs of each of the terms. On the multiple choice instruments they selected the correct T3COs of the terms. On each instrument the subjects were also permitted to state a term does not have a T3CO or that they were not sure it does. The scores on these instruments were used to test the hypotheses. The JSE subjects also completed a cloze reading test. The scores on it served as the covariate in the ANCOVA calculations. The 14 NSE subjects and the 28 NSJ subjects completed FREE choice elicitation instruments which required them to note the T3COs of each of the 39 terms in their respective languages.

HYPOTHESES

INTERFERENCE HYPOTHESIS:

Research has affirmed SLLs sometimes transfer some of the semantic properties of lexical items in their native language to the equivalent lexical items in their second language. The first hypothesis reflects the fact that such
transfer is possible.

1. JSEs shall not transfer Japanese T3COs to the equivalent terms in English.

The existence of transfer would have been confirmed if at least 25% of the responses on the FREE CHOICE elicitation instruments for at least 10 of the 39 terms employed in the study were attributable to transfer. When the terms which have a common T3CO in Japanese and English or do not have a T3CO in either Japanese or English were eliminated, only 19 terms remained. Fewer than 25% of the responses for each of these 19 terms were attributable to transfer. Therefore the null hypothesis was accepted.

**INSTRUMENT, CONTEXT AND SEMANTIC FIELD HYPOTHESES:**

It is recognised that the results on similar versions of the same test or elicitation instrument can vary significantly. The second hypothesis reflects this fact. In language teaching it is widely known there is a relationship between amount of context and comprehensibility. The third hypothesis reflects this fact. The lexical or semantic knowledge which people possess can vary according to semantic field. A computer buff, for example, will have acquired a number of computer terms which a person who is not interested in computers may not have acquired. The fourth hypothesis is based on this fact.

2. The scores of the JSEs shall not vary due to which set of elicitation instruments they complete.

3. The scores of the JSE subjects on the elicitation instruments shall not vary due to the amount of context.
4. The scores of the JSE subjects on the elicitation instruments shall not vary due to semantic field.

An ANCOVA was run to determine whether the scores of the subjects varied due to the set of elicitation instruments they completed. The scores of the 23 subjects who completed the COLOURS, BIRDS and ANIMALS instruments, the scores of 23 of the 24 subjects who completed the ANIMALS, COLOURS and BIRDS instruments and the scores of the 23 subjects who completed the BIRDS, animal and COLOURS instruments were compared. The results show that the null hypothesis can be rejected. The scores of the subjects varied due to the set of instruments they completed.

Three different ANCOVAs were run to determine whether the scores of the subjects varied due to amount of context. The first ANCOVA compared the scores of the subjects who completed the ANIMALS FREE, the ANIMALS WORD and the ANIMALS SENTENCE instruments. The second ANCOVA compared the scores of the subjects who completed the BIRDS FREE, the BIRDS WORD and the BIRDS SENTENCE instruments. The third ANCOVA compared the scores of the subjects who completed the COLOURS FREE, the COLOURS WORD and the COLOURS SENTENCE instruments. The results show the scores of the subjects who completed the ANIMALS and BIRDS instruments varied due to the amount of context. The results also show the scores of the subjects who completed the COLOURS instruments did not vary due to context. Therefore the null hypothesis
cannot be rejected. The scores of the subjects did not vary due to amount of context.

Three different ANCOVAs were run to determine whether the scores of the subjects varied due to semantic field. The first ANCOVA compared the scores of the subjects who completed the ANIMALS, BIRDS and COLOURS FREE choice instruments. The second ANCOVA compared the scores of the subjects who completed the ANIMALS, BIRDS and COLOURS WORD choice instruments. The third ANCOVA compared the scores of the subjects who completed the ANIMALS, BIRDS and COLOURS SENTENCE choice instruments. The results show that for each of the three comparisons the null hypothesis can be rejected. The scores of the subjects varied due to the effect of semantic field.

AGE AND GENDER HYPOTHESES:

It is widely recognised that knowledge or ability often varies with age or gender. Older people, for example, know things which younger people do not. Males, for example, can do things which females cannot. These two hypotheses reflect these facts.

5. The scores of the JSE subjects on the elicitation instruments shall not vary due to age.

6. The scores of the JSE subjects on the elicitation instruments shall not vary due to gender.

ANCOVA was used to determine whether the scores of the subjects varied with age or gender. The scores of 51 subjects under 30 years of age were compared with the scores
of 15 subjects 30 years or older. The results show the null hypothesis can be rejected. The scores varied with age. The subjects 30 years of age or older had more correct responses than the subjects under 30 years of age. The scores of 30 male subjects were compared with the scores of 36 female subjects. The results show the null hypothesis cannot be rejected. The scores of the subjects did not vary with gender.

EXPERIENCE HYPOTHESES:

The experience or the background one has can greatly effect what one learns or how well one does things. With the right experience or background one will learn a lot or do things well. Without the right experience or background one will learn much less or do things less well. These five hypotheses test whether T3CO is one of those things which varies with experience or background.

7. The scores of the JSE subjects on the elicitation instruments shall not vary due to their level of fluency in English.

8. The scores of the JSE subjects on the elicitation instruments shall not vary due to the number of years they have studied English.

9. The scores of the JSE subjects on the elicitation instruments shall not vary due to residency in an English speaking country.

10. The scores of the JSE subjects on the elicitation instruments shall not vary due to the frequency they use English.

11. The scores of the JSE subjects on the elicitation instruments shall not vary due to the number of years of formal education they have received.
ANCOVA was used to determine whether the scores of the subjects varied due to their level of fluency in English; the number of years they have studied English; residency in an English speaking country; the frequency they use English and the number of years of formal education they had received. The scores of 48 intermediate subjects were compared with the scores of 15 advanced subjects. The results indicate the null hypothesis cannot be rejected. The scores of the subjects not vary due to level of fluency. The advanced subjects did not have more correct responses than the intermediate subjects. The scores of 36 subjects who had studied English between five and ten years were compared with the scores of 12 subjects who had studied English more than ten years. The results show the null hypothesis can be rejected. The scores of the subjects varied due to the number of years they had studied English. The scores of 30 subjects who used English more than once a week were compared with the scores of 21 subjects who used English less than once a week. The results show the null hypothesis cannot be rejected. The scores of the subjects did not vary with the frequency they used English. The subjects who used English more than once a week did not have more correct responses than the subjects who used English less than once a week. The scores of 15 subjects who had resided in an English speaking country were compared with the scores of 51 subjects who had not resided in an English speaking country. The results indicate the null hypothesis
can be rejected. The scores of the subjects varied due to residency in an English speaking country. The subjects who had resided in an English speaking country had more correct responses than the subjects who had not. The scores of 51 subjects who had received between 12 and 16 years of education were compared with the scores of nine subjects who had received more than 16 years of education. The results show the null hypothesis can be rejected. The scores of the subjects varied due to the number of years of education they had received. The subjects with more than 16 years of education had more correct responses than the subjects with between 12 and 16 years of education.

MISCELLANEOUS HYPOTHESIS:

NSs operate on the assumption other NSs have as good a command of the language as they do. They simply assume other NSs know what they know. The last two hypotheses are based on this assumption.

12a. The NSE subjects shall agree on what the T3COs of the 39 terms are in English

12b. The NSJ subjects shall agree on what the T3COs of the 39 terms are in Japanese

In order for these hypotheses to be accepted 75% of the subjects had to agree on the T3COs of 30 of the 39 terms employed in the study. Seventy-five percent of the NSE subjects agreed on the T3COs of only ten terms. Seventy-five percent of the NSJ subjects did not even agree on the T3CO of even one term. Therefore the hypotheses were
rejected. The NSE and NSJ subjects did not agree on what the T3COs of the terms are.

DISCUSSION:

One of the major problems with this study is the relatively low correlations coefficients between the covariate and the dependent variables. Correlations of 0.10, 0.20 or 0.30 indicate less than 10% of the variance is accounted for. Correlations this low indicate the covariate cannot do the job it is supposed to. It will not be able to adjust, compensate for or reduce bias or unpredictable variance. In addition there is an interaction between the covariate and the dependent variable for some of the independent variables. While this may cause the adjusted means to be a little fuzzy, it should not seriously compromise the ANCOVA results. Glass and Hopkins report: "Violation of the parallel regression slopes appears to be inconsequential .... for a wide variety of conditions." (Glass and Hopkins, 1984 p.504).

If a cloze reading test was not a good covariate, it is reasonable to ask what would have been a good covariate. But this is not an easy question to answer. There may have been a good covariate, but there is no practical way of finding it. When one uses ANCOVA, one basically takes one's chances and hopes for the best. One may be lucky and select a perfect or ideal covariate. More likely, however, is the opposite. The covariate will probably be unsuitable in one
way or another. It is entirely probable that whatever was used as the covariate in this study would have had some failings. Be that as it may, there is no reason to assume the results of this study should be questioned. The differences in the various groups were so great that it is difficult to conceive them not being statistically significant.

Hypothesis #1 was rejected as the criteria for interference used in this study were not satisfied. That they were not satisfied, however, does not conclusively proof that transfer does not occur. All it proves is that the JSE subjects did not transfer T3COs when simply asked to state what the T3COs of some terms are. If the task had been different, they might have. On the multiple choice instruments, for example, some signs of transfer were noted. More than 25% of the subjects transferred the T3COs for SWAN and DOG.

ANCOVA revealed that the scores of the JSE subjects varied due to the set of elicitation instruments they completed. The scores, however, did not vary because of any bias or unintended differences in the elicitation instruments. They varied simply because the subjects were able to give significantly more correct responses on the COLOURS FREE instrument than on the ANIMALS or BIRDS FREE instruments. In fact, 58.8% of the correct responses on the FREE CHOICE instruments were given by the subjects who
completed the COLOURS FREE instrument. The subjects had acquired more colour T3COs than animal or bird T3COs.

Hypothesis #3 was accepted as the scores on the COLOURS instruments did not vary due to amount of context. This finding, however, must not be taken to indicate that the amount of context is not a significant factor. All it shows is that the three amounts of context employed in this study were not sufficient to cause the scores on the COLOURS instruments to vary. If the amounts of context had been different, the scores of the subjects who completed the COLOURS instruments might also have varied. If the SENTENCE instrument had been replaced with an instrument which provided each stimulus item with a paragraph of context, there is every reason to assume the scores on the COLOURS instrument would have varied more.

The scores of the JSE subjects varied with regard to semantic field. One should not attribute too much to the fact that they varied, however. Just because they varied does not mean there is something intrinsic about T3CO which makes it easier to acquire the T3COs of terms in certain semantic fields than in other semantic fields. Instead, it may show there is something intrinsic about semantic fields which makes it easier to acquire the T3COs of terms in certain semantic fields than of terms in other semantic fields. It just may be that colour term T3COs are used more frequently than animal or bird term T3COs. It may be that
colour term T3COs are easier to acquire because the
denotative meanings of colour terms are acquired before the
denotative meanings of animal or bird terms. In any case it
is clear the scores of the subjects varied according to
semantic field. But if the subjects had acquired more T3COs
of the terms in each of the three semantic fields, less
variation in their scores would have been detected.
Variation should be greater when the average subject has
acquired fewer T3COs.

That the scores of the subjects varied with regard to
age and did not vary with regard to gender is not
surprising. The older subjects were also the subjects who
had resided in an English speaking country and had studied
English for more years. They had the background and
experience which should have permitted them to acquire to
more T3COs. Thus the scores did not vary because of age.
They varied because the older subjects simply had more
opportunities to acquire the T3COs of the terms employed in
the study than the younger subjects. And there is no
intrinsic reason why the scores of the subjects should have
varied with regard to gender. The scores of the NS subjects
did not vary much with regard to gender. The means of the
male and female NS subjects were very similar. Therefore it
is not surprising the scores of the JSE subjects did not
vary with regard to gender.
It is not surprising the subjects who had studied English more than ten years and had resided in an English speaking country had more correct responses than the subjects who had studied English between five and ten years and had not resided in an English speaking country. What is surprising is that they did not have more correct responses than they had. With their experience and background they should have acquired more T3C0s. Even studying English for a great many years and living in an English speaking country did not result in the acquisition of anything like the knowledge NSEs have of T3CO. Why studying English for a great many years did not result in them acquiring many T3C0s is obvious. It is difficult to learn what one is not taught. But why living in an English speaking country did not result in their acquiring more T3C0s is more difficult to explain. Perhaps NSEs instinctively avoid the use of T3C0s in their interactions with JSEs. Perhaps the JSEs managed to do what they had to without need of T3C0s.

It, however, is surprising the scores did not vary with level of fluency. Perhaps they did not vary because the subjects were permitted to say what their level of fluency was. Some may have overestimated or underestimated their level. It is also possible that knowledge of T3CO really does not vary with level of fluency. More research will have to be done to determine what the situation is.
While the subjects with more than 16 years of education had more correct responses than the subjects with between 12 and 16 years of education, it is important to understand that their greater number of correct responses cannot be attributed to the number of years of education they had received. They had more correct responses because they had also studied English for more than ten years. Fifteen of the 16 subjects with more than 16 years of education had studied English for more than ten years. There is no a priori reason why people with more education should acquire more T3C0s. In order for education to make a difference, it has to be the right kind of education.

It was also not surprising that the elicitation instrument scores did not vary with frequency of use. There are two reasons why it is not surprising. First, the subjects came from Iwate and was as noted earlier there are not many opportunities to use English in Iwate. Even the subjects who used English more frequently did not use English very frequently. Using English a few times a week is not sufficient to allow the subjects to acquire many T3C0s. Second, the vast majority of the subjects were either teachers or students of English. Hence, they had many more opportunities to use English inside the classroom than outside it. And as was amply demonstrated in the review of the literature, T3C0s are used very infrequently in the classroom.
It was surprising the NSE and NSJ subjects did not exhibit more agreement on the T3C0s of the 39 terms employed in this study. NSs assume other NSs know what they know. But perhaps there are greater differences in NS competency than most NSs assume. Perhaps a different kind of elicitation instrument would have produced greater agreement. Perhaps a free choice elicitation instrument does not permit NSs to display their true competency.

**CONCLUSIONS:**

The major and most important finding of this study is very clear. If JSEs are to acquire a large number of T3C0s, they are going to have to be taught them. The results of this study clearly indicate that without instruction JSEs will not acquire many T3C0s. The subjects in this study had acquired only a few of the T3C0s of the 39 animal, bird and colour terms employed in the study. And while the subjects were not asked whether they had studied T3C0s or been taught T3C0s, it is clear from conversations with some of the subjects that they had never been taught T3C0s. Without instruction the average subject had acquired the T3C0s of fewer than 25% of the 39 terms employed in the study. Even the subjects who had studied English more than 10 years or had lived in an English speaking country had acquired on average the T3C0s of fewer than 15 of the 39 terms. Without instruction JSEs find it difficult to acquire the T3C0s of many terms.
While JSEs will not acquire many T3COs, it is possible for them to acquire a few without instruction. The average subject in this study had acquired 8.54 T3COs. The subjects who had studied English for more than 16 years or had resided in an English speaking country had acquired more than 12 T3COs. Of course, the T3COs which one JSE acquires differ from those another JSE acquires. And JSEs are more likely to acquire the T3COs of terms in one semantic field than of terms in another semantic field.

Teachers of adult JSEs of intermediate or higher levels of fluency should not expect their students to have acquired many T3COs. They will undoubtedly have acquired a few, but the ones they have acquired will differ from student to student. So teachers should not expect their students to have acquired the same T3COs. They can, however, expect some students (those who have lived abroad) to have acquired a few more T3COs than other students. An occasional student will have acquired quite a few T3COs. They can also expect the number of T3COs their students have acquired to vary from semantic field to semantic. Their students will, on average, have acquired three or four times more colour T3COs than bird T3COs. And they can expect greater amounts of context to sometimes help their students to grasp or comprehend T3COs. And they can expect some of their students, at least, to occasionally transfer Japanese T3COs to English terms.
IMPLICATIONS:

As has been amply demonstrated the JSE subjects who completed the elicitation instruments in this study clearly had not acquired the T3COs of many of the 39 terms employed in this study. This is lamentable. People who have studied English the number of years they have should have been able to give more correct responses. The subjects in this study are professors of English, teachers of English and students studying to become teachers of English. They are the people who teach or are going to teach Japanese people English. Hence their command of English should be as good or better than the majority of Japanese people. Yet they were unable to give more correct responses than they did.

This is an unsatisfactory state of affairs. Something must be done to ensure that in the future people who have put as much time and effort into learning English as the JSEs who were the subjects of this study have completed their studies with the acquisition of more T3COs than the subjects of this study have.

First, the authors of textbooks which are used in the schools in Japan must write textbooks in which lexical items are used with T3COs. Second, teachers must teach their students T3COs. Third, a way must be found to teach the teachers of English in Japan the T3COs which they will in turn teach their students. This will not be easy to do, but it can be done.
In Japan, students receive approximately 600 hours of English instruction in junior and senior high school. Students who study English at university, of course, receive several hundred additional hours of instruction. While this is not enough time to teach students everything they need to acquire in order to become fluent speakers of English, surely some of it could be devoted to teaching T3COs. If only one T3CO were taught a week, a student who graduated from university with a degree in English would have had an opportunity to acquire between 200 and 300 T3COs. If only one were taught a month, a high school graduate would have had the opportunity to acquire up to 50 T3COs. If this were done, in a very few years large numbers of JSEs would have a good command of T3CO. They would know that a FOX is a SEXY GIRL, that a CHICKEN is a coward and that a GREEN is an ecologically aware person.

If English students in Japan receive this kind of instruction, they will be better equipped for life in the English speaking world. As I.A. Richards asserts, language is very metaphoric. Therefore instruction on the meanings of some of the more common dead metaphors can only be beneficial. JSEs who have been taught some T3COs will be more capable of reading a modern novel, of comprehending the dialogue in a movie or television drama, of understanding those comments by a friend over a beer in a pub or of understanding the remarks of a colleague or superior at
work. Without such instruction, doing these things will remain troublesome for most JSEs.

It should, however, be stressed that there is no evidence to indicate that explicitly teaching SLLs T3COs will result in the SLLs actually acquiring or learning the T3COs they are taught. Nevertheless, that does not mean one should not teach T3COs. While SLLs may not acquire T3COs which are taught them, they certainly are not going to acquire many if they are not taught them. Therefore there is nothing to be lost by teaching them. And perhaps there is something to be gained.

SUGGESTIONS FOR FUTURE RESEARCH:

The results reported in this study indicate the JSE subjects had acquired very few of the T3COs of the 39 animal, bird and colour terms employed in the study. Such results could be anomalous. Other JSEs may have acquired more of these T3COs. Research with other JSEs should be conducted to confirm the findings of this study.

This study examined the acquisition of the T3COs of only 39 animal, bird and colour terms. Other lexical items from other semantic fields have T3COs in English. Some research should be done to discover how well JSEs have acquired the T3COs of some of these lexical items. Perhaps they have acquired more of these T3COs.
The researcher believes that lexical items with T3COs are used more frequently in some situations than in other situations. No research, however, has been conducted to discover the situations in which NSEs are apt to use lexical items with T3COs. Some research on this should be conducted. Knowledge about this could be invaluable to ESL teachers. It could help them decide which T3COs they should teach their students.

The researcher also believes some NSEs use lexical items with T3COs more frequently than other NSEs. He believes, for example, that younger NSEs use lexical items with T3COs much more frequently than elderly people. No research on this exists, however. Some research should be conducted for ESL teachers need to know what their students need to know in order to function well in the particular English speaking environment they will find themselves in. Perhaps businessmen and university students should be taught different T3COs.

This study has revealed that NSEs may not agree on what the T3COs of particular lexical items are. This finding indicates that ESL teachers cannot rely on their instincts or intuition to determine what the T3CO of any particular lexical item is. They need a dictionary of T3COs against which they can check their intuition. No such dictionary exists, however. An effort should be made to compile one. No ESL teacher should be without one.
This study has indicated JSEs may transfer T3COs from Japanese to English. The results, however, are inconclusive. More research must be conducted to determine whether JSEs actually do transfer T3COs form Japanese to English. And if they do transfer T3COs, the research must reveal which ones are transferred.
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APPENDIX

ANIMALS-FREE

Listed below are thirteen very frequently used English animal terms. You are requested to:

1. Decide which of these animal terms have and which do not have the non-literal meanings which were discussed on the first three pages of your booklet. For each animal term which has at least one of these non-literal meanings, please CIRCLE the 'YES' which accompanies each term. For each term which does not have one of these non-literal meanings, please CIRCLE the 'NO' which also accompanies each term. And if you are not sure whether a term has a non-literal meaning or not, please CIRCLE the 'NOT SURE' which also accompanies each term.

e.g. WOLF:  (YES)  (NO)  (NOT SURE)

2. For those animal terms which you decide have these non-literal meanings, please state in a few words what you believe their non-literal meanings are. For those terms which you decide do not have these non-literal meanings, please do not write anything. Please write your answers for those terms which you decide have non-literal meanings in the manner indicated in the example.

e.g. WOLF:  (YES)  (NO)  (NOT SURE) -- stupid, silly

N.B. The non-literal meanings given here are only examples. They are not the actual non-literal meanings of 'wolf'. In fact, 'wolf' may not have any non-literal meanings.

*** Some of these terms may have more than one non-literal meaning. Some may have none.

*** If a term has more than one non-literal meaning, please list all of them.

*** If it is possible, use a single word for each non-literal meaning.

*** If you do not know the English word or words for the idea which you want to express, please feel free to give your answers in Japanese.

*** REMEMBER that if the term does have one of these non-literal meanings, it should be possible to substitute it for the word in brackets ( ) in at least one of the following sentences.

   John is a (wolf).
   John is (wolf).
   John is a (wolf) <something>.
John/it is <PREPOSITION> the (wolf).
John has a (wolf) <something>.

PLEASE DO NOT GUESS AT ANY OF THE ANSWERS. If you are not absolutely certain about the the non-literal meaning of a term, please circle the 'NOT SURE' option. Remember this is not a test, so there is no penalty for selecting this option.

BUFFALO: (YES) (NO) (NOT SURE) --
COW: (YES) (NO) (NOT SURE) --
SNAKE: (YES) (NO) (NOT SURE) --
ELEPHANT: (YES) (NO) (NOT SURE) --
FOX: (YES) (NO) (NOT SURE) --
MONKEY: (YES) (NO) (NOT SURE) --
BEAVER: (YES) (NO) (NOT SURE) --
DEER: (YES) (NO) (NOT SURE) --
WOLF: (YES) (NO) (NOT SURE) --
HORSE: (YES) (NO) (NOT SURE) --
DOG: (YES) (NO) (NOT SURE) --
BEAR: (YES) (NO) (NOT SURE) --
TIGER: (YES) (NO) (NOT SURE) --

ANIMALS-WORD

Listed below are thirteen very frequently used English animal terms. Your task is to decide which of the five options which accompany each term most accurately describes your knowledge of the non-literal meanings of these terms.

Three of the options are non-literal meanings of the type which were explained in the first three pages of your booklet. If you decide that the term has one of the three non-literal meanings listed, please CIRCLE the number of that meaning.

You may, however, decide that the term does not have a non-literal meaning of the type explained in the first three pages of your booklet. If this is the case, please CIRCLE option number '4'.
This option has been included because not all of the thirteen terms have non-literal meanings. So when you are absolutely certain that a term has no non-literal meaning, please select this option.

The first four options are for when you are certain that the term has or does not have a non-literal meaning. There may be times, however, when you are not certain. So if you are not certain whether a term has or does not have a non-literal meaning, please CIRCLE option number '5'. Remember this is not a test, so there is no penalty for selecting this option.

*** IF A TERM HAS A NON-LITERAL MEANING, IT WILL BE IN ONE OF THE FIRST THREE OPTIONS.

*** IF A TERM HAS MORE THAN ONE NON-LITERAL MEANING, ONLY ONE HAS BEEN USED.

*** REMEMBER that if the term does have one of these non-literal meanings, it should be possible to substitute it for the word in brackets ( ) in at least one of the following sentences.

John is a (wolf).
John is (wolf).
John is a (wolf) <something>.
John/it is <PREPOSITION> the (wolf).
John has a (wolf) <something>.

BUFFALO:
1. STUPID
2. UNPREDICTABLE
3. STRONG
4. THERE IS NO NON-LITERAL MEANING FOR THIS TERM.
5. I AM NOT SURE THIS TERM HAS A NON-LITERAL MEANING.

COW:
1. LAZY
2. STUPID
3. FAT and UGLY
4. THERE IS NO NON-LITERAL MEANING FOR THIS TERM.
5. I AM NOT SURE THIS TERM HAS A NON-LITERAL MEANING.

SNAKE:
1. UNFRIENDLY
2. EVIL
3. UNPREDICTABLE
4. THERE IS NO NON-LITERAL MEANING FOR THIS TERM.
5. I AM NOT SURE THIS TERM HAS A NON-LITERAL MEANING.
ELEPHANT:
1. STRONG
2. INTELLIGENT
3. HAS A GOOD MEMORY
4. THERE IS NO NON-LITERAL MEANING FOR THIS TERM.
5. I AM NOT SURE THIS TERM HAS A NON-LITERAL MEANING.

FOX:
1. LAZY
2. INTELLIGENT
3. SEXY
4. THERE IS NO NON-LITERAL MEANING FOR THIS TERM.
5. I AM NOT SURE THIS TERM HAS A NON-LITERAL MEANING.

MONKEY:
1. UNRELIABLE
2. MISCHIEVOUS
3. SENSIBLE
4. THERE IS NO NON-LITERAL MEANING FOR THIS TERM.
5. I AM NOT SURE THIS TERM HAS A NON-LITERAL MEANING.

BEAVER:
1. INDEPENDENT
2. INTELLIGENT
3. HARD WORKING
4. THERE IS NO NON-LITERAL MEANING FOR THIS TERM.
5. I AM NOT SURE THIS TERM HAS A NON-LITERAL MEANING.

DEER:
1. MEEK
2. BEAUTIFUL
3. FRIENDLY
4. THERE IS NO NON-LITERAL MEANING FOR THIS TERM.
5. I AM NOT SURE THIS TERM HAS A NON-LITERAL MEANING.

WOLF:
1. INDEPENDENT
2. SEXUALLY AGGRESSIVE
3. INTELLIGENT
4. THERE IS NO NON-LITERAL MEANING FOR THIS TERM.
5. I AM NOT SURE THIS TERM HAS A NON-LITERAL MEANING.

HORSE:
1. FAITHFUL
2. STRONG
3. FRIENDLY
4. THERE IS NO NON-LITERAL MEANING FOR THIS TERM.
5. I AM NOT SURE THIS TERM HAS A NON-LITERAL MEANING.
DOG:
1. UGLY or UNATTRACTIVE
2. FAITHFUL
3. FRIENDLY
4. THERE IS NO NON-LITERAL MEANING FOR THIS TERM.
5. I AM NOT SURE THIS TERM HAS A NON-LITERAL MEANING.

BEAR:
1. UNPREDICTABLE
2. DANGEROUS
3. BIG and POWERFUL
4. THERE IS NO NON-LITERAL MEANING FOR THIS TERM.
5. I AM NOT SURE THIS TERM HAS A NON-LITERAL MEANING.

TIGER:
1. BEAUTIFUL
2. AGGRESSIVE
3. DANGEROUS
4. THERE IS NO NON-LITERAL MEANING FOR THIS TERM.
5. I AM NOT SURE THIS TERM HAS A NON-LITERAL MEANING.

**ANIMALS-SENTENCE**

Listed below are thirteen very frequently used English animal terms. Your task is to decide which of the five options which accompany each term most accurately describes your knowledge of the non-literal meanings of these terms.

Three of the options are sentences where the term has been used with a non-literal meaning of the type explained in the first three pages of your booklet. If you decide that the term has one of these non-literal meanings, please CIRCLE the number of the appropriate sentence.

You may, however, decide that the term does not have a non-literal meaning of the type explained in the first three pages of your booklet. If this is the case, please CIRCLE option number ‘5’.

This option has been included because not all of the thirteen terms have non-literal meanings. So when you are absolutely certain that a term has no non-literal meaning, please select this option.

The first four options are for when you are certain that the term has or does not have a non-literal meaning. There may be times, however, when you are not certain. So if you are not certain whether a term has or does not have a non-literal meaning, please CIRCLE option number ‘5’.

Remember this is not a test, so there is no penalty for selecting this option.

*** IF A TERM HAS A NON-LITERAL MEANING, IT WILL BE IN ONE OF THE FIRST THREE OPTIONS.***
*** IF A TERM HAS MORE THAN ONE NO-LITERAL MEANING, ONLY ONE HAS BEEN USED.

*** REMEMBER that if the term does have one of these non-literal meanings, it should be possible to substitute it for the word in brackets ( ) in at least one of the following sentences.

John is a (wolf).
John is (wolf).
John is a (wolf) <something>.
John/it is <PREPOSITION> the (wolf).
John has a (wolf) <something>

BUFFALO:
1. STUPID PEOPLE ARE BUFFALOES.
2. AN UNPREDICTABLE PERSON IS A BUFFALO.
3. A STRONG MAN IS A BUFFALO.
4. THERE IS NO NON-LITERAL MEANING FOR THIS TERM.
5. I AM NOT SURE THIS TERM HAS A NON-LITERAL MEANING.

COW:
1. A LAZY WORKER IS A COW.
2. STUPID PEOPLE ARE COWS.
3. FAT AND UGLY WOMEN ARE COWS.
4. THERE IS NO NON-LITERAL MEANING FOR THIS TERM.
5. I AM NOT SURE THIS TERM HAS A NON-LITERAL MEANING.

SNAKE:
1. UNFRIENDLY PEOPLE ARE SNAKES.
2. AN EVIL PERSON IS A SNAKE.
3. COMPLETELY UNPREDICTABLE PEOPLE ARE SNAKES.
4. THERE IS NO NON-LITERAL MEANING FOR THIS TERM.
5. I AM NOT SURE THIS TERM HAS A NON-LITERAL MEANING.

ELEPHANT:
1. A STRONG MAN IS AN ELEPHANT.
2. INTELLIGENT PEOPLE ARE ELEPHANTS.
3. PEOPLE WITH GOOD MEMORIES ARE ELEPHANTS.
4. THERE IS NO NON-LITERAL MEANING FOR THIS TERM.
5. I AM NOT SURE THIS TERM HAS A NON-LITERAL MEANING.

FOX:
1. LAZY PEOPLE ARE FOXES.
2. INTELLIGENT GIRLS ARE FOXES.
3. SEXY GIRLS ARE FOXES.
4. THERE IS NO NON-LITERAL MEANING FOR THIS TERM.
5. I AM NOT SURE THIS TERM HAS A NON-LITERAL MEANING.

MONKEY:
1. PEOPLE YOU CAN NEVER RELY ON ARE MONKEYS.
2. CHILDREN WHO ALWAYS GET INTO MISCHIEF ARE MONKEYS.
3. SENSIBLE PEOPLE ARE MONKEYS.
4. THERE IS NO NON-LITERAL MEANING FOR THIS TERM.
5. I AM NOT SURE THIS TERM HAS A NON-LITERAL MEANING.
BEAVER:
1. The independent person is a beaver.
2. Intelligent people are beavers.
3. People who work hard are beavers.
4. There is no non-literal meaning for this term.
5. I am not sure this term has a non-literal meaning.

DEER:
1. People who are meek are deers.
2. Beautiful women are deers.
3. Friendly people are deers.
4. There is no non-literal meaning for this term.
5. I am not sure this term has a non-literal meaning.

WOLF:
1. Independent people are wolves.
2. Men who always chase women are wolves.
3. Very intelligent people are wolves.
4. There is no non-literal meaning for this term.
5. I am not sure this term has a non-literal meaning.

HORSE:
1. People who are faithful are horses.
2. A strong man is a horse.
3. Very friendly people are horses.
4. There is no non-literal meaning for this term.
5. I am not sure this term has a non-literal meaning.

DOG:
1. Ugly women are dogs.
2. A faithful husband is a dog.
3. A friendly person is a dog.
4. There is no non-literal meaning for this term.
5. I am not sure this term has a non-literal meaning.

BEAR:
1. An unpredictable man is a bear.
2. People who are dangerous are bears.
3. Big and strong men are bears.
4. There is no non-literal meaning for this term.
5. I am not sure this term has a non-literal meaning.

TIGER:
1. Beautiful girls are tigers.
2. An aggressive fighter is a tiger.
3. A very dangerous man is a tiger.
4. There is no non-literal meaning for this term.
5. I am not sure this term has a non-literal meaning.
There are three short reading passages given below. The first of the reading passages is not so difficult. The second passage is a little more difficult. The third passage is still more difficult. And in each of the passages, as is clearly evident, there are some blanks. The blanks are indicated by: ( ). A blank is used to show that a word from the passage has been deleted. Your task is to put any word which has been deleted back in. You must try to put back in the same word which the writer of the passage used.

The words which have been deleted from the three passages are listed at the bottom of the third passage. You may use this list to help you put the words which have been deleted back in. Each word may be used only once.

Only the EXACT SAME WORD which the writers of the passages used will be counted as correct.

You have 15 minutes to complete the exercises.

You may not use a dictionary.

**THE FIRST PASSAGE:**
Jean Anderson is thirty-eight. ( ) is a very talented computer ( ) specialist who started her own ( ) at the age of twenty-( ). The company was successful, but ( ) her early thirties Jean met ( ) married a rich and successful ( ) and she gave up her ( ) to have a child. Problems ( ) in her marriage and she ( ) divorced when the child was ( ) years old. She had to ( ) back to work to support ( ) and her daughter.
THE SECOND PASSAGE:
Last weekend I went on a ( ) to Merida, a lovely city on ( ) Yucatan Peninsula. I went with some ( ) in my class. First we visited ( ), an old Mayan city about fifty ( ) south of Merida. Then we climbed ( ) old Pyramid of the magician. It ( ) very interesting. 118 steps to the ( ) of the pyramid. We saw the ( ) Palace and the House of Pigeons. ( ) lunch we sat in the sun ( ) over an hour and walked around. ( ) met a very interesting Mexican there. ( ) didn’t practice my Spanish because he ( ) English all the time.

THE THIRD PASSAGE:
Last night thieves stole a painting ( ) the home of Lord Bonniford. The ( ), a sixteenth century masterpiece by Holbein, ( ) said to be priceless. Lord Bonniford ( ) he could hear noises in the ( ) of the night, but be he ( ) no attention. He thought it was ( ) noise from the wind or the ( ). The security guard, Mr. Charles Potts, ( ) phone the police because he was ( ) hand and foot. The thieves managed ( ) get in and escape without setting ( ) the security alarm by cutting off ( ) electricity supply.

THE LIST OF DELETED WORDS:
solicitor Uxmal middle herself the trip career after software spoke said students from developed in tied top the couldn’t she go cat and paid the I nine was just is for off I got miles to painting four company Governor’s

THE FIRST PASSAGE:
Jean Anderson is thirty-eight. She is a very talented computer software specialist who started her own company at the age of twenty-nine. The company was successful, but in her early thirties Jean met and married a rich and successful solicitor and she gave up her career to have a child. Problems developed in her marriage and she got divorced when the child was four years old. She had to go back to work to support herself and her daughter (Nolasco, 1987 p.48).
THE SECOND PASSAGE:

Last weekend I went on a trip to Merida, a lovely city on the Yucatan Peninsula. I went with some students in my class. First we visited Uxmal, an old Mayan city about fifty miles south of Merida. Then we climbed the old Pyramid of the magician. It was very interesting. 118 steps to the top of the pyramid. We saw the Governor's Palace and the House of Pigeons. After lunch we sat in the sun for over an hour and walked around. I met a very interesting Mexican there. I didn't practice my Spanish because he spoke English all the time (Hartley and Viney, 1984 lesson 60).

THE THIRD PASSAGE:

Last night thieves stole a painting from the home of Lord Bonniford. The painting, a sixteenth century masterpiece by Holbein, is said to be priceless. Lord Bonniford said he could hear noises in the middle of the night, but he paid no attention. He thought it was just noise from the wind or the cat. The security guard, Mr. Charles Potts, couldn't phone the police because he was tied hand and foot.

The thieves managed to get in and escape without setting off the security alarm by cutting off the electricity supply (Soars, John and Liz, 1986 p.54).
A LIST OF THE CONNOTATIVE MEANINGS OF THE ANIMAL, BIRD AND COLOUR TERMS USED IN THIS STUDY

ANIMALS:

BEAR:
1. a big, strong man.
   John is a bear.
2. a person who believes a financial market is going to go down or a financial market which is going down.
   The BEARS made money last year.

BEAVER:
1: hard working, industrious.
   John is a real BEAVER.
2: female as a sex object.
   There are some cute BEAVER in that bar.

BUFFALO:
1: This term has no connotative meaning.

COW:
1: fat and ugly woman.
   Mary is a real COW.
2: docile.
   John is a cow.

DEER:
1: This term has no connotative meaning.

DOG:
1: ugly unattractive woman.
   Mary was a DOG.
2: worthless or useless.
3: work hard.

ELEPHANT:
1: This term has no connotative meaning.
2: HUGE?

FOX:
1: sexy girl.
   Mary is a FOX.
2: sly or tricky person.
   John is a FOX.

HORSE:
1: This term has no connotative meaning.
MONKEY:
  1: mischievous, especially a child.
    Mary was a real MONKEY when she was a child.

SNAKE:
  1: devious or sneaky.
    John is a SNAKE.
  2: untrustworthy.
    John is a SNAKE.
  3: evil.
    John is a SNAKE.

TIGER:
  1: fierce or strong.
    John is a TIGER.

WOLF:
  1: man who chases women.
    John is a WOLF.

BIRDS:

CHICKEN:
  1: afraid or a coward.
    John is (a) CHICKEN.

CRANE
  1: This term has no connotative meaning.

CROW:
  1: This term has no connotative meaning.

DUCK:
  1: This term has no connotative meaning.

EAGLE:
  1:

GOOSE:
  1: silly
    Mary is a GOOSE.

HAWK:
  1: war-like or aggressive.
    Most soldiers are HAWKS.

OWL:
  1: This term has no connotative meaning.
  2: wise?
    John is an OWL.
PIGEON:  
1: some one easily fooled or taken in.  
    John was an easy PIGEON.

SPARROW:  
1: This term has no connotative meaning.

SWALLOW:  
1: This term has no connotative meaning.

SWAN:  
1: (GRACEFUL?) This term has no connotative meaning.  
    Mary is a SWAN.

TURKEY:  
1: jerk or idiot.  
    John is a TURKEY.

COLOURS:

BLACK:  
1: Negroid.  
    John is BLACK.  
2: evil or bad.  
    It was a BLACK day when he became president.  
3: making a profit.  
    IBM finishes every year in the BLACK.

BLUE:  
1: depressed.  
    John is BLUE today.  
2: pornographic.  
    The movie was a little BLUE.

BROWN:  
1: This term has no connotative meaning.  
    (BROWN NOSE?)

GOLD:  
1: valuable  
2: of first rate quality.
GREEN:
1: jealously or envy.
   JOHN is a little GREEN.
2: inexperienced.
   JOHN is GREEN.
3: nausea.
   JOHN is GREEN.
4: ecology.
   John is a GREEN.
5: money.
   John has the green.

GREY:
1: indistinctness or vagueness
   That is a GREY area.

ORANGE:
1: This term has no connotative meaning.

PINK:
1: healthy or in good condition.
   John is in the PINK.

PURPLE/VIOLET:
1: This term has no connotative meaning.

RED:
1: communist or left wing.
   John is a RED.
2: losing money.
   JNR was always in the RED.
3: angry
   John is RED.

SILVER:
1: This term has no connotative meaning.

WHITE:
1: pure or virtuous.
   John is lily WHITE.
2: caucasian.
   John is WHITE.

YELLOW:
1: coward.
   John is YELLOW.