The Acquisition of Modal Notions by Advanced-Level Adult English as a Second Language Learners

by

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ABSTRACT

The Acquisition of Modal Notions by Advanced Level Adult English as a Second Language Learners

This paper reports a cross-sectional study of the pragmatic comprehension (Fraser, et al. 1980) of modal auxiliaries by advanced level adult ESL learners. The problem is defined as one of deviation from 'standard' usage as manifest in the Brown University Corpus (Kucera and Francis 1967), a number of source texts and a native English speaking sample population. Essays written by college/university entry level ESL students are compared with the Brown Corpus in regard to the frequency of usage of the ten modal verbs: can, could, may, might, must, ought, shall, should, will, would.

The pragmatic comprehension of advanced ESL learners is analyzed to validate a paraphrase-based survey questionnaire developed with reference to a list of modal notions (modalities) and overtones (Halliday 1970, for example) drawn from a variety of sources including ESL and standard English language texts, and papers on the subject of modals and modality.

The revised and validated form of the questionnaire is used as a written-to-oral exercise to evaluate the pragmatic comprehension of the most fluent English learners enrolled in the 1984 Summer English Language Institute at the University of Victoria. This same questionnaire is then used as the diagnostic Pre-Test in a Teaching Unit covering modal auxiliaries that includes written and spoken exercises and a Post-Test evaluation in the form of a written sentence completion task. The items for the Post-Test are drawn from the questionnaire.

Further, all participants in this research program completed a Scalar Evaluation Sheet designed to identify the scalar rating of the modal verbs in regard to such concepts as 'likelihood', 'necessity', and so on. The Scalar Evaluation also provides data for an analysis of the acceptability of the modals for use in a variety of interpersonal relationships.

Throughout the description of the research program, emphasis is placed on the ESL learners' actual interpretations of the contextualized modal and on the potential ambiguity, misunderstanding, and mis-production caused by the polysemy and polylogy of these words. The evidence provided by the foregoing analyses suggests that the ESL learners involved in this study are unsure of, and unsophisticated in, the use of the connotative structure and implications carried by the majority of the modal verbs in their non-'core' (Coates 1983) uses.
The paper ends with a brief discussion of the relationship of this research to the field of Applied Linguistics and to ESL classroom practice.

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This paper is dedicated, with love, to the memory of my parents.
Chapter 1

AN OVERVIEW

1.1 Introduction

The work presented in this thesis is an attempt to establish the parameters of pragmatic communicative competence (Fraser, et al. 1980) in respect to modal auxiliaries (MA) for a specific group of adult ESL speakers. Studies, including those by Ehrman (1966a, b), Hannah (1975), Hermerén (1978), and Coates (1983), may be used to set the 'standard' or 'norm' for the pragmatic use of MA's by adult native speakers of English. With the exception of Altman (1984), research examining any aspect of the developing MA system in the interlanguage of the ESL student is all but missing from the literature. In response to this research gap, this paper presents evidence regarding ESL learners' pragmatic comprehension of the elements of the English modal system. The study is based on an analysis of the empirical data of ESL students' speech and writing and their responses to survey questionnaires.

Throughout the research and analyses, four specific questions were posed:

1. How do native English users (both grammarians and laypersons) interpret modal auxiliaries?

2. In what modal contexts are modals found in the natural speech and writing of ESL users?
3. What meanings do ESL users attribute to specific modal auxiliaries?

4. How do ESL users actually interpret the modal verbs when they read them in contexts?

The study presented here draws on the variety of research and elicitation techniques found in the works cited above as well as in others listed in the Bibliography. It consists of three major components: the analyses of

1. compositions written by ESL students;
2. face-to-face interviews between the researcher and ESL students;
3. responses to extensive questionnaires administered to both native English speakers and ESL students.

The variety of approaches to data collection secured a diverse, yet selected, sampling of the ESL learners' pragmatic competence regarding the modal auxiliaries.

As communicative competence involves both the productive and receptive language modes as interactive tools for the speaker/hearer, 12 half hour interviews with 15 ESL students and 45 compositions written by college and university level ESL students were examined with regard to:

1. The frequency of modal auxiliaries;
2. The modal notions expressed by modal auxiliaries;
3. The appropriate and inappropriate usage of modal auxiliaries;
4. The use of paraphrases or substitutions for modal auxiliaries.
The results of these analyses (reported in Chapter 4) were compared with the usage of native English speakers as reported in the Brown Corpus materials (Kucera and Francis 1967). These analyses, together with the survey of source texts (cited in Appendix VI) and the results of the native speaker sample responses to the first survey questionnaire (annotated in Appendix I), constitute the foundation of the research program.

The survey questionnaire, based on paraphrases of modal notions, was developed from examples of modal auxiliary usage found in the source texts cited in Appendix VI. This questionnaire was subsequently revised (see Appendices II and III). Questionnaire I was administered to eight native English speakers and seven 'advanced' level ESL students (i.e., reasonably fluent students studying at the highest ESL level offered by Camosun College, Victoria). A total of 34 ESL students responded to the revised Questionnaires II and III. The responses to these three Questionnaires provided an interesting sample of ESL users' interpretations of modal usage. In addition, Questionnaire III was used as the Pre-Test for a Teaching Unit on modal auxiliaries introduced in the Linguistics 099 course (English composition for ESL students) offered during 1984 at the University of Victoria. The Teaching Unit, described in Chapter 3.6.2, consisted of a Pre-Test, a short 'in class' essay based on the topics suggested in Azar’s Understanding and Using English Grammar (1981:180), two classroom lecture/discussions, related homework, and a Post-Test. The analysis of the results of this pedagogic activity constituted the last stage of the research project.
As well as ESL users' general competence regarding modal interpretation, the evaluation of specific modal verbs used to express "scalar" notions (see, for example, Diver 1964; Leech 1980; Hermerén 1978; and Hannah 1975) such as 'likelihood', 'temporal aspect', and 'politeness' was an important element of the research. Therefore, subjects were asked to judge these notions using a contextualized questionnaire. The results of this evaluation are considered at the end of Chapter 4 (4.6.1,ff.). The Scalar Evaluation questionnaire (SE) is included as Appendix V.

In Chapter 5, the results of the analyses of the research data are reviewed and considered for their relevance to the questions posed earlier. These results are examined from the perspectives of what they reveal about the developing interlanguage of the most advanced ESL users and how they might be applied to the practical needs of ESL curriculum and classroom materials. Proposals for applications of the findings of the research and suggestions of areas of possible further research based on this study are also found in Chapter 5.

1.2 The Problem

For the ESL learner-speaker, the acquisition problem in regard to the modal auxiliary system of English is neither one of syntactic analysis, nor of diachronic lexical losses. Rather, for the non-native speaker of English, the basis of the confusion which leads to difficulty of pragmatic acquisition (Lakoff 1972) is the overwhelming diversity of semantic connotations and contexts which
demand an appropriate use of modal auxiliaries. A sense of the notional and functional contexts appropriate to the modal auxiliaries is presented in the work of Coates (1983), Hannah (1975), Ehrman (1966a, b), Wiermeren (1978), and Svartvik and Wright (1977), among others. Further parameters of semantic complexity are found in the works of many of the scholars included in the Bibliography. Table 1, listing some of the semantic contexts of modal elements, is compiled from the previously quoted sources. A more comprehensive, fully referenced table is included as Appendix VI.
Table 1

Some Semantic Contexts of Modal Auxiliaries

<table>
<thead>
<tr>
<th>Notional Context</th>
<th>Modal Auxiliary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Degree of Likelihood</td>
<td>Scalar*</td>
</tr>
<tr>
<td>probability</td>
<td>might</td>
</tr>
<tr>
<td>possibility</td>
<td>may</td>
</tr>
<tr>
<td>speaker judgement</td>
<td>could</td>
</tr>
<tr>
<td>(moral) possibility</td>
<td>ought (to)/should</td>
</tr>
<tr>
<td>inherent, permanent, moral, hypothetical logical, scalar-judgements</td>
<td>can/should</td>
</tr>
<tr>
<td>prediction</td>
<td>may</td>
</tr>
<tr>
<td>guarded intent</td>
<td>might</td>
</tr>
<tr>
<td>pure prediction</td>
<td>can</td>
</tr>
<tr>
<td>scalar evaluation</td>
<td>could/should</td>
</tr>
<tr>
<td>expectation</td>
<td></td>
</tr>
<tr>
<td>moral, logical, verifiable assumptions, testable in the future</td>
<td></td>
</tr>
<tr>
<td>future/intent, uncertainty</td>
<td>will</td>
</tr>
<tr>
<td>future actuality</td>
<td>shall</td>
</tr>
<tr>
<td>inference</td>
<td>may/should</td>
</tr>
<tr>
<td>2. Degrees of Assertion</td>
<td>Scalar</td>
</tr>
<tr>
<td>preference</td>
<td>would (rather)/should</td>
</tr>
<tr>
<td>permission</td>
<td>can</td>
</tr>
<tr>
<td>having the right</td>
<td>may</td>
</tr>
<tr>
<td>authoritative permission</td>
<td>might</td>
</tr>
<tr>
<td>requests/questions</td>
<td>may/should/can/should/would</td>
</tr>
</tbody>
</table>
Table 1 (continued)

<table>
<thead>
<tr>
<th>Notional Context</th>
<th>Modal Auxiliary</th>
</tr>
</thead>
<tbody>
<tr>
<td>register:</td>
<td>shall/</td>
</tr>
<tr>
<td>honorific/politeness/formality/officialese</td>
<td>ought (to)/would/should</td>
</tr>
<tr>
<td>volition</td>
<td>will/would/shall/should/can/could</td>
</tr>
<tr>
<td>willingness</td>
<td>could/would/should</td>
</tr>
<tr>
<td>soften assertion</td>
<td>would</td>
</tr>
<tr>
<td>insistence/habit</td>
<td>will/could/can</td>
</tr>
<tr>
<td>3. Temporal:</td>
<td>should/would/could/might</td>
</tr>
<tr>
<td>past, present, future</td>
<td>can/could</td>
</tr>
<tr>
<td>4. Hypothetical + temporal aspects</td>
<td>can/should/must</td>
</tr>
<tr>
<td>5. Ability + temporal aspects</td>
<td>should/must/could</td>
</tr>
<tr>
<td>6. Degree of Obligation program of moral action</td>
<td>could/must</td>
</tr>
<tr>
<td>necessity: inherent, legal, volitional</td>
<td>should/must/ought (to)/should</td>
</tr>
<tr>
<td>advisability</td>
<td>ought (to)/should/must</td>
</tr>
<tr>
<td>justification</td>
<td>could/might/may</td>
</tr>
<tr>
<td>sufficient reasons/good, but not sufficient reasons</td>
<td>ought (to)/should</td>
</tr>
<tr>
<td>desirable but not obligatory</td>
<td>could/might/should</td>
</tr>
<tr>
<td>7. Attitudes to Truth/Attitudes to Topic certainty/uncertainty</td>
<td>might/should/ought (to)</td>
</tr>
<tr>
<td></td>
<td>might/may/should</td>
</tr>
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Within this paper, the use of modal expression is examined from a semantic rather than a syntactic perspective. The functional-notional approach to language teaching and learning advocated by the Council of Europe (see, for example, Wilkins 1979a, b; Johnson 1982; van Ek and Alexander 1982; and Trimm, et al. 1973) relates the acquisition of language to the speaker's communicative needs. This approach to over-all acquisition accords with the semantic analysis of the modal system: in what meaning contexts do native speakers actually use which modal verbs, and what message(s) do they intend to convey by that usage? The notional analysis and teaching method utilizes the "speech act" (Searle 1969) as the basic unit of communication and teaching organization as opposed to the more traditional syntax-based methods which describe and introduce language material in an order of hierarchical structural or perceived semantic difficulty (e.g., simple tenses before compound tenses, can meaning 'ability' before can/may
meaning 'permission' or 'probability').

The "Threshold Level" and "Way Stage" (Trimm, et al. 1973) teaching materials prepared for the Council of Europe are the result of extensive surveys of actual language-use situations such as telephone conversations, shop and restaurant and travel interactions, and so on, as well as interviews with language teachers and students, business people, tourists, extra-national employees, and other individuals involved in inter-cultural communication. The findings of this research program were used to determine what specific speech situations are basic to the communicative use of language. The resulting teaching units are based on utility and frequency of linguistic units without regard to syntactic or intellectual complexity. Table 2, taken from van EK (1976), indicates the "Threshold Level" language functions and notions that can be expressed through appropriate modal verbs. The following list is edited to exclude functions and notions that do not pertain to the present research.
Table 2

"Threshold" Functions and Notions
Using Modal Expressions

1.4 asking
2.4 accepting an offer or invitation
2.5 declining an offer or invitation
2.7 offering to do something
2.12 expressing whether something is considered possible or impossible
2.13 inquiring whether something is considered possible or impossible
2.14 expressing capability or incapability
2.15 inquiring about capability or incapability
2.17 inquiring whether something is considered a logical conclusion (deduction)
2.18 expressing how certain/uncertain one is of something
2.19 inquiring how certain/uncertain others are of something
2.20 expressing one is/is not obliged to do something
2.21 inquiring whether one is obliged to do something
2.22 expressing whether others are/are not obliged to do something
2.23 inquiring whether others are obliged to do something
2.24 giving and seeking permission to do something
2.25 inquiring whether others have permission to do something
2.26 stating that permission is withheld

taken from "2.7 Index of Language-Functions for Threshold Level"
(van Ek, 1976:37)
The concept of 'function' is broadly based on Halliday's (1961, 1973a) exploration of the speech act from the communicative perspective of the speaker: i.e., ideational, interpersonal, or textual. The ideational function involves the speaker's encoding of propositional content because of his need to share the experiences of the real and inner world. The interpersonal function, on the other hand, is the "means whereby we achieve communication by taking speech roles" (McTear 1979:102). To fulfill this function, the speaker uses language to express his attitude toward the topic under discussion. For example, he expresses the degree of 'probability', 'need', or 'obligation' that he believes applies to the content. Last, the textual function refers to the use of language to construct texts or connected discourse that are internally coherent or situationally relevant.

More specifically, the interpersonal function includes such communicative needs as asking, telling, seeking permission, getting attention, offering, refusing, and so on. Within this general framework of needs-related language falls the notional aspect, or situationally-specific language. This aspect involves the individual user's perception of the additional information he intentionally (or unintentionally) expresses in his speech act. Notions include such concepts as possibility, obligation, permission, willingness, assumed degree of interpersonal relationship between interlocutors, personal outlook or attitude, etc. The general need to ASK is a function of language. The specific request, be it for information, object, or permission, the degree of formality, the speaker's belief about the
likelihood of his request being granted and so on (in other words, the context-sensitivity of the request) result from, and are expressed by, notional input.

The range of semantic contents, functions and notions suggested by Table 1, Appendix VI, and Table 2 form the criteria for the selection of specific items relevant to the study of advanced-level ESL speakers' acquisition of modal auxiliaries, and were, therefore, presented to the subjects who took part in this research. Fluent native users of English have at their command this vast, complex, and often ambiguous array of possible contexts, interpretations, and connotations that can be expressed by modal verbs. ESL speakers, we might expect, do not.

According to Major (1974), native-speaking children at the grade three level (age 8-9) have yet to internalize the full grammar and semantics of the modal system. In writing of the level of competence of her subjects she observes that the children's transitions involving modal verbs are based to some extent, at least, on the amount of exposure to adult usage rather than entirely on an abstract model of the rules governing the use of modal auxiliaries (p.76). Regarding the significant role of exposure to modelling she writes (p.106):

In most cases, the children reflected adult usage of the modal in question. Whether manipulating it as an adult would or by avoiding a construction an adult would avoid... .What definitely come later than third grade, however, are the more dignified and literary usages of... modals.

Altman (1984:133) makes the observation that "... learners are rarely exposed to the colloquial variants normally used by native speakers. Nor do they learn the probabilities of occurrence [emphasis
mine} associated with each variant for each function."

If one accepts as premises Major's observation of the importance of modelling to the acquisition of appropriate modal usage and comprehension, and Altman's assessment of the functional reality of the absence of appropriate and varied linguistic input regarding the modal verbs, it appears that the ESL user has little possibility of developing native-like fluency in this particular area of language. By its very nature, classroom exposure is limited, while the students' needs to express themselves are limitless. ESL speakers experience the same need as any English speaker to use language to fulfill the interpersonal, ideational, and textual functions. They experience the same range of notional reactions toward the propositions of their sentences. However, a grade three child would ordinarily have had more opportunity for exposure to the variational range of contexts and connotations appropriate for the modals.

Given that the advanced ESL student has been exposed to far less English-language data than the native speaking child, how does he function in regard to modal auxiliaries? What does he produce and what does he comprehend? How does he interpret what he reads? How do his interlanguage grammar and semantics analyze this complex semantic component of his second language? The search for answers to these questions forms the content of this paper.
1.3 A Diachronic Look at Modal Auxiliaries

Apart from the predecessors of Modern English (ModE) will/would, the modal auxiliaries of ModE are the remnants of a group of proto-Germanic (later Old English) verbs termed the 'preterite-present': that is, their strong preterite forms had come to be used with a present-time sense even in Pre-Germanic times. During the 14th through the 17th Centuries, this group of words, originally full lexical verbs in Old English (OE), underwent major restructuring, both semantically and syntactically, which led to their being established as a specialized group of lexical items used for the expression of speaker-orientation to the propositional content of discourse. As a class, these verbs differ from other English verbs in that:

They do not undergo number agreement or do support but do undergo sub-aux inversion and negative placement. They do not appear as infinitives or gerundives; they can not occur adjacent to each other (except in certain regional dialects ... and can not take normal complementation forms (Lightfoot 1979:98).

Although in OE the 'pre-modals' (Lightfoot's term) could have their time reference manifested by their tense markings, in ModE—and even Middle English (ME)—the relationship of the forms can/could, may/might, shall/should, or will/would is rarely based on distinctions of tense. While must and ought are historically past tense forms, they never carry past sense in the sentence. Lightfoot (1974:104-5) writes, "For the most part should, would and could carry present-future sense and exist independently of shall, will and can."

He adds, "Evidence from M.E. manuscripts strongly suggests that by
that period, would, should, could might were already semantically separate from will, shall, can and may."

The shift from OE to ModE semantic content is traced with textual examples in Traugott (1972) and Lightfoot (1979) as well as in the works of other writers such as Baugh (1957), Pyles and Algeo (1982 revised), and Robertson and Cassidy (1954). This evolution is summarized below to indicate the complexity of meaning now inherent in each of the modal auxiliaries examined in this study. Details regarding OE and ME are mainly drawn from the works of Lightfoot (1974, 1979) and Traugott (1972). The contemporary semantic analysis of modal auxiliaries in section 1.4 is primarily based on the work of Ehrman (1966a, b), Coates (1983), Azar (1981), Leech and Svartvik (1975), and Quirk, Greenbaum, Leech and Svartvik (1979 corrected edition), as well as other sources as cited.

The ten verb forms (can, could, may, might, ought, must, will, would, shall, should) under consideration in this paper are descendants of six OE full verbs: cunnan (>can, could) 'know how', ãgan (>ought) 'owe', magan. (>may, might) 'be able', *mötan (>must) 'be allowed', sculan (>shall, should) 'be obligated', and although not part of the strong-preterite group in OE times, willan (>will, would) 'wish, want'.

1.3.1 Cunnan (>can, could)

According to Traugott (1972), cunnan was never used in OE to express or to ask for 'permission'. It meant 'know how to' or 'be
intellectually able to'. During the ME period cunn- was still being used in its OE main or full lexical verb senses. In the 17th Century, can generally replaced OE mag- in the sense of 'have the physical power to'; however, it was not until the 19th Century that can came to be used extensively to express 'permission'. While in OE cunn- was used to translate Latin scire 'know how to' or 'have the intellectual power to', by Early ModE mow (<OE mag-) and koun- (<OE cunn) had merged in most contexts as alternate manifestations of 'be able to', 'have the capacity to', 'nothing prevents'.

Traugott relates that koun- was used at first with non-human subjects, and therefore lost some of its sense of 'knowing'. It was then reinterpreted as 'be able to'. In the 15th Century, this sense of 'ability' came to be extended to the use of koun with human subjects. In the 17th Century, may, meaning 'be able to', gave way almost entirely to can. Finally, in the 19th Century, can was again reinterpreted and expanded to include the expression of 'permission'. The shift from the OE main verb cunnan 'have the capacity', through incorporation of 'be able to' and 'have the knowledge to', to the 'performative of permission' took place over a period of 500 years.

In the ModE period, beginning in the 19th Century, can/could have taken on the 'permission' sense that so irritates the Miss Grundies of the teaching profession: "You can, but you may not", as Palmer (1974:118) writes, "belongs to a different age." In contemporary English, according to Quirk, et al. (1981), can and could express 'ability', 'permission', and 'theoretical possibility'. Ability, these authors point out, can involve the implication of 'willingness'
as in "can/could you do me a favor?" (p. 98). Azar (1981) gives can as a means of expressing 'ability', 'permission', and 'asking polite questions'. Ehrman, in her corpora-based research found that "The basic meaning of can is that there is no obstruction to the action of the lexical verb of which can is an auxiliary; that is to say, the action is free to take place" (1966a:12).

While could in large part expresses the same notions as can: 'ability', 'permission', 'possibility', 'politeness', other uses of could are reported in the literature. For example, Frank (1982) lists could as the past of can and asserts that could is less strong than can, serving to soften an idea or lessen its force.

Shaw (1979) basically agrees with Frank, reporting that can expresses ability or power or the idea of being able to, while could is used as a past tense of can to express the same ideas but in a weaker manner. On the other hand, Palmer (1979:86-7) observes that could "commonly occur[s] not to indicate past time, but to suggest unreality, usually in what can be seen as an incomplete conditional ('...if I wanted to', '...if things were otherwise...')." Palmer does note that could serves to indicate past unreality and is more tentative and polite than can.

Christophersen and Sandved (1969) do not attempt to give a definitive description of the modals, offering rather "general tendencies" of meaning and usage (p.192). They note that "could is not normally used with reference to a single occasion, but can denote something habitual in the past" (p.194) This seems to ignore the use of could to relate specific incidents, generally involving a negative
connotation (e.g., I couldn't open the door [it was locked], or I couldn't find her new house, and so on). Christophersen and Sandved also note that could is often used with a present or future time reference; they, too, note that the use of could in these constructions "suggests a more diffident, tentative attitude on the part of the speaker" (p.194).

1.3.2 Magan (>may, might)

Lightfoot (1979:100) writes that in OE "Cunnan (>NE can) used to mean 'to have the mental or intellectual capacity to, to know how to' and was sometimes contrasted in the same sentence with magan (>NE may) which meant 'to have the physical ability to'."

According to Traugott (1972:72) OE Mag- may be interpreted as the manifestation of 'permitting'. It was largely used during this era in its basic non-performative sense of 'prevail against, have the physical power to...'. It was never used in its ModE sense of 'maybe', 'possibly'. In ME, mowe 'be'able' (<OE mag-) was still in use in its main verb sense of 'have the power to'. Also during the ME period mot- (>ModE must) was largely replaced by mag- in the non-performative sense of 'permission', to mean, according to Traugott (1972:118), 'the absence of prohibiting conditions'; however, the full performative you may go: 'I permit you to go', did not appear until the 16th Century. The ME sense of mag-, 'there are no conditions to prevent X', is still in current usage as the performative meaning: 'I hereby permit', 'I remove any obstacles if there are any'.

In OE, mag- was used to translate Latin posse, 'have the physical power to', but by ME mag- had largely merged with koun- (<OE cunn-) in contexts where the sense was 'be able to, have the capacity to, nothing prevents'. Traugott observes that in the 14th Century, "Now was reinterpreted as expressing permission; however, koun was not...presumably because some sense of the original distinction between physical and mental capacity remained." (p. 171).

According to Lightfoot (1979:100), the semantic distinction between cunn- and mag- was lost in the ME period and "may developed a permission reading from ME onwards." Lightfoot adds that at one time may was used to denote 'ability' or 'capacity' that was not dependent on outward circumstances. In this function, may served in contexts where we now use can such as: He can speak Klamath. The use of may to express 'possibility' has been common since OE times. However, during the 17th Century, may meaning 'be able to' gave way almost entirely to can. It continued, nevertheless, to be used to express the weakest sense of probability and as the permissive.

Might was introduced as a past tense variant of the 'possibility' meaning in the 16th Century but was soon lost in this reading. By the 18th Century, might is found in use to express the preterite-present time sense as in 'might not intend' vs. 'might not have intended'. Might as the past tense of 'permission' was obsolete by the ModE period, so that, according to Lightfoot (1979:104)"'He might not do it' can not mean 'He was not permitted to do it'." In the 18th Century, might came to be used as a form of suggestion amounting to reproach as in 'You might have apologized' (Questionnaire I and II,
Item 8 and 9, respectively).

In contemporary English, the meanings of both *may* and *might* are given by most sources as 'possibility' and 'permission'. Other interpretations found in the literature include the 'quasi-subjunctive' as in 'May the best man win', and 'polite questions'. Uses specific to *might* are given as a 'past' of *may*, and the addition of a connotation of 'formality' or a sense of 'weakness' or 'tentativeness' to the notion expressed by *may*.

1.3.3  *Mötan (>must)*

Traugott (1972) reports that in OE *môt-* was more frequently used to express 'be able' than it was to express 'permit'. By ME, however, *môt-* and its past tense form, *most*, were the most commonly used auxiliaries for expressing permission. Until C.1500 the two forms were used interchangeably.

*Môt-* and *most* were recessive in the sense of 'permission' in ME and came to be used first in the sense of 'obligation' and, from the late 15th Century, in the sense of inferred or presumed 'certainty'; although the latter use was not common until the ModE period. In ModE, *môt-* is replaced by its past tense form *must* (<*most*). It is no longer used to express either 'permission' or 'ability'.

Sources for ModE such as Quirk, et al. (1981), Azar (1981), Shaw (1979) and Frank (1972a), all give similar interpretations for *must*: 'obligation', 'compulsion', 'necessity', 'choicelessness', 'logical conclusion', and 'logical necessity'. Traugott, too, observes that
must is now mainly used as an expression of 'necessity'. She writes that this use can be traced back to OE times and was fully developed and documented in the ME period.

1.3.4 <i>āgan</i> (>ought)

The <i>Oxford Etymological Dictionary</i> (OED 1966:636) gives 'owed as a duty' as the gloss for <i>āgan</i>, ModE <i>ought</i>. Wertheimer (1972:78) notes that the use of <i>ought</i>, has been fairly stable, tracing back to at least the Elizabethan era. He holds that "ought is synonymous with should when should is not a past or conditional form of shall."

The OED informs its reader that <i>ought</i> is the OE subjunctive of <i>āgan</i>, as in "should owe as a duty." Shipley (1968:475) observes that this form passed into the indicative as an expression of "(present or past) obligation, duty, or propriety," and that in the 17th Century this use of <i>ought</i> was a synonym for 'owe', as in "ought him money" (p.457).

As for modern usage, Quirk, et al. (1981:102) find that <i>ought</i> (to) is used to indicate 'obligation' and 'logical necessity'. Azar (1981:150), on the other hand, equates the contemporary use of <i>ought</i> with 'advisability' as if to say, "This is a good idea. This is good advice." She notes that <i>ought</i> (to) has the same meaning as 'should.

In a later lesson, Azar also lists 'expectation' as in "The bus ought to be here soon." Shaw (1979:109) also maintains that <i>ought</i> is an expression of 'obligation' or 'duty', and Frank (1972a:96), like Azar, gives 'obligation' and 'advisability' equal to 'should.'
Ehrman (1966a:65-6) interprets ought (to) as a synonym for the normative should in almost every respect except where the meaning is ironic, in which case ought (to) can not occur, or when the concatenative structure of the modal makes its use awkward. Ehrman's (p.63) use of 'normative' implies that the prediction made in the sentence conforms to the writer's or speaker's view of some aspect(s) of the environment. Thus ought is used by the speaker to express his expectations of events based on his particular preconceptions of the real world.

1.3.5 Sculan (>shall, should)

Traugott (1979:169) reports that from earliest English shall was associated with obligation imposed by someone or something other than the subject of the sentence; according to Lightfoot (1979:105), the meaning 'to be under obligation, be bound to' remains today.

In the OE period, if any auxiliary was used to express prediction it was will- or scul-, without regard to person. However, as a main verb, scul- was basically used to express 'obligation', 'necessity', or 'compulsion' much like ModE must and ought (to). Traugott notes that "Less common..., almost entirely restricted to Biblical materials is the use of scul- in the sense 'to owe', and from this seems to have developed the sense 'be of value'" (p.70).

According to Traugott, scul- was also used in OE to express 'obligation' marked by 'necessity' in which scul- was primarily used to signal prediction to the receiver. Scul- was apparently found in
contexts that indicate prediction of what must inevitably (or of necessity) happen, due to royal decree, judicial edict, or divine ordinance (p.71). Traugott warns the student of OE against too readily interpreting instances of OE scul- as prediction without a concommitant sense of obligation.

Toward the end of the OE period, scul- was occasionally used to express 'promise'. In these 'promise' sentences scul- is used to express strong expectation rather than prediction, thus giving the sense that the action evolves from the speaker's own desire. This use was part of the ongoing semantic development that moved scul- from the non-performative ('I say there is a necessity that...'), to the performative use ('I take it upon myself that...') common today.

During the ME period shall and will came to be the regular realizations of prediction. Traugott observes that most ME authors preferred shall to will with all persons when expressing 'prediction'. Also in this period, shall was more common than will in indefinite predictive statements and in non-performative expressions of prediction introduced by a temporal subordinator (a position in which neither shall nor will is used in standard ModE (p.115). Shall was generally the preferred auxiliary for the expression of 'promising' with all persons. However, by the 17th and 18th Centuries, simple futurity was expressed by shall in the first person and by will in the second and third persons.

Lightfoot (1979) reports that use of should as a past time marker was absolute in the 15th Century. At that time it began to develop new meanings without corresponding ones for shall-.
was used under adjectives that expressed some degree of possibility, as in "Is it possible that this should be...?" (p.105). The meanings 'want', 'suppose', and 'hope' all date from the 17th Century. Lightfoot points out that in ModE should cannot always appear as the past of shall; for example, "He said that we should do it," is not the reported past of "We shall do it" (p.105).

Shall and should vary widely in their range of possible meanings in contemporary English. In their index, Leech and Svartvik (1975) list 'future', 'insistence', 'intention', 'suggestion', and 'wish' under shall and 'advice', 'hypothetical', 'obligation', 'probability', 'prohibition', 'putative', and 'wish' under should. In the text (p.143) they note that shall can be used in the second and third person to express permission granted by the speaker, as in "You shall do exactly as you wish" (Item 88 on Questionnaire I and Item 76 on Questionnaire II). Leech and Svartvik suggest that this meaning might be one of 'willingness', a connotation not included in the index. Azar (1981) gives the use of shall as 'simple future tense' with the first person and 'polite question to make a suggestion'. Shaw (1979) goes further stating that shall is an expression of the 'precise auxiliary' for the first person in the future and perfect tenses. He also notes that it is used in the second and third person to express 'command' or 'determination'. Frank (1972a) includes most of the foregoing connotations and uses and adds that shall is used in 'requests', legal or commercial usage in the third person, in moral injunctions, and especially in the Bible and in literary usage. Christophersen and Sandved (1969) also note that shall usually implies
'volition', that is, a future event dependent on the will of the speaker such as a promise or a threat, or, in subordinate clauses, 'intention'.

According to Coates (1983:185), the notion of the speaker's and addressee's 'volition' is fairly important in the use of shall. She notes that shall is more or less restricted to first person subjects and carries the meaning 'intention' (whether 'promise' or 'threat'), 'addressee's volition', 'prediction', and 'obligation'. It is generally used in legal and quasi-legal contexts.

Ehrman (1966a:57), on the other hand, observes that the basic meaning of shall is 'predictive'. She writes, "...volition plays almost no part in the meaning of shall, except for the expectable amount which results from the fact that the speaker is guaranteeing the occurrence of his own act. Speaker and subject are the same." She adds, "Instead of adding to the content of the discourse in which it appears beyond the meaning of will, it serves as a means of establishing a certain kind of relationship between the speaker or writer and his listener or reader [emphasis mine]." This represents a para-linguistic use of the modal which, coupled with the variety of lexical meanings, adds to the doubts of the ESL user-hearer-reader. Some of the disagreement on the interpretations of shall found in the sources cited above may arise from dialect differences between British and North American English, with Coates, for example, reporting on British usage and Ehrman reporting on a broad sample of North American (United States) writing.

Should, according to Quirk, et al. (1981:100) is equivalent to
ought (to) when it is used to express 'obligation' and 'logical necessity'. They also list a 'putative' use after specific expressions such as "It is odd that..., I am surprised that..., etc." Should is ascribed a hypothetical use in main clauses with a conditional subordinate clause (this is especially so in British English). In this use, should is equivalent to would. The last meaning given in Quirk, et al. is the tentative condition in conditional clauses like "If you should change your mind..." This use is similar in meaning to 'If you change your mind' which may be somewhat more frequent in North American English. However, these two forms can carry slightly different nuances: should might be used to suggest (hypothetically) that circumstances may change which, in turn, would lead to a change in mind, circumstances which are not yet anticipated by the addressee.

Azar (1981), on the other hand, describes should as expressing 'advisability' that is equivalent to ought, and a sense of 'expectation' similar in meaning to 'will probably'. Frank (1972a) agrees that should is used to express 'advisability', but she includes the meaning 'obligation' in her description. Shaw (1979) concludes that should is used as a past tense of shall in the first person but is weaker in emphasis. He notes that the modal is frequently employed to give a conditional meaning to the proposition, as well as being used to express 'duty', 'propriety', 'necessity', and 'expectation'.

Christophersen and Sandved (1969:200-201) are more precise in their analysis. They write that should is:
not very often used with reference to a single past occurrence. Past time reference occurs mostly in reported speech. Most other uses of should have present or future time reference, and sometimes the difference from shall is merely one of tone or connotation. Should may express a more diffident and tentative attitude; consequently it is particularly common in polite requests. The form shall is frequently used in that clauses expressing a personal feeling or attitude. Should sometimes expresses disagreeable surprise or indignation. [It] is sometimes used in an if clause to underline the hypothetical nature of the content. Should frequently implies obligation or duty or what is thought advisable. [It also] may be used to indicate a natural inference or what may reasonably be expected.

Ehrman (1966a) divides the uses of should into two major categories. The first she terms the "normative" meaning with its one overtone: the speaker's view of aspects of the state of the world. This group of meanings includes a variety of contextual or notional variants such as degrees of 'expectation', 'obligation', 'probability', and so on. The other group consists of those uses which are derived from the use(s) of should as the past tense of 'predictive' shall.

The texts and studies cited support Lightfoot's (1974) observation that should clearly has meanings of its own beyond its use as the 'past of shall'. The fact that it can be interpreted as equivalent to both ought and would in specific contexts, along with the inherent wealth of implications that can be ascribed to it, make should one of the most versatile, and confusing, modal auxiliaries. The context-sensitivity for specific interpretations of should make it difficult to develop hard and fast generalizations or 'rules' that can serve to guide the ESL student in his acquisition process. It would hardly be possible to present the ESL learner with sufficient language input for him to achieve an adequate understanding of the implicative
structure of should on his own.

1.3.6 Willan (>will, would)

Although not originally a member of the proto-Germanic preterite-present verb group, the semantic and morphological similarity of this word to the surviving members of that category led to its being firmly entrenched in the group by the 16th Century syntactic reanalysis that clearly marked the modal auxiliaries as a separate verb class. (For greater detail of this development see Pyles and Algeo 1982:162-3). The syntactic reanalysis is reviewed in section 1.5 of this paper.

According to Traugott (1972:169), from earliest English, will has been associated with one's own volition, in the author's words, "acts free from external compulsion." Willan was used in OE to express general predictions, although this use was fairly rare. The more typical use of will- was as a main verb meaning 'intend, want'; in this use it is the direct ancestor of the now recessive 'volitional will' (p.69). During the ME period, will-, along with scul- came to be the regular realization of 'prediction'. Traugott (p.114) suggests that the volitional implication of will- caused writers of that era to use it sparingly at first, but by the end of the 16th Century, will- had come to be used more or less for the second and third person 'predictive', while it still rarely appeared in the first person. In fact, in ME texts, will- is used more often in its 'volitional' than in its 'predictive' sense.
In its ModE uses, the OE sense of 'willingness' still holds a strong position. Quirk, et al. (1981) write that will functions as an expression of 'weak volition' or 'willingness' in the second and third person, and 'intention' in the first person. They also note that will is used to denote 'insistence' when the stress falls on the modal as in "He will do it, whatever you say" (p.100). Will, they add, also expresses three levels of 'prediction': specific, timeless, and habitual.

Writers of contemporary English language texts also differ over the implicative structure they assign to will. Azar (1981), for instance, gives 'polite request' (p.146), 'definite future prediction' (p.170), and 'simple future tense' (p.176) as contexts for will. On the other hand, Shaw (1979) writes that will is "used as the precise auxiliary for the second and third persons future and future perfect tenses, used in all three persons to express willingness or consent, [and] used in the first person to indicate determination or resolution" (p.107). In contrast, Frank (1972a) observes that the main use of will is as the only future tense marker. In addition to these uses of will, Christophersen and Sandved (1969:195-200) note the notional contexts of 'volition + future', 'commands', expressing the 'speaker's will', 'probability', 'possibility', 'capacity', 'habit', 'insistence', and 'inevitability'.

Wolde, 'wish, want', was the ME preterite of willan. As with the true OE strong preterites, its ModE descendant, would, has developed a number of meanings that are quite different from the past tense of its indicative verb, will. Quirk, et al. (1981:101) give 'willingness' as
a main second person use of would. They also give the meaning 'insistence' (with stress on the auxiliary) as a use in the second and third person. Another connotation for would is to mark characteristic, customary, or typical activity (as in Questionnaire I, Item 11, and Questionnaire II, Item 43: 'They would ask all kinds of questions'). Would can be interpreted as marking 'hypotheticality' or 'probability' in main clauses. Azar (1981:146-8) writes that would is used in making a 'polite request', in 'polite asking', or for 'seeking permission'. She also gives marking 'iterative past action', 'past situation', 'want', and to 'soften' statements as uses for would. Further, Shaw (1979:108) notes that as well as being a past tense of will in the second and third persons, would carries a weaker meaning than will. Other uses cited by Shaw include 'futurity', 'conditionality', 'determination', 'repeated habitual action', and 'wish' or 'desire'. In addition to these connotations, Frank (1972a) gives 'expression of past custom', 'prefer' (when combined with rather or sooner), 'implication that an act was not performed,' and 'wishes that are possible to realize in the present or future'. According to Frank, would is also used to imply a 'cautious or modestly expressed present' as well as 'desire', and 'volition' as in 'want to'.

1.3.7 Summary

In ModE, the modals have retained much of their basic OE main verb content while significantly increasing the number and types of nuances attributable to their appearance in a given sentence.
Traugott (1979:23) writes, "Ambiguity is particularly common in the written language where the pitch and stress patterns of the voice are largely not represented, but it is also frequently characteristic of spoken language..." As examples of this inherent ambiguity she gives:

We won't go =
  a. We predict our not going
  b. We refuse to go;

and

They must be married =
  a. They ought to get married
  b. All evidence suggests that they are married.

Later, she points out that even in OE the pre-modals (and willan) were used frequently in both their basic original senses as main verbs and as the realizations of other concepts such as 'predicting', 'permitting', 'necessity', and so on (p.67). "This means," Traugott states, "that there is a lot of ambiguity in the surface structures of sentences that resemble, and are indeed the etymological ancestors of our modern auxiliaries..." (p.67).

The developmental history of the pre-modals into ModE modal auxiliaries has produced a class of verbs that practically defies explicit definition: words that can, and do, shift meaning, even ever so slightly, in any number of contexts. In the following section, the question of ambiguity is examined with reference to the modal auxiliaries. In section 1.5, the factors that distinguish the modal auxiliaries as a separate verb class in English are presented.
1.4 Ambiguity

The variety of meanings attributable to each member of the modal verb system can be explained partly as the result of historical happenstance and partly as the result of the duality in the semantic schema of English. What was historically essentially a set of one-word-to-one-notion lexemes has given way to a situation in which one lexical element serves to express two, or more, quite different underlying semantic interpretations. Several writers in the fields of modal semantics and ESL pedagogy refer to a system of 'root' and 'epistemic' modality. Pullum and Wilson (1977:784) define the 'root' sense of a modal auxiliary as being transitive in nature, i.e., can = 'to be able to', and the 'epistemic' sense as the modal form in its intransitive meaning(s), i.e., can = 'likely, possible'. Hermerén (1978:92-3) gives 'necessity', 'permission', 'volition', and 'ability' as the notions expressed by the 'root' sense of the modals, and 'certainty', 'possibility', and 'future' as the 'epistemic' senses. He writes,

To characterize generally the root sense of a modal, we may say that it qualifies the subject of the modal in the active sentence; i.e. specifies what the subject is obliged, permitted, determined or able to do... [The epistemic senses, on the other hand,] characterize the truth value of the sentence generally, i.e. they represent it as certain, predictable or possible.

Newmeyer (1969:122-3) makes similar distinctions between 'root' and 'epistemic' uses of modals. For example, he states that root modals serve to modify the surface structure subject of the sentence, while epistemic modals function semantically as predicates of entire
propositions, displaying "identical semantic behaviour" to the HAPPEN, LIKELY and BEGIN classes of words. Table 3 cites examples of the uses of ought, shall, should, and would (compiled from Coates 1981) and of can, could, may, might, must, and will (compiled from Newmeyer 1969) to demonstrate the difference in intention between the 'root' and 'epistemic' senses of each modal auxiliary.
Table 3

Meanings of 'Root' and 'Epistemic' Senses of Modals

<table>
<thead>
<tr>
<th>Root Meanings</th>
<th>Epistemic Meanings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAN</strong></td>
<td></td>
</tr>
<tr>
<td>ability: I can dance the rhumba.</td>
<td>possibility: How can you be so dumb?</td>
</tr>
<tr>
<td>permission: John can go if he wishes.</td>
<td></td>
</tr>
<tr>
<td><strong>COULD</strong></td>
<td></td>
</tr>
<tr>
<td>past tense of root can</td>
<td>same as epistemic can</td>
</tr>
<tr>
<td><strong>MAY</strong></td>
<td></td>
</tr>
<tr>
<td>permission: John may go if he wishes.</td>
<td>possibility: It may rain tomorrow.</td>
</tr>
<tr>
<td><strong>MIGHT</strong></td>
<td></td>
</tr>
<tr>
<td>past of may</td>
<td>like epistemic may, but the possibility is more conditional</td>
</tr>
<tr>
<td><strong>MUST</strong></td>
<td></td>
</tr>
<tr>
<td>imperative requirement: You must behave yourself.</td>
<td>truth by necessity: The theory must hold.</td>
</tr>
<tr>
<td><strong>OUGHT</strong></td>
<td></td>
</tr>
<tr>
<td>weak obligation: I think I ought to write to send you the money I owe you.</td>
<td>probability: The job ought to be finished in a matter of days.</td>
</tr>
<tr>
<td>advice: There's a new book you ought to see.</td>
<td>doubt: It ought to be, I suppose in those two filing cabinets [but I doubt we'll find it there].</td>
</tr>
<tr>
<td></td>
<td>logical assumption: I mean it ought to be good.</td>
</tr>
<tr>
<td><strong>SHALL</strong></td>
<td></td>
</tr>
<tr>
<td>promissory emphatic intention: I shall save it up; we'll share it.</td>
<td>contra-factive: I ought to be on holiday today.</td>
</tr>
<tr>
<td></td>
<td>weak futurity/prediction: Otherwise I shall end up like the song, 'The Seven Drunken Knights'.</td>
</tr>
</tbody>
</table>
Table 3 (continued)

<table>
<thead>
<tr>
<th>Root Meanings</th>
<th>Epistemic Meanings</th>
</tr>
</thead>
<tbody>
<tr>
<td>addressee's volition: Shall I ring at 11 p.m.</td>
<td>necessity: I should have done that.</td>
</tr>
<tr>
<td>obligation: Before passing sentence...the court shall consider...</td>
<td>tentative assumption: The trip should take about six days.</td>
</tr>
<tr>
<td>SHOULD (weak) obligation: You should walk around the ramparts of the city, too.</td>
<td>interchangeable with epistemic ought</td>
</tr>
<tr>
<td>WILL, determination: I will go if I want to.</td>
<td>future: Tomorrow will be Monday.</td>
</tr>
<tr>
<td>refusal (negative): I won't do that.</td>
<td></td>
</tr>
<tr>
<td>WOULD past of root will willingness: He would gladly help him down.</td>
<td>past of epistemic will predictability: That would be the milkman.</td>
</tr>
<tr>
<td>intention: He would show her.</td>
<td>habitual: She would be alone as usual.</td>
</tr>
</tbody>
</table>

The meanings listed on Table 3 represent the most basic uses of the modals. Notional concepts such as temporal aspect or hypotheticality are generally ignored, yet obviously add significantly to the total number of possibilities for interpretation and use.

While the senses intended by the speaker or writer may differ, the fact is that all the meanings and nuances are represented by the
same ten words in essentially the same syntactic contexts. Occurrence restrictions pointed out by Hofmann (1969:36) indicate that the surface subject of a 'root' modal is usually animate, and that a root modal normally excludes the use of the perfect tenses and takes a progressive verb only in exceptional circumstances. Furthermore, he observes that interrogative structures usually have root interpretations. On the other hand, according to Hofmann, the 'epistemic' senses often fit with perfect verbs and can take progressive tenses. However, they are excluded from conditional clauses marked with if. The result of the multiple uses of the modal verbs is ambiguity, potential and real. Ekhart (1974:417) uses the example, "You must be careful" (Questionnaire I, Item 5; Questionnaire II, Item 6) to demonstrate the ambiguous nature of the modal must: "Does it imply that 'he' is careful or careless?" Ekhart asks. Kennedy (1978:124) notes that "Jack will be at the party can be a warning, a prediction, or a promise, depending of context."

Ekhart (1974), Halliday (1970, 1973, 1976), and especially McTear (1979), refer to the modal verbs as two inter-related systems of 'modulation' and 'modality'. Modulation is the equivalent of the root sense, in that modal auxiliaries used in this sense serve to 'modulate' the process through expressing 'obligation', 'permission', 'ability', and so on. Halliday's 'ideational function' is realized through modals interpreted in this sense. Modality, on the other hand, is equivalent to the epistemic sense and serves as a realization of Halliday's 'interpersonal function'. In writing about this dual system of notions, Ekhart (1974:433) states that "ambiguity results
when the context and tense formation do not make it clear to the addressee from which function the speaker entered the system."

Wertheimer (1972) notes that modal auxiliaries are used to relate the speaker's analysis of the degree of 'possibility', 'necessity', etc. of the proposition in both systems of 'actuality' or physical realities and of 'ideality' or moral codes. Ambiguity arises, he writes, "when the two systems are not used the same way by speaker and listener." He adds, "The choice of relevant system may have subtle effects on the interpretation of an utterance" (p.99). This type of ambiguity can clearly be seen in the possible interpretations of the Questionnaire Item: "John must sleep in the car." Here, the readings (based on Hermerén 1978:92) are either epistemic, i.e., 'obvious conclusion' or 'moral obligation', or root, i.e., 'logical necessity'. All three of these possible interpretations are available to the listener/reader if he is unaware of the speaker/writer's position of entry into the semantic system.

According to Hermerén (p.75), ambiguity over modals is more likely to occur in written than in spoken forms. This reality is a product of the printed page which lacks indications of supra-segmentals such as pitch, juncture, stress, and so on. The unaugmented writing system makes it all but impossible to determine, out of context, which particular interpretation the writer intends. Often, it is almost impossible to determine the intention in context when the the writer's point of view toward the propositional content of his sentence is unclear. Hermerén further points out that as modals are generally high frequency words, there is a high
likelihood of polysemy. (Modal auxiliaries rank between the 39th and 354th most frequently used words in the one million word Brown Corpus [Kučera and Francis 1967]. See Hermerén 1978:58-9 for specific details.) Huddleston (1971:294) reminds the reader that "there is often greater difference between the two uses of a single modal than between one use of one modal and a similar use of another modal."

All of the authors cited in this section refer to the comprehensibility of the modal verbs for native speakers of English. If the polysemy of these few verb forms is the source of potential confusion among native speakers who have been exposed to the various forms, interpretations and uses of the verbs since earliest childhood, how much more difficult must pragmatic comprehension of the modal auxiliaries be for ESL users?

1.5 Syntactic Description

In terms of syntactic contexts and morphological description, the class of modal auxiliaries in standard ModE is fairly well defined. Syntactically, these verbs:

1. must appear as the first element in any verb phrase in which they occur;

2. undergo inversion with the subject in question structures as do the other auxiliaries in the language;

3. cannot appear in series with other members of the set;

4. are followed by the infinitive form of the verb, with 'to', except for the concatenative ought (to);
5. are followed immediately by the negative particle in a verb phrase or sentence;

6. form their negative by concatenating with not or n't;

7. when stressed, can express emphatic affirmation without the use of do-periphrasis;

8. do not take do-periphrasis in tag questions;

9. do not occur in imperatives;

10. can have present forms, or past forms, in present tense sequence.

Morphologically, these verbs are distinctive because:

1. they are not marked for third person singular in the present;

2. they are not marked for past tense (except when could or would are used as past tense forms of can or will, respectively);

3. they do not have infinitive forms, i.e., they do not have 'to' infinitives;

4. they have contracted negative forms with enclitic n't;

5. they lack derived nominals with the exceptions 'John has a strong will' (meaning volitional intent), and the atypical usage, 'A dishwasher is a must for every housewife.'

Historically, according to Curme (1935:253) "Can, dare, may, shall, wot [archaic 'to know', retained in ModE as the infinitive 'to wit'], are all old past indicatives; will, must, ought, old past subjunctives. They are now all felt as present tenses." The forms could, might, should (durst, wist: 'dare' and 'know', respectively) were "weak past tense forms coined for reference to the past as true past tense forms came to have present meanings" (p.252). Curme also notes that "this development [of past subjunctives used as present
forms] is an easy and natural one, as every past subjunctive may refer to present time, differing from the present indicative only by expressing the thought more modestly: 'I should prefer...' is a modest way of saying 'I prefer...'' (p.252).

Perhaps because of their speaker-oriented semantic content and the fact that they already differed syntactically and morphologically from the weak verbs of the ME period, in the texts of early ModE there is substantial evidence that the syntactic differentiation that marks modal verbs from full verbs had already begun, and in many instances the independent status of the modals was well established. In fact, during the 15th and early 16th Centuries, the pre-modal verbs underwent a major syntactic restructuring that further distinguished them from other verbs. According to Lightfoot (1979:109-10), during this period English changed so that:

1. the subject of an NP dominated by a pre-modal no longer received phonetic realization, i.e., the subject of the infinitive verb following a modal was understood to be the same subject as that of the modal.

1. s[Bill would s[________ go]s]s;

2. these verbs did not take the 'to' infinitive marker when [to] lost its directional meaning;

3. these verbs lost their OE ability to take direct objects;

4. all other preterite-present forms were lost from English;

5. the opacity of the pre-modals' past tense forms increased;

6. OE SVO sentence structure was re-analyzed for the pre-modals to avoid SVOM structures, i.e., *'I play
ball can', became impossible;

7. OE structures in the form 'it M[NP__]s', e.g., *'It will that the house is red', were avoided.

Later in the 16th Century, the pre-modals fully realized the syntactic and morphological dimensions that they have in ModE. They were

1. precluded from infinitive structures;
2. precluded from gerundive structures;
3. precluded from series sequencing within their verb class (in standard English);
4. precluded from the context 'have + _________en', i.e., present and past perfect tenses.

The final shift away from full verb to modal auxiliary status concerns the three structural rules which especially mark the modals in ModE as members of the class of auxiliary verbs: 'negative placement', 'subject-auxiliary inversion', and 'do-insertion'.

In OE and ME, the negative particle was placed following the first verb form, regardless of the verb's class:

2. NP V X -> NP V neg X.

For example, 'The women play the harp' -> 'The women play not the harp' would have been the regular form. Until the establishment of 'do-support' in the late 16th-early 17th Century, the pre-modal auxiliary was treated as a full verb by this rule: e.g., I hope not, I work not, I can not, were all acceptable forms up to this time. After the introduction of 'do-support', however, the modal auxiliaries, auxiliary verbs (to have, to be) and do were all treated in the same
manner, while the negative marker could no longer follow immediately after the full verbs:

3. \[ NP \begin{cases} \text{Aux} \\ M \\ \text{do} \end{cases} V X \rightarrow NP \begin{cases} \text{Aux} \\ M \\ \text{do} \end{cases} \neg \text{V X}, \]

\[ ^{^\text{e.g.}, \text{He has played} \quad \text{He has not played}} \]
\[ ^{\text{He must play} \quad \text{He must not play}} \]
\[ ^{\text{He does play} \quad \text{He does not play,}} \]

\[ \text{but} \quad \text{He plays} \quad \text{*He plays not.} \]

The second rule, 'subject-auxiliary inversion', also continued to be applied to the modals and full verbs alike until the establishment of 'do-support'. From that time on, modals, auxiliary verbs, and do

4a. \[ \text{OE and ME, } NP \quad V \quad X \rightarrow V \quad NP \quad X, \]

'Make you tea?', for example would have been an appropriate form before this restructuring rule became obligatory as below:

4b. \[ \text{ModE, } NP \quad \text{Aux} \quad V \quad X \rightarrow \text{Aux} \quad NP \quad V \quad X. \]

Examples of the application of this rule include 'Have you made tea?', 'Will you make tea?', and 'Did you make tea?'.

During the 16th Century, it became common in texts to insert a 'dummy' do as an auxiliary on negatives (negative placement) and in questions (subject-auxiliary inversion). As this use of do became obligatory, it became less usual, and finally impossible, for full
verbs to undergo the structural shift:

<table>
<thead>
<tr>
<th>OE-Early ModE</th>
<th>ModE</th>
</tr>
</thead>
<tbody>
<tr>
<td>He went not</td>
<td>He did not go</td>
</tr>
<tr>
<td>Went he?</td>
<td>Did he go?</td>
</tr>
</tbody>
</table>

The auxiliary verbs and modals continued to undergo these shifts, along with the newly established do auxiliary. Thus, a structural class of auxiliary verbs came into being that included have, be, do, and the modal auxiliaries. These structural distinctions were the final step in the marking of the modal auxiliaries as a special semantic and syntactic verb class.

1.6 Summary

The material in the foregoing sections demonstrates that the difficulty encountered by ESL learners regarding the modal auxiliary system is probably one of semantic, rather than syntactic, complexity. However, there appears to be almost a total absence of explicit research into the comprehension and acquisition of modal auxiliaries by ESL students. The research described in this paper is an attempt to remedy this oversight through analyzing the acquisition of modal expression and modal proposition in both oral and written performance of a specific group of ESL users to establish the scope of their passive or pragmatic competence (i.e., their understanding as language receivers). Chapter 2 is a review of the published material that pertains to English modals and modal notions in relation to psycholinguistic realities, corpora-based research, elicitation
techniques, and applications in pedagogy. Although sections 2.2-2.6 deal primarily with the acquisition of pragmatic comprehension by native English speakers, the methodologies and analyses found in the cited works contribute to the overall understanding of the acquisition process, whether native or ESL.
Chapter 2

REVIEW OF THE LITERATURE

2.1 Introduction

Very little research specific to the pragmatic communicative comprehension of modal auxiliaries, either in the language of native or non-native English speakers is reported in the literature. Such investigation as has been reported is almost entirely concerned with determining the frequency and connotations of modal auxiliaries for native speakers only and is based on analysis of written or incidental spoken corpora. Palmer (1979, 1980), Coates (1983), Ehrman (1966a, b), and Hannah (1975) are examples of this corpora-based approach. In defending the use of written corpora as the source for research, Kennedy (1978:124) writes, "Examination of the linguistic devices used to communicate conceptive categories within authentic texts can serve a most useful purpose in demonstrating some of the semantic dimensions of the language learner's task;" while Greenbaum and Quirk (1970:7) remark, "We can be sure that the alternatives [to structured elicitation] are considerably less promising: reliance upon corpus alone and reliance upon introspection alone. Both need supplementation by experimental evidence." While the investigations available through the literature do show a marked tendency toward the use of written corpora, the reliance on natural speech, or specifically elicited structures, to give support to the researchers'
observations is not uncommon.

The research cited in sections 2.2, 2.3, and 2.4, below, represents a variety of investigative methods that include corpora-based, questionnaires, and natural language data collection. These works have added to our understanding both of the complications inherent in acquiring competence in the use of modal auxiliaries and of the difficulties in obtaining sufficient and useful data.

In sections 2.5 and 2.6, the modal auxiliaries are examined in respect to the applied or pedagogic frame and communicative competence. The instructional approaches used to introduce and teach modal auxiliaries in several current English handbooks and ESL texts are reviewed. Also in this section, the concepts of modal notion and language function, as used in the Council of Europe's 'Threshold Level' and 'Way Stage' programs are introduced (see, for example van Ek and Alexander 1980). Further, several works that deal with the communicative competence of language receivers are reviewed.

2.2 Psycholinguistic Testing of Modal Auxiliaries

One of the few papers that deals specifically with the interpretation and acceptability of modal auxiliaries by native speakers is Svartvik and Wright (1977). Further, this investigation is not based on written corpora. Using a four part elicitation matrix, the researchers explore the shifting usage and syntax of ought in the speech of British teenagers. They test for performance, rather than comprehension, and in one part of their work they ask for
judgements of acceptability of sentences in which ought occurs: would the speaker say the sentence himself, or not?

Altman (1984) has done the only available research on the usage of modal auxiliaries by ESL speakers. She examines the contextualized use of modal auxiliaries by incoming international students at UCLA. Her work is important in that it looks at ESL students' performance with modals as a guide to their overall English language proficiency. Using a standard proficiency test format and language laboratory equipment, Altman asked her subjects to identify the meanings of the modals, or to fill in the missing modals in stimulus sentences. She determined that for her subject population, the greater the amount of exposure to English, the more capable the individual was in the manipulation of modal auxiliaries and modal notions. Altman suggests that an English speaker's facility with the interpretive aspect of modal auxiliaries may be a significant indicator of his degree of acquisition.

2.3 Corpora-Based Semantic Studies

Ehrman's (1966a) study, The Meaning of the Modals in Present-Day American English, was referred to by Leech (1971:124) as "the most important study of the meanings of modals to date." This work is based on the occurrences of modal auxiliaries in 300,000 words of the Brown University Corpus of American English (compiled by Kučera and Francis 1976). The Brown Corpus is a compendium of selected American prose printed in 1961. Using contextualized examples from the corpus,
Ehrman establishes "basic meanings" plus "overtones" (p.10-11) or implications for the ten true modals as well as need and dare. She also points out the relevance of such notions as temporal and time functions, and prediction, to the distinctions found in the use of specific modals. To complete her study, Ehrman analyzes the use of modal verbs in excerpts from Shakespeare and Dryden, illustrating the historical tendency to broaden the scope of some of the modals while others, particularly ought and dare, have lost currency.

As with Ehrman's research, Hermerén's On Modality in English (1978), is based on the Brown University Corpus. Hermerén has two aims in his investigation (p.53):

1. To set up a classification system whereby the semantics of the modals in contemporary English can be accounted for in a concrete and economical way;

2. To show how the forms of the modals and their various meanings, as distinguished according to 1, above, are distributed in a selection of texts taken from a corpus of current American English.

In the course of his study, Hermerén (p.186-7) uses a totally semantic criterion; he works from the lexeme to its uses. (In the author's words, "the modal forms are classified under modalities and not vice versa [p.186]). He establishes that there are fifteen uncombined modalities, and thirty-four different combinations of modalities. Of these, combinations of two modalities are most frequent (24), followed by combinations of four modalities (2). These results are illustrated in Table 4, compiled from Hermerén (p.180-84).
Table 4

Combinations of Modalities Found in the Brown Corpus from Hermerén (1978:180-84)

<table>
<thead>
<tr>
<th>Abbreviations Used</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fut future</td>
<td>Able ability</td>
</tr>
<tr>
<td>Poss possibility</td>
<td>Pred prediction</td>
</tr>
<tr>
<td>1 speaker's view of likelihood of occurrence of event</td>
<td>Presum presumption</td>
</tr>
<tr>
<td>2 ungraded possibility of the existence of a state or event</td>
<td>Int intention</td>
</tr>
<tr>
<td>Hypo hypothetical</td>
<td>Cert certainty</td>
</tr>
<tr>
<td>A counterfactual</td>
<td>Perm permission</td>
</tr>
<tr>
<td>B tentative</td>
<td>Prob probability</td>
</tr>
<tr>
<td>C theoretical</td>
<td>Det determination</td>
</tr>
<tr>
<td>Nec necessary</td>
<td>Suggest suggestion</td>
</tr>
<tr>
<td></td>
<td>Will willingness</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FUT</th>
<th>HYPO:B</th>
<th>POSS(2)+PERM</th>
<th>ABLE+HYPO:B</th>
</tr>
</thead>
<tbody>
<tr>
<td>will</td>
<td>would</td>
<td>may</td>
<td>could</td>
</tr>
<tr>
<td>would</td>
<td>should</td>
<td>can't</td>
<td>WILL+FUT</td>
</tr>
<tr>
<td>'ll</td>
<td>wouldn't</td>
<td>might</td>
<td>'ll</td>
</tr>
<tr>
<td>shall</td>
<td>'d</td>
<td>HYPO:C</td>
<td>would</td>
</tr>
<tr>
<td>won't</td>
<td>PRED:CUSTOM</td>
<td>should</td>
<td>WILL+HYPO:A</td>
</tr>
<tr>
<td>POSS(2)</td>
<td>would</td>
<td>shouldn't</td>
<td>would</td>
</tr>
<tr>
<td>can</td>
<td>'d</td>
<td>POSS(1)+HYPO:B</td>
<td>POSS(1)+POSS(2)</td>
</tr>
<tr>
<td>could</td>
<td>might</td>
<td>might</td>
<td>‘cannot</td>
</tr>
<tr>
<td>cannot</td>
<td>will</td>
<td>could</td>
<td>can't</td>
</tr>
<tr>
<td>may</td>
<td>'ll</td>
<td>POSS(2) /+FUT/</td>
<td>PERM</td>
</tr>
<tr>
<td>can't</td>
<td>PRED:PRESUM+FUT</td>
<td>could</td>
<td>can</td>
</tr>
<tr>
<td>couldn't</td>
<td>will</td>
<td>can</td>
<td>can't</td>
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<tr>
<td>would</td>
<td>wouldn't</td>
<td>might</td>
<td>will</td>
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<tr>
<td>NEC+HYPO:C</td>
<td>can</td>
<td>'ll</td>
<td>will</td>
</tr>
<tr>
<td>must</td>
<td>POSS(1)+FUT</td>
<td>would</td>
<td>ABLE+HYPO:A</td>
</tr>
<tr>
<td>shall</td>
<td>might</td>
<td>'d</td>
<td>could</td>
</tr>
<tr>
<td>APPROPRIATE+</td>
<td>may</td>
<td>POSS(2)+HYPO:A</td>
<td>ABLE+POSS</td>
</tr>
<tr>
<td>HYPO:C</td>
<td>could</td>
<td>could</td>
<td>(2)+HYPO:B</td>
</tr>
<tr>
<td>should</td>
<td>POSS(2)+HYPO:B</td>
<td>couldn't</td>
<td>could</td>
</tr>
<tr>
<td>shall</td>
<td>could</td>
<td>ABLE+POSS(2)</td>
<td>couldn't</td>
</tr>
<tr>
<td>shouldn't</td>
<td>might</td>
<td>+FUT</td>
<td>ABLE+POSS</td>
</tr>
<tr>
<td>CERT+FUT</td>
<td>might</td>
<td>could</td>
<td>(2) /FUT/</td>
</tr>
<tr>
<td>shall</td>
<td>CERT /+FUT/</td>
<td>CERT+NEC+</td>
<td>could</td>
</tr>
<tr>
<td>shall</td>
<td>must</td>
<td>HYPO:C</td>
<td>CERT+NEC</td>
</tr>
<tr>
<td>PRED:CUSTOM</td>
<td>POSS(1)+POSS</td>
<td>must</td>
<td>/+FUT/+HYPO:C</td>
</tr>
<tr>
<td>+POSS(1)+</td>
<td>(2) /+FUT/</td>
<td>POSS(2)+SUG-</td>
<td>must</td>
</tr>
<tr>
<td>might</td>
<td>cannot</td>
<td>GEST+HYPO:C</td>
<td>SUGGEST+FUT+</td>
</tr>
<tr>
<td>ABLE+POSS(2)</td>
<td>ABLE</td>
<td>can</td>
<td>HYPO:C</td>
</tr>
<tr>
<td>can</td>
<td>could</td>
<td>PRED:PRESUM</td>
<td>'ll</td>
</tr>
<tr>
<td>could</td>
<td>can</td>
<td>will</td>
<td>INT+FUT</td>
</tr>
<tr>
<td>can't</td>
<td>can't</td>
<td>would</td>
<td>'ll</td>
</tr>
<tr>
<td>CERT</td>
<td>cannot</td>
<td>APPROPRIATE+</td>
<td>would</td>
</tr>
<tr>
<td>must</td>
<td>couldn't</td>
<td>HYPO:A</td>
<td>shall</td>
</tr>
</tbody>
</table>
In a critique of his own analysis, Hermerén remarks that, "In the course of this study occasional references have been made to the spoken language in order to establish the semantic values of the modal. This shows the importance of basic prosodic distinctions even in the analysis of written material" (p. 187).

Even though this study was based on only a representative selection from the Brown University Corpus, and the corpus excludes any material that is more than 50% dialogue, or is unpublished (conditions which Hermerén considers possible short-comings in his research), Hermeren is able to identify fifteen pure modalities and thirty-four combinations of modalities. This array is a clear demonstration of the inherent complexity and confusion of the system which confronts every student of English as a second language.

Hannah's (1975) UCLA M.A. thesis is also a corpus-based examination of the meanings of the modals. Her corpus, however,
consists of four pages of each of a variety of contemporary written texts and public talks from a number of American sources. She looks at both the meanings of the modals as exemplified by the corpus and at the frequency of the individual modals in each usage. From her observations she suggests the direction of semantic shifts within the modal system, at least for the greater Los Angeles region.

Palmer's (1979) study of modal auxiliaries is generally based on the one-million word Lancaster Corpus and the 750,000 words of spoken and unpublished material in the Survey of English Usage. Palmer uses the contextualized occurrences of modal auxiliaries in the two corpora to support his three-way semantic division within the auxiliary system: epistemic, 'possibility', 'necessity'; deontic, 'permission', (moral) 'obligation'; and dynamic (with two sub-kinds of modality, neutral dynamic modality, 'possible for', 'necessary for', and subject oriented modality, 'ability', 'willingness' (p.36-7). Based on the evidence of the surveys, Palmer draws conclusions regarding the usage and frequency of occurrences of specific auxiliary verbs used to express specific notional contexts. At the end of the text, Palmer offers a summary of the syntactic description of the usage of modal auxiliaries ending with the theoretical arguments (mainly from Ross 1969) that suggest that the modals are actually underlying main verbs in ModE, and his own arguments (Palmer 1979) refuting that claim. Palmer's study is of particular interest in that the surveys on which the research is based represent actual contexts of native speakers' use of modal auxiliaries which clearly demonstrate the wide range of these words in the language of actual speakers of English.
The Semantics of the Modal Verbs (Coates 1983) is also based on the Lancaster Corpus and Survey of English Usage. The author's purposes are to clarify and codify the wide semantic range covered by the ten modal auxiliaries. She elaborates on the range and complex overlap of usage involved in this system through a thorough, if somewhat subjective, analysis of the various contexts in which the modals appear in the two corpora. Working from a model that involves the dual schema of 'root' and 'epistemic' meanings, Coates reinforces the sense of complexity by using the terms: "gradience, ambiguity, and merger" (p.13-14) that is inherent in the modal auxiliary system as native speakers utilize the specific nuances of meaning available for each set, either separately or in overlap between the sets of meanings. Coates notes that the meanings of the modals found in the corpora are frequently indeterminate. She employs a system of grading (gradience) to describe the "fuzziness" of modals whose meanings are "intermediate on the continuum of meaning between core and periphery" (p.14).

Coates writes that her data demonstrate that modals used in both the root and epistemic senses can be 'fuzzy' in meaning. By this, she means that the modals can be described as having a "core meaning" that "corresponds usually to the cultural stereotype (that is, 'if you stopped people at random and said 'Give me an example of MUST/MAY/CAN...' they would respond with a core example), and yet, statistically, core examples occur infrequently" (p.13). Surrounding the core are the areas of meaning which Coates calls the "skirt" and the "periphery". In these areas are the uses of the modals which, by
degrees, are further and further in meaning from the basic root or epistemic senses. Every corpus-based study that deals with the modals reaffirms the observation that polysemy and polylexy pervade the modal auxiliaries and set them apart semantically, as much as they are set apart syntactically and historically, from the other verbs of English.

2.4 Elicitation Techniques

The problems inherent in elicitation for semantic concepts include circumventing the subjects' proficiency in avoiding forms that they find difficult to use. Saegert, et al. (1974) note that a student who finds a particular construction in the target language difficult to comprehend or produce is very likely to try to avoid linguistic situations that call for its use. As a viable alternative to free conversation, Dulay, Burt, and Krashen (1982) give examples of both natural communication tasks and linguistic manipulation tasks in which the subject is forced to focus on form rather than content. They suggest that a "structured communication task" would be appropriate "if the goal is to elicit a specified range of structures naturally, yet within a limited time span" (p. 247). They add that in "cross-sectional studies, the structured communication task is typically used because it is fairly short and can be administered to a large sample within a reasonable time period" (p. 247).

Writing of eliciting attitudinal markers, Warkentyne (1972) remarks on the importance of providing a context or environment that makes the target meaning clear for each item. He also notes that paraphrase can be a useful tool in the disambiguation of certain
sentences. Although Warkentyne does not specifically refer to modals, the use of paraphrase and context seems especially pertinent to research in the area of these highly ambiguous verb forms.

Leech's (1970) work is very suggestive in regard to semantic testing. He strongly urges the inclusion of an "open answer category" in the testing format that will allow those who are unsure of the 'correct' interpretation to avoid haphazard responses. He also suggests that subjects be asked for circumstances in which their evaluation of a stimulus sentence would be different. He writes, "Tests are set up in order to explain semantic competence; but the only evidence they can provide is of the actual performance of native speakers in practical tasks of interpretation" (p.349). Taking for granted the status of the second language learner's interlanguage, one might generalize Leech's observation to include the actual competence and performance of non-native speakers.

Brown and Miller (1975) describe three types of data collection in their study, *Modal Verbs in Scottish English*: data gathered by taking notes in natural language situations, review of tape recorded material, and (most fruitful, in the writers' experience) the use of questionnaires. They suggest that each questionnaire item consist of two parts: a gloss sentence and the stimulus sentence. They also recommend that questionnaire items be exposed to the subjects one at a time to avoid confusion or cross referencing (p.100).

Through the use of paraphrase frames, Brown and Miller hoped to determine native Scottish-English speakers' actual use of modal auxiliaries. Stimulus sentences containing modal phrases such as 'i
give you permission', 'we are allowed to', 'it is our duty to', and 'it is possible that', were read to the subjects, while at the same time they could read them for themselves. Modal expressions such as those indicated above are similar to the descriptions of modal auxiliaries found in standard English texts and analyses of modal verbs found in research papers (p.100). Brown and Miller suggest that the oral reading procedure may have affected their subjects' interpretation of the model sentences as voice pitch could have influenced results. They point out that may, given a variety of readings could mean "could, can, might, may, might just" (p.105). Once again, the use of paraphrase was an important aspect of the questionnaire format used by these researchers.

2.5 Modal Auxiliaries, the Applied Frame

The problem with the traditional grammar-based approach to pedagogy and the modal auxiliaries is that it gives the learner too narrow an interpretation of the semantic field and appropriate contexts of the modals, thereby depriving him of the repertoire of possibilities that are actually utilized in the expression of notional modalities. The result of this system is ESL speakers who are unable, for example, to go beyond the can of 'ability' and (they believe, colloquial) 'permission', and who believe that the only acceptable 'proper' use of could is that of 'past ability' (the past of can), and so on. Examples of this type of narrow interpretation taken from Questionnaire I include the responses to Item 4, "A member of the
Queen's Own Guards must be six foot tall." Joos (1964:152) claims that the correct interpretation of this sentence is that of an 'assertion', while native English speakers questioned felt that it could be interpreted as either a 'condition' or, perhaps, a 'necessity' of being or becoming a guard. However, the ESL subjects surveyed generally gave it the reading of 'necessity', exclusively. Also from Questionnaire I is Item 8, "You might have apologized;" the ESL respondents overwhelmingly selected the interpretation 'probability' rather than 'dissatisfaction', the reading claimed by Wishon and Burks (1980:232). This tendency to narrow the range of interpretations may well be an inherent flaw in the traditional approach of teaching modals, as opposed to teaching about modals. ESL grammar texts examined in the course of this research (including: Azar 1981, Bander 1978 [and revised 1983], Frank 1972a,b, Raimes 1978, Paulston and Dykstra 1973, Thomson and Martinet 1969, and Lawrence 1977, among others) all include a structurally sound description of modal syntax as, for example, this one taken from Frank (1972a:85):
Table 5

**Syntactic Description of Modal Auxiliaries from a Typical ESL Text**

<table>
<thead>
<tr>
<th>Modal Auxiliaries</th>
<th>He can</th>
<th>should</th>
<th>must</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>can—could</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>may—might</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>should</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>would</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>must</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>be able to</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ought to</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>have to</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These modal auxiliaries add a special meaning, such as ability, permission, possibility, etc., to the meaning of the main part of the verb.

from Frank (1972a:85)

Such descriptions are generally accompanied by written reinforcement exercises aimed at giving students facility and automaticity with constructions involving modal verbs. None of the texts examined offered a totally function-oriented approach to the uses of the modals. Some, notably Frank (1972a,b) and Azar (1981), are organized on the basis of a few of the potential meanings of the modal auxiliaries.

The rules governing the syntactic structures involving the modals are, after all, fairly easy to express and illustrate: this fact is demonstrated by the selection of rules in Table 6, below.
Table 6

Examples of Syntactic Rules Given for Modal Auxiliaries in a Variety of ESL Texts

1. Question Formation: Subject-Auxiliary Inversion from Guerin (1979:31)

<table>
<thead>
<tr>
<th>Can I speak to him?</th>
<th>Can we speak to him?</th>
</tr>
</thead>
<tbody>
<tr>
<td>May I speak to him?</td>
<td>May we speak to him?</td>
</tr>
</tbody>
</table>

Can
Could
Will
Would

you please call back?


(1) The passive form: modal + be + -ed (past participle)

(a) The window can't be opened.
(b) The window couldn't be opened.
(c) May I be excused from class?
(d) You might be interested in this?
(e) Children should be taught to respect their elders.
(f) This book had better be returned to the library before Friday.
(g) Meat must be kept in a refrigerator or it will spoil.
(h) You application ought to be sent before June 1st.
(i) Mary has to be told about our change in plans.

(2) The past-passive form: modal + have been + -ed (past participle)

(j) The application should have been sent last week.
(k) This house must have been built over 200 years ago.
(l) I don't know why the child started to cry, but she might have been frightened by the dog's barking.
(m) Mary ought to have been invited to the party.

The negative is formed by putting not after the auxiliary:

I must not. He has not. They do not.

4. Position in the Verb Phrase: from Wishon and Burks (1980:228)

<table>
<thead>
<tr>
<th>NOUN PHRASE</th>
<th>VERB PHRASE</th>
<th>Object/Complement/Adverbial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>Modal</td>
<td>Verb</td>
</tr>
<tr>
<td>What</td>
<td>can</td>
<td>be done</td>
</tr>
<tr>
<td>We</td>
<td>should</td>
<td>approach</td>
</tr>
<tr>
<td>This or that</td>
<td>should</td>
<td>be done.</td>
</tr>
<tr>
<td>The government</td>
<td>ought to</td>
<td>pass</td>
</tr>
<tr>
<td>The city</td>
<td>should</td>
<td>enforce</td>
</tr>
<tr>
<td>Cars</td>
<td>could</td>
<td>be made</td>
</tr>
<tr>
<td>They</td>
<td>couldn't</td>
<td>be powered</td>
</tr>
<tr>
<td>Pollution</td>
<td>can't</td>
<td>be controlled.</td>
</tr>
</tbody>
</table>

5. Use of Tag Questions and Short Answers: from Thomson and Martinet (1969:61-2)

**Question Tags**

These are short additions to sentences, asking for agreement or confirmation. When the sentence is affirmative the question tag is made by repeating the auxiliary (or do/does/did if there is no auxiliary) in the negative interrogative form. This is always used in the contracted form and expects the answer, yes. The subject of the question tag is always a pronoun, never a noun.

Agnes can cook well, can't she?
Mr. Pitt should take more exercise, shouldn't he?
I can borrow your car, can't I?
She will have to go with him, won't she? (Where there is more than one auxiliary in the main verb, only the first is repeated in the tag.)
When the sentence is negative the question tag is made by repeating the auxiliary in the ordinary interrogative form:

Spanish women don't wear hats much, do they?
She is not so stupid as she looks, is she?
You won't be late, will you?
You shouldn't drive so fast, should you?
Mr. Pitt doesn't like oysters, does he?
Pythons don't make good pets, do they?

Auxiliaries in short answers

Questions requiring the answer 'Yes' or 'No', i.e. questions such as, 'Do you smoke?' or 'Can you ride a bicycle?', should be answered by 'Yes' or 'No' and the auxiliary only. The original subject, if a noun, is replaced by a pronoun:

Do you smoke? Yes, I do (not Yes, I smoke).
Can he cook? No, he can't.
Did you win anything? No, we didn't.
Has Tom a car? Yes, he has.
Will Mr and Mrs Pitt be there? they will.
May I go? Yes, you may.
Do you eat snails? No, I don't.
Did you put garlic in it? Yes, I did.
Must he go? Yes he must/
or, no he needn't.

6. Followed by the Simple Form of the Verb, with the exception of Ought: from Thomson and Martinet (1969:60) 

Auxiliaries are followed by infinitives (be and have can also be followed by other parts of the verb). Be, have, ought, and used are followed by the infinitive with to:

He is to go. I have to work. Tom ought to write her. She used to know Greek.

Do, can, may, must, will, and shall are followed by the infinitive without to:

He doesn't read. She can swim. You may go.
I must see it. He will help you.
The relative simplicity of the syntax is, however, compensated for by the complexity of the semantic component of modal auxiliary use. The following charts, from Wishon and Burks (1968:172-3) and from Azar (1981:174-5), seem to be fairly representative examples of the meanings of the modals presented in contemporary ESL texts. Even with this array of uses, a comparison with Tables 1 and 4, or Appendix VI, gives an idea of what ESL students are not being taught about actual native-speaker use of modal auxiliaries.
Table 7

Typical ESL Text Charts of Modal Meanings

A. Wishon and Burks, Let's Write English (1968:172-3)

<table>
<thead>
<tr>
<th>AUXILIARY</th>
<th>MEANING</th>
<th></th>
</tr>
</thead>
</table>
| Can       | present ability | I can help him.  
             |             | Can you help him?  
<pre><code>         |             | No, I can't help him. |
</code></pre>
<p>|           | possibility   | He can meet you at the station.                                |
|           | permission    | Can I see the pictures?                                        |
| Could     | past ability  | He could skate when he was very young.                         |
|           |             | Could he skate when he was very young?                         |
|           |             | No, he could not skate when he was very young.                  |
|           | possibility  | I could go with you tomorrow.                                  |
|           | permission   | Could I borrow your pencil?                                    |
| May       | permission   | May I open the door?                                           |
|           |             | Yes, you may open the door.                                    |
|           |             | No, you may not open the door.                                 |
|           | possibility  | I may get a scholarship.                                       |
| Might     | possibility  | I might get a scholarship.                                     |
|           |             | Might you get a scholarship?                                   |
|           |             | I might not get a scholarship.                                 |
| Should    | obligation   | Every student should read this book.                           |
|           |             | Should everyone read it?                                       |
|           |             | No, some students need not read it.                            |
|           |             | Some students should not read it.                              |
|           | probability  | If he should call, let me know.                                |
|           | logical conclusion | John was in the United States.       |
|           |             | He should speak English well.                                  |
| Must      | necessity    | I must study for my examination.                               |
|           |             | Must you study so much?                                        |
|           |             | You don't have to study all the time.                          |
|           | inescapable conclusion | It's getting dark. It must be late.                         |
| Ought to  | obligation   | They ought to help him.                                       |
|           |             | Ought they to help him?                                        |
|           |             | No, they needn't.                                              |
|           |             | No, they ought not to.                                         |
|           | logical conclusion | I lived in Chicago for ten years.              |
|           |             | I ought to know the city.                                      |</p>
<table>
<thead>
<tr>
<th>AUXILIARY</th>
<th>MEANING</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Have to</td>
<td>necessity</td>
<td>I have to study for my examination.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Do you have to study much?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I had to study last night.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Did you have to study last night?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No, I didn’t have to.</td>
</tr>
<tr>
<td></td>
<td>future</td>
<td>I'll see him next week.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Will you see him next week?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No, I won't see him next week.</td>
</tr>
<tr>
<td>Will</td>
<td>willingness</td>
<td>I'll do it if you will.</td>
</tr>
<tr>
<td></td>
<td>polite request or refusal</td>
<td>Will you please help me?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I will not discuss it.</td>
</tr>
<tr>
<td>Be Going to</td>
<td>future</td>
<td>I'm going to do it tomorrow.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Are you going to do it tomorrow?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No, I'm not going to do it.</td>
</tr>
<tr>
<td>Shall</td>
<td>future</td>
<td>I shall see that it is done promptly.</td>
</tr>
<tr>
<td></td>
<td>request for agreement</td>
<td>Shall I answer the telephone?</td>
</tr>
<tr>
<td>Would</td>
<td>result of condition</td>
<td>I would read it if I had time.</td>
</tr>
<tr>
<td></td>
<td>(contrary-to-fact situation)</td>
<td>Would you read it if you had time?</td>
</tr>
<tr>
<td></td>
<td>past custom</td>
<td>My father would take us to the park every Sunday when we were children.</td>
</tr>
<tr>
<td></td>
<td>polite request or refusal</td>
<td>Would you please give her a message?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>He would not tell me his name.</td>
</tr>
<tr>
<td>Used to</td>
<td>past custom</td>
<td>I used to play a lot of golf.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Did you use to play a lot of golf?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No, I didn’t use to play much.</td>
</tr>
<tr>
<td>Had Better</td>
<td>'desirability</td>
<td>We'd better go early if we want to get seats.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Had you better go early?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>You'd better not be late.</td>
</tr>
<tr>
<td>Had Rather</td>
<td>preference</td>
<td>I'd rather walk than ride.</td>
</tr>
<tr>
<td>Would Rather</td>
<td></td>
<td>Had you rather walk than ride?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I hadn't rather walk than ride.</td>
</tr>
</tbody>
</table>
### Table 7 (continued)


<table>
<thead>
<tr>
<th>AUXILIARY</th>
<th>USES</th>
<th>PRESENT/FUTURE</th>
<th>PAST</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>can</strong></td>
<td>(1) ability</td>
<td>I can speak French.</td>
<td>I could speak French when I was a child.</td>
</tr>
<tr>
<td></td>
<td>(2) permission</td>
<td>Can I borrow your pen? You can use my car tomorrow.</td>
<td></td>
</tr>
<tr>
<td><strong>could</strong></td>
<td>(1) past ability</td>
<td>(I can speak French.)</td>
<td>I could speak French when I was a child.</td>
</tr>
<tr>
<td></td>
<td>(2) polite question</td>
<td>Could I borrow your pen? Could you please take a message?</td>
<td></td>
</tr>
<tr>
<td><strong>may</strong></td>
<td>(1) permission</td>
<td>May I borrow your pen? You may leave when you are finished.</td>
<td>A: Where was John? B: He may have been at the library.</td>
</tr>
<tr>
<td></td>
<td>(2) possibility</td>
<td>A: Where's John? B: He may be at the library.</td>
<td>A: Where was John? B: He might have been at the library.</td>
</tr>
<tr>
<td><strong>might</strong></td>
<td>(1) possibility</td>
<td>A: Where's John? B: He might be at the library.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2) polite question of permission (rare)</td>
<td>Might I borrow your pen?</td>
<td></td>
</tr>
<tr>
<td><strong>should</strong></td>
<td>(1) advisability</td>
<td>I should study tonight</td>
<td>I should have studied last night.</td>
</tr>
<tr>
<td></td>
<td>(2) expectation</td>
<td>The bus should be here soon.</td>
<td>The bus should have been here ten minutes ago.</td>
</tr>
<tr>
<td><strong>ought to</strong></td>
<td>(1) advisability</td>
<td>I ought to study tonight.</td>
<td>I ought to have studied last night.</td>
</tr>
<tr>
<td></td>
<td>(2) expectation</td>
<td>The bus ought to be here soon.</td>
<td>The bus ought to have been here ten minutes ago.</td>
</tr>
<tr>
<td><strong>had better</strong></td>
<td>(1) strong advisability</td>
<td>You had better be on time, or we will leave without you.</td>
<td></td>
</tr>
<tr>
<td><strong>must</strong></td>
<td>(1) necessity</td>
<td>I must go to class today.</td>
<td>I had to go to class yesterday.</td>
</tr>
<tr>
<td></td>
<td>(2) probability</td>
<td>Mary isn't in class today. She must be sick.</td>
<td>Mary wasn't in class yesterday. She must have been sick.</td>
</tr>
<tr>
<td><strong>have to</strong></td>
<td>(1) necessity</td>
<td>I have to go to class today.</td>
<td>I had to go to class yesterday.</td>
</tr>
<tr>
<td><strong>have got to</strong></td>
<td>(1) necessity</td>
<td>I've got to go to class today.</td>
<td></td>
</tr>
</tbody>
</table>
Table 7 (continued)

<table>
<thead>
<tr>
<th>AUXILIARY</th>
<th>USES</th>
<th>PRESENT/FUTURE</th>
<th>PAST</th>
</tr>
</thead>
<tbody>
<tr>
<td>will</td>
<td>(1) simple future tense</td>
<td>I will be there tomorrow.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2) polite question</td>
<td>Will you please pass the butter?</td>
<td></td>
</tr>
<tr>
<td>would</td>
<td>(1) polite question</td>
<td>Would you please pass the butter?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Would you mind if I left early?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Would you mind closing the door?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2) preference</td>
<td>I would rather go to the park than stay home.</td>
<td>I would rather have gone to the park.</td>
</tr>
<tr>
<td></td>
<td>(3) repeated action in the past</td>
<td>When I was a child, I would visit my grandparents every weekend.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(4) &quot;soft&quot; statement</td>
<td>I would like a cup of coffee.</td>
<td>I would have liked a cup of coffee.</td>
</tr>
<tr>
<td>shall</td>
<td>(1) simple future tense with &quot;I&quot; or &quot;we&quot;</td>
<td>I shall arrive at nine.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2) polite question to make a suggestion</td>
<td>Shall I open the window?</td>
<td></td>
</tr>
</tbody>
</table>

No doubt, in a format that goes from structure to notion, it is more manageable for students to be introduced to only the more common 'core' uses (Coates 1983) of the modals. However, this approach clearly does not present students with an adequate feeling for the connotational differences and notional attributes of the modal auxiliaries. On the other hand, a curriculum such as that suggested by the notional-functional framework can provide meaningful,
situationally based language learning experiences organized on the basis of language-use contexts. This approach permits language features, such as the modal auxiliaries, to be taught in contextually appropriate settings and included with other means of expressing the same modality, thus giving students a greater exposure to context-sensitive language use. It assures that the students will be made familiar with several of the ways native speakers express a notion like 'obligation', including the modals must, ought (to), and should, rather than encouraging them to think of the modals as units of meaning, each unto itself. Trimm, et al. (1976:138-9), for example, suggest the following guidelines for learning objectives in the use of modalities—not modals:

1. Certainty
   i.e. degree of objective certainty
   1.1 Total certainty — certain, infallible, reliable
   1.2 Probability — probable, plausible, likely, practicable
   1.3 Possibility — possible, feasible, potential
   1.4 Nil certainty — negation, impossible, impracticable
   = absence of certainty
   = certainty + negative

2. Necessity
   i.e. social necessity (closely related to certainty)
   — inevitability, necessity

3. Conviction
   i.e. personal conviction regarding the truth of a proposition, less than objective certainty or necessity
3.1 Strong positive — believe, be + convinced, be + positive, be + confident
3.2 Intermediate — think, presume, suppose, infer, daresay, expect, judge, conclude, trust, be of the opinion, assume, hold, suspect, subscribe (to the view that), anticipate, foresee, predict, prophesy, consider, reckon, hope, surmise, guess, imagine, conjecture
3.3 Weak — doubt, be + sceptical
3.4 Negative — disbelieve, deny, (also 3.1 and 3.2 above plus negative)

4. Volition

i.e. the speaker’s intent with regard to a proposition
— will, volition, choice, inclination, intention, purpose, wish, desire, unwilling, design, mean, propose, contemplate, plan, project, want, prefer

5. Obligation incurred

i.e. speaker’s admission of an obligation in force as a result of either a present or a past event
— duty, liability, responsibility, allegiance, conscientiousness, obligation, onus, promise, undertake, assure, guarantee, contract

6. Obligation imposed

i.e. utterances intended to impose an obligation on someone else
— command, order, dictate, compel, force, oblige, prohibit, forbid, disallow

7. Tolerance

i.e. no hindrance offered to a proposal
— allow, tolerate, grant, consent, agree to, permit, authorize

Moral discipline and evaluation

1. Judgement

1.1 Accepted — renounce, yield, resign, defer, confess
1.2 Favourable — vindicate, justify, advocate, defend

1.3. Valuation — estimate, value, assess, appreciate, judge, rank, place, grade (cf. 3, above)
    — overestimate, prejudge, misjudge

1.4 Delivered — condemn, convict, proscribe,
    — pronounce, rule, sentence, find, award

2. Release
    i.e. release from blame or accusation
    -- exemption, release, acquit, discharge, let off, excuse, pardon, conciliation, reconciliation, forgive, exculpate, exonerate, absolve, reprieve, extenuate

3. Approval
    i.e. expression of approval of another's behaviour, performance, etc.
    -- approbation, approve, think well, appreciate, commend, praise, applaud, value, deserve, merit, entitle, give credit

4. Disapproval
    i.e. expression of disapproval of another's behaviour, performance, etc.
    -- disapprobation, deprecate, blame, remonstrate, reprimand, accuse, denounce, condemn, frown upon, disparage, charge, impute, reproach, deplore, allege

Suasion

i.e. utterances designed to influence the behaviour of others

1. Suasion
    -- persuade, suggest, advise, recommend, advocate, exhort, beg, urge, propose
A notional-functional syllabus offers a sharp contrast to the structural treatment of modal auxiliaries in that meaningful and useful contextualization, rather than structural difficulty, governs the course organization. In light of the polysemy, polylexy and high frequency of the modal verbs, it is important to give students as much exposure to them as is practicable. The notional-functional approach seems likely to present students with opportunities to hear and use the modals in patterns that closely resemble (though not equal) the natural exposure to "colloquial variants...and probabilities of occurrence" referred to by Altman (1984:133).

2.6 Pragmatic Comprehension and Grammar for the Receiver

Pragmatic competence is defined by Fraser, et al. (1980:77) as "the knowledge required to determine what...sentences mean when spoken in a certain way in a particular context." As language receivers, ESL users have an important role to play in the processing of expressed modal notions. Whereas the interpretation of oral language, with its supra-segmentals and opportunity for added explanation, may cause little trouble for the non-fluent English user, precise understanding of the written word may be considerably more difficult for him. The nuances of prediction intended by the writer's choice of modal form, his assessment of the ideational content, and the correct resolution of ambiguities produced through the use of specific modal auxiliaries are all obstacles to the non-native English reader's comprehension of the written text. Writing about child language and the acquisition of
communicative competence, Bye (1976:viii) observes:

In order for the child to produce a functional discourse unit, he must have acquired not only the semantic structure underlying that unit of discourse, he must also have acquired the full set of listener-oriented pre-suppositions associated with its production.

The same should be said of ESL speakers. Lyons (1977:849), for example, points out that, "Languages are learned and used in contexts which are in part determined by the variable assumptions and presumptions of the people who use them." The proper comprehension of input relies for ESL users, no less than for English-speaking children, on their understanding of the 'real world' of discourse. These presuppositions "constrain the speaker to produce discourse which the listener will judge as functional," in terms of fulfilling the communicative needs of the listener, writes Bye (1976:viii). It is language out of context, or language in discourse improperly or incompletely understood, that causes misreading of the modal auxiliaries.

Hockett (1961) examines the receptive strategies of the hearer. He suggests that listening-understanding involves an awareness (that is not necessarily conscious) of the grammatical relationships between that which has been spoken and that which is yet to be said. He writes, "The very act of perceiving the word generates...a PATTERN OF EXPECTATION...each new word replaces a grammatical state by a grammatical state" (p.224). Once again; it is contextual setting that signifies, for the receiver, the performer's intent.

Whereas it seems clear that the discourse functions Halliday (especially 1961, 1970, 1973) labels *ideational* and *interpersonal* are
present in all known languages (see Fraser, et al. 1977:79), the second language learner's ability to process the language-specific elements used by speakers to express propositions in those functional systems is impaired; as suggested by Hockett (1961), the learner is unable to parse the utterance instantaneously. Furthermore, McTear (1979:106-7) notes that the lexical elements that verbalize the systems of modality and modulation are not used equivalently from language to language; therefore, it is wrong to assume that students coming to English from another tongue will automatically have a feel for the English forms.

Bever and Langendoen (1972:33) write that "Linguists and psychologists can utilize three kinds of manifest speech behaviors as data relevant to the study of linguistic knowledge: speech production, speech perception, and the prediction of new sentences." They go on to say that the history and state of a language are the results of the interaction between the rules that are required to predict new sentences and the behavioral mechanisms that are used to understand sentences. Once again, the receiver's interpretation of language is seen as a result of his pragmatic knowledge of the world assumed by the speech act.

2.7 Summary

According to the studies cited above, it seems that contextualiation and consensus presupposition are the important factors both in the resolution of ambiguity and in the pragmatic
comprehension of utterances (or written strings) which incorporate the modal operators. (Here, I am specifically interested in the interpretation of modal auxiliaries). The pragmatic comprehension of second language learners, too, resides in contextualization, but because of limited exposure to naturally contextualized language, they often lack the necessary level of speaker– or listener– oriented presupposition required for the accurate analysis of meaning of the language they receive. Although the ESL texts reviewed adequately delineated and explained the syntactic aspects of the modal verbs, by greatly simplifying the semantic component of the modal auxiliary system, they fail to address the real difficulties of the ESL student in learning to understand and use modal auxiliaries.
Chapter 3

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

Knowing empirically that ESL users experience problems with comprehension and use of modal expressions, and giving those problems delineation are two different things. Classroom experience shows that the modal auxiliaries are a confusing semantic group. ESL text writers such as Bander (1983:161) claim that

Like prepositions, modal auxiliaries are chosen with almost instinctive correctness by native speakers of English. For international students, though, the case is very different. For them, both modals and prepositions are small but formidable words, and many students feel unsure about using them correctly.

Students tend to learn the appropriate syntactic structures and the one or two 'core' textbook contexts given for each modal. They then attempt to fit the modals into those contexts, without regard to the subtle (and not so subtle) contextual clues that define the appropriate and significant choice of modal word or interpretation for native speakers. For example, Questionnaire I, Item 8, "You might have apologized," was repeatedly paraphrased by ESL subjects as "It is possible that you already did apologize?" this is an indication that might has been learned as the past tense of may meaning 'possible' by the ESL subjects. Native usage, in contrast, overwhelmingly agrees that the stimulus sentence is an indication of displeasure caused by a lack of apology (Wishon and Burks 1980:232).

The aim of this study is the evaluation of ESL learners' actual
usage and their pragmatic comprehension of modal auxiliaries from a non-developmental perspective; that is, not over time, but as manifested at a specific level of measurable proficiency bordering on acceptable fluency. The subjects of this study are a group of individuals who are almost ready and able to perform adequately in English-speaking environments and to participate in peer-level language interaction with a minimum of translation or explanation. The subjects were chosen from among the most proficient students in the 1984 Summer English Language Program and the 1983 and 1984 Linguistics 099 classes at the University of Victoria. Linguistics 099 is an English composition course specifically designed to fulfill the needs of non-native English speaking students attending the university. The students came from a range of linguistic and educational backgrounds.

A cross-sectional collection and analysis of the data seemed the most likely to give a clear picture of this synchronic level of proficiency. This research design is described by Dulay, et al. (1982:246) as consisting of data collected from a relatively large sample of learners (they suggest between 24 and 1200 individuals) at one point in their language development. These authors feel that this research approach simulates actual development over time by including many learners who are at different stages of second language acquisition.

By intent, a fairly narrow range of L2 acquisition levels is represented in the present study, thus ensuring that the data reflects the language comprehension of individuals whose proficiency is rated
at the 'almost fluent' level. The total number of subjects, 22 from the Summer Program, 14 from the 1983-84 Linguistics 099 classes, and 15 from the 1984-85 Linguistics 099 class, plus 17 ESL essay writers at the college/university entry level (68 separate individuals in all) assures a fairly representative sample of speakers at the desired level for the cross-sectional analysis.

The next consideration in planning the research was what type of data would best fulfill the aims of the study. The available studies on the subject of modals rely on written corpora (e.g. Ehrman 1966a, b), or written and spoken corpora with occasional reliance on live informants whose judgements are used to substantiate the results of the corpora-based analysis (e.g., Coates 1983), or questionnaire surveys (e.g., Svartvik and Wright 1977), or on paraphrase (e.g., Coates 1983). Altman (1984) specifically examines ESL students' use of modal auxiliaries through a standardized testing format similar to the TOEFL structure (Test of English as a Foreign Language; Educational Testing Service: New Jersey). This proficiency test is used by many educational institutions, including the University of Victoria, to assess the English language ability of potential ESL students from abroad. Most researchers, it seems, have relied on what Bailey (1983) terms "hard data," that is, non-spontaneous written samples of native, or non-native, speaker output and native speaker assessment (often the researcher's) of contextualized uses. Yet Dulay, et al. (1982:247) maintain that data generated through natural communication tasks permit one to make statements concerning the subject's normally developing (and subconscious) grammar.
Like Dulay, et al., Bailey (1983) advocates the use of "soft data", i.e., unwritten, spontaneous, natural linguistic output, as a source for linguistic research. This unrehearsed output, she maintains, is the best source of true insights into language learners' competence. The use of interviews and spontaneous oral responses in the work that follows results from the notion that natural communication tasks best present the subject's level of proficiency, as long as the phenomenon of avoidance (Dulay, et al. 1982) is not allowed to interfere with the progress of the research.

On the other hand, examples of research on modals based on written corpora (e.g., Hermeren, Ehrman, Coates, Hannah, all cited above, and others), and on questionnaires (e.g., Svartvik and Wright 1977, and Altman 1984), or on paraphrase, provide the basis of the hard data portion of the research that follows. The inclusion of native usage drawn from a variety of source texts and a native speaker sample ensures that the interpretation of a given modality or modal auxiliary is not the result of the writer's intuition alone, but rather represents the consensus of individuals who have consciously considered the issues involved and/or whose use of English is natural.

In addition, it was felt that an applied study would prove useful in determining both what ESL students know about the semantics of modal auxiliaries and how that knowledge might be enriched. Therefore, during the 1985 spring term, an applied classroom study of modal comprehension and usage was undertaken with the 1984-85 Linguistics 099 subject group. A Teaching Unit aimed at enriching the students' pragmatic understanding of the modals was devised. This
unit consisted of a Pre-Test, using essays based on the topics suggested by Azar (1981:179-80, exercise 12) and Questionnaire III, described in section 3.4.4. The students were instructed to use as many modals as they could in writing their papers. An analysis of modals, modalities, and modal notions used in these essays is presented in section 4.4.2. The responses to Questionnaire III were analyzed for usage consistent with the source texts, with the native speaker sample in this study, and with interpretations that agree with other possible meanings of the modal in the stimulus sentences (according to sources cited in Appendix VI). This material is presented in section 4.4.3-4.4.3.10. The results of these analyses guided the choice of the pedagogic material included in the three lecture hours and the homework assigned for this unit (see sections 3.6.1-.2 for details) as well as the development of the Post-Test described in section 3.4.6, below.

The desire to include a wide range of ESL-speaker modal usage and comprehension tasks in the study led to the following research design:

I. Collect and analyze ESL essays to establish the need for a study of modal comprehension by ESL speakers;

II. Based on meanings of modals suggested by source texts, design and validate Questionnaire I and Scalar Evaluation (SE);

III. Collect and analyze written samples from proposed subject group (1983-84 Linguistics 099 students);

A. Conduct oral interviews (2 each) with subjects, using their essays as focus, and analyze subjects' output for modal use, misuse, avoidance;

B. Administer Questionnaire I and SE, and analyze responses;
IV. Develop Questionnaire II with reference to results of Questionnaire I;

V. Administer Questionnaire II and SE to English Language Institute subjects during summer of 1984, and analyze responses;

VI. Develop Teaching Unit for 1984-85 Linguistics 099 subjects;

A. Administer Pre-Test (Questionnaire III) and SE, and assign writing task based on Azar (1981:179-80);

B. Analyze Pre-Test responses and Azar-based essays for comprehension and use of modal auxiliaries;

C. Develop a Post-Test based on the results of the Pre-Test;

D. Teach two lectures about modals based on material in Azar (1981:Chapters V and VI);

E. Administer and analyze Post-Test.

Because a research design that includes a variety of elicitation techniques was used, it can be supposed that the data collected is a more accurate and complete reflection of the subject population's actual competence than would be the case if all elicitation depended on one technique alone.

In the following sections, the various aspects of the research design are considered under four major headings: Written Corpora, Spoken Corpora, Survey-Questionnaires, and Teaching Unit.

3.2 Written Corpora

3.2.1 Background

As preparation for the research program, and to establish clearly
that university/college entry level ESL users lack native-like fluency
with the modal auxiliaries, essays on a range of topics written by 17
ESL students from Capilano College in North Vancouver and 11 students
enrolled in Linguistics 099 at the University of Victoria from 1977-81
were analyzed for use of modal auxiliaries. One outstanding feature
of all these essays was the relatively small number of modal
auxiliaries used, relative both to the number of words in the essays,
and to the number used by native speakers according to the Brown
University Corpus (Kučera and Francis 1967). Of the 40162 words in
these essays, only 38 (or 0.95%) were modals. These modals expressed
four modal notions and five overtones using five modal verbs. In
contrast, of the one million word Brown Corpus 134863 words (or 1.35%)
are modal auxiliaries, a ratio of 1:1.42. Apparently, these ESL
writers use modal auxiliaries almost one-third less frequently than do
native writers. Table 8 indicates the modalities expressed and the
modals used by these two groups of ESL student writers.
Table 8

Modalities and Modals Found in ESL Student Essays

<table>
<thead>
<tr>
<th>MODALITY</th>
<th>MODAL</th>
<th>COUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>perhaps</td>
<td>may</td>
<td>1</td>
</tr>
<tr>
<td>possibility/ability</td>
<td>may</td>
<td>1</td>
</tr>
<tr>
<td>present stative</td>
<td>can</td>
<td>8</td>
</tr>
<tr>
<td>ability</td>
<td>can</td>
<td>8</td>
</tr>
<tr>
<td>hypothetical</td>
<td>will</td>
<td>2</td>
</tr>
<tr>
<td>present stative</td>
<td>would</td>
<td>5</td>
</tr>
<tr>
<td>past</td>
<td>would</td>
<td>1</td>
</tr>
<tr>
<td>future</td>
<td>would</td>
<td>8</td>
</tr>
<tr>
<td>volition</td>
<td>will</td>
<td>1</td>
</tr>
<tr>
<td>logical necessity</td>
<td>must</td>
<td>1</td>
</tr>
</tbody>
</table>

Totals 9 5 38

Obviously, the nine modalities expressed by the writers of these essays are far fewer than the 66 or more possible according to the sources cited in Appendix VI. It is, of course, difficult to be certain whether the small number is a reflection of fluency or of expressive need. The compositions covered a wide range of topics including "What Factors Contribute to Both the Difficulty and the Interest in Studying English", "An Investigation of Gandhi and King's Plans for Social Action", "The Difficulties of Translating Chinese into English", precis of specific readings, and so on. Given this
scope of topics, it is easy to assume that the expressive needs of these writers could be greater than their ability to communicate their ideas.

3.2.2 Written Data from the 1983-84 Linguistics 099 Classes

Because they were to be the subject population for this study, the students enrolled in Linguistics 099 during the 1983-84 winter session were asked to write an essay based on one of the topics in 
War (1981:179-180, exercise 12): "1. People of different religions should not marry. 2. No family should have more than two children. 3. Books, films, and news should be censored by government agencies." These essays were analyzed for use and contextualization of modal auxiliaries. Of particular interest in these sample papers was subject B2's use of can to express a sense of 'having the right' in "Everyone can practice his religion." Another individual, B6, used might to express 'probability/permission' in "A Buddhist wife or husband might not allow his or her partner to kill..." Subject B6 used should to express 'permitted' or 'allowed', 'not having the right', writing, "I want that government should not censor books, films, news". Appendix VII is a complete list of the modalities and modals, with their contexts, used in these compositions by this group.

Several 'miscellaneous' (non-verb-form-specific) essays written by this group of subjects were also analyzed for expression of modal notions and use of modal auxiliaries. This 5698 word corpus provided a non-skewed sample of ESL writing to serve as a comparison to the Azar-based essays described above. Analyses of the actual count of
modal auxiliaries in these non-skewed (miscellaneous) essays indicate that the ESL subjects used slightly fewer modal auxiliaries than did the native speakers represented in the Brown Corpus: a .2% difference in frequency. Together, the Azar-based and miscellaneous essays proved helpful in providing some idea of the scope of meaning that these subjects could apply to the modals. The results of the analyses of these essays, in regard to actual frequency of modal and modality use, as well as a comparison of these results with the uses and frequency of modals by native speakers represented in the Brown University Corpus are given in section 4.2.1 and 4.2.2.

3.2.3 Essays by the 1984-85 Linguistics 099 Subjects

In December 1984, ten of the 13 students enrolled in the 1984-85 session of Linguistics 099 were asked to write essays based on Azar (1981:179-80, exercise 12) as part of the Pre-Test used to establish their familiarity with modal auxiliaries and modal expression. The analysis of modal use in these compositions shows a marked similarity to that of the similarly Azar-based compositions written earlier by the 1983-84 Linguistics 099 subjects. Of the 3081 words in these ten essays, 2.6% are modal auxiliaries: 2.2% of the 4237 words in the 1983-84 essays are modal verbs. Although the modal-oriented requirement of the essay topics in this exercise effectively elicits a higher percentage of modal auxiliaries than is used in other samples of ESL writing (see 4.2.1 and 4.2.2 for specific details), the actual number of modal auxiliaries used by the subjects to express specific modalities and the number of modalities (modal notions and overtones)
expressed fall well below the number of options utilized by native speakers according to the Brown University Corpus and other studies cited in Chapter 2 and Appendix VI. The frequency of modal use for the corpora cited in this study is compared in 4.2.2. The modalities expressed and the modals used in these essays are listed in Appendix VIII.

3.3 Spoken Corpora

3.3.1 Oral Interview 1

To evaluate further the 1983-84 Linguistics 099 subjects' productive competence in the use of modals, two individual interview sessions of one-half hour each were arranged between the researcher and each of the 15 subjects. These sessions were sound-recorded for later analysis. These interviews were held within a day or two of the Azar-based essay writing assignment. The intention was to conduct these sessions as tutorials with the subjects' essays as their focus. This first set of tutorial interviews proved to contribute very little to the analysis of the subjects' performance with modal auxiliaries, however, as the subjects showed a marked tendency to make use of 'avoidance', and peri-phrasic and quasi-modal structures such as I'm going to, I have to, I guess, and got to, or of adverbials such as probably, or maybe rather than modal verbs to express their ideas.

This strategy made it all but impossible to rely on a conversational corpus as the basis of research into ESL users' pragmatic comprehension of modal auxiliaries. Schachter (1974:213)
writes that a student who finds a particular construction in the target language difficult to comprehend or produce is very likely to try to avoid producing it. Avoidance was regularly employed by these subjects, many of whom used no modal verbs during the entire 30 minute interview. For example, respondent B9 left a blank for the modal which would ordinarily be used in "I ______ go home." His perspective turned out to be that of must, 'immediate necessity'.

Can, usually the first modal to be formally taught to ESL students, was widely used in a variety of senses by these subjects. Subject B3 said, "I say, can you give me an opinion as to how..." as a request for advice; while subject B8 asked, "Do you think you can give me a topic?" as the request, 'Is it possible for you to...'. Section 4.3.1 gives specific details of the range of contextually appropriate modal auxiliaries used by these subjects during Interview 1.

3.3.2 Oral Interview II

As the objective of this research is to examine pragmatic comprehension rather than productive competence, it was decided to use a different format for the second interview with these subjects. Therefore, each subject was encouraged to discuss aspects of English that he found problematic. As the respondent used expressions involving modal auxiliaries, each was noted on paper for later consideration.

Then, in addition to his general observations about difficulties in English, each subject was asked to consider the meanings and implications of the stimulus sentences found in Azar (1981:177,
exercise 9) by reading these sets of stimulus sentences and giving an oral response discussing the meaning(s) of each set. His comments were then noted. The responses to this exercise (found in detail in Appendix IX) suggested a certain amount of confusion on the part of some of the subjects as to the implicative structure of the English modals.

As a further check on the comprehensibility of the modal auxiliaries, the subjects were asked for interpretations of "Jack will be at the party," which, according to Kennedy (1978:124), "can be a warning, a prediction, or a promise, depending of the context," and of "You can't do that," which, according to Leech and Coates (1980) can be interpreted at seven different points of the gradient of can meaning 'possibility' and 'permission' that form paraphrases with allow, or permit to possible:

a. I forbid it
b. It's against the rules
c. I would be breaking the law
d. Everyone would think you were mad (i.e. a break of conventions of acceptable behaviour)

e. It wouldn't be reasonable
f. It wouldn't be right
g. It's contrary to law of gravity

Leech and Coates (1980:82-3).

This list does not include the possibilities of interpretation available if can of 'ability' were considered:

'Ability' factors

a. subject-referent has ability or is agentive;
b. main verb is physical action or activity;
c. possibility for action is based on inherent factors
The results of these oral exercises are presented and analyzed in section 4.3.2.

Although only six subjects kept their appointments for the second interview, their responses convinced me that the personal interview would yield better results than the take-home questionnaire. In fact, the positive results of these direct personal contacts convinced me that future research activities should be on a one-to-one basis as much as possible.

3.4 Survey-Questionnaires

3.4.1 Introduction

The dilemma of establishing both native usage and ESL comprehension led to the development of the survey-questionnaires that are included as Appendices I, II and III. The use of these questionnaires affords insights into the ESL subjects' perception and production which, according to Rintell (1979), are evidence of pragmatic comprehension. The purpose of this aspect of the research was to examine how learners seem to interpret the modal intentions which sentences convey, or more specifically, how ESL learners perform as language receivers in a world whose presuppositions they frequently do not share. To establish native usage, a list of the various verifiable meanings for each of the modals, along with a list of the variety of specific modal auxiliaries that can be used to express each modal notion (modality), was prepared with reference to standard
English grammar texts and the works of researchers concerned with the use of modal auxiliaries. The annotated list appears as Appendix VI. In its various forms, the Questionnaire that was developed from this list was completed by 11 native English speakers and 40 ESL subjects. The responses of these subjects form the core of the 'hard data' found in this report.

3.4.2 Questionnaire I

To evaluate ESL users' pragmatic comprehension of the modals, the corpus-based approach advanced in the studies reviewed in 2.3 was used in this research. However, whereas the results of this approach demonstrated the learners' lack of fluency with the modals, they did not establish the subjects' actual knowledge. Therefore, a more direct and structured elicitation approach has been taken in the present study. This aspect of the research program was modelled on the research described in 2.4. Throughout the elicitation procedures, Hermerén's (1978) 'modalities-to-modals' approach was observed. Every attempt was made to present the array of modalities indicated by the various sources cited in Appendix VI and elsewhere, by as many of the modal auxiliaries as are, in fact, used to express them. The important notions that require expression by all English language users do, after all, include the full range of modalities and modals.

Following the example of Coates (1983) in regard to the use of paraphrase, and relying on the information contained in Appendix VI, Questionnaire I was developed; it consists of 113 individual stimulus items plus a page of Scalar Evaluations. Each modal verb is presented
in at least one contextualized sentence representing each of the modalities that (according to Appendix VI) it expresses in English. For example, would can be used to express 'habit' and 'insistence' as in Item 11, "They would ask all kinds of questions"; an 'offer' or 'invitation as in Item 15, "How would you like to come and spend a week with us next year?"; an 'honorific' or 'polite command' as in Item 99, "I would like a seat on the aisle"; as well as 'hypothetical speculation + future', 'desire', or 'wish', 'advice' or 'advisability', and so on. Each item includes at least three, and sometimes four, possible paraphrases of the stimulus sentence; each paraphrase represents one of the meanings suggested by Appendix VI as a possible interpretation of the modal auxiliary in the stimulus sentence. Following Leech (1970), a category of response for those who were unsure how to answer was also included to avoid haphazard guesses. The respondents were encouraged to provide their own paraphrases if they found that their interpretation did not agree with any of the given paraphrases. Subjects were asked to rate the potential paraphrases "according to their degree of similarity in meaning to the model: 1. Exactly the Same, 2. Nearly the Same, 3. Not the Same" (directions for Questionnaire I). They were also informed that the same rating could apply to more than one sentence in each set. Further, if the subjects felt that none of the sentences exactly matched the meaning of the stimulus sentence, they were asked to write their own paraphrases in the space provided. This format is illustrated below using Item 81 (material in the square brackets did not appear in the Questionnaire):
81. If I had the time, I would go with you. [Wishon and Burks 1980:234; 'hypothetical + speculation']

A. I intend to go with you. [definite future]  

B. I request that you allow me to go with you. ['permission']

C. I wish to go with you, but it isn't convenient for me. ['hypothetical + speculation'; standard usage]

or D. [subject's own paraphrase]

The information being elicited is the subject's first-impression interpretation of the modal, and it is elicited by means of a paraphrase (or in the final testing procedure by a sentence completion task); thus the subject is asked to clarify his reading of each inherently ambiguous item on the Questionnaire.

Each Questionnaire also included a page (Appendix V) of five items designed to determine the subject's evaluation of the relative rating of scalarized items based on the work of Diver 1964, and Leech 1980, among others). This Scalar Evaluation (SE) is explained in detail in sections 3.5.1-.4. A short Personal Data Sheet (Appendix IV) was also presented to the subjects responding to Questionnaire 1. The Personal Data Sheet was dropped from subsequent data gathering as the information it provided did not demonstrate any particular correlation with the subject's apparent pragmatic understanding of modals. Because of the length of the Questionnaire (14 pages of stimulus items plus one page of personal history questions) it was decided to administer it as a 'take home' project rather than as an in-class activity. This decision proved to be a mistake as many of
the potential respondents failed to return the completed Questionnaire, even when repeatedly asked to do so.

Altman (1984:89) considered the problems of selecting a suitable comparison group for her study of modal usage among ESL learners at UCLA and decided to use a sample of the population at large to prevent any bias that might result from using a homogeneous group of subjects, such as first year university students. The control group she used included a dance group, some friends, and some neighbours. Following this practice, to validate the stimulus items in the Questionnaire for contemporary standard English usage, the set of survey questions was given to six native-English speaking students enrolled in an English 115 (first year university English) course at the University, to an instructor in English 115, to a physical fitness instructor, to an ESL teacher, and to two academic-stream grade 12 students at a local high school. These subjects showed considerable agreement with the source texts as to the intention (modality) expressed by the modal auxiliary in a given contextualizing sentence. The responses of this native-user sample, plus the source gloss for each of the stimulus items became the 'standard usage' control against which the pragmatic comprehension of the ESL subjects could be compared.

As a check on the readability and understandability of the Questionnaire stimulus items by ESL students, as well as to determine the validity of the Questionnaire as a tool for establishing ESL comprehension of modal auxiliaries in contextualized settings, during the 1983 fall term, Questionnaire I was distributed to the most advanced class of ESL students at Camosun College, Victoria.
students demonstrated a consistent mis-construal of the stimulus sentences when compared with the glosses given in the source texts and with the responses of the native-English speaking control group.

Having been validated in the ways described above, the Survey-Questionnaire was distributed to the proposed subject population, the students enrolled in the Linguistics 099 classes at the University, consisting of approximately 20 individuals from diverse non-English language backgrounds. This group was selected because of its relatively verifiable level of English language proficiency: to enroll at the University of Victoria foreign students must have achieved not less than 550 (now 575) out of 800 on the TOFEL; to be placed in Linguistics 099, a student must be a non-native English speaker and have received a score of no more than 13 out 20 on the discrete test portion, and between 0 and 21 on the essay portion of the British Columbia Provincial English Placement Test (generally referred to as the EPT). Unfortunately, the low rate of return, 10% of the Questionnaires, disqualified the group as the subject population. The responses on the two returned questionnaires have been included in the results of the ESL Test group validating program described above.

The items from Questionnaire I on which the ESL students predominately varied from the source gloss or from the native-speaking control group, and the items on which the native speakers decidedly varied from the source gloss became the sources for the stimulus sentences in Questionnaire II (Appendix II) described in 3.4.3. The disappointing outcome of the use of the first Questionnaire prompted a
shift in research technique; the research proceeded with individual, private, written-to-oral sessions using Questionnaire II. This part of the procedure is described below.

3.4.3 Questionnaire II

The 79 items of Questionnaire II were devised by removing any items on which there was substantial agreement in meaning among native and non-native English speakers and the item's source text from the original Questionnaire. Responses of 1 and 2 in the rating of the potential paraphrases were considered to represent the respondent's decision that the paraphrase 'means the same thing' as the stimulus sentence; thus, the number of possible items for testing was substantially reduced. Further, it was decided that since the respondents were to be interviewed, encouraging each to give his own paraphrase of the stimulus sentence would render a closer approximation of his interpretation of the modality in question than would asking him to evaluate potential paraphrases. Thus, the use of suggested paraphrases and a rating system were dropped from the questionnaire format. The 79 stimulus sentences were typed on six legal-sized pages in such a way that each item could be disclosed individually, following the practice of Brown and Miller (1975); however, their practice of reading the model sentence aloud to the subject was not followed, thus avoiding the added influence of supra-segmental factors on the subjects' interpretations.

The 22 students enrolled in Levels 6 and 7 of the 1984 Summer English Language Institute at the University of Victoria were chosen
as subjects for this phase of the research project as they presented a fairly homogeneous acquisition group. The mother language of all the potential subjects was French. Their level of English language proficiency as assessed using the Michigan Test Form B ranged between 65 and 92 out of 100* (the high intermediate to advanced range). Although these scores represent a 27 point spread on the written test, the four instructors involved with these students agreed that their oral proficiency was reasonably comparable.

Thirty-minute interviews were set up between the researcher and each subject. At the interview, each individual was instructed to read each stimulus sentence either silently or aloud, and to give another sentence that meant "the same thing" to him. The respondent read each item then gave either a paraphrase of, or his interpretation of, the stimulus sentence. These responses were noted by the researcher along with any pertinent observations made by the subject about the sentences or the Questionnaire. Upon completion of this task, the subject was given a copy of the Scalar Evaluation which he filled out before he left. At no time was the subject told the specific objective of the study. He was only told that his cooperation would help the researcher to complete a study of general ESL acquisition. This vagueness was used to avoid any concentrated effort on the part of the subject to decode the modal auxiliary out of the context of the contextualizing sentence.

As shown in 4.4.2, this set of stimulus sentences proved quite successful in eliciting the subjects' pragmatic understanding of the modal auxiliaries in question. Therefore, it was utilized with some
alteration to the response collection, as the Pre-Test in the final phase of the research program, the Teaching Unit, described in part, below.

3.4.4 Questionnaire III, a Pre-Test

As well as the essay described in 3.2.3, Questionnaire III was administered as a Pre-Test for a Teaching Unit on modal auxiliaries (sec 3.6) to the 14 students enrolled in Linguistics 099 at the University of Victoria during the 1984-85 term. Although it contains the same stimulus items as Questionnaire II, the subjects' responses are written rather than oral. This reversion to written responses proved successful largely because the researcher was also the instructor in this course; consequently, there was little difficulty in keeping track of Questionnaires. The subjects were asked to "either write a sentence that a) tells what the given sentence means, or b) is a paraphrase (a sentence that says the same thing in different words) of a given sentence." It was felt that the written paraphrase format would encourage the subjects to express their own interpretations of the modal verbs used in the stimulus sentences because they would not be influenced by the presence of detractors, as the earlier subjects might have been in the format used in Questionnaire I. By writing down their responses, the subjects would not be influenced by the presence of the researcher who might inadvertently introduce, or show approval or disapproval of, specific notions. The six-page Questionnaire was presented as a homework assignment.
Twelve of the 14 subjects completed the Questionnaire. Their responses were evaluated against the standard of the source text(s), the native speaker sample, and possible ambiguity of the stimulus modal from the sources cited in Appendix VI. These results are analyzed in 4.4.3-4.4.3.11.

3.4.5 The Post-Test

Unlike the previous Survey-Questionnaires which asked subjects for paraphrases of a set of stimulus sentences involving modal auxiliaries, the Post-Test asked the subjects to contextualize or complete sentences which were drawn from the earlier Questionnaires. It is not, therefore, possible to compare the subjects' responses to the two types of surveys in any direct way, but that was not the purpose of the exercise. Rather, while the Questionnaires were a means of analyzing the ESL subjects' pragmatic comprehension of modal auxiliaries in specified contexts, the Post-Test was used to discover whether the ESL subjects' pragmatic use of the modals might be enriched through classroom discussion and practice.

Contextualization, instead of paraphrase, was used in this part of the study to provide samples of what these subjects consider to be appropriate contexts for the specific stimulus items: in what situational settings would they consider the stimulus items appropriate for use? (Svartvik and Wright 1977). Paraphrase, on the other hand, says nothing of the speaker's sense of use or acceptability; rather, it is a direct translation of one set of language symbols into another set of language symbols in the speaker's
(ESL interlanguage or otherwise) rule book.

The stimulus items on the Post-Test were chosen for a variety of reasons (enumerated in 3.4.1-.4, 4.4, and 4.4.3-.11) that reflect these ESL subjects' responses to the items on Questionnaire III. The responses to the Post-Test are analyzed in terms of the notions and overtones expressed by the subjects through their contextualizations. In 4.4.3-4.4.3.11 and 4.5-4.5.11, these results are compared to the notions and overtones expressed in the paraphrases of the items in Questionnaire III as well as to the source text gloss and native speaker sample's interpretations. Where appropriate, attention is drawn to the diversity of responses of individual subjects.

3.5 The Scalar Evaluation (SE)

3.5.1 Introduction

The Scalar Evaluation (Appendix V) was included in the Survey-Questionnaire portion of the research program to provide hard data evidence of the pragmatics of ESL users' sense of relative 'probability' or 'necessity', and honorific relationships in expressions that involve modal auxiliaries. The items include evaluative scaling of stimulus frames such as,

"He [various modal auxiliaries] come tomorrow"

from least to most likely. Another item asks the subjects to indicate the interactive relationship(s) in which utterances such as, "Can you wait until I finish?" would be appropriate: e.g., Parent to Child, Husband to Wife, Student to Teacher, and so on. Overall, the
subjects' responses in this part of the research illustrate the wide scope for potential misinterpretation and misconception for both native and ESL speakers when relying on modal verbs to convey nuances of meaning.

3.5.2 Temporal Conceptualization

Zandvoort (1965) contends that some modal structures imply complex temporal reference such as future prediction made in the actual or grammatical past. The first item on the SE:

He was fifty-nine years of age, and would be sixty next year (Zandvoort 1965:76)

was used to test the ESL speakers' awareness of this implicative function. The respondents were asked to indicate whether the stimulus sentence is referring to the present, past, or future. This particular sentence was selected because of the fairly uncommon use of would to mark the 'future' in a past time sentence (indicated here by was). Such use could well prove confusing to ESL speakers whose most frequent exposure to would is as a marker of deference or volition in asking or answering questions.

3.5.3 Scales of 'Likelihood'

Diver (1964), Close (1975), Huang (1969), and Hannah (1975), among others, have suggested that English speakers apply a "scale of likelihood" (Diver 1964:330) to their interpretation of propositional content introduced with specific modals. For example, Diver offers
the schema:

- do 'certain'
- must 'very likely'
- should 'more than likely'
- may 'less than likely'
- can 'possible'

as representing the English user's evaluation of the 'likeliness' of a given proposition. Hannah (1975:56) presents the relative relationship of "Degrees of Probability" (ranked from most to least probable) as: will, must, should, may, might, could. Huang (1969:164) notes that "Possibility, for instance, can range all the way from mere possibility to near inescapability." In a more detailed analysis, Hermerén (1978:94) notes that English modals can be considered to express degrees, or a scale, of evidential modality that ranges from the uncertain to the certain, as arranged below (this scale is also found in Close 1975:273):

<table>
<thead>
<tr>
<th>Uncertain</th>
<th>might</th>
<th>e.g. 'That might be George'</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>may</td>
<td></td>
</tr>
<tr>
<td></td>
<td>could</td>
<td></td>
</tr>
<tr>
<td></td>
<td>can</td>
<td></td>
</tr>
<tr>
<td></td>
<td>should</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ought to</td>
<td></td>
</tr>
<tr>
<td></td>
<td>would</td>
<td></td>
</tr>
<tr>
<td></td>
<td>will</td>
<td></td>
</tr>
<tr>
<td>Certain</td>
<td>must</td>
<td>'That must be George'</td>
</tr>
</tbody>
</table>

Items 2, 3, and 4 on the SE tested the scalar levelling of these notions by the native speaking and ESL subjects responding to this study.

Item 2, based on Huang (1969:160-4) and Hermerén (1978:94), asks the respondents to rank the modals in the stimulus frame "He MA come tomorrow" on a scale of 1-9: 1 for 'least certain' to 9 for 'most
certain'. Even though the 'experts' apparently disagree over the scalar rating of the modal auxiliaries (compare the positions of *may* and *should*, for example, in Diver's and Hermeren's schemas cited above), it was felt that an analysis of the relative positions assigned to these words by ESL speakers would prove interesting. In 4.6.3.6 the responses to the ESL and native speaking subjects are reported and compared with each other and with the scalar ratings from a variety of expert sources.

Diver (1964) observes that the modal system contains a number of oppositions that share the distinctive meaning 'hypothetical'. The modals are used by speakers (and writers) to mark the degree of 'possibility' they wish to imply about events which they deem to be hypothetical, events whose occurrence may be questioned. Item 3 on the SE extends Diver's "scale of likelihood" to include *might*, *could*, and *will*, while it excludes *do*, as *do* is not under consideration in the overall study. Subjects were asked to "Rank the following according to 1 for 'least likely to 7 for 'most likely' in answering the question "How likely to study?" (see Appendix V for complete details). They were then presented with seven stimulus frames in the pattern:

I *MA* study.

The ESL test groups' and the native speaking groups' responses are compared with each other as well as with Diver's scale in 4.6.2.2.

Item 4 on the SE is intended as a test of Hannah's (1973) degrees of 'probability'. Based on her data, she ranks the modals: *will*, *must*, *should*, *may*, *might*, *could*
in order of decreasing probability. In response to the question, "How probable is it that I will pass this course?" subjects were asked to "Rank the following according to 1 for 'least probable' to 6 for 'most probable' (refer to Appendix V for the complete stimulus set). Responses to this item are reported and analyzed in section 4.6.2.3.

3.5.4 Levels of Politeness

According to Azar (1981:173) would, as well as other past-tense form modal verbs, are used by English speakers as a way to 'soften' remarks. This softening effect seems to be especially useful in the making of requests (demands) and in the statement of preferences, e.g., 'I would like some tea' vs. 'I want tea, not coffee'. Leech (1980:86) suggests that English speakers find it more polite to present a request in the form of a question. He notes, (as does Searle 1969) that on a 'scale of politeness', "Peel the potatoes, Will you peel the potatoes, Would you mind peeling these potatoes?" and "I wonder if you would be good enough to peel these potatoes?" range from relatively less to more polite.

These concepts, those of softening assertions, making requests, expressing relative levels of politeness, marking honorific relationships, and so on, and that of overall politeness seem to blend together in the speaker/writer's use of modal auxiliaries. The supra-linguistic message(s) contained in a question or remark can be carried by the speaker's choice of modal verb. In other words, the use (or non-use) of modal auxiliaries is a significant marker of the notional content of any message; these verb forms give overt shape to
such notions as speaker's perception of interactive personal relationships, requests, politeness, and preference, for example.

The list of interlocutor relationships given in Table 9, below, is adapted from Leech (1980:86). This list was developed to include five relative sociological positions that seem relevant to the use of honorific expression in both English-speaking and other cultures. The teacher-student relationship, for example, is likely to be viewed as one of respect in virtually every culture, while the parent-child relationship is one of familiarity. Friends, on the other hand, are generally expected to relate on an equal footing. The respect relationship expressed verbally between husbands and wives varies greatly from culture to culture. If, as Leech (1980) and Azar (1981) (among others) predict, the use of modals, especially past-tense form modals, does mark levels of politeness, the selections made by the ESL subjects in the SE Item 5 should provide an indication of their pragmatic competence with this aspect of the modal verb system.

Table 9

Interpersonal Relationships Specified in Scalar Evaluation Item 5

A. Parent to Child: Superior to Inferior (S/I)
B. Adult to Adult: Equals (E)
C. Student to Teacher: Inferior to Superior (I/S)
D. Employer to Employee: Superior to Inferior (S/I)
E. Friend to Friend: Equals (E)
F. Husband to Wife: Male to Female (M/F)
G. Wife to Husband: Female to Male (F/M)
H. Other: specified

Item 5 was included on the SE to establish what, if any,
significance the use of modal verbs has in denotation of interpersonal relationships for the ESL subjects in this study. It also serves to help identify the scale that constitutes the subjects' gradation of honorific relationships, based on politeness and marked by the use of specific modal verbs. Item 5 called for respondents to make scalar evaluations in the realm of 'honorific' or interactive uses of modals. The subjects were asked to determine which one(s) of the specified list of possible interlocutor relations would be appropriate for each of 15 'messages' that, according to Leech (1980) and Azar (1981), range in levels of politeness from very informal to very polite. Sections 4.6.3-4.6.3.5 report on the results of this evaluation process.

3.6 A Teaching Unit on Modal Auxiliaries

3.6.1 Introduction

During the 1985 spring term, an applied linguistics study was undertaken with the 1984-85 Linguistics 099 subject group. A Teaching Unit aimed at enriching the students' pragmatic understanding of modal verbs was devised. This unit consisted of a Pre-Test, using student essays based on topics suggested in Azar (1981:179-80, exercise 12) and Questionnaire III (described in 3.4.4). The students were instructed to use as many modals as they could in writing their compositions. An analysis of modals, modalities, and modal notions used in these essays is presented in section 4.2.2. The responses to
Questionnaire III were also analyzed for the subjects' interpretations of the modals in the stimulus sentences. The results of these analyses guided the choice of the pedagogic material included in the three lecture hours and the homework assigned for this unit as well as the development of the Post-Test described in 3.4.5.

3.6.2 Unit Design

The analyses to the two-part Pre-Test indicated that the subjects' greatest weakness lies in the use and interpretation of nuances of meaning inherent to the modal verbs. Clearly, the subjects tended to apply the 'core' or 'textbook' definitions to all occurrences of modals, exemplified by subject E2's paraphrase of "You might have apologized" (Questionnaire III, Item 9) as "You have apologized," rather than as the 'strong dissatisfaction' which, according to Wishon and Burks (1968:232), is generally intended by the use of this structure. Another example of these subjects' inadequate comprehension of the modal auxiliaries is Subject Ell's paraphrase of ought with shall in both Items 29 and 45 on this Questionnaire. Number 29, "I ought to study tonight," is paraphrased as "I shall study tonight," and Item 45, "Our guests ought to be home by now," is rendered as "Our guests shall be home by now." In both instances, the subject has interpreted ought as 'duty' or 'obligation', a reading appropriate, perhaps, for 29, but hardly for 45. Even in Item 29, the use of ought is supposed to indicate 'advisability' rather than a sense of self-inflicted 'commitment' (Azar 1981:176).

The evidence of this study suggests that the ESL users'
inadequate knowledge of, and feeling for, the connotative structure and multiple uses of the individual modal auxiliaries causes ambiguity and confusion for them, both as receivers and transmitters of messages. The objective of the Teaching Unit described in this section, therefore, was to broaden the subjects' awareness of the range of meanings inherent to the modal verbs. To achieve this end, the lesson plans made use of interactive episodes arranged to encourage the students to appreciate uses of modal verbs that differ from the 'standard' or "core" definitions (Coates 1983): contexts in which the modal verb can be ambiguously interpreted.

For efficiency, written materials already available to the students were used to reinforce the oral work. As Azar's text, Understanding and Using English Grammar (1981: Prentice Hall) was the course text, material from Chapters 5 and 6 became the focus of the lecture hours and homework assignments. While a list of frequently misinterpreted stimulus sentences from Questionnaire III was compiled for use as the basis of in-class discussion and explication, students' attention was directed to specific exercises and study sections of the Azar text. The subjects were asked to respond orally, expanding the repertoire of possible meanings and functional connotations, to the items in various exercises including, among others, a completion exercise with frames using should and ought, a slot filler exercise using should and must, and a discussion exercise calling for comparison of stimulus sentences that differ only in the choice of modal. During the last half-hour of the final lecture, the subjects were asked to write a short essay consisting of a letter offering
advice regarding one of three different life situations (p.158, exercise 14). These short essays were discussed and corrected on a one-to-one basis as the subjects were writing. For homework, the group was expected to read and study (i.e., prepare to discuss and ask questions about) a selection of material in the two chapters that deal with the expression of modal notions as well as a chart of modal auxiliaries and their meanings (see Table 7B).

The students were encouraged to contribute to the class discussions by elaborating on examples of modal usage presented in the Azar text and the list from Questionnaire III. They were expected to suggest possible alternative interpretations or additional connotations to their own and each other's responses to the assigned exercises. The students' suggestions and comments were expanded and elaborated by the instructor through the use of specific contextualization, differential intonation, and stress. Questions were then directed to individual students who were asked to produce other types of contexts using the modal verb form under consideration. These utterances were further examined for context, meaning(s), nuances, and so forth.

Exercise 9 (p.177) proved to be especially fruitful (as it had been with the 1983-84 Linguistics 099 subjects, see 4.3.2) because the students were able to relate to the two to four sentences in each sub-set by comparing and contrasting the uses (functions) and connotations inherent in each. They accomplished this task by exploring the variety of possible contextualizations introduced by various members of the class. This exercise led to particularly
intensive discussions of writer intention as well as an analysis of the contextual settings that could resolve inherent ambiguities. A typical comment regarding one of the sentences found in exercise 9, 7d, "Jack should have gone home," was, "But he didn't and got into trouble and now he wishes he did" from subject E2. Another example of these subjects’ responses to this exercise is subject E4’s observation regarding 3a and b, "a. You should see a doctor about that cut on your arm; b. You had better see a doctor about that cut on your arm." This subject said, "The first means a suggestion; you can or not. It’s up to you. The second one is a bad infection. You have to see a doctor."

Throughout the three hours of class time devoted to this unit, the pedagogical method was based on elaboration and enhancement of the subjects’ level of conscious pragmatic awareness of the semantic system represented by the modal verbs. This enrichment was to be achieved through contextualization and example (much like the ‘caretaker’ language modelling of early first language acquisition). Whether the lessons actually contributed to an expanded and vitalized modal vocabulary was one of the questions that I hoped to answer with the results of the Post-Test (described in section 3.4.5) that followed the three lecture hours. The results of the Post-Test are discussed in sections 4.5.-4.5.11.

3.7 Summary

In developing and carrying out the research design for this study, attention was given by the researcher to a variety of
elicitation techniques and styles. Although it is hard to disagree with the use of soft data, i.e., unsolicited, free conversation, as the basis for linguistic research, the constraints of time and the realities of finding and utilizing a subject population almost force one to search for other, less time-consuming and more topic-specific means of collecting research data. Written corpora and survey questionnaires have been utilized here to provide sufficient data to facilitate the examination of the ESL acquisition process regarding modal auxiliaries. Further, an experiment in teaching modal semantics was included in the research design to provide grounds to evaluate what, if any, insights might be offered to students who are actively seeking to increase their English language skills. The inclusion of a variety of data collection methods added to the overall strength and validity of the ESL performance under consideration.
Endnotes

1 The essays from students at Capilano College in North Vancouver, B.C. were used with permission of the instructor, Nicholas Collins, who had previously obtained releases for purposes of research from the authors.

2 To determine the number of words in the student essays, I followed the guideline in the mimeograph, "Instructions for the Preparation of Graduate Theses or Dissertations" (University of Victoria: [revised] July 25, 1981:14), "(a) ...Count number of characters (including spaces and punctuation) in a line of average length and multiply by number of lines." I counted the number of words in two average lines, divided by two, then multiplied by the number of lines on the page.

3 This number represents the Brown Corpus count which does not include contracted or negated forms.

4 Subject groups are given indentifying letters throughout the paper: A = native speaker sample, B = 1983-84 Linguistics 099 subjects, C = Camosun College ESL subjects, D = English Language Program subjects, E = 1984-85 Linguistics 099 subjects. Each subject is identified by letter and number.

5 Subjects' words in quotation are reported exactly as they were written or spoken by the subjects.
RESULTS

4.1 Introduction

The variety of sampling procedures described in Chapter 3 provided data useful for evaluating the subjects' ability to use modal expressions and to interpret the modal auxiliaries correctly when they encounter them in written material. In general, the analysis of the data demonstrates the weakness of these ESL speakers in regard to the pragmatics of modal auxiliaries. Although the frequency of modal use in both the written and spoken corpora sampled is well below the average for native speakers (as represented by the Brown Corpus), these ESL speakers have no difficulty with the syntax of the modals they use. On the other hand, throughout the data there are instances of misuse of modals and of limited modal vocabulary, both in terms of actual modals used and modal notions (modalities) and overtones expressed.

The analyses of the subjects' performance on the various forms of the Questionnaire and the Scalar Evaluation provide insights to their understanding of modal expression. For example, the subjects often misconstrued the use of ought as implying 'necessity' and the use of might as purely the 'past' of may. The scalar levelling implied by specific modals for such concepts as 'likelihood' or 'necessity' also differs from native speaker understanding. The comparative analysis of the 1984-85 Linguistics 099 subjects' Pre-Test and Post-Test
results (found in 4.4-4.5.11) offers positive support for a teaching model based on semantic content of the modal system. Such an approach would help to enlarge and enrich the working modal vocabulary of ESL students.

Taken together, the results presented in the following sections provide an interesting and useful sample of advanced ESL students' level of pragmatic competence regarding the use and understanding of modal auxiliaries based on a cross-sectional analysis of the performance of a representative group of such students.

4.2 Written Corpora

4.2.1 1983-84 Linguistics 099 Subjects (Group B)

The two sets of essays (miscellaneous and Azar-based) written by the 1983-84 Linguistics 099 subjects provided some concept of the scope of meaning that these subjects could apply to the modal auxiliaries. In the combined 9935 word corpus, the subjects used eight of the ten modals (ought and shall were not used) to express some 30 modal notions and overtones. The exact counts of modalities expressed and modal auxiliaries used to express each one are found in Appendix VII. Although the variety of modalities expressed in this corpus exceeds the number found in the college/university entry level ESL essays examined in 3.2.1, the number is still below the 66 or more modalities available to fluent native English speakers according to the sources cited in Appendix VI.

In Table 10, the total corpus of 1983-84 essays is divided into
the two sub-groups, miscellaneous and Azar-based papers. This division makes it possible to examine the difference in frequency of modal use between the pro-modal skewed Azar-based essays and the non-directed, more natural miscellaneous writing of these subjects. The relative frequency of occurrence of the modals in the subjects' essays is compared to the count of modals found in the one million words of the Brown Corpus. Although the frequency of modals in the Azar-based essays is 2.2% of the total word count, that of the miscellaneous essays falls below this percentage at 1.2% of the total corpus. While this last percentage is only slightly lower than the 1.4% of the Brown Corpus sample, this result is in line with the counts for the college/university entry level essays referred to in 3.2.1, in which .95% of the total corpus of 4016 words was modal auxiliaries.
Table 10

Actual Count and Relative Percentage of Each Modal Used, Regardless of Meaning, in the Brown Corpus and 1983-84 Linguistics 099 Corpora

<table>
<thead>
<tr>
<th>Modal</th>
<th>1,000,000 Word</th>
<th>4237 Word</th>
<th>5698 Word</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Brown Corpus</td>
<td>Azar-Based Corpus</td>
<td>Miscellaneous</td>
</tr>
<tr>
<td>Count</td>
<td>% of total</td>
<td>Count</td>
<td>% of total</td>
</tr>
<tr>
<td>can</td>
<td>2299 .23</td>
<td>22 .52</td>
<td>18 .37</td>
</tr>
<tr>
<td>could</td>
<td>1776 .18</td>
<td>2 .05</td>
<td>3 .05</td>
</tr>
<tr>
<td>may</td>
<td>1400 .14</td>
<td>6 .14</td>
<td>2 .04</td>
</tr>
<tr>
<td>might</td>
<td>672 .07</td>
<td>3 .07</td>
<td>3 .05</td>
</tr>
<tr>
<td>must</td>
<td>1017 .1</td>
<td>5 .12</td>
<td>1 .02</td>
</tr>
<tr>
<td>ought</td>
<td>70 .01</td>
<td>- -</td>
<td>- -</td>
</tr>
<tr>
<td>shall</td>
<td>267 .03</td>
<td>- -</td>
<td>- -</td>
</tr>
<tr>
<td>should</td>
<td>889 .09</td>
<td>34 .8</td>
<td>5 .01</td>
</tr>
<tr>
<td>will</td>
<td>2244 .22</td>
<td>15 .35</td>
<td>22 .39</td>
</tr>
<tr>
<td>would</td>
<td>2852 .29</td>
<td>7 .17</td>
<td>15 .26</td>
</tr>
</tbody>
</table>

Totals 13486 1.36 94 2.22 69 1.19

Kucera and Francis (1976:vi-vii, 275-6) raise the question of the accuracy of word frequency ratios in various sub-corpora. They conclude that the frequency of certain types of words can, in fact, differ from topic to topic, style to style, and so on. For this reason, the essays based on Azar (1981:180) have been analyzed separately from the miscellaneous essays which more closely resemble the unprejudiced (not assigned modal topic) nature of the Brown Corpus sources. When compared with the Brown Corpus frequency counts, not
too surprisingly, the Azar-based papers show a disproportionately high use of should, nine times as frequent; can, 2.4 times as frequent; and will, 1.58 times as frequent. Ought and shall, on the other hand, do not appear at all in the Azar-based essays. The absence of these two modals is understandable, according to Altman (1984) and Major (1974), who both stress the importance of target language modelling; after all, ought and shall are the lowest frequency modal words in the native speaker sample. Also interesting in the Azar-based sample is the infrequent appearance of would, almost six times less used by the ESL writers than by the native speakers. This result is accounted for, in part, by the misuse of will instead of would by several of these writers as an expression of 'hypothetical future'. The low percentage of could in this sample is probably attributable to the specific topics which do not call for expression of 'ability' or 'possibility', the two modalities most likely to be expressed by could.

Of particular interest in the miscellaneous group of essays is the frequent use of will to express 'hypothetical future', as in "I will live happily and more peacefully if I am an ordinary person under the control of the Chinese government thirteen years from now..." (subject B8). Native speakers usually express this notion with would. The frequent use of can to express 'ability' and 'ability + possibility' is also uncommon among native speakers according to the Brown Corpus materials. This use of can represents 22% of all the modals used by the writers of the miscellaneous essays; whereas can in all its uses represents only 17% of all the modals used in the Brown
Corpus. Eleven (or 62%) of these ESL uses of can are found in one essay, "My Future" (by subject B15). Here, the author uses the word can for emphatic stress: "Nobody can really determine his or her future. A future is unpredictable. However, we can plan for our future. We can decide what we want to be...."

The variation in frequency of modal use within this group of ESL essays seems to support Altman's (1984) hypothesis that fluency with modals is closely related to overall ESL proficiency. An essay of 282 words, titled "The Decision by Someone to Become a Citizen of a Country in Which He Was not Born" (by subject B6), includes 12 modals (4.3% of the total words) and of the 582 words in the essay "My Future" (cited above), 25 words (also 4.3% of the total word count) are modals. On the other hand, "My Need to Succeed in English as a Second Language Class" (by subject B3), written by a writer who is obviously less fluent in English than the others in this subject population, includes no modal verbs in 221 words.

4.2.2 1984-85 Linguistics 099 Subjects (Group E)

The 11 modalities and 22 overtones expressed by the 1984-85 Linguistics 099 subjects in their Azar-based essays are considerably fewer than the 19 or more major modal notions and more than 66 overtones or implicative meanings used by native speakers (refer to Appendix VI). The list of modal concepts expressed in this group of papers (found in Appendix VIII) is similar to the 14 modalities and 34 overtones expressed in the Azar-based and miscellaneous essays written by the 1983-84 Linguistics 099 subjects. Appendix VIII is a
contextualized listing of the modals and modalities expressed by the 1984-85 subject group.

The relative frequency of use of the modals, represented as a percentage of the total word count of the corpora under consideration, is presented in Table 11. The native speaker sample, represented by the Brown Corpus (Kucera and Francis 1967), is the 'standard' against which the three ESL corpora are compared. The three ESL corpora, the 1983-84 miscellaneous essays and the 1983-84 and 1984-85 Azar-based essays, can be compared both to the native speaker standard and to each other.
Table II

Percentage and Actual Count of Each Modal Verb Used in Each of the Four Corpora

<table>
<thead>
<tr>
<th>Modal Auxiliary</th>
<th>1,000,000 Word</th>
<th>5698 Word</th>
<th>4237 Word</th>
<th>3081 Word</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown Corpus</td>
<td>1983-84/099</td>
<td>1983-84/099</td>
<td>1984-85/099</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>Azar-Based</td>
<td>Azar-Based</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>% count</th>
<th>% count</th>
<th>% count</th>
<th>% count</th>
</tr>
</thead>
<tbody>
<tr>
<td>can</td>
<td>.23</td>
<td>.32</td>
<td>.52</td>
<td>.49</td>
</tr>
<tr>
<td>could</td>
<td>.18</td>
<td>.05</td>
<td>.05</td>
<td>.23</td>
</tr>
<tr>
<td>may</td>
<td>.14</td>
<td>.04</td>
<td>.14</td>
<td>.03</td>
</tr>
<tr>
<td>might</td>
<td>.07</td>
<td>.05</td>
<td>.07</td>
<td>.19</td>
</tr>
<tr>
<td>must</td>
<td>.01</td>
<td>.02</td>
<td>.12</td>
<td>.1</td>
</tr>
<tr>
<td>ought</td>
<td>.03</td>
<td>.01</td>
<td>.12</td>
<td>.1</td>
</tr>
<tr>
<td>shall</td>
<td>.09</td>
<td>.01</td>
<td>.8</td>
<td>.62</td>
</tr>
<tr>
<td>should</td>
<td>.22</td>
<td>.39</td>
<td>.35</td>
<td>.42</td>
</tr>
<tr>
<td>will</td>
<td>.29</td>
<td>.26</td>
<td>.17</td>
<td>.52</td>
</tr>
<tr>
<td>would</td>
<td>.22</td>
<td>.39</td>
<td>.35</td>
<td>.42</td>
</tr>
</tbody>
</table>

Totals 1.36% 13486 1.14% 69 2.22% 94 2.70% 83

The high count for should and complete absence of shall in both groups of Azar-based essays might well be ascribed to the specific limitations of the assigned topics. Excepting should, the three most used modal auxiliaries for all corpora are can, would, and will. The next most used modal in each sample, except for the 1983-84 Linguistics 099 Azar-based essays, falls well below the counts (and percentages) for the three high-frequency modals. In the Brown corpus sample, the actual count of could at 1776 falls 468 lower than the count for will. In the 1983-84 miscellaneous sample, fourth place
should is 10 lower than would. In the 1983-84 Linguistics 099 Azar-based sample, may at 6 is only one less than would; however, if should, with a count of 34 is included in the three most frequently used modals for this group, the difference between will at 15 and would at 7 seems significant. In the 1984-85 sample, could, with a count of 7, falls 6 lower than the third place will (excluding should). For some reason, in this last group, the relative frequency of the four most used modal verbs (including should at 19) falls within a fairly close range, quite separate from the fifth ranked modal.

The ordering of the remaining modals, based on relative frequency of use, also indicates some across-group similarities. The low frequency of ought and shall among ESL writers, for example, is in agreement with the Brown Corpus sample. Two of the three occurrences of ought in the 1984-85 Azar-based sample are found in one paper, written by subject E9, an English-language teacher trained in Mexico, to whom formal language style is a mark of 'proper' education. This subject's writing accounts for the disproportionately high use of ought within the sample. The subject's use of ought in structures such as, "The Church, in these cases oughtn't to tell women...," and "People ought to be educated by others," might be more naturally rendered with should by most native speakers as well as by ESL writers at this level. Although this subject may be considered atypical by some, experience shows that some students of English enrolled in courses at this level are, in fact, English teachers or specialists in their homelands. This subject's performance is fairly representative
of the writing skills of such individuals; therefore, her writing sample and responses were retained for the overall research analysis.

4.2.3 Summary

The analyses of the two sets of Linguistics 099 essays corroborated the findings regarding the earlier college/university entry level essays and ESL essays generally. The results indicate that while writing a directed theme, specifically calling for modal auxiliaries, an ESL writer may actually use considerably more modal verbs than does a native speaking writer writing on a non-assigned topic. When the ESL writer writes on a non-modal-specific topic, his frequency of use for the modals falls somewhat below the frequency for the native speaker sample. In either case, though, the ESL writer has, or uses, a comparatively limited number of modalities that he mostly expresses with three or four modal verbs. As with the native speaker, the use of ought and shall appears to be highly restricted. Unlike the native speaker sample, on the other hand, the use of could, may, must, and possibly should, appears to be too limited for accurate expression of ideas.

4.3 Spoken Corpora

4.3.1 1983-84 Linguistics 099 Subjects, Interview I (Group B)

The subjects' oral responses during the 30-minute interactive sessions were quite limited. Although the topics ostensibly under discussion were the interviewees' own Azar-based essays, the subjects
proved very hesitant to enter into prolonged discourse on questions of hypotheticality, or necessity, or probability, and so on. This reluctance continued despite the researcher's attempts to elicit responses to such questions as, "What do you think about this idea?", "Do you think you could write that another way?", or "What would happen if...?" Very little usable data in terms of interactive discourse or subject monologues rendering expressions of modality, or attitudes, or beliefs was elicited during the first seven and a half hours of tutorial interviews.

As indicated in Table 12, the analysis of the taped interviews reveals the use of ten modal notions and 22 overtones expressed by a total of seven modal auxiliaries. This sample of oral competence closely approximates the results of the analyses of the written corpora (see 4.2-.3). Table 12 gives an indication of the range of the subjects' contextually appropriate use of modal auxiliaries during the first 30 minute interviews.
## Range of Modalities Expressed by Modal Auxiliaries by Group B During Interview I

<table>
<thead>
<tr>
<th>Modalities and Overtones</th>
<th>Modal Auxiliaries</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Possibility (26)</strong></td>
<td>can (14), might (1)</td>
</tr>
<tr>
<td>present</td>
<td>could (1)</td>
</tr>
<tr>
<td>polite present</td>
<td>could (2)</td>
</tr>
<tr>
<td>past</td>
<td>could (1)</td>
</tr>
<tr>
<td>logical past</td>
<td>might (1), can (1), will (1)</td>
</tr>
<tr>
<td>future</td>
<td>could (1), can (1), may (2)</td>
</tr>
<tr>
<td>hypothetical future</td>
<td></td>
</tr>
<tr>
<td><strong>Ability (22)</strong></td>
<td></td>
</tr>
<tr>
<td>past</td>
<td>could (1)</td>
</tr>
<tr>
<td>present</td>
<td>can (17), could (2)</td>
</tr>
<tr>
<td>hypothetical present</td>
<td>could (2)</td>
</tr>
<tr>
<td><strong>Temporal Statement (7)</strong></td>
<td></td>
</tr>
<tr>
<td>hypothetical past</td>
<td>would (1)</td>
</tr>
<tr>
<td>hypothetical present</td>
<td>would (2), could (1)</td>
</tr>
<tr>
<td>hypothetical future</td>
<td>would (3)</td>
</tr>
<tr>
<td><strong>Request for Advice (6)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>shall (1), will (1), should (3)</td>
</tr>
<tr>
<td></td>
<td>can (1)</td>
</tr>
<tr>
<td><strong>Volition (6)</strong></td>
<td></td>
</tr>
<tr>
<td>future</td>
<td>will (1)</td>
</tr>
<tr>
<td>hypothetical future</td>
<td>will (2), would (1)</td>
</tr>
<tr>
<td>hypothetical present</td>
<td>would (2)</td>
</tr>
<tr>
<td><strong>Prediction (5)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>won't (1), will (3), wouldn't (1)</td>
</tr>
<tr>
<td><strong>Necessity (4)</strong></td>
<td></td>
</tr>
<tr>
<td>logical</td>
<td>should (1), must (1)</td>
</tr>
<tr>
<td><strong>Permission (2)</strong></td>
<td></td>
</tr>
<tr>
<td>legal</td>
<td>won't (1)</td>
</tr>
<tr>
<td>interpersonal</td>
<td>can't (1)</td>
</tr>
<tr>
<td><strong>Probability (1)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>won't (1)</td>
</tr>
<tr>
<td><strong>Question (1)</strong></td>
<td></td>
</tr>
<tr>
<td>polite</td>
<td>would (1)</td>
</tr>
</tbody>
</table>

* The number in parentheses represents actual count.
Rather than conduct the second interview as a writing clinic tutorial, during the second thirty-minute session, the six subjects who participated in this part of the research program, were first encouraged to present their own questions about English usage, then were asked to read silently and to comment on the items in Azar (1981:177, exercise 9) and on two sentences: "Jack will be at the party" from Kennedy (1978:124), and "You can't do that" from Leech and Coates (1980:82-3). The free conversation and questions that initiated the second interviews added little to the data obtained in Interview I, and the sessions progressed rapidly to the structured material from Azar, Kennedy, and Leech and Coates.

The Azar exercise calls for students to analyze and comment on the meaning(s) of sets of related sentences which differ only in the choice of modal operator. The subjects' responses to this exercise suggested a certain amount of confusion on the part of some of the subjects as to the implicative structure of the English modals (see Appendix IX for details of the responses). For example, responses to Item 4: "a. You must not use that door, b. You don't have to use that door," varied from "the same meaning" to "shouldn't, prohibited, obliged not to use it, no choice," and "not allowed to use it," for must and "up to you, shouldn't use it, but there is a choice," and "don't have to use it" for had better. The responses to Item 8 also show a variety of accurate, and not so accurate, interpretations for the modal proposition: "a. When I was living at home, I would go to the beach every weekend with my friends, b. When I was living at home,
I used to go to the beach every weekend with my friends. Whereas most respondents felt that the two stimulus sentences indicate a difference in the level of actual frequency in the past, other interpretations given for would include: "hypothetical, not true, once a month, not continuous, more regular than used to," and "sometimes only." Other readings for used to include: "not any more," every weekend, continuous," and "something that happened in the past then stopped." The confusion over modal intention evidenced by the subjects' interpretations of these stimulus sentences was corroborated by their responses to the ambiguous sentences from Kennedy (1978), "Jack will be at the party," and Leech and Coates (1980), "You can't do that."

The subjects' responses to these two stimulus items are interesting in that they often vary widely from the possible interpretations suggested by the sources. Further, in the case of "You can't do that," the highest number of possible connotations available to any of the six subjects was five, and these meanings did not necessarily accord with those of Leech and Coates (see 3.3.2 for details). Subject B9 (Korean) made an interesting observation, "The can't has two cases: 'ability' and 'permission'. You shouldn't do that when pitch rises on that."

Subject B1's "a good chance that I will see Jack at the party" is typical of the subjects' consensus reading, 'future prediction', for "Jack will be at the party." Other interpretations, that differ from Kennedy's 'warning, prediction and promise' readings, are also suggested by the subjects. These modalities include 'expectation',
for example, "Expect Jack to be there," by subject B8; 'demand' or an 'order' for "Jack to be there" expressed by subject B4; 'question(ing)' as in subject B9's observation, "Normally, Jack will not go to the party, so there is a question about that"; 'negative feelings' as expressed by subject B8, "Maybe you don't like him to come to the party"; as well as 'surprise' and a 'statement' in the form of an exclamation, indicated by stress and intonation of the subjects' recitations of the stimulus sentence.

Responses to Leech and Coates' stimulus sentence, "You can't do that," strongly suggest an 'ability' reading. Examples of this implicative structure include subject B15's remark that the sentence indicates the speaker has "no confidence in my ability", and subject B8's remark, "You don't have the ability." Other responses in this category include ones that imply that there exists a 'slight chance that I can perform the task'. The other frequently expressed modality for this sentence was that of 'permission' with implications of legal prohibition or obligation 'not to perform the action'. The only other modal notion inferred by the subjects for this stimulus item was 'advisability', best expressed by subject B4: "I'm going to do something bad; advising me not to do something bad, like beating up your brother."

4.3.3 Summary

The results of analyzing the foregoing oral corpora provide evidence of the confusion and misunderstanding among advanced-level ESL users caused by the inherent ambiguity and poly-lexy of the modal
system. The inadequacy of the subjects' communicative competence regarding the modal auxiliaries was further demonstrated by their use of a limited modal vocabulary in free conversation and by the restricted nature of their responses to the specifically ambiguous stimulus sentences. While useful as a measure of the subjects' modal proficiency, the data obtained from the oral corpora does not, in itself, provide a complete picture of the advanced ESL speaker's communicative competence regarding the modal auxiliaries. The results of the Survey-Questionnaires, presented in the following sections, also contribute to the overall understanding of the ESL subject population's perception and use of modal auxiliaries.

4.4 Survey Questionnaires

4.4.1 Questionnaire I

The first form of the Survey-Questionnaire (see Appendix I) was administered to seven advanced-level ESL students from Camosun College, Victoria, to two University of Victoria Linguistics 099 students, and to eleven native English speakers during December 1983 and January 1984. The responses of these two groups (ESL and native English speaking) were examined for similarity to, and difference from, each other and the source text for each of the 114 stimulus items. Those responses which demonstrated a close correlation between ESL and native speaker and source text interpretations were dropped from future forms of the Questionnaire, while those items with responses that did not correspond to the source text were kept in the
later forms of the Questionnaire. The respondents were asked to rate the possible paraphrases of the stimulus sentence with 1: the same, 2: nearly the same, or 3: not the same. The subjects were also informed that the same rating could be applied to two or more detractors. Subjects' responses of 1 and 2 were counted as signalling a paraphrase relationship between the stimulus sentence and the detractor, and a rating of 3 was taken to indicate that the two sentences were felt to be dissimilar in meaning.

For example, on Item 81, "If I had time, I would go with you" (Wishon and Burks 1980:234), 100% of the native speaking respondents agreed with the source text interpretation of 'hypothetical future', but only 50% of the ESL subjects agreed with this reading. In fact, 50% of the ESL subjects rated this reading at 3 while 51% of these respondents chose the detractor, "I intend to go with you", a statement of 'intention' or 'definite future', as the paraphrase of the stimulus sentence. Consequently, this item appears as Item 46 on Questionnaire II. On the other hand, 100% of the respondents, both native speaking and ESL, agree with the source text reading 'advice/advisability' for Item 39, "I would buy the book if I were you" (Brown and Miller 1975:103); therefore, this item does not appear on subsequent forms of the Survey-Questionnaire.

4.4.2 Survey-Questionnaire II

The 79 items used for Questionnaire II (Appendix II) were typed onto six legal-sized pages with enough space between the items to permit one item to be displayed at a time. The subjects, 22 students
enrolled in Levels 6 and 7 of the 1984 Summer Language Institute at the University of Victoria, read the items silently and gave their responses to the researcher on a one-to-one basis. This set of stimulus sentences and the non-cued elicitation technique proved quite successful in eliciting the subjects' pragmatic understanding of the modal auxiliaries in question. Generally, the subjects' responses to the stimulus items show a scattered pattern of interpretation that varies from the 95% correspondence with the source text reading of 'possibility' for Item 75, "It can snow in April," to the five or more modal interpretations given for Item 6, "You must be careful." These range from agreement with the source text reading of 'polite command' (14%, although there is no mention of 'politeness' in any response), to 'warning' (29%), 'responsibility' or 'obligation' (14%), 'recommendation' or 'advice' (24%), and 'necessity' or 'requirement' (19%). Some items, including those referred to below, show particularly interesting response patterns.

Item 9, "You might have apologized," according to the source text, Wishon and Burks (1968), implies 'dissatisfaction' regarding the addressee's lack of apology in the past. The use of the verb prase, might have apologized, indicates reference to a past time (immediate or otherwise). Fully 30% of the respondents interpreted this sentence as meaning that the addressee had, or probably had, apologized. Another 25% of these subjects viewed this sentence as implying 'obligation' to apologize (at some '+ future time'), a reading typified by subject D21's response, "obligation; my feeling is that you should apologize." Only one subject (5%) considers this
stimulus sentence to be purely 'advice', and another subject, D3, makes the observation, "It's better to apologize than don't." Eighty percent of the subjects state a past time frame for the sentence, with one subject, D1, actually calling attention to the past-time marking of might. In fact, 50% of the subjects' responses can be interpreted as implying the sense of 'dissatisfaction' intended by the source text, as stated by subject D22, "good manners, should have."

The responses to Item 15, "Could you go if I came by for you?" which expresses 'present ability', according to Wishon and Burks (1968), are also especially interesting. For one thing, only 18 of the 22 subjects responded to this stimulus item. Four of the subjects said that the sentence simply did not make sense to them. Of those that responded, only one person (6% of the total responding) related the sentence to 'physical ability', while 41% of the subjects gave readings that imply 'possibility'. Twenty-four percent felt that the sentence implied an 'invitation'; while another 24% interpreted the stimulus item as a question involving second person 'volition', as in subject D15's response, "Do you want to go?" Another subject, D9, asked "Will you be able to go?" adding that it was a matter of 'permission'.

Responses to Item 17, "John must sleep in the car," are also diverse. While 29% of the subjects gave responses that agree with the source text reading of 'logical necessity' (Hermerén 1978), 57% of the subjects felt that the sentence implied an 'obligation' or 'necessity' on the part of John. Subject D22's observation, "obligation, no choice; someone told him to sleep in the car," is typical of the
latter interpretation.

Item 27, "I could do that," according to Palmer (1974), is an expression of 'volition'; however, only one subject (5%) supported that interpretation by responding with, "If he wanted to" (subject D12). One of the two most usual readings for this group of subjects is that of 'possible', at 52% of the total responses. Eighty-two percent of these 'possibility' readings have no further overtones, while 18% are marked with a '+ past' implication. The other frequent reading, with 48% of the responses, is 'ability'. Of this group of readings, 22% include overtones of 'hypotheticality', while 33% include overtones of '+ past'. Altogether, 24% of the total sample have '+ past' overtones on their interpretations, while 15% of the total presented their responses in 'hypothetical' terms.

Another item that elicited a group of interesting responses is Item 32, "You ought to read this book." Although Leech and Svartvik (1975) give 'advice, advisability' as the modal interpretation for this sentence, only 45% of the subjects agree by giving responses that imply 'suggestion', 'recommendation' or 'advice'. The other 55% of the responses are given in terms of 'obligation', 'order' or 'necessity'. These responses use such words as "you have to" (subject D22) with additional comments to reinforce the obligatory nature of the proposition of the sentence.

"We could go to the seaside tomorrow," Item 49, is considered to be an expression of a 'suggestion' according to van Ek and Alexander (1980). However, only 15% of these subjects interpret the sentence as either a 'suggestion' or an 'invitation'. Seventy-five percent of the
subjects gave responses that imply 'possibility'. Of this 75%, 27% ask whether the possibility suits the addressee, as does subject D9, for example, "If you want, it's possible." The two other modalities expressed in response to this stimulus item are 'advice' (5%) and 'expectation' (also 5%).

One last example of the range of the subjects' interpretations for these stimulus items is Item 76, "You shall do exactly as you wish." According to the source text, Leech and Svartvik (1975), this sentence is generally interpreted as either 'permission granting' or 'suggesting'. While 32% of the respondents do give it a 'permission' reading, and another 26% interpret it as 'advice', which might be equated with 'suggestion' in the broad sense, four other modalities were also expressed for this one item. Sixteen percent of the subjects gave readings that implied 'possibility', and a further 16% expressed a sense of 'duty' or 'necessity'. The remaining 10% is divided between readings of 'assertion' or a 'statement of factual situation' and 'politeness' on the part of the speaker. Among the 'permission' responses, one response specifically marks the sentence as having a '+ future' implication: "In the future you do... An order to do exactly" (subject D19).

Within this set of data, a spread of six, or more, interpretations for the modality expressed by the modal auxiliary in a stimulus item (such as Item 76, above) is not unusual. The unusual situation is majority agreement with the source text, or even with reasonable native speaker intuition (the latter based on the researcher's judgement). Although some of the subjects' alternative
interpretations might be feasible within a highly constrained and convoluted context (e.g., subject D20's response to Item 17, "John must sleep in the car": "He should sleep [in the car]. Reason: better for him to." Perhaps he suffers from a back problem and the shape of the seat, etc. is helpful to his posture? and so on...), many of the readings would prove difficult to attest in normal contextualizing situations. In Table 13, the number of stimulus items in which some of the subjects' responses accord with either the source text or with acceptable alternative modalities are reported collectively by percentage of agreement in ten-percent increments. The totals, in terms of these two figures, are also given.
Table 13

Percentages of ELF Responses to Questionnaire II that 'Agree with Either the Source text or an Acceptable Alternative Modality

<table>
<thead>
<tr>
<th>Percentage of Acceptable Responses</th>
<th>Number of Stimulus Items which Accord with Source Text</th>
<th>Number of Stimulus Items with Acceptable Alternative Modalities</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-9</td>
<td>16</td>
<td>25</td>
<td>41</td>
</tr>
<tr>
<td>10-19</td>
<td>14</td>
<td>14</td>
<td>28</td>
</tr>
<tr>
<td>20-29</td>
<td>8</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>30-39</td>
<td>8</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>40-49</td>
<td>5</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>50-59</td>
<td>6</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>60-69</td>
<td>8</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>70-79</td>
<td>6</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>80-89</td>
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<td>5</td>
<td>8</td>
</tr>
<tr>
<td>90-99</td>
<td>6</td>
<td>4</td>
<td>10</td>
</tr>
</tbody>
</table>

The converse of the above conditions, that is the number of suggested modalities that do not accord with either the source text or with native speaker intuition, are reported in Table 14, below. The numbers represent the total count of a. all suggested, and b. all unacceptable modalities expressed in the responses to all 79 stimulus items. Overtones such as 'temporal aspect' are ignored in the counts. The percentage of unacceptable modalities expressed for each modal auxiliary is also given. The responses are grouped according to the modal auxiliary found in the stimulus sentence to facilitate presentation.
### Table 14

<table>
<thead>
<tr>
<th>Modal Auxiliary</th>
<th>Total Number of Expressions of Modality</th>
<th>Number of Unacceptable Modalities</th>
<th>Percentage of Unacceptable Modalities Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can (6)</td>
<td>22</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>Could (12)</td>
<td>45</td>
<td>11</td>
<td>24</td>
</tr>
<tr>
<td>May (3)</td>
<td>11</td>
<td>5</td>
<td>45</td>
</tr>
<tr>
<td>Might (7)</td>
<td>34</td>
<td>20</td>
<td>59</td>
</tr>
<tr>
<td>Must (14)</td>
<td>64</td>
<td>20</td>
<td>31</td>
</tr>
<tr>
<td>Ought (8)</td>
<td>42</td>
<td>15</td>
<td>36</td>
</tr>
<tr>
<td>Shall (5)</td>
<td>32</td>
<td>18</td>
<td>56</td>
</tr>
<tr>
<td>Should (10)</td>
<td>51</td>
<td>17</td>
<td>33</td>
</tr>
<tr>
<td>Will (9)</td>
<td>38</td>
<td>15</td>
<td>39</td>
</tr>
<tr>
<td>Would (5)</td>
<td>20</td>
<td>2</td>
<td>10</td>
</tr>
</tbody>
</table>

Totals 359 126 35% of total usage

For various reasons, the subjects' responses to Items 6, 17, 19, 21, and 36 and 75 all deserve special attention.

The readings for Item 6, "You must be careful," include five modal notions: 'warning', 'order', 'recommendation' or 'advice', 'requirement', and 'obligation'. All of these could easily be appropriately contextualized. This is one of the few instances in which the subjects' diversity of interpretations all prove relatively (and easily) acceptable to the native speaker.
Responses to "John must sleep in the car," Item 17, are interesting for another reason. In this case, 57% of the subjects give the reading 'obligation' or 'required', a very unlikely interpretation for this sentence. It seems more likely that this sentence would be interpreted as 'probable' (10% of the responses), 'logical conclusion' or 'logical necessity' (29%), or even as a 'possibility' (5%). The most typical response to this stimulus sentence is "he has to sleep; required," as stated by subject D5.

The subjects' responses to Item 19, "When I was a student I could travel at half-price," are interesting because only one response is in accord with the source text reading of 'permission granting' or 'suggesting' (Leech and Svartvik 1975); subject D10's words are, "When she wanted to, she was able; permission to travel." Most subjects (62%) viewed this stimulus item as meaning 'possible (+ past)' or as an 'assertion (+ past)' (24%). Both of these are readings that seem acceptable (possibly even more acceptable than that of the source text) to native speakers.

Of the 22 possible responses to Item 21, "It ought to rain before long," only 16 were given. This is the smallest number of responses received for any item on the Questionnaire. The use of ought seems to have consistently confused these subjects, so that the total number of subjects responding to stimulus items based on this modal auxiliary is generally lower than with the other modals. On several occasions, various subjects would look blankly when confronted with an ought-based stimulus sentence, or they would ask for an explanation of the item. Frequently, their responses were tentative and accompanied
by comments such as "I'm not sure," or "could be that." The range of modal notions suggested by the subjects, and the smaller number of responses to this item confirm the subjects' overall insecurity regarding the use of ought. 'Prediction', which is the source text interpretation of this item (Joos 1964), was used only once (6% of the responses to this item). Other modalities used were: 'obligation', 'expectation', 'probable', 'desirable', 'necessity', and 'conclusion'.

Responses to another stimulus item based on ought, Item 67, "The child ought to be reading by now," are also of special interest. Although in this instance 20 of the 22 subjects responded to the stimulus item, only 50% of their readings reflect the 'assertion' of the assumption, or 'expectation', of 'present ability' reported by Wishon and Burks (1968). For 30% of the sample, this sentence carries a sense either of 'obligation' on the part of the child that he know how to read, as in subject D10's response, "The child is supposed to be reading by now, or a sense of 'necessity' that the child be able to read for reasons that include the child's age and educational needs. Other subjects, notably D4 ("We expect him to read for us"), interpret this stimulus sentence as an expression of expectation of a demonstration of the child's reading ability.

"Shall I answer the telephone for you?" Item 74, is interpreted as 'permission' or 'request' according to Wishon and Burks (1968); however, while only 15% of the subjects perceived this sentence as related to 'permission', 50% felt that it was a 'question' and another 25% viewed it as an 'offer'. Of this 75% of the responses, 66% added the overtone '+ polite' to their interpretations, giving responses
such as, "polite form to say, 'I'll answer for you'" (subject D3), "polite question, 'Do you want me to answer?'" (subject Dll), "very formal question" (subject D22), and so on. These two readings suggested by the subjects seem to be at least as appropriate as are 'request' and 'permission' as interpretations for this stimulus sentence.

Palmer (1974;120) writes that invitations with must and ought differ in underlying meaning. With must, the invitation is formal and could be quite insincere; whereas with ought, there is some suggestion that the speaker desires to see the addressee again. Because of this distinction in meaning, the responses to stimulus Items 36 and 75 ("You must come again" and "You ought to come again," respectively) can be compared to determine what, if any, distinctions in specific connotations these two stimulus sentences carry for these ESL subjects. The results show that both sentences are generally considered to be 'invitations'. The high percentage of 'polite' (e.g., subject D12's, "Please come again") and '1st person volition' (e.g., subject D22's "I'm inviting you to come again," and subject D10's "You have to. I would like you to: invitation") overtones could be conceived as testifying to the 'sincerity' overtone of the ought form of the sentence; however, the 'invitations' offered by these subjects in response to must also seem real enough. As the figures in Table 15 show, the must stimulated invitations are, perhaps, more sincere than those resulting from the ought sentence. Table 15 presents the percentages of use for the various modalities expressed in the subjects' responses to each of these two stimulus items.
Table 15

Percentage Comparison of Modalities Used in response to Items 36 and 75

<table>
<thead>
<tr>
<th>MODALITY</th>
<th>MUST</th>
<th>Percentage of Invitations</th>
<th>OUGHT</th>
<th>Percentage of Invitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invitation</td>
<td>62</td>
<td>21</td>
<td>61</td>
<td>11</td>
</tr>
<tr>
<td>+ polite</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ 1st person volition</td>
<td>55</td>
<td></td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>all other</td>
<td>24</td>
<td></td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>Obligation on 2nd person</td>
<td>33</td>
<td></td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Other Modalities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expectation</td>
<td></td>
<td></td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Suggestion</td>
<td></td>
<td></td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Necessity</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

4.4.2.1 Summary

In their attempts to express the meanings implied by the stimulus sentences, the ELP subjects often use modalities that accord with neither the source texts, nor with native speaker acceptability. In some instances, the majority of the responses express modal notions which, although different from the source text, do fall within the appropriate range of interpretations for the modal auxiliary in the given context. Items in which none of the subjects' responses
correspond to a reasonable interpretation of the stimulus sentence are rare. However, the number of inappropriate interpretations conveyed by these subjects reflects the ESL user's lack of real pragmatic communicative comprehension regarding the modal auxiliaries.

4.4.3 Questionnaire III (a Pre-Test)

Questionnaire III consists of the same stimulus items as Questionnaire II; however, the subjects' responses were written paraphrases rather than oral remarks. In December 1984, the Questionnaire was assigned as homework to the 13 students enrolled in Linguistics 099 at the University of Victoria during the 1984-85 academic year. As with the two previous Questionnaires, while there was occasional total agreement with the source text, and/or the native speaker sample (represented by Group A's responses to Questionnaire I), frequently, the ESL subjects gave paraphrases that differed considerably either in modal notion or overtone from the stimulus items. Of course, some of these alternative readings could (with specific contextualization) be considered acceptable. However, the comparison here is confined to the source text and native speaker sample interpretations.

In the following sections (4.4.3.1-.11), the subjects' responses to Questionnaire III are examined according to the modal auxiliary in the stimulus sentence. In each section, the responses to the stimulus items that appear on the Post-Test (see 3.4.5) are analyzed in detail.
4.4.3.1 Can

According to Coates (1983), *can* has three basic interpretations: 'possibility', 'ability', and 'permission'. The sources cited in Appendix VI suggest other notions and overtones including: 'request', 'possibility + ability', 'possibility + moral obligation', 'ability + inherent', 'having the right', 'no obstruction to the action of the main verb', and 'permission + conditionality', among others. While these subjects' responses often reflect one of the modalities suggested by the authorities, sometimes, as in the case of the 'promise' reading for Item 50, and the 'predictive statement' reading for Item 77, the subjects' responses go beyond the usual scope of the modal verb. In the case of the six stimulus items based on *can*, 65% of all responses to all of the items agree with either the source texts or with the native speaker sample. However, 20% of the responses indicate that the contextual setting of the modal verb in the stimulus sentence was not sufficient to prevent misconstrual on the part of the ESL user. Table 16 in section 4.4.3.11 summarizes these usage figures.

The six stimulus sentences using *can*, with their source text readings are:

28. I'll help you as soon as I can ['possibility + present'];
50. Can you wait until I finish ironing? ['possibility + permission + present'];
55. She can be very catty ['ability + possibility'];
57. Can I have two seats in the front row? ['permission/request'];
59. You can wash your clothes downstairs ['permission granting'];

Of these sentences, only Numbers 55 and 59 appear on the
Post-Test. Although nine of the 10 subject responses for Item 55 demonstrate close agreement with both the source meaning and the native speaker interpretation, the sentence was included as Number 28 on the Post-Test to examine whether this concurrence would be found under conditions that call for sentence completion by the subjects after they have been introduced to a wider range of interpretations for *can*. Responses to Number 59 also show almost unanimous agreement with both the source text and the native speaker sample; however, several responses also include strong overtones of 'possibility' and 'ability', while one response, subject E6's "It's better if you wash your clothes downstairs," indicates a reading of 'preference' on the part of the speaker. Because such overtones could result in ambiguous interpretations of the speaker's intent, it seemed relevant to further investigate ESL users' pragmatic comprehension of the modal *can* in this context.

The remaining four stimulus items offer interesting insight to ESL users' pragmatic competence. In Item 28, for example, while four subjects agree with the source and native speaker interpretations of 'possibility + present', eight subjects give responses indicating other readings such as 'logical necessity', including subject E1's "It's too much money: I can't spend it," and subject E2's "I have to save money." Subject E11's response indicates some form of internal or external regulation or 'advisability': "I can not spend more than I planned." '1st person volition' was also a connotation given to the modal in this sentence.

Responses to Item 50 varied from the five that were in agreement
with the source text to the six that indicate the stimulus item is a 'promise' or 'polite question'. Examples of the latter interpretation include subject E5's "Would you wait for me after I finish ironing?" and subject E9's "Do you mind waiting for me while I finish ironing?" None of the subjects seem to interpret the stimulus sentence as 'Is it possible for you to wait until I finish what I am doing?' or '...until it is a more convenient time for me?' Both of these are readings that seem natural to me, at least.

Item 57 is apparently seen by these subjects as primarily a request for seats. Three individuals use 'possible', and four indicate that the stimulus sentence is a 'polite request'. Two subjects even substitute may for can. Three subjects (E4, E5, and E11) give the paraphrase, "I would like...", a very polite form of this request.

Responses to Item 77 demonstrate obvious accord with both the source text and the native speaker sample. Some nice paraphrases include subject E6's "There is a chance..." and the two paraphrases that replace can with might. Subject E11 gives what I call a 'predictive statement': "It will snow in April." I am unable to determine whether this is the same structural concept as 'boys will be boys', i.e., 'inevitability', or a foretelling of spring weather conditions.

4.4.3.2 Could

Coates (1983) gives the "core" meanings of could as 'permission', 'ability' and 'possibility'. Other possible meanings taken from the sources cited in Appendix VI include notions such as, 'least
probable', 'hypothetical situation', 'ability + non-past', 'possibility + moral', 'possibility + justification', 'invitation', 'suggestion', 'sensation', and so on. The 12 stimulus items based on could cover a range of the possible meanings, yet the subjects' responses introduce many modal concepts and overtones, such as 'cause and effect' and 'expectation', which are not suggested by the cited authorities.

The 12 stimulus sentences using could, with their source text readings, are:

1. Ten years ago I could drive all day, but now I can't ['ability + past'];
14. He could have joined us, but he didn't get our invitation in time ['ability'/'possibility'];
15. Could you go if I came by for you? ['ability + past' or ' + present'];
19. When I was a student, I could travel at half-price ['permission granting'];
20. We could ask him to be chairman ['possibility'];
27. I could do that ['volition']
40. We could see the bottom of the lake ['ability', 'possibility', 'sensation ' + tenseless'];
47. He couldn't be hiding ['impossibility'];
49. We could go to the seaside tomorrow ['suggestion'];
53. Could I open the door for you? ['invitation', 'offer'];
65. I could go now, if I wanted. (I don't want to) ['ability 'possibility'];
70. I'm so happy , I could cry ['hypothetical'].

Of these 12 sentences, only Number 40 appears on the Post-Test. This item was selected because although there is almost unanimous agreement between the subjects and the source text on the modality used ('ability/possibility'), the subjects' responses display a strong tendency to assign a specific temporal setting to what is supposed to be a 'tenseless' statement. This non-temporal overtone of could seems to be remote from the "core" uses usually taught to ESL students.
The subjects' responses to the other 11 stimulus sentences in this group are also instructive. In Item 14, for example, seven of the 12 subjects (58%) interpret the stimulus sentence as the 'simple past', a reading also registered by the native speaking sample. Responses to Item 15, on the other hand, differ from both the source text and the native speaker sample. These paraphrases range from subject 'El's "If I pick you up, can you come?", indicating 'permission' or 'ability', to six interpretations in terms of '2nd person volition' and 'hypothetical', illustrated by subject E6, 8, and 11's "Would you go if..." Only two subjects, besides the seven that agree with the native speaker sample, seem to regard this stimulus sentence as referring to the present, and these two use statements of immediate speaker or listener preference, as in subject E5's "I really want you to go."

The subjects' responses to Item 20 differ considerably from either the source text or native speaker sample. This group of ESL users interpret this sentence more as a 'statement of fact' than as a 'possibility' of a course of action. The paraphrases of four individuals are written as 'hypothetical possibility' in the future, while one individual uses the past form. One 'paraphrase', subject E10's, "If you want to be chairman, ask us," interprets the sentence as an issue of second person 'volition' or 'desire' rather than as first person 'possibility'; two paraphrases are phrased in terms of third person 'volition': subject E2's "Ask him if he wants to be chairman" and subject E9's "He will be chairman if we ask him." One subject, E12, gives two possible readings for this sentence:
'permission + present', "You have permission to ask him to be chairman," and 'question + possibility', "Why don't you ask him to be chairman?"

Subject E4 is the only ESL subject that agrees with the source text in Item 27, giving the paraphrase, "I will do it." Generally, the remaining subjects interpret the message as 'ability' with several individuals writing something like "I am able to do that."

Alternate meanings and overtones for Item 47 include 'assertion', 'outside regulation', and 'advisability', as well as a simple 'statement' or 'prediction'. The last is illustrated by subject E2's "He is not hiding himself." Subject E3 gives the reading 'logical conclusion' or 'deduction', writing "He couldn't be hiding, I know him."

Responses to Item 49, "We could go to the seaside tomorrow," are interesting in that all but one subject agrees with the native speaker sample interpretation, 'possibility', rather than with the source text meaning, 'suggestion'. Only one subject varies from either the source or the native speakers, paraphrasing the stimulus sentence as a 'prediction', "We shall go to the seaside tomorrow."

The main overtone suggested by the subjects' paraphrases of Item 53 is that of 'politeness', expressed by the structure "may I...." The other overtone expressed is 'permission seeking'. Only one paraphrase is couched in terms of '1st person volition': subject E10's "I want to open the door for you."

Item 70 is also of interest because it is the only stimulus item in which all of these ESL subjects agreed with each other, although
they did not necessarily agree with the source text. This sentence is interpreted as a 'statement' or 'assertion' of present happiness expressed by such paraphrases as subject E5's "I'm extremely happy," or subject E8's "I'm so delighted that I could cry." The latter falling, perhaps, into the realm of 'hypothetical' as suggested by the source text.

In general, the pragmatic comprehension of could in this set of stimulus sentences poses few potentially serious difficulties for the ESL subjects. While they seem to rely heavily on the use of could as a past-tense marker or polite form with the meaning 'ability', or 'possibility' or 'hypothetical', in the majority of cases, such readings do not stray far from the intent of the sentence; there is a fine line between a 'suggestion' and a 'possibility' in Item 49, for instance. The ambiguity of tense in the use of could, according to the results of Questionnaire III, seems to be the most confusing aspect of this modal verb in regard to ESL comprehension. For this reason, Item 40 was included in the Post-Test.

4.4.3.3 May

The meanings for may, according to Coates (1983), are 'permission' and 'probability'. Some other interpretations, from the sources cited in Appendix VI, include: 'ability', 'honorific', 'qualified generalization', 'concession', 'possibility + hypothetical, + moral, + logical, + contingent', and so on. Three of the 79 items on Questionnaire III are based on may; these, with their source text interpretations are:
34. May I invite you to dinner next Saturday? ['invitation'];
56. "You may not go out tonight," he said ['necessity', 'obligation'];
60. I may go, but I don't really want to ['possibility'];

Two items using may are included in the Post-Test. Number 56 was selected because while only one respondent agreed with the source text, seven were in accord with the native speaker sample which interpreted the meaning as 'permission' rather than as 'obligation'; further, three responses indicate 'possibility', as does subject E11, for example: "He said, 'You might not go out tonight.'" A few subjects seem to interpret may as 'able' or 'permission' as in subject E1's, "He said that you couldn't go out tonight." Subject E2's "You have to stay home" might be interpreted as an 'obligation' to remain at home for some specific reason.

Although seven subjects are in accord with the source text and native speaker group interpretation 'possibility' or 'possible' for Item 60, it was included in the Post-Test because the remaining responses indicate a sense of 'permission', 'ability', or '1st person volition'.

Responses to the remaining stimulus sentence based on may, Item 34, show that all of the subjects share the notional understanding of the source text; however, a number of overtones, including 'possibility', 'politeness' and '2nd person volition', are also indicated by various respondents. For example, subject E11's paraphrase, "Would you like to have dinner with me next Saturday?" while definitely interpretable as an 'invitation', also involves the addressee's wishes as well as the sense of 'politeness' that comes
from the use of would (a past-tense form modal). Subject E4's response, "Can you come next Saturday to dinner?" leaves the invitation open to the overtone of 'possibility' on the part of the invitee.

4.4.3.4 Might

According to Coates (1983), the "core", or most typical interpretation for might, is 'possibility'. Other sources, (such as those cited in Appendix VI) include a variety of possible readings for this modal auxiliary including, 'ability', 'less probable', 'suggestion to achieve an event', 'politeness', 'contrary to fact', and 'hypotheses'. The seven stimulus sentences listed below with their source text meanings, represent a cross-section of the possible interpretations for this modal:

9. You might have apologized ['dissatisfaction'];
25. You might let me know ['suggestion'];
26. They say that movie is uninteresting. We might just as well stay at home ['untoward event'];
32. You might have been hurt ['hypothetical'];
37. "Why isn't John in class?" "I don't know. He might be sick" ['possibility'];
63. You might have a look at this book ['suggestion'];
71. He might not be hiding ['(im)possibility'].

Four of the seven stimulus sentences based on might appear on the Post-Test. The unusual source gloss, 'dissatisfaction', along with the strong overtones of 'advice' and 'possibility' included in the paraphrases written by the ESL subjects were the determining factors in the inclusion of Item 9 on the Post-Test. Five subjects agreed with the source text and native speaker sample; however, each of these tempered his 'dissatisfaction' with a sense of 'advice' (as, for
example, subject E4's sentence, "You should have excuse yourself") or with a sense of 'duty' or 'obligation' (as in subject E9's words, "You ought to have apologized.") Overtones of 'possibility + past', or 'expectation' are also evident in paraphrases such as subject E2's "You have apologized. I hope," or subject E7's "You could have apologized."

Item 25 is included on the Post-Test mostly because the gloss, 'suggestion', given by the source text and agreed to by the native speaker sample, is outside the "core" of usual interpretations for might. Additionally, while three subjects agree with the source text meaning, five paraphrase the stimulus sentence as 'possible in the future' and three regard the sentence as a 'demand' to be told. This last reading is demonstrated by subject E8's paraphrase, "You must tell me," and by subject E5's "I want to know." Subject E10's paraphrase, "Let me know if there are any changements," is also a 'demand'; it is tempered, however, by an overtone of '+ conditionality'.

Item 32 is included on the Post-Test because their responses show that these ESL subjects are obviously confused over the temporal aspect marked by the use of might. Their responses indicate that they are uncertain how to interpret might: as a marker of 'past', or 'future', or 'hypothetical', or 'actual'. While three individuals basically agree with the source text, indicating a definite past reference, five subjects write paraphrases suggesting 'possible + past' or 'probable'. For example, subject E8 writes, "You must have been hurt" and subject E11 writes, "You probably have hurt already."
One respondent, subject E5, gives a future interpretation to this stimulus item: "You might get hurt." Subjects E3 and E6 interpret the stimulus sentence as relating an actual event in the past: "You might have been hurt because you were looking" (subject E3).

The responses to Item 71 are interesting because the paraphrases are generally opposite to the meaning of the stimulus sentence as interpreted by the source text. Nine subjects interpret the sentence as a 'possibility' rather than as an 'impossibility', giving responses such as subject E5's "He could be hiding," or subject E2's "I don't think he is hiding." This stimulus sentence is included in the Post-Test to provide an opportunity to see how the subjects would contextualize this negative modality.

Of the remaining three stimulus items using might, only the responses to Item 26 offer any particularly important findings. While not one subject is in accord with the source text meaning of 'untoward event' for this item, eight agree with the native speaker sample choices of 'volition', 'advice', or 'choice': "Let's stay home" (from Questionnaire I, Item 34, detractor C). For three subjects, this 'advice' or 'choice' is based on 'logical necessity', as represented by subject E1's paraphrase, "Since they say that movie is no good, we better not go to see it." Other interpretations used by the subjects include 'possibility' and 'preference'.

Overall, these ESL subjects' weakness in the pragmatic comprehension of might appears to be the involvement of so many notional overtones along with a fair number of possible notional meanings. The contexts in which might is acceptable seem to be
inherently ambiguous and complex. This complicated linguistic situation can be the cause of difficulty in both the production and comprehension of sentences involving might for ESL users.

4.4.3.5 Must

"Core" meanings for must, according to Coates (1983) are 'to achieve an end', 'obvious conclusion', 'obligation/necessity', and 'logical necessity/confident inference'. Other potential interpretations, offered by the sources cited in Appendix VI, include 'probable + fairly', 'possible', 'necessity + legal', 'sufficient reasons', 'presently verifiable assumption', 'external compulsion to behavior', 'prediction required by some aspect of the world, 'best and only way', and so on. Because must carries so many possible interpretations, 14 individual items based on the use of this modal auxiliary are included in Questionnaire III. These 14 stimulus statements are as follows:

2. I must take one tablet after every meal ['advice/advisability'];
4. A member of the Queen's Own Guards must be six foot six ['assertion'];
6. You must be careful ['command/politeness/order'];
8. It mustn't rain on our picnic ['desire/wish'];
17. John must sleep in the car ['logical necessity'];
22. You must not tell anyone my secret. Do you promise? ['prohibition'];
35. I must go now ['necessity/obligation'];
36. You must come again ['obligation/moral duty'];
44. You mustn't smoke ['command/order/politeness'];
48. That must be my wife ['prediction'];
61. John must have arrived by now ['prediction'];
64. Just as I was getting better, what must I do but break my leg ['untoward event'];
73. You say you want to pass. Then you must try harder ['necessity + logical'];
78. Children must not cross busy streets alone ['prohibition'].
Five of these stimulus items from Questionnaire III appear on the Post-Test. Item 2 was selected for the Post-Test because these subjects' responses to this sentence differ from both the source text and the native speaker sample. Rather than 'advice', the sentence seems to be understood by these ESL users as the edict of an outside force, be it doctor, prescription, age, pain, or so on. In other words, the message is interpreted by these subjects as a choicelessness brought about by outside conditions.

The next stimulus sentence of this group found on the Post-Test is Item 17, "John must sleep in the car." According to their responses to Questionnaire I, the native speaker sample group was quite divided on the interpretation of this sentence, with six individuals (75% of the sample) rating 'logical necessity' at '1': "Exactly the Same", and four individuals (50%) rating it at '3': "Not the Same" (the respondents could use the same rating more than once). None of the respondents rated the stimulus sentence with a '2': "Nearly the Same", ranking. Among this ESL subject group, nine responses (75%) are basically in accord with the source text, even though several paraphrases indicate an overtone of 'cause and effect' that serves to intensify the 'logical necessity' indicated by the use of the modal. Subject E2, for example, writes "We haven't enough space for John to sleep here," and subject E5 gives, "...as he was very tired." Other responses incorporate a sense of 'obligation' as in subject E1's "John has to sleep in the car" (although the reason remains unstated and might lead to other conclusions about the intent of the paraphrase were it present). Still other paraphrases convey an
overtone of 'possibility': "John has the opportunity to sleep in the car," from subject E10, is an example of this reading.

Item 35 also appears on the Post-Test. Once again, a large number of subjects (10, or 83% of the sample) agrees with the source; however, three individuals are more in agreement with the native speaker sample interpretation of 'necessity + logic' than they are with the source text. One of these three respondents, subject E10, writes, "I have another consultation" as his paraphrase of "I must go now." The inclusion of this stimulus item on the Post-Test provides a further opportunity to examine the division between the source text gloss and native speaker interpretations as they pertain to ESL speakers' comprehension of modal structures.

The source text gives 'obligation/moral duty' and 'a social but not necessarily sincere invitation' as the glosses for Item 36, "You must come again." Responses of the native speakers sampled, as well as from these ESL speakers, indicate that the subjects also tend to consider this sentence as involving either a 'no choice' or a 'polite but not necessarily sincere invitation'. Four of the ESL responses (33%) indicate that either reading is possible. There is evidence in four other paraphrases that the stimulus item can be interpreted with overtones of 'obligatory invitation' on the part of the invitee. This reading can be demonstrated by subject E4's sentence, "You have to come again." Others, such as subject E2, include specific remarks of enjoyment or desire to "See you again."

Item 48 is glossed as a 'prediction' by the source text. The native speaker and ESL samples, however, are more inclined to
interpret this sentence as a 'logical necessity' or a 'logical conclusion' based on some sort of real or imaginary evidence such as '
...I recognize her voice' (from subject E3). Two subjects paraphrase
the stimulus item with either 'should or ought'; while one subject (E5)
writes, "I must marry her"; however, whether this is an expression of
'desire' or 'obligation' is unclear.

Responses to the other nine stimulus sentences in this group are
often in agreement with either the source text or the native speaker
sample (or both). The ambiguous readings and overtones deviate little
from the possible "core" meanings. Item 8, for example, meaning
'desire/wish' is paraphrased with 'predictions' and 'obvious
conclusions', both of which are acceptable readings of this modal
according to Coates (1983) and the sources cited in Appendix VI.

The five stimulus items included on the Post-Test represent a
cross-section of the possible meanings cited for must. This sample
permits the respondents to render contexts for must in a range of
natural settings.

4.4.3.6 Ought

Coates (1983) gives the "core" meanings of ought as 'weak
obligation', 'advice', and 'probable'. Some other possible meanings,
taken from the sources cited in Appendix VI include 'possibility',
'ideal situation', 'good, but not sufficient, reasons', 'guarded
prediction', 'politeness', 'higher probability than requirement', and
so forth. Although ought has a fairly limited use in contemporary
English, the fact that other ESL subject groups had shown difficulty
in interpreting this modal auxiliary prompted the decision to include the eight stimulus sentences listed below, with their source text meanings, on Questionnaire III.

10. I ought to go now ['duty'];
21. It ought to rain before long ['prediction'];
29. I ought to study tonight ['advice/advisability'];
42. You ought to read this book ['advice/advisability'];
45. Our guests ought to (should) be home by now ['probability'];
58. I ought to phone my parents tonight, but I probably won't have time ['obligation', 'moral duty'];
67. The child ought to be reading by now ['assertion'];
75. You ought to come again ['obligation', 'moral duty'].

These ESL users, it seems, like the previous ESL subject groups, are uncertain of the appropriate contexts and meanings for ought. In fact, all groups of ESL subjects tested demonstrate the tendency to leave the most 'blanks' in response to this group of stimulus sentences. Six of the eight stimulus items in the Questionnaire III ought group are included on the Post-Test in an attempt to gather more information about ESL learners' pragmatic understanding of the use of this modal auxiliary. In general, the results from Questionnaire III show a wide range of interpretations and overtones for each appearance of ought, almost always with a strong emphasis on the core meaning of 'obligation'. A meaning which the ESL subjects often infer as 'strong' rather than 'weak' (ala. Coates 1983).

Items 21 and 58, the two stimulus items using ought that do not appear on the Post-Test are excluded partly because of limitations on time and space, but also because the subjects' paraphrases of them are fairly homogeneous. Of the ten paraphrases to Item 21, nine agree with the source text and native speaker sample interpretation; only one subject suggests 'necessity' rather than 'prediction' as the
message conveyed by the modal verb. In Item 58, while subjects basically agree with the source text and native speaker interpretation of 'obligation' or 'moral duty', nine express the sense of 'future possibility' either as an overtone on the 'obligation' reading or as the main modal notion expressed. This uniformity of understanding is not demonstrated in the other six stimulus items which have been included on the Post-Test.

4.4.3.7 Shall

The "core" meanings of shall are given in Coates (1983) as 'intention', 'addressee's volition', 'prediction', and 'obligation' in the quasi-legal sense. Additional interpretations according to the sources cited in Appendix VI include: 'future + intent', 'prediction + intent', 'program contingent upon instruction or suggestion', 'guaranteeing performance of own act', and so on. The five stimulus sentences based on shall are listed below with their source text interpretations:

30. We shall miss our connection at Liverpool ['probability'];
39. You shall have the money tomorrow ['promise'];
41. We shall expect you at five ['request/polite question/demand'];
74. Shall I answer the telephone for you? ['permission/request'];
76. You shall do exactly as you wish ['permission granting', 'suggesting'].
ESL subjects are likely to encounter.

Item 39 is used on the Post-Test because of the pronounced tendency among the ESL subjects to interpret the shall as a 'prediction' or a 'promise + prediction'. There is also a division in the responses between those who interpret the stimulus sentence as a 'speaker commitment to action' and as a simple 'promise'.

Responses to Item 76, on the other hand, show close accord with the basic 'permission granting' source text meaning for the stimulus sentence. Several individuals, however, might be adding the overtone of 'ability' by using can to express this basic reading.

Of the remaining three stimulus sentences, the most intriguing group of paraphrases is in response to Item 41, "We shall expect you at five." Although all respondents correctly interpret this sentence as a 'request', several clearly do not sense the 'polite' overtone expressed by the source text; subject E3, for example, writes "...sharp," and subject F gives the paraphrase, "We shall see you."

Although shall is not one of the high frequency modals, and the meanings of the five stimulus sentences are not all in accord with Coates (1983) "core" uses, these ESL subjects seem to have little trouble in comprehending the intent of the author in the majority of these stimulus sentences.

4.4.3.8 Should

The "core" meanings for should are 'weak or strong obligation or duty', 'advice', and 'description of correct procedure' according to Coates (1983). Additional readings for this modal auxiliary from the
sources cited in Appendix VI include: 'hypothetical', 'predictive', 'fairly probable', 'advisability', 'ideal situation', 'has the right to', 'assumptions testable in the future', and so on. The ten stimulus sentences based on should that are used on Questionnaire III are given below with their source text glosses:

3. If it's a story by P.G. Wodehouse, it should be amusing ['probability'];
7. He took dancing lessons for years. He should be an excellent dancer ['deduction'];
11. Let's go to the lecture. It should be interesting ['expectation'];
12. If you should hear the news, Jane, please let me know ['hypothetical', 'contrary to fact', 'speculation'];
38. He shouldn't be so impatient ['prohibition'];
51. Should there be any difficulty in getting tickets? ['probability'];
54. It is unthinkable that he should resign ['hypothetical'];
66. Should that happen, he will be very disappointed ['probability'];
69. Students should work hard ['duty'];
79. All students should submit their work by a given date (...but some of them don't do it!) ['obligation', 'moral duty'].

While ten stimulus items based on should appear on Questionnaire III, only one of them, Item 54, is used on the Post-Test. This particular item was selected to test the ESL subjects' understanding of the hypothetical structure marked by the use of the modal auxiliary. The responses to Questionnaire III indicate a wide scope of interpretations for this particular item, ranging from agreement with the source text through 'negative possibility', 'definite future', 'logical deduction', and 'negative volition'. Although most of these interpretations fall within the definitions cited in Appendix VI, they are quite different from the intent of the stimulus sentence according to the source text. The inclusion of this stimulus item on
the Post-Test (thus in the sentence completion setting) gave the subjects the opportunity to contextualize their readings for this use of should.

Subjects' responses to items 3 and 66 of the remaining nine should items are totally in agreement with both the source text and the native speaker sample. The only variation is in the implied overtones. Item 3 is considered by several subjects to be over-laid by an 'assertion of quality', while some individuals feel that Item 66 implies the 'future'.

The most notable results among the responses to this group of stimulus items are in the paraphrases of Item 51. Here, only three subjects are in accord with the source text reading of 'probability', while the remaining subjects interpret the stimulus sentence as a question of 'possibility': 'Should I expect to have difficulty getting tickets?'

Among the responses to these stimulus items, the only implied overtone used that is found in neither Coates (1983) nor the sources cited in Appendix VI is that of 'cause and effect'. It is expressed by four subjects in paraphrases to Item 7. Examples of this use include subject El's "If he is an excellent dancer it is because he took dancing lessons for years," and subject E7's paraphrase, "Since he took dancing lessons for years he must be good at it."

The other really unexpected set of paraphrases is in response to Item 12. In this instance, the source text and native speaker sample interpretations are quite different from each other. Whereas the source text gives 'putative', 'contrary to fact', and 'speculation' as
the interpretation of this sentence, the native speaker sample favored
the paraphrase, "Jane is likely to hear the news" (Questionnaire I,
Item 12, detractor B), an indication of 'probability'. The ESL
subjects' responses reflect this type of disparity in their
paraphrases. For example, subject E2 expresses '2nd person
volition/desire': "Let me know if you want to hear the news," and
subject El's paraphrase can be read as 'hypothetical + assertion': "If
Jane hears the news, she will let me know."

4.4.3.9 Will

Coates (1983) lists the "core" meanings for will as
'willingness', 'intention', 'predictability', and 'prediction'.
Further possible interpretations for this modal come from the sources
cited in Appendix VI: 'most probable', 'future', 'request', 'future
actuality', 'inherent futurity', 'guaranteed logical sequence', 'cause
and effect', and 'habit- insistence'. Listed below with their source
text readings are the nine stimulus sentences on Questionnaire III
based on will:

5. You will understand that this is strictly confidential ['assumption'];
16. Be careful or you will fall on the ice ['possibility'];
23. I'll help you as soon as I can ['promise'];
24. My uncle will not be there tonight ['refusal/ invitation'];
33. We won't stay longer than two hours ['intention',
    'prediction'];
52. Will we dance? ['interrogative'];
62. They think I will accept the invitation, but I won't
    ['refusal/invitation'];
68. You will have heard that I'm going to America ['assumption'];
72. Will you come? ['invitation', 'offer'].


Questionnaire III includes nine stimulus sentences using will; five of these items appear on the Post-Test. Item 5 is on the Post-Test because of the wide range of interpretations expressed in these subjects' paraphrases of this stimulus item: 'assertion', 'future', 'duty', and 'reason'. The last notion is exemplified by subject E5's "This is strictly confidential, I can't disclose it to you." The subjects' confusion over tense is another reason that this item is included on the Post-Test.

In Item 16, the ESL subjects basically agree with the source text use of an array of overtones such as ' + warning', ' + advice', ' + prediction', or ' + hypothetical' in expressing the author's intention. Interpretations that differ from the source include subject E2's "Look out for the slippery ice" ('warning + advice'), subject E10's "Make attention or you will fall on the ice" ('prediction + warning + advice'), subject E9's "You have to be careful not to fall on the ice ('assertion'), and subject E11's simple 'warning + possibility', "Watch out for ice; you may fall on it." While the range of subject interpretations does not fit neatly into the list of meanings cited in Appendix VI, most seem (to me, at least) to be acceptable paraphrases of the intent of the stimulus sentence. This item is included on the Post-Test to encourage the subjects to provide a contextualization for their particular perceptions of this use of the modal following the classroom lectures and work on this topic.

The responses to Item 52 show that the ESL subjects find this use of will to be ambiguous, confusing, or unclear. Although the source text and the native speaker subjects feel that the stimulus sentence
expresses an 'interrogative', only four of the ESL subjects agree with
this interpretation. The paraphrases of seven ESL subjects indicate
that the stimulus sentence is actually an immediate 'invitation' to
dance with the speaker. Subject E6, for example, writes, "Would you
like to dance?" This can be taken as an 'invitation + polite'.
Subject E2 writes, "Why don't we dance?" Three respondents exchange
shall for will rendering "Shall we dance?" (subjects E7, E9, and E12);
this form represents a fairly formal 'invitation' to dance in the
immediate future.

The appropriate interpretation of stimulus Item 68 is apparently
unclear to the ESL subjects. Although six individuals agree with the
source text and native speaker sample reading of 'assumption', even
with this basic accord the overtone of 'interrogative' arises. This
disparity is evidenced by subject E4's paraphrase, "I suppose that
you heard that...." Three respondents write their paraphrases in the
'future' tense, one interprets the stimulus sentence as expressing the
'past + negative', and two subjects give no response at all to this
item. The null responses and the evident confusion over temporal
aspect were the deciding factors in the decision to include this
stimulus item on the Post-Test.

The last of this group of stimulus sentences to appear on the
Post-Test is Number 72. Although all of the ESL respondents agree
with either the source text sense of 'invitation' or with the native
speakers, the native speaker sample itself was divided between the
readings '2nd person volition' and 'invitation'. Seven ESL subjects
express their paraphrases in terms of 'volition', as does subject E2,
for example, "Are you gone a come?" or subject Ell's "Would you go?"
while another four subjects are in complete agreement with the source 'invitation' reading. One subject, E6, combines the two readings by using a 'polite' modal form: "Would you like to come?"

In three of the remaining items using will, the responses are virtually in total accord with the source texts: Items 23, 33, and 63. Responses to the two other stimulus items are of some interest, though. Although no one agrees with the source text, and just three (25%) of the ESL subjects agree with the native speaker sample in Item 24, the remaining nine subjects (75% of the sample) all paraphrase the stimulus sentence with a simple 'prediction' rather than with an expression of clear 'refusal' of an invitation. Even the three responses that are in accord with the native speaker sample interpretation intimate 'inability' to attend rather than 'refusal'. Responses to Item 18 tend to agree with the source meaning while adding the overtone of 'necessity' to the basic 'obligatory' reading. Three subjects each express their own readings of 'actual future', 'advice', and '2nd person volition'; however, there is no clear evidence here of a generalized ESL misconception of the stimulus item's intent.

Because will is such a high frequency modal (see 4.2.1 and 5.1), a relatively large number of diverse stimulus items was selected for inclusion on the Post-Test, thereby ensuring that the subjects would have the opportunity to contextualize the modal in a variety of uses. The stimulus items from the Pre-Test were specifically chosen to represent a range of interpretive errors that could lead to
miscomprehension and misuse on the part of ESL users.

4.4.3.10 Would

Would has several "core meanings listed in Coates (1983): 'past of will', 'general hypothetical marker', 'intention', 'willingness', 'predictability', 'prediction', 'polite form of will'. Other meanings, taken from the sources cited in Appendix VI include: 'habit/insistence', 'prediction based on past', 'request', 'soften assertion', 'high probability', 'future', and so on. The five stimulus items involving would that appear on Questionnaire III are listed below with their source text glosses:

13. How would you like to come and spend a week with us next year? ['invitation/offer'];
18. If you went abroad, you would have to earn your own living ['obligation', 'moral duty'];
31. I would rather go to the park than stay home ['desire', 'wish'];
43. They would ask all kinds of questions ['habitual', 'repeated past action'];
46. If I had the time, I would go with you ['hypothetical', 'speculation'].

Of the five items based on would on Questionnaire III, only one, Item 43, appears on the Post-Test. None of the subjects' paraphrases of this sentence exhibit the sense of 'habitual past' suggested by the source text. Five subjects agree with the common native speaker sample reading of 'habitual present'. Other interpretations by these ESL subjects include 'possibility', 'future', and 'assertion'. Overall, the ESL responses to this item represent a wide range of notional readings, especially in the area of temporal aspect.

Ten respondents (83% of the sample) agree with the source text
and all 12 express the same notion as the native speaker sample in Item 13. Responses to Item 46 display a similar pattern of accord: 12 paraphrases of this item are equivalent to the idea expressed by the source text and 10 are in accord with the native speaker reading. Paraphrases of Item 31, however, differ from this pattern: while only five responses follow the source text concept and three agree with the native speakers, seven paraphrases indicate the notion of 'preference'.

Five stimulus sentences are, doubtless, too few to establish a clear notion of ESL users' pragmatic comprehension for would in its numerous acceptable contexts. The analysis of the responses to the sample in Questionnaire III, however, in addition to the frequency with which this modal form is correctly used in essays written by advanced level ESL students (see 3.2.1 and 4.2.1.3), indicates that for this group of subjects, at least, would is not as problematic as are some of the other modal verbs. That only one stimulus sentence using would appears on the Post-Test is not a reflection of the frequency with which would is actually used, but rather a reflection of the frequency with which it is correctly used, and understood, by ESL users.

4.4.3.11 Summary

The results of the Questionnaire administered to the ESL students enrolled in Linguistics 099 at the University of Victoria during the 1984-85 winter term show marked confusion over the uses of the lower frequency modals: ought and shall. The results also demonstrate that
these subjects are often uncertain, or certain but wrong, over the proper interpretation of most of the modal auxiliaries in a variety of contexts. On the other hand, comprehension of the higher frequency modals, especially *could* and *would*, seems to pose few problems in most of their uses.

In many instances, the analysis shows that while the ESL subjects were virtually in accord with either, or both, the source text gloss and native speaker sample interpretation(s), they frequently added their own overtones or nuances of meaning to the basic readings. There are also several instances of the ESL subjects being either in complete or almost complete disagreement with the source text. In these cases, the subjects tended to introduce a wide variety of interpretations that may, or may not, be acceptable to native speaker intuition.

Tables 16 and 17 summarize the findings for Questionnaire III by overall percentages for the type of response, whether accordant or unacceptably alternative. The figures given are the totals for all responses to all stimulus items based on each of the ten modal auxiliaries. As the native speaker sample responses in some instances are in agreement with the source text interpretation, and many times the ESL subjects' responses include more than one modal notion or overtone, the sum of the notions and overtones expressed sometimes exceeds the total number of respondents. These figures merely represent the degree to which ESL learners' comprehension is affected by the complex semantic system of the modal auxiliaries. Further, the interpretation of subjects' responses must, at best, be considered
subjective and, therefore, open to reevaluation by other native speakers. Nevertheless, the last column in Table 17, representing the percentages of alternative interpretations that are unacceptable to native speaker intuition (the writer's), is a fairly accurate appraisal of these ESL subjects' mis-comprehension of the modal concepts intended by the writers of the stimulus items.

Table 16

<table>
<thead>
<tr>
<th>Modal Total Number of Responses</th>
<th>Agreement with Source Text Percentage</th>
<th>Agreement with Native Speaker Percentage</th>
<th>Percent Using Alternative Notions/Overtones</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAN</td>
<td>69</td>
<td>65</td>
<td>68</td>
</tr>
<tr>
<td>COULD</td>
<td>137</td>
<td>47</td>
<td>37</td>
</tr>
<tr>
<td>MAY</td>
<td>35</td>
<td>77</td>
<td>65</td>
</tr>
<tr>
<td>MIGHT</td>
<td>78</td>
<td>45</td>
<td>55</td>
</tr>
<tr>
<td>MUST</td>
<td>162</td>
<td>45</td>
<td>52</td>
</tr>
<tr>
<td>OUGHT</td>
<td>92</td>
<td>60</td>
<td>64</td>
</tr>
<tr>
<td>SHALL</td>
<td>58</td>
<td>76</td>
<td>60</td>
</tr>
<tr>
<td>SHOULD</td>
<td>115</td>
<td>57</td>
<td>63</td>
</tr>
<tr>
<td>WILL</td>
<td>103</td>
<td>65</td>
<td>64</td>
</tr>
<tr>
<td>WOULD</td>
<td>57</td>
<td>63</td>
<td>44</td>
</tr>
<tr>
<td>Totals</td>
<td>906</td>
<td>60%</td>
<td>57%</td>
</tr>
</tbody>
</table>
Table 17

Percentages of Unacceptable Alternative Responses to Questionnaire III

<table>
<thead>
<tr>
<th>Modal</th>
<th>Number of Alternative Responses</th>
<th>Percentage of Alternative Responses Using Unacceptable Notions and/or Overtones</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAN</td>
<td>40</td>
<td>30</td>
</tr>
<tr>
<td>COULD</td>
<td>80</td>
<td>18</td>
</tr>
<tr>
<td>MAY</td>
<td>37</td>
<td>43</td>
</tr>
<tr>
<td>MIGHT</td>
<td>56</td>
<td>55</td>
</tr>
<tr>
<td>MUST</td>
<td>108</td>
<td>22</td>
</tr>
<tr>
<td>OUGHT</td>
<td>61</td>
<td>49</td>
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<td>SHALL</td>
<td>37</td>
<td>24</td>
</tr>
<tr>
<td>SHOULD</td>
<td>101</td>
<td>21</td>
</tr>
<tr>
<td>WILL</td>
<td>106</td>
<td>25</td>
</tr>
<tr>
<td>WOULD</td>
<td>46</td>
<td>54</td>
</tr>
<tr>
<td>Totals</td>
<td>672</td>
<td>28%</td>
</tr>
</tbody>
</table>

4.5 The Post-Test Results

Following the completion of Questionnaire III and the Teaching Unit on modal auxiliaries described in 3.6.1, the 1984-85 Linguistics 099 subjects were asked to complete a Post-Test consisting of 30 sentence completion items drawn from the stimulus sentences on Questionnaire III. The specific rationale for including each stimulus item on the Post-Test is elaborated in sections 4.4.3.1-11. The following sections, organized according to the modal auxiliary used in the stimulus sentence, report on the results for each stimulus item in the Post-Test. For reference and comparison, the discussion of each
sentence is introduced by the stimulus item under consideration, the source text gloss (Source), the native speaker sample interpretation (N.S.) (based on the results to Questionnaire I), the predominant reading for the item as generalized from all ESL responses to Questionnaires II and III (ESL), and a brief restatement of the rationale for including the item on the Post-Test (Inclusion).

4.5.1 Stimulus Items Involving Can

A.

10. You can wash your clothes downstairs.

Source: 'permission granting', N.S.: 'permission', 'ability', 'suggesting'
ESL: source + overtones of 'possibility' and 'ability'
Inclusion: possibility of ambiguity due to diverse notional content

Generally, the ESL subjects' contextualizations of this sentence indicate the speaker's right to place limitations on the use of the washing facilities. In other words, a strong sense of 'permission granting' is retained by the speaker. Subject El's response, "...but don't use all the hot water," and subject E7's "...the was machine is for everyone's use in this house," are examples of this response type. Another common form of completion includes an 'availability-possibility' explanation, such as subject E8's "...because all the washing equipments are get in the basement." Two of the responses indicate a sense of 'suggestion': subject E2's "...all the coin machines were occupied here," and subject Ell's "...if you get some dirty clothes."

Responses such as that by subject Ell, above, clearly demonstrate the difficulty of assigning particular notional or functional intent
to any given use of the modals without contextual elaboration. Sentence completions like that of subject E1 remain ambiguously between 'suggesting' and 'permission granting', just as subject E4's "...because there is a washing machine down there" can be interpreted as implying 'possibility' and 'ability', at least.

The functions 'suggesting' and 'permission granting' plus the notion 'limitating' are used by these subjects to clarify their readings of this stimulus item. Potential ambiguities resulting from the 'possibility' and 'ability' overtones found in the paraphrases to Questionnaire III, Item 59, are resolved by assertions of the relative status of speaker and addressee clarified by the expanded sentences.

B.

28. She can be very catty.

Source: 'ability', 'possibility', 'volition + present'

ESL: source and native speaker readings
Inclusion: check for concurrence in sentence completion task

In their expansions of this stimulus sentence, the ESL subjects tend to give specific circumstances (e.g., "...if she doesn't appreciate what you say about her life" subject E10) or specific topics (e.g., "...about other's marriages" subject E5) when the third person's 'catty' behavior would be evident. Four subjects expand the stimulus item with a simple 'ability' interpretation, for example subject E8's response, "...because is very talkative." Three subjects respond with 'ability-possibility' completions, as demonstrated by subject E11's "...if she is happy." The remaining two responses are written in terms of 'possibility', e.g., "...other people's
weaknesses" (subject ElA) and "...with him" (subject E3). For some reason, three of the most proficient English users in this subject group give no response to this stimulus item. However, for those who do write a completion, the senses of 'probability' and 'ability' intended by the source text, are obviously reenforced by the contextualizations.

4.5.2 Stimulus Items Involving Could

17. We could see the bottom of the lake.

Source: 'sensation', 'possibility', 'tenseless'
N.S.: 'sensation + ability', 'tenseless'
ESL: source '+ past', '+ present'
Inclusion: evaluate temporal assignment to this tenseless use of the modal

The responses to this item proved extremely gratifying. Although all 10 of the ESL subjects who responded to Item 40 on Questionnaire III included a clear indication of temporal marking for could in their paraphrases (seven 'past' and three 'present'), only one of these subjects indicate a time relationship on the Post-Test. (subject E7, "...because the water was extremely clean.") Subjects E4 and E14, neither of whom responded to Questionnaire III, also interpret this use of could as an indication of the 'past'. The remaining eight subjects give contextualizations that completely fit with the source gloss: 'sensation + possibility + tenseless'.

This use of could, in statements of environmental conditions without reference to temporal factors, is one of the modal functions especially demonstrated and practiced during the teaching segment of this applied experiment. The classroom elaboration of this particular
semantic point could be responsible for the subjects' expanded awareness of the pragmatics and implicative structure of could in non-temporal contexts.

4.5.3 Stimulus Items Involving May

A.

1. I may go, but I really don't want to.

Source: 'possibility' N.S.: 'possible'
ESL: source, '1st person volition', 'permission', 'able'
Inclusion: variety of interpretations not in accord with source text or native speaker sample

The responses to this stimulus item indicate some shifts in the subjects' interpretation between its appearance as Item 60 on Questionnaire III and its appearance on the Post-Test. While each of the contextualizations indicates some degree of 'probability', there are no overt readings of 'permission'. The group's responses are also interesting because of the 'volitional' nature of the individual interpretations. In only two instances is the decision to 'remain' clearly an internal and independent choice. Two sentences resort to the 'weather' as the deciding factor, and the remaining responses all implicate an outside individual whose well-being, happiness, or authority is the decisive factor in the speaker's 'not wanting to go'. Typical of this last stance are completions by subject Ell, "...make my girlfriend disappointed," and subject E2, "...I have to study for a quiz tomorrow." This strong reading of 'outside influence on the speaker's decision (82%) is completely lacking in the Questionnaire III responses. In the non-contextualized paraphrases on that survey, the decision 'not to go' unfailingly rests on the speaker's own
judgement. The subjects use such phrases as "I'd rather stay here" (subject E4), "I might change my mind" (subject E12), and "I am not willing to" (subject E11) to express this personal responsibility.

The different natures of the two exercises used to gather data make it difficult to draw any conclusions regarding the apparent shift from first person volition to outside influence. It is unclear whether the change is a reflection of the demands of the survey formats or of the elaboration of modal uses and meanings provided in the Teaching Unit, or is motivated by some other influence.

B.
2. "You may not go out tonight," he said.

Source: 'necessity/obligation' N.S.: 'permission'
ESL: source, native speaker sample, 'possibility'
Inclusion: variety of readings in agreement with the source or the native speaker sample, or with neither of them

In the case of this stimulus sentence, it is difficult to separate the use of may of 'permission' from may of 'necessity/obligation'. 'Permission', according to the ESL responses, seems to be a function of one's fulfillment of obligations. This link is demonstrated by several of the subjects' contextualizations including "...you have to study for a test" written by subject E13, and "...you have to stay with your sister" from subject E10. The contexts of the 'permission' readings appear to evenly divide between actions that will benefit the speaker and those that will benefit the addressee. Speaker related readings include "...nobody look after your brother" written by subject E11, while listener related readings generally deal with homework as in "...but if I finish my homework, maybe he will change his mind," by subject E1.
There are no 'possibility' interpretations in this group of sentence completions. Apparently, none of these subjects feel that the stimulus sentence represents a 'predictive' statement. Subject Ell, one of the three subjects who gave a paraphrase indicating 'possibility' on Questionnaire III, and the only one of the three to respond to both items, gives the 'necessity/obligation' interpretation in the response cited above. Here, as with Item 2 discussed above, the overall pattern of the subjects' responses to the may items on the Post-Test is increased agreement with the readings indicated in the source text.

4.5.4 Stimulus Items Involving Might

A.

5. You might have been hurt.

Source: 'speculation/

N.S.: 'possibility + hypothetical'

ESL: source, native speaker sample, 'possible + past',

'hypothetical'

'possible + future'

Inclusion: confusion over temporal aspect of modal form

While one subject, E10, makes a general 'universal' statement of this stimulus sentence, "...if you don't look before crossing the street," two subjects, E2 and Ell, draw logical conclusions as the contexts for the sentence: "...I can tell by looking at your scar," and "...you got a blue eye," respectively. On the other hand, nine respondents indicate 'past time' in their contextualizations. Of these, nine 'past time' responses, four give contexts that indicate an actual situation, such as, "...but you will only feel it tomorrow" (subject E1), or "...your story sounds like a severe accident"
(subject E7). Others, for example, subject E4 ("...by driving that old truck") and subject E14 ("...if Dr. Travis did not come so promptly") indicate 'speculation + past'. The remaining five responses suggest a past possibility of injury in a 'contrary-to-fact' setting. Subject E5's response is typical of this reading for might: "...if you haven't moved out your hand before the hot water poured on the table."

This stimulus item also appears as Item 29 on the Post-Test to provide an informal check on the reliability of the survey instrument. The responses to the second appearance of the stimulus item differ in two ways from the responses to Item 5, above. First, the contextualizations seem shorter and simpler; second, seven of the given contexts indicate a clearly past and contrary-to-fact condition such as "...if I didn't catch you in time" (subject E13), "...if I didn't come to save you" (subject E11), and "...if you didn't wear your seat belt" (subject E7). Subject E10 again makes a general statement of the stimulus sentence, "...because you jog in the middle of the street," and one subject, E8, makes a 'logical conclusion', "...because you look sick." Finally, one subject, E2, interprets the stimulus sentence as a real 'possibility' and offers a suggestion, "...I advice you to see a doctor right now."

While subjects' contextualizations vary as to 'actual' or 'hypothetical' past interpretations, unlike the responses to this item in Questionnaire III, no one indicates a 'future' time frame for this use of might. In fact, subject E5, whose response had been phrased in the future in Questionnaire III: "You might get hurt", gives specifically 'past' readings for both appearances of this item in the
Post-Test: "...if you didn't get out of that place before they began fighting," and the completion quoted above.

B.

16. You might have apologized.

Source: 'dissatisfaction' N.S.: 'obligation', 'duty'
ESL: native speaker sample, 'unfulfilled expectation',
'advice', 'dissatisfaction with 2nd person performance'
Inclusion: variety of overtones, including those listed above,

In their contextualizations of this stimulus item, seven subjects indicate pure 'dissatisfaction' with the actions of the addressee by setting up a situation in which the addressee has behaved badly and, therefore, owes an apology to a third party. Examples of this reading include "...for not being cooperated with the teacher" by subject E11, "...to the professor for being late" by subject E13, and "...since it was partly your fault" by subject E4. Only two subjects give contexts that indicate the assumption of an actual past apology: "...because you don't look upset no more" (subject E8), and "...but it does not replace the prestige I have lost" (subject E1). Subject E7's "...but it was O.K. you didn't do so" is an example of a contextualization that indicates an apology was appropriate, though not given.

Generally, the subjects' contextualized sentences show a shift away from the overtones that marked their responses to Questionnaire III and toward a reading of simple 'dissatisfaction' with another's behavior. This reading seems to be accomplished without offering overt advice or by making the common ESL misconstrual of might in this setting; that is, the tendency to accept might as an indicator of weak 'possibility + past'.
C.

21. You might let me know.

Source: 'suggestion' N.S.: 'suggestion'
ESL: source and native speaker sample, 'possible + future', 'demand', 'conditionality'
Inclusion: source gloss not in "core" (Coates 1983); ESL interpretations have a stronger sense than both the source text and native speaker sample readings

Whereas the subjects' responses to Questionnaire 111, Item 21 were often phrased with should, must, will, and want, as well as with imperative structures, the contexts given by these respondents in the Post-Test show a definitely less demanding attitude. The overall interpretation is one of 'suggestion' based on the circumstances and desires of the addressee. Subject E3, for example, writes, "...when you are leaving," and subject E7 gives a context with an explanation, "...if you can come to my party or not. It is better for me to know the exact number for the party." Indeed, some of the responses, such as that of subject E4, "...when you are going to be ready," could be given a more demanding or caustic reading under specific circumstances; however, apart from subject E8's completion, "...because the result should be confidential," no obvious imperative or attempt to govern another's actions is evident.

D.

30. He might not be hiding.

Source: 'impossibility' N.S.: 'impossibility'
ESL: source and native speaker sample, 'possibility', 'logical conclusion'
Inclusion: many paraphrases are opposite to stimulus item meaning

This stimulus item involves the only negative modality in the survey. The ESL subjects give two contexts for it on the Post-Test:
they either offer an alternative behavior such as demonstrated by subject E3, "...but ran away," or they give an excuse for why the person can not be found, as for example subject E4's "...we are just not looking for him hard enough." Rather than 'impossibility', these ESL subjects seem to regard this stimulus sentence as representing a 'possibility' tempered with variable conditions that could alter the truth of whether or not 'he' is, in fact, hiding. This interpretation differs somewhat from that of the majority of paraphrases to this item on Questionnaire III. In that situation, most of the ESL respondents gave interpretations that indicate the strong belief in the probability of 'his non-hiding'. This reading is demonstrated by the paraphrases of subjects E2, E9, and E11, cited below from Questionnaire III, Item 71:

E 2 "I don't think he is hiding";
E 9 "He couldn't be hiding";
or E11 "He is not being hide".

4.5.5 Stimulus Items Involving Must

A.

4. That must be my wife.

Source: 'prediction' N.S.: 'logical necessity' ESL: source, native speaker sample, 'possible'
Inclusion: difference in interpretation between source text, native speaker sample, and ESL sample

All of the ESL subjects give contexts for this stimulus sentence in terms of 'logical conclusions' based on some sort of reasoning or experience. Contextualizations such as subject E7's "... she is wearing the same clothes and hat she wore this morning," subject E14's "no one else has a raincoat quite like hers," and subject E8's
"...I can recognize her voice far away," are typical of this group of responses. This pattern of responses differs widely from that of Questionnaire III in which just two subjects, E2 and E3, indicate a sense of 'logical deduction' in paraphrasing the stimulus sentence; the remaining subjects all simply replace must with other modal auxiliaries or peri-phrastic expressions. The subjects' contexts do not indicate pure 'prediction', as the source text expects, but rather a reasoned assessment of the circumstances and characteristics of the third person.

B.
8. I must go now.

Source: 'necessity/obligation - N.S. ; 'necessity + logical' ESL: source, native speaker sample, ' + l  external forces
Inclusion: schism between the source text and native speaker and ESL samples

The contextualized sentence completions by the ESL sample is fairly evenly divided between readings of 'logical necessity' (45%) and 'obligation' (55%). However, the interesting differences between the responses to this item are in the areas of 'volition' and 'benefit'. Whereas all but one paraphrase of this sentence in Questionnaire III are phrased in terms of regulation or rule outside of first person volition, the 'necessity to leave' in the responses to the Post-Test tend to be either explicitly beyond the control of the speaker, e.g., subject E13's "...because I have to catch the bus" [and the schedule is set and beyond my control] or specifically for the benefit of the speaker but due to schedules or other conditions outside the speaker's control. An example of this last reading is subject E8's completion, "...because the movie will be started in a
few minutes" [and I don't wish to miss the beginning] ('1st person volition + outside-conditions').

C.

12. You must come again.

Source: 'obligation/moral duty', 'social but not sincere invitation'

ESL: source, native speaker sample, '+ sincere', '+ obligation'

Inclusion: strong, diverse overtones

All of the completions for this stimulus item are written in the form of an 'invitation'. Some contexts are used to impose a 'moral obligation' on the addressee, for example, subject EB writes, "...because my fever is still bothering me." Other completions involve a threat to the addressee, e.g., "...or else I will not include you in my will" (subject EL4). However, all of the responses constitute real 'invitations' with no implications of negative or 'insincere' feelings on the part of the speaker. A typical response that illustrates the last point is written by subject El: "...we has so much fun together." Must in this instance seems to have been interpreted as 'have to' or 'because you are under a moral obligation', or there exists a 'logical-necessity' to do X. Contrary to the reading implied in the source text, these invitations, while not necessarily involving social activities, are without exception, sincere expressions of the speaker's desire to see the addressee at some future time. Responses to this stimulus item are compared with those to Item 19, "You ought to come again," in section 4.5.6.
D. 18. I must take one tablet after each meal.

Source: 'advice/ advisability' N.S.: 'advice'  
ESL: 'regulation' from outside  
Inclusion: ESL responses are not in accord with either source text or native speaker sample interpretations

The contextualizations of this stimulus sentence demonstrate a shift from the choicelessness imposed by outside forces found in the paraphrases to Item 2 on Questionnaire III. Rather, all of the respondents give contexts that clarify the 'advice' or 'advisability' aspect of the stimulus item as it reflects on the speaker's welfare. Subject E4's context, "...so I would not have a stomachache afterwards," is representative of this 'advisability' reading. Two of the respondents add an overtone of 'logical necessity' to the 'advice' meaning, thus giving sound, self-protective reasons for 'taking the tablets.'

E. 23. John must sleep in the car.

Source: 'logical necessity' N.S.: 'logical necessity'  
ESL: source, 'obligation', 'possible', 'advice'  
Inclusion: variety of notions and overtones in ESL responses

In elaborating this stimulus item, the subjects show a marked tendency to develop the meaning 'logical necessity' plus practical reason. An example of this approach is subject E1's contextualization, "...because he could not afford the rent of hotels." The overtones of 'advice', 'obligation', and 'possibility' expressed in this group's responses to Item 17 on Questionnaire III do not appear in the sentence completion setting. Only one subject, E14, varied from 'logical necessity + reason' by obliquely making
'preference' the basis for John's sleeping location. Given the necessity to elaborate on the idea expressed by the stimulus sentence, that these ESL respondents almost unanimously agree with the source text reading for this 'use of must is demonstrated by the overtly stated pragmatic explanations in their completions.

4.5.6 Stimulus Items Involving Ought

A. 9. I ought to study tonight.

Source: 'advice/advisability' N.S.: 'advisability' ESL: 'obligtion/necessity', 'possibility', 'intention'

Inclusion: ESL expression of notions not intended according to source text

The ESL subjects' responses to this item show a strong association of the notion 'advisability' with that of 'logical necessity'; that is, the respondents tend to introduce their completions with either an if or a because clause: "...if I want to pass the finally examination," by subject E11, and "...because I want to pass the exam tomorrow," by subject E10, are examples of this structure. Other readings implied by the contextualizations include 'advisable + but'. In these elaborations, a choice is presented by the writer: A) "...unless there is something I prefer to do at that time, or B) "...I am so serious about my goal that I will not be distracted from my studies. In other words, the speaker makes a decision regarding his level of commitment to the end goal of the studying.

Here, unlike the range of readings apparent in the paraphrases to Item 29 on Questionnaire III, the ESL subjects express a strong
tendency to view the use of *ought* in this stimulus sentence as a marker of the 'advisability' of pursuing an action to be performed for the speaker's good. The speaker, however, clearly retains the decision-making power intended in the pragmatic reading of the stimulus sentence.

B. Our guests ought to be home by now.

Source: 'probability' N.S.: 'probability'  
ESL: either a definite positive or definite negative assertion  
Inclusion: strength of 'assertion' by ESL subjects

Although the contextualized responses to this item are not generally in accord with the source text reading of 'probability', the elaborations written by the subjects are far less assertive in nature than were the definite positive or negative paraphrases given in response to this item on Questionnaire III. Almost all of the contexts can be analyzed as '...but they aren't here/there yet' as illustrated by subject E13's completion, "...but we are still waiting for them." The other common reading for this item is that of 'logical assumption' or, perhaps, 'possibility', as demonstrated by subject E4's context, "...since they left two hours ago and it's only half an hour drive," or subject E11's "...because they promise me that they come back within two hours." In the latter case, it remains unclear whether the 'guests' have, in fact, fulfilled their promise.

This use of *ought* (speaker expects X to be as stated by an absent third party) seems to be a difficult concept for these ESL subjects. Their contextualizations show a pronounced tendency to treat this usage as 'hypothetical' or 'contrary-to-fact' rather than as
'probable'.

C. 15. I ought to go now.

Source: 'duty' N.S.: 'advisability',
'obligation'
ESL: statement of 'intention'
Inclusion: different notional content for each research population

The ESL readings for this stimulus item vary between 'logical necessity' (six subjects, 55%) and 'obligation' (five subjects, 45%). In at least one instance (the context given by subject E14) the concepts of 'obligation' and 'duty' intertwine: in "...I have invited some friends to spend the weekend with grandmother; I must be there to make sure everything goes well," it is unclear whether the speaker wishes to be present out of a sense of externally dictated 'duty' or internally generated 'obligation'. In regard to 'logical necessity', the typical response refers to an outside immutable reality, such as the lateness of the hour or the scheduling of transportation, that dictates the speaker's need to depart contrary to his personal desire. Although the call of 'duty' might precipitate the need to leave, this is not made obvious in any of the contextualizations examined here. In fact, apart from the response of subject E14, cited above, the use of ought in this setting apparently does not invoke a sense of 'duty' in these ESL students.

D. 19. You ought to come again.

Source: 'obligation', N.S.: 'invitation'
'moral duty'
ESL: source and native speaker sample reading '+ possibility', '+ permission'
Inclusion: variety of interpretations expressed in ESL responses

Like the results to Item 75 on Questionnaire III, the ESL responses to this item are mostly phrased in terms of an 'invitation'. The contextualizations include warmly expressed invitations such as subject E7's "...I will be looking forward to seeing you soon." The four responses that vary from this reading include implications of 'obligation' on the part of the addressee, not the speaker (this is the reverse of the intended implication according to the source text gloss). Subject E11's completion, "...because there're some work you haven't finished," is typical of this notional structure.

These responses can be compared with those to Item 12 (4.5.5.C): "You must come again" which is interpreted by Palmer (1974:120) as a "social but not necessarily sincere invitation." "You ought to come again," also according to Palmer (1974), implies a sincere invitation on the part of the speaker. Whereas the native speaker sample tended to agree with the implicative structure assigned to each of these stimulus sentences by Palmer, the ESL subjects' responses seem to have the reverse implications. That is, must rather than ought is felt to imply the sociable, sincere 'invitation'; ought is used, on the other hand, to express an 'obligatory' or 'duty' bound, or even professionally motivated, suggestion of a visit by the addressee to the speaker.

The reversal of intention of these two modal auxiliaries by the ESL subjects may be a reflection of several factors. One facet of the problem is doubtless the limited exposure of ESL speakers to ought. Its low frequency in both spoken and written English means that
English learners are given inadequate exposure to contextualizing data for this word. Another aspect of the misunderstanding of *ought* is the limited connotative vocabulary generally provided in the classroom/textbook setting for either *must* or *ought*. Both sources tend to stay very close to the "core" meanings and contexts in teaching the modal auxiliary system.

E.

24. The child ought to be reading by now.

Source: 'assertion' N.S.: 'assertion'
ESL: 'obligation/duty', 'requirement', 'immediate expectation'

Inclusion: differences in ESL readings from source text and native speaker sample interpretations

Although the source text gloss for this stimulus sentence is 'assertion', native speakers may well view this item as indicating 'expectation' of reading ability on the part of a given child. The ESL subjects' completions for this stimulus sentence are divided five to six (45% to 55% of the sample) between 'assertion' of ability based on logic (the 'expectation' reading above) and statements of the child's 'obligation' to read. These results do not differ substantially from the ESL responses to Item 67 on Questionnaire III. With the exception of subjects E7 and E8, those individuals whose paraphrases for Questionnaire III suggested 'expectations of ability' give contexts here that read as 'assertions' about the reading skill. If anything, the sense of 'obligation' to read is more pronounced in the Post-Test results. Subject E8, for example, who wrote, "The child must be reading now" (an expression of expectation of ability) in response to Item 67, writes, "...because he has a mid-term tomorrow" on the Post-Test. Apart from the shift away from 'assertion' (toward
'obligation') demonstrated by respondents E7 and E8, the contextualizations given by the ESL subjects parallel the implications of their respective paraphrases given in response to this stimulus item when it appeared on Questionnaire III.


Source: 'advice/ advisability' N.S.: 'advice'
ESL: 'requirement + strong', 'suggestion', 'necessity/ obligation
Inclusion: range of notions at variance with source text

In contrast to the paraphrases given by this group of subjects in response to Item 42 on Questionnaire III, all of the contextualizations for this stimulus sentence are strongly colored by the notion of 'advice' or 'suggestion' based on logic. The responses vary from a weak—suggestion' such as 'that offered by subject E3, "...because it's very interesting," to the strongly worded opinion of subject E14, "...moreover, you ought to read at any case to improve your mind to prevent it from rusing with illiteracy."

These encouraging results may, of course, be entirely due to the expansion of ideas possible in the sentence completion task; however, that every ESL subject's contextualization accords with the intent of the source text, while none of the paraphrases for Questionnaire III did so, raises some interesting speculation. This use of ought is quite different from the usually ascribed notions of 'obligation', 'duty', 'moral or legal restriction'. During the classroom discussion and exercises described in 3.6.1-2, above, various connotations and contextualizations for ought were examined and practiced. It is possible that the respondents were able to incorporate this
elaboration of notions and settings into their pragmatic perception of ought in the context of the stimulus item.

4.5.7 Stimulus Items Involving Shall

A.
14. You shall do exactly as you wish.

Source: 'permission granting', N.S.: 'permission' 'suggesting'
ESL: source, '+ ability', 'necessity/obligation', '2nd person volition'
Inclusion: variety of overtones

Leech and Svartvik's (1975:143) interpretation for this stimulus sentence may represent British, rather than North American, usage. Some native English speakers find the 'permission granting' or 'suggesting' readings somewhat odd. They may regard this sentence more as a 'predictive' used in exasperation: 'You won't take my advice or warning; you shall do exactly as you wish'.

Nevertheless, the ESL group's contextualizations for this stimulus sentence all involve 'permission granting with no negative connotations such as 'despite social or moral standards'. Only three subjects present restrictions on the addressee's actions. Subject El writes, "... as long as it does not 'interfere with my projects;" subject E5 writes, "... however you have to think clearly before you do; " and subject E13 writes, "... once you know what you want to do." The remaining contextualizations can be typified by the words of subject E4, who writes, "... I won't interfere with your decisions any more." The overall sense of this group of contextualizations is the abdication of the speaker's, or society's, right to dictate the actions of the addressee.
This concept is in contrast to the general attitude expressed in the earlier paraphrases, the sense of which might be summed up by subject E6's sentence, "You are allowed to do as you wish." In these sentences, the speaker remains in control, allowing, at his discretion, the addressee's choice of action. Although both groups of responses are 'permission granting', the removal of the speaker's direct discretionary control over the addressee's actions marks movement away from the strict speaker-dominated, textbook-imperative reading of shall. These completions are indicative of a broader pragmatic interpretation of this modal auxiliary.

B.
27. You shall have the money tomorrow.

Source: 'promise', 'threat'  N.S.: 'promise + commitment'
ESL: 'prediction', '1st person commitment', 'promise'
Inclusion: differences between source text and native speaker

All but two respondents interpret this stimulus sentence as a 'promise' of action by the speaker. Of the two differing responses, subject E5 expresses his contextualization in terms of a 'promise' made by a third party, while subject E13 completes the stimulus sentence as a 'predictive assumption': "...when you receive the cheque." Except for this last response, these elaborated contexts agree with the source text gloss of 'promise'. This is in contrast with the paraphrases to Item 39 on Questionnaire III which tended to be 'predictions' rather than speaker 'commitments' to future action. In fact, of the 12 responses to Questionnaire III, only four (33%) mention the speaker as debtor; whereas, of 11 responses to the
Post-Test item, nine (81%) involve the speaker, and one refers to a third party 'promise'.

The use of shall to guarantee one's own act, or 'intention', as well as the notion of 'prediction', fall within the "core" (Coates 1983) of meanings for this modal verb, while the 'promise' interpretation does not. It is not too surprising, therefore, that ESL students should need further input to help clarify the appropriate contexts for each reading.

4.5.8 Stimulus Items Involving Should

22. It's unthinkable that he should resign.

Source: 'hypothetical', N.S.: 'speculation', 'speculation'  
ESL: 'definite future', 'advice + moral necessity', 'not obliged'  
Inclusion: wide range of interpretations by ESL subjects

The responses to this stimulus item do not present a clear picture of the subjects' understanding of its intended meaning. Most of these contextualizations give the impression of meaning, 'I don't believe it because..., but it is true;' however, such an analysis is undermined by the subjects' frequent use of the present perfect tense. If the tense is used correctly (and it may not be in several of these responses) these completions could be interpreted as implying 'It's my opinion that he won't resign' "...because he has always liked his work," according to subject E13, or "...since he has been a key innovator in establishing contracts for our business empire" (from subject E14), or "...[because] I know how much he has inject in this project" (from subject E1). The degree of TRUTH or 'speculation' felt
by the speakers is uncertain in each of these completions.

The sentence completion format appears to provide an inadequate context for the disambiguation of these response sentences. The resulting structures are not sufficiently elaborated to permit any judgement regarding the belief scale of the respondents' interpretations of the use of should in this context.

While the contextualizations make it certain that should has not been interpreted either as 'advice giving' to establish correct procedure, or as noting 'duty' or 'obligation' (Coates 1983), they also fail to clarify whether or not the third party has resigned or even plans to do so.

4.5.9 Stimulus Items Involving Will

A. Will we dance?

Source: 'interrogative' N.S.: 'interrogative + present'
ESL: source text, '+ possibility', '+ future', 'invitation + present'
Inclusion: ambiguity of ESL responses

Five of the 11 respondents (45%) interpret this use of will to be an 'invitation', either to dance immediately, "...before the music stops" (subject E4), or in the near future, "...the first waltz" (subject E4). The remaining subjects give the question a more global reading, demonstrated by subject E14 "...after 7 o'clock in order to celebrate the 4th of July."

A comparison of these subjects' responses to this item and their paraphrases to the same sentence on Questionnaire III (Item 52) shows
that while no subject amended his interpretation from 'invitation' to 'interrogative', two subjects (E4 and E8) changed from 'interrogative' on the Questionnaire to 'invitation' on the Post-Test. It may not be possible at this point to explain these individuals' responses other than to say that the contextualizations are so ambiguous in nature that without further elaboration it is possible to misinterpret the directly personal appearance of the Post-Test completions. Subject E4 wrote, "Would we be able to dance?" on the Questionnaire and "...the first waltz?" on the Post-Test. Subject E8 wrote "Are we going to dance?" on the Questionnaire and "...this is a good one" on the Post-Test. On the other hand, the completion responses from subjects E2, E7, and E5 (for example E5's "...before the music stops?") are clearly termed as specifically 'invitation + present'.

The use of Will we dance? as a paraphrase of Are we going to dance? may be unacceptable to many native English speakers. An acceptable contextualization would generally include an allusion to a specific future time or event (e.g., 'later', 'at the party tonight', 'at the New Year's Eve party', and so on). However, the contrast under investigation in this stimulus item is the ESL learner's pragmatic comprehension of will vs. shall. The evidence from these responses clearly suggests that ESL learners, even at the most advanced level, do not always process the intended distinction in the use of these two modal verbs in this context.

These misinterpretations presumably stem from the ESL student's mixed understanding of the notional content carried by will and shall in their historical and textbook paradigmatic uses. The ESL subjects
apparently interpret the question, "Will we dance?" as 'Do you want to
dance with me? = Shall we dance?' Thus, they read will as the 2nd
person non-imperative form. For whatever reason, these ESL learners
have over-extended the connotative structure of will to include a
context which is generally unacceptable to native speakers.

B.
7. You will understand that this is strictly confidential.

Source: 'assumption + present' N.S.: 'assumption present'
ESL: source text and native speaker sample, '+ future',
'duty', 'reason'
Inclusion: disparity of overtones, confusion over tense

The ESL subjects continue to be divided about the appropriate
interpretation of this use of will. While three individuals (30% of
the sample) correctly interpret the stimulus sentence as an
'assumption', seven subjects (70%) give contextualizations that
indicate 'advice', and of these, four (57%) add an overtone of
'threat'. Examples of this last reading include subject El0's
completion, "...if somebody saw this document I will lost my job," and
subject Ell's words, "...you were in trouble if anyone else knows it."

Although the paraphrases for this item vary in their tense
marking to include 'past', 'present' and 'future', the stimulus item
on the Post-Test is almost unanimously interpreted as in the present
time, with only two future readings (20%) among the responses.
Apparently, whereas most of these subjects correctly understand that
will, in this instance, is not a marker of tense, some of them have
yet to acquire full pragmatic comprehension of the modal verb in this
context. On the other hand, if a broader, and perhaps to many native
English speakers, more acceptable reading of 'imperative' ([Please] understand that this is...) is applied to this stimulus sentence; the ESL completions that incorporate a sense of 'threat' are acceptable reflections of the intended modality of the stimulus item.

C.

13. You will have heard that I am going to America.

Source: 'assumption' N.S.: 'assumption ESL: source text and native speaker interpretations '+ interrogative', '+ future', 'negative + past'
Inclusion: variety of overtones in ESL responses

The ESL completions for this stimulus sentence are unanimously written as 'assumptions'. The subjects' tense marking is largely correct, with nine past (82%) and two (18%) future contexts. The two completions with 'future' aspect both comment on an event yet to take place and offer an explanation: in the words of subject E11, "...when I will already have started my voyage," and of subject E14, "...by the time Channel 5 announces it." Both of these structures are peculiar in that they relay the message implied by the stimulus sentence but express the idea that the addressee will not know the message until some future moment. In fact, what these two respondents are attempting to express in their completions remains unclear to this reader.

Other than the two subjects who apparently misconstrue this use of will as a mark of 'futurity', these ESL subjects seem to be aware that will is an element of the future perfect structure and that this construction can be used to express an 'assertion' of knowledge gained in the past.
D. 20. Be careful or you will fall on the ice.

Source: 'possibility' N.S.: 'possibility'
ESL: 'prediction + hypothetical', '+ advice', '+ warning',
    '+ assertion', 'warning', 'advice', 'assertion'
Inclusion: array of notions and overtones expressed by ESL
    subjects

Seven respondents (64%) contextualize this stimulus sentence as a
'possibility' with a logical explanation. An example of this
interpretation is subject E5's completion: "...the road is very
slippery now." Four subjects (36%) use a 'possibility + hypothetical'
circumstances reading such as that of subject E14: "...and hurt
yourself." The overtones found in the earlier paraphrases are not
apparent in the elaborated contexts of the Post-Test. This use of
will is not interpreted as a 'prediction' or an 'inevitable event',
but rather as the possible result of careless action or insufficient
cautions given to a situation that is beyond human control.

E. 25. Will you come?

Source: 'invitation' N.S.: 'invitation', '2nd
person volition'
ESL: source text and native speaker sample, 'interrogative'
Inclusion: schism within native speaker and ESL samples'
responses

The ESL subjects appear to interpret this stimulus item as either
an 'invitation', as suggested by subject E2's completion, "...to my
house this Christmas?" or as an 'interrogative' used to ascertain
particulars about the speaker's arrangements, e.g., subject E7's
contextualization, "...and pick me up at school this afternoon because
I don't have any other way to go home today?" A few of the 'interrogatives' can be said to incorporate overtones of '2nd person volition', such as subject E10's "...with us to the party next week?" This is a question which seems more like arrangements made at the will of the addressee than an 'invitation' or an 'offer' suggested by the speaker.

Although eight respondents (73%) agree with the contextualization of the stimulus sentence as an 'invitation', the interpretation of will as an expression of 'interrogation' about the addressee's volition is not inaccurate among native English speakers surveyed. "Will you come?" can certainly be said in exasperation to denote just that thought: 'Are you willing to leave X and accompany me to Y, NOW?'

4.5.10 Stimulus Sentences Involving Would

3. They would ask all kinds of questions


Inclusion: wide range of notional and temporal readings

The ESL contextualizations for this stimulus sentence show a diverse range of aspectual settings that includes one subjunctive reading (7% of the sample), one past (7%), and three present (21%) time readings, as well as eight (57%) habitual actions. These respondents tend to interpret this sentence as describing an 'habitual action' in the non-past. Subject E13 (a student well-versed in the use of tenses), for example, writes, "...once they start the cross-examination," and subject E7 writes, "...they are very studious
and curious students." The interpretation of would as a marker of 'habitual action' rather than past action is similar to the treatment of this modal auxiliary in the paraphrases written by these subjects in response to this item on Questionnaire III (Item 43). Although specifically taught as the past tense form of will, the high frequency of would in both the spoken and written language must have provided these ESL students with sufficient input to make a close to native-like pragmatic judgement about its interpretation in this usage.

4.5.11 Summary

In some instances (Items 1, 17, 23, and 26, for example) the results of the Post-Test show that these ESL subjects have used modal notions in their completions that are very close, or even identical, to the meanings understood by the native speaker sample and/or indicated by the source text gloss. Sometimes, the shift toward a more acceptable meaning is small: a levelling of temporal aspect as in Item 5, or a 'softening' of the perceived level of 'necessity' to 'suggestion' or 'advice' as in Item 26. The subjectivity of the topic and the differences between the two survey tasks used in Questionnaire III and the Post-Test make it difficult to gauge the changes and shifts with any precision; however, the overall impression of the results of the analyses of the two sets of responses is that of movement toward greater acceptability of the ESL subjects' expression of the modal notions intended by the authors of the stimulus sentences.
It is premature to posit with any certainty that these changes in interpretation are the direct result of teaching modal auxiliaries as an exercise in semantic structure. The results of the Post-Test seem to indicate that the subjects were able to move away from the "core" of modal uses and to correctly interpret the connotative messages of several stimulus items, which they had previously improperly, or partially, understood. The results also indicate that the higher the frequency of the modal auxiliary's occurrence in natural language situations, the more likely it is that the ESL learner will gain full control of the implicative structure of the modal verb.

4.6 The Scalar Evaluation (SE)

As part of the collection of the data base for this study on the pragmatic comprehension of modal auxiliaries by advanced level ESL learners, 40 ESL subjects and eight native English speakers were asked to rate a variety of stimulus items for their gradience of meaning and their level of use and acceptability. The complete Scalar Evaluation Sheet is located in Appendix V. Each of the five question groups found in the SE are based on the work of one or more authority in modal auxiliary research and English grammar. With the exception of Hannah (1975), whose work involves a survey of the writing of native English speakers in the Los Angeles area, the 'scales of likelihood' posited in the works of the scholars cited in Chapter 3 and used in the Scalar Evaluation, have their basis in the empirical experience and native intuition of each writer. However arrived at, the 'scales' provide a useful standard of native usage against which the rank
ordering of the ESL subjects can be conveniently compared. Further, the use of these 'scales' precludes reliance on the writer's native intuition, alone. The subjects' responses to the five groups of stimulus items are analyzed and compared by subject population in the following sections.

4.6.1 Temporal Conceptualizations: Item 1

Zandvoort's (1965) assessment of the temporal implications of the stimulus sentence:

He was fifty-nine years of age, and would be sixty next year (Zandvoort 1965:76).

held true for the majority of ESL users surveyed. Sixteen of the 22 ELP subjects (73%) and seven of the eleven 1984-85 Linguistics 099 subjects (64%) reported that the statement referred to the 'past'; however, one ELP respondent (5%) and four 099 respondents (36%) selected the 'future' option, and five ELP subjects (23%) felt that the time of reference was the 'present'. On the other hand, only five of the eight individuals in the native speaking validation group (63%) interpreted this sentence with a 'past' meaning. The others thought that the implied time frame was the 'present'. Table 18 summarizes these results.
Table 18

Subjects' Responses to SE Item 1
*Actual Past Time Frame

Percent by Group!

<table>
<thead>
<tr>
<th></th>
<th>Native Speakers</th>
<th>ESL Test '84</th>
<th>ELP 84-85</th>
<th>O99</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. We are discussing the present</td>
<td>44%</td>
<td>43%</td>
<td>23%</td>
<td>--</td>
</tr>
<tr>
<td>B. We are discussing the future</td>
<td>--</td>
<td>57%</td>
<td>--</td>
<td>36%</td>
</tr>
<tr>
<td>C. We are discussing the past*</td>
<td>56%</td>
<td>--</td>
<td>73%</td>
<td>64%</td>
</tr>
</tbody>
</table>

Totals 100% 100% 96% 100%

1Not all totals equal 100% as not every subject responded to every item.

4.6.2 Scales of Likelihood: Items 2, 3, and 4

4.6.2.1 Item 2

Item 2, based on the work of Huang (1969) and Hermerén (1978), asks the respondents to rank the modals in the stimulus frame:

He ___ MA tomorrow

on a scale of 1-9: 1 for 'least certain' through 9 for 'most certain'. The tables found in Appendix X use Close's (1975) rank order of the certainty gradience of the modals and give the percentage of respondents in each subject group that ranked each modal at each of
the nine scalar positions suggested by Close (1975:273):

<table>
<thead>
<tr>
<th>Uncertain</th>
<th>Certain</th>
</tr>
</thead>
<tbody>
<tr>
<td>might</td>
<td>must</td>
</tr>
<tr>
<td>may</td>
<td>'That must be George'</td>
</tr>
<tr>
<td>could</td>
<td></td>
</tr>
<tr>
<td>can</td>
<td></td>
</tr>
<tr>
<td>should</td>
<td></td>
</tr>
<tr>
<td>ought to</td>
<td></td>
</tr>
<tr>
<td>would</td>
<td></td>
</tr>
<tr>
<td>will</td>
<td></td>
</tr>
</tbody>
</table>

The figures in these tables suggest some interesting differences in the rank order of the modal auxiliaries as proposed by Close and as graded by both the native speaking and ESL subjects. Although there is evidence of widely differing interpretations of the modal intention of the stimulus sentences, there is also some evidence of response groupings which reveal a certain amount of concensus about meanings, at least within a specific group of subjects.

**Might** (ranked one 'least certain', by Close) is rated at four or lower by all but 11 of the subjects (89%). Seven of those who rate it at six-to-eight are from the ELP Francophone group; the 099 subject that rates **might** at 9 ('most certain'), also a French speaker (B10), made the notation "past" beside the stimulus sentence. This is an indication of misconstrual of the intent of the stimulus item; perhaps the subject interpreted the structure as a definite past action, completed and sure.

**May** (ranked two by Close) is generally rated no higher than four by the subjects; although seven subjects (almost 33% of the ESL group) rank it higher ('more certain'). It is interesting that in accord with the source texts, all but one member of the native speaker group
(a first year university student, Al), rank this modal at either one or two, the 'least certain' end of the scale.

It is clear that could (ranked three by Close) is not considered as 'very certain' by the majority of subjects in this study. In this instance, the native speakers are in relative agreement with the source texts, rating could from three-to-five (with one subject, A6, a grade 12 student, giving a rank of seven). The ESL subjects' responses also tend to concentrate in the mid-range of the scale with the predominance of ratings between one and five. Seven (33%) of the ELP subjects rate could at four, while the 099 subjects rank the modal all the way from one-to-eight; however, 75% of them give ratings between one and four. The two 1983-84 Linguistics 099 students in the ESL test group rate could at one and at three. The remaining responses in that group are well spread over the scale with a low of one and high of seven. This constitutes quite a range of comprehension of the modal intention of the stimulus item.

The grading of can (ranked four by Close) ranges over the entire scale in all three ESL subject groups, while the native speaker group's responses are on the 'more certain' end of the mid-range. Four ratings (50% of the native speaker responses) are eights, and 98% of this group's ratings are between five and eight. The 099 group favors the 'less certain' range with nine of the responses (69%) ranking it at three or below. On the other hand, the ELP group gives ratings between one and eight; however, 55% fall within the three-to-five mid-scale gradient.

Like can, should (ranked five by Close) and ought (ranked six by
Close) also show considerable spread in their rankings, with only 10% of the respondents ranking them in agreement with the source texts. Many ESL respondents seem to feel that these two modal verbs imply significantly more 'certainty' than either the source texts or the native speaker group does. Among the native speakers, only three subjects (38%) rate should higher than five, and none rate ought higher than six. On the other hand, 70% (26 out of 37) of the ESL respondents rate should at six or higher, and 45% (18 out of 40) of the ESL respondents rate ought at seven or higher.

The rating of would (ranked seven by Close) suggests that this modal verb could cause a lot of confusion for English users as responses in almost every subject group cover the entire scale; even so, 88% of the ratings are below seven. Native speakers, as well as ESL respondents, apparently perceive would as less 'certain' than Close (1975) suggests should be the case. In fact, only three of the 38 responses by ESL speakers (13%) are in the seven-to-nine range.

Will (ranked eight by Close), seems to offer the least potential confusion of any of the modals rated in this item. The large majority of responses place will at eight or nine on the scale. In fact, all but nine responses (i.e., 81% of the responses) rate will at seven or higher.

Of particular interest is the comparison of the ranking of will and must (respectively ranked eight and nine by Close) by all subjects, and especially by the native speaker group. Whereas will is rated at eight or nine by almost all respondents, must is rated at nine by only 14 (30%) of the respondents; no native speaker ranks must
higher than eight. Among the other subject groups, the two 099 subjects included in the ESL validation (ESL Test) group rank must at nine. And while seven (33%) of the ELP responses and five (45%) of the 099 responses rank the modal at nine, the remaining responses are spread widely over the scale with a noticeable tendency to rate must at the higher 'more certain' end. It appears that will, rather than must, carries the force of 'certainty' for most of these English users.

Table 19 represents a synthesis of the information contained in the foregoing discussion. The nine modals are numbered in relative rank order by subject group according to the majority scalar ratings. The figures in this table are intended only to indicate the trend of ratings within a given subject group, rather than to represent a definitive rating scale for that group. Refer to Appendix X for a more detailed analysis of these results.
### Table 19

Relative Ranking of Modals by Subject Groups

<table>
<thead>
<tr>
<th>Modal</th>
<th>Close</th>
<th>Native</th>
<th>ESL</th>
<th>ELP - 099</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Speaker</td>
<td>Test 1984</td>
<td>1984-85</td>
<td></td>
</tr>
<tr>
<td>MIGHT</td>
<td>1/2</td>
<td>4</td>
<td>1</td>
<td>1-4</td>
</tr>
<tr>
<td>MAY</td>
<td>1/2</td>
<td>3</td>
<td>1/2/5</td>
<td>1-6</td>
</tr>
<tr>
<td>COULD</td>
<td>3-5</td>
<td>1/2</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>CAN</td>
<td>8</td>
<td>7*</td>
<td>3/5</td>
<td>1-3</td>
</tr>
<tr>
<td>SHOULD</td>
<td>4-6</td>
<td>6*</td>
<td>6-8</td>
<td>7*</td>
</tr>
<tr>
<td>OUGHT</td>
<td>2-4</td>
<td>8*</td>
<td>1-9</td>
<td>7*</td>
</tr>
<tr>
<td>WOULD</td>
<td>6*</td>
<td>1</td>
<td>2</td>
<td>5-7</td>
</tr>
<tr>
<td>WILL</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>MUST</td>
<td>7/8</td>
<td>5/9</td>
<td>8/9</td>
<td>8/9</td>
</tr>
</tbody>
</table>

*As there is no clear majority, this figure is based on the center of concentration of assessments.

#### 4.6.2.2 Item 3

Item 3 on the SE extends the "Scale of Likelihood" suggested by Diver (1964) to include might, could, and will, while it excludes do. These three additional modal auxiliaries are considered in these results in relation to the rank order suggested in Close (1975). The respondents were asked to answer the question:

> How likely am I to study?

by ranking the given modal verbs from 1, 'least likely' to 7, 'most likely'. The subjects responses were analyzed according to the 'scale of likelihood' given below. Appendix XI presents this analysis as
percentages by subject population in tabular form.

'Scale of Likelihood'

<table>
<thead>
<tr>
<th>do</th>
<th>'certain'</th>
</tr>
</thead>
<tbody>
<tr>
<td>must</td>
<td>'very likely'</td>
</tr>
<tr>
<td>should</td>
<td>'more than likely'</td>
</tr>
<tr>
<td>may</td>
<td>'less than likely'</td>
</tr>
<tr>
<td>can</td>
<td>'possible'</td>
</tr>
</tbody>
</table>

(from Diver 1964:330-332)

As in the results to Item 2, the ranking of must among all the groups tested indicates that a strong implication of 'likelihood' or 'certainty' is inherent in the use of this modal. Whereas no respondents in the native speaker group rate must at seven ('most likely'), almost all (83%) rank it at six, with the remaining respondent ranking it at five. While the two 099 students included in the ESL test group rate must at seven, most of the other subjects in this group (57%) rate it at five. The ELP subjects clearly feel that must implies strong 'likelihood', with all but four (i.e., 81% of the sample) ranking it at six or seven; all but two (81%) of the 099 subjects also rank must at either six or seven. This result accords with the ESL responses to Item 2, in which 76% of the respondents rank must at either eight or nine, 'most certain'.

The vagueness of should (ranked five of nine by Close and three of five by Diver) is evident in the wide spread of responses in every group surveyed. Even the native speakers' responses range from two to six, with a small concentration at five. Both the ELP and 099 groups extend their ratings to the seven level, with their heaviest concentrations at the two-to-six and five-to-seven levels,
May also displays a wide range of responses. Although the native speakers place it mid-scale, in the two-to-five range, the ESL groups tend to go for the lower range of one-through-four. The ELP group shows the widest spread of grading, including two ratings at seven; although seventeen (81%) are in the one-to-four range.

Whereas the native speaker group places can fairly low on the 'likelihood scale' (one-to-three), the ESL groups tend to perceive this modal at a higher level of 'likelihood'. Several ESL responses fall in the mid-scale (two-to-five) range. In fact, only three responses (all O99 level) are placed at one. Close (1975) places can at four on a nine position scale, and this rating is in accord with the results on this stimulus item; however, according to Table 19 (see 4.6.3.1) most respondents rate can at considerably higher (seven and eight) or somewhat lower (two and three) than this mid-range assessment.

The three modals added from the Close (1975) scale are ranked by all but the ESL test group in the expected order: (least to most certain) might, could, will. Will is clearly considered the 'most likely' for all groups. The native speakers unanimously rank will at seven, while 57% (four of seven) of the ESL Test group, and 52% of the ELP and 33% of the O99 groups rate it at that level. When both six and seven rankings are included in the count, indicating a trend of increasing 'likelihood', the percentages of 'high likelihood' responses rise dramatically to 71% of the ESL Test and ELP groups and 56% of the O99 group.
Could and might are actually little differentiated in terms of 'likelihood' according to the responses of both the ELP and 099 groups. Table 20 indicates that might is rated only slightly less 'likely' than could by subjects in both of these groups.

Table 20

Comparison of Ratings of Might and Could by ELP and 099 Subject Groups

<table>
<thead>
<tr>
<th></th>
<th>ELP</th>
<th></th>
<th>O99</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MIGHT</td>
<td>COULD</td>
<td>LIKELY</td>
<td>MIGHT</td>
<td>COULD</td>
</tr>
<tr>
<td></td>
<td>count</td>
<td>%</td>
<td>count</td>
<td>%</td>
<td>count</td>
</tr>
<tr>
<td>1</td>
<td>9</td>
<td>43</td>
<td>5</td>
<td>25</td>
<td>'least'</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>14</td>
<td>3</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>19</td>
<td>4</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>19</td>
<td>4</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>--</td>
<td>--</td>
<td>3</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>'most'</td>
</tr>
</tbody>
</table>

Totals 21 100% 20 100% 11 99% 11 99%

On the other hand, the ESL Test group, with the exception of the two Linguistics 099 students from 1983-84, show a tendency to rate could as 'less likely' than might. This trend is demonstrated in Table 21.
Table 21

Rankings of Could and Might by ESL Test Group

<table>
<thead>
<tr>
<th>Rank</th>
<th>COULD</th>
<th></th>
<th>%</th>
<th>MIGHT</th>
<th></th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>count</td>
<td></td>
<td></td>
<td>count</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'least likely'</td>
<td>1</td>
<td>3</td>
<td>43</td>
<td>2</td>
<td>29 (0.99)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1</td>
<td>14</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>2</td>
<td>29</td>
<td>2</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>--</td>
<td>--</td>
<td>1</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>--</td>
<td>--</td>
<td>1</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>'most likely'</td>
<td>7</td>
<td>1</td>
<td>14</td>
<td>1</td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

Totals | 7 | 100% | 7 | 100%

Tables 22a and b are syntheses of the relative ranking given to each modal auxiliary by each subject group responding to Item 3. The rankings indicate the general tendency within the test groups; they are not intended to represent definitive 'scales of likelihood'.
### Table 22a

Relative Ranking of Modals in Item 3 by Subject Groups

<table>
<thead>
<tr>
<th></th>
<th>Diver (1964)</th>
<th>Native Speaker</th>
<th>ESL Test</th>
<th>ELP '84</th>
<th>099 84-85</th>
</tr>
</thead>
<tbody>
<tr>
<td>'most likely'</td>
<td>must</td>
<td>6</td>
<td>5</td>
<td>6/7</td>
<td>6/7</td>
</tr>
<tr>
<td></td>
<td>should</td>
<td>5</td>
<td>6</td>
<td>2-6</td>
<td>5-7</td>
</tr>
<tr>
<td></td>
<td>may</td>
<td>2-4</td>
<td>3</td>
<td>1-3</td>
<td></td>
</tr>
<tr>
<td>'least likely'</td>
<td>can</td>
<td>1-3</td>
<td>2</td>
<td>2-5</td>
<td>1-5</td>
</tr>
</tbody>
</table>

Close (1975)

|         | 'most likely' | will     | 7        | 7       | 5-7       | 5-7       |
|         | could        | 4        | 1        | 1-5     | 1/2-4/6   |
| 'least likely' | might     | 1-5     | 1(099)/4 | 1-4    | 1/2       |

### Table 22b

Relative Ranking of Modals in Item 3 Based on Range of Responses

<table>
<thead>
<tr>
<th>Native Speakers</th>
<th>ESL Test</th>
<th>ELP '84</th>
<th>099 84-85</th>
</tr>
</thead>
<tbody>
<tr>
<td>can/might</td>
<td>could</td>
<td>might</td>
<td>might</td>
</tr>
<tr>
<td>may</td>
<td>can</td>
<td>could/may</td>
<td>may</td>
</tr>
<tr>
<td>could</td>
<td>may</td>
<td>can</td>
<td>can</td>
</tr>
<tr>
<td>should</td>
<td>might</td>
<td>should</td>
<td>could</td>
</tr>
<tr>
<td>must</td>
<td>must</td>
<td>will</td>
<td>should/will</td>
</tr>
<tr>
<td>will</td>
<td>should</td>
<td>must</td>
<td>must</td>
</tr>
</tbody>
</table>
4.6.2.3 Item 4

Item 4 on the SE was intended as a test of Hannah's (1975) rating of 'degrees of probability'. Ranked, according to Hannah, from 'least' to 'most probable', the modal auxiliaries are listed:

- could, might, may, should, must, will.

In response to the question:

How probable is it that I will pass this course?

the subjects were asked to rank the given modal auxiliaries from 1 for 'least probable' to 6 for 'most probable'. The percentage analyses of the subjects' responses are given by modal verb and subject group in Appendix XII.

The analysis of the subjects' rankings of both will and must strongly supports their interpretation as 'highly probable' among all the groups tested. Unlike Close (1975), however, Hannah (1975:56) places will at a higher level of probability (likelihood, possibility) than must, and this rating seems to be more in accord with the usage of these subjects. This observation is corroborated by the results of SE Items 2 and 3. In fact, with the exception of one highschool student (A6), who opts for must in position six and places will at one, all native speakers surveyed rate will at six. Among the ESL subjects, 74% place will at six, while only 31% rate must at that position. Must is ranked at five by 50% of the native speaking subjects and 40% of the ESL subjects. Its placement is less clear than that of will in that its ranking ranges from four through six in all but the 099 group. Nonetheless, the results clearly indicate that the use of must represents a fairly high 'degree of probability' for
most of these respondents.

The ratings of should are generally mid-range on the scale. The native speakers apparently perceive it as less than definite, yet clearly not improbable. The majority of responses for all of the ESL groups also falls in the mid-scale area, between two and five, with 69% at either four or five. The one O99 subject (E3) who rates should at six, rates all of the modals in this item at either five or six, thus placing should at a level of probability equal to that of will, must, and could. That Items 2 and 3 were ranked by this subject along the full scale as given implies that in this stimulus frame, for this person, these modals actually do represent equal levels of probability.

With the exception of the five ELP subjects who rated it at 1, may is clearly a mid-range modal. There is greater agreement than usual across all the subject groups with Hannah's rank placement of may at three; 39% of all responses place may in that position. When both two and three rankings are included, 50% of the native speakers, 80% of the ESL Test group, 60% of the ELP respondents, and 58% of the O99 group apparently consider may as not very 'probable', but not totally unlikely.

Contrary to Hannah's findings, in the present study, more individuals consider could than might to be 'least probable' in connotation. While six native speakers (75% of the sample) and 27 ESL respondents (71% of all ESL subjects) rank might at either one or two, only four native speakers (50%) and 16 ESL subjects (42%) rate could at less than three. The wide range of ranking for could among ESL
respondents covers from six (for both the ESL Test and O99 groups) to one (among all groups). The majority of ESL Test and O99 respondents' rank could as a mid-scale modal: 71% of the ELP group and 83% of the O99 group rate could between two and five. The native speakers, on the other hand, all rate could at three or less (predominately at three); whereas this group rates might at one or two or four (predominately at one-two).

Within this SE item, might is clearly considered to be generally 'less probable' than is could both by native speaking and ESL groups. This ranking is in accord with the results of the scalar levelling of these two modals in Items 2 and 3 of the SE. Table 23 summarizes the scalar evaluations of might and could by the subject groups in Items 2, 3, and 4.

Table 23

Scalar Evaluations of Could and Might in Items 2, 3, and 4

<table>
<thead>
<tr>
<th></th>
<th>Item 2</th>
<th></th>
<th>Item 3</th>
<th></th>
<th>Item 4</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MIGHT</td>
<td>COULD</td>
<td>MIGHT</td>
<td>COULD</td>
<td>MIGHT</td>
<td>COULD</td>
</tr>
<tr>
<td>Native Speakers</td>
<td>1/2</td>
<td>3-5</td>
<td>1-5</td>
<td>4</td>
<td>1/2</td>
<td>1/3</td>
</tr>
<tr>
<td>ESL TEST</td>
<td>4</td>
<td>1/2</td>
<td>1/4</td>
<td>1</td>
<td>1/5</td>
<td>1/6</td>
</tr>
<tr>
<td>ELP '84</td>
<td>1</td>
<td>4</td>
<td>1-4</td>
<td>1-5</td>
<td>1/2</td>
<td>1-3</td>
</tr>
<tr>
<td>O99 84-85</td>
<td>1-4</td>
<td>2</td>
<td>1/2</td>
<td>1/2-4/6</td>
<td>1-3</td>
<td>2-4</td>
</tr>
</tbody>
</table>
These ratings are relative to the range of modals presented in each stimulus item. However, they do indicate that in terms of evaluative interpretation, as Hannah suggests, the use of might indicates a lower level of 'probability' than does the use of could.

4.6.3 The Honorific Use of Modals: Item 5

Item 5 on the SE consists of 15 stimulus sentences and seven possible interpersonal relationships. The subjects were asked to identify the relationships that would be appropriate for each of the stimulus sentences. The subjects' choices regarding these stimulus frames offer insight to their pragmatic understanding of the modal verbs on at least two dimensions: their evaluation of appropriate uses for each structure, and the comparison of subjects' evaluation of appropriate choices across items within each of the five sub-groups of the stimulus items included. The seven relationships suggested to the respondents included a variety of situations that would call for verbal interaction:

A. Parent to Child Superior to Inferior (S/I)
B. Adult to Adult Equals (E)
C. Student to Teacher Inferior to Superior (I/S)
D. Employer to Employee Superior to Inferior (S/I)
E. Friend to Friend Equals (E)
F. Husband to Wife Male to Female (M/F)
G. Wife to Husband Female to Male (F/M)

A category of 'other' with 'space to elaborate was also provided. Appendix XIII lists the responses of the subjects in each test group, for each stimulus sentence, by percentages. In the following discussion, the subjects' responses are analyzed and summarized, and
inferences regarding the subjects' modal conceptualizations are made. The discussion is organized according to the five sub-groups of the stimulus sentences. The actual SE items and their source texts are found in Appendix V.

4.6.3.1 Peel the Potatoes: sub-group 1

1. Peel these potatoes.
2. Will you peel these potatoes?
3. Would you peel these potatoes?
4. I wonder if you would be good enough to peel these potatoes?

The native speakers clearly see Number 1, the imperative structure, as usable only from a Superior to an Inferior. While the ESL groups agree with the S/I rating, they tend to show a slightly wider range of acceptable uses for this structure. The ELP group is the only one to mark the imperative's acceptability for use between Husband and Wife as a strong-possibility; here, they rate Wife to Husband as slightly more acceptable than a the reverse. The 099 group's strongest area of acceptability seems to be between Employer and Employee. The overall pattern of acceptability, among all four test groups, is that of Superior to Inferior (S/I).

The use of will in the stimulus sentence changes the results considerably. All groups give strong indications of acceptability for this structure's use between Husband and Wife (M/F) and from Parent to Child (S/I). The ESL Test group's results clearly indicate that, for them, this form is not usable from Student to Teacher (I/S) or from Employer to Employee (S/I); although one can only guess at the reasons for this rating since the interpersonal relationships vary
considerably. The 099 results essentially parallel those of the ELP; however, the 099 group has a slightly stronger acceptance of this form used between Equals (E).

The use of would also changes the range of acceptability. All groups feel that this structure is especially suitable between Equals. The ESL groups seem to find this form of the request more acceptable from Wife to Husband (F/M) than from Husband to Wife (M/F). And while the ELP and 099 groups apparently can use this form in almost any situation, they clearly show a preference for it between Equals. Several subjects noted that the would form is "more polite."

While some may feel that Sentence 4, "I wonder if you would...," fits into the realm of 'things I'd never say or hear', (it appears in two source texts: Leech 1980 and Searle 1969) it seems to be acceptable usage to the ESL groups in this survey in all of the interpersonal relationships suggested. The 099 group rates it very low between Husband and Wife (M/F); in fact, subject E2 remarks that this form is used "when joking," and ELP subject D9 also considers it to be "teasing." Another ELP subject, D12, observes that this form is used by "persons who don't have a good relationship." The ESL Test group finds Number 4 particularly acceptable from Parent to Child (S/L). The native speakers surveyed for this study, on the other hand, are less accepting of this form, reserving it for discourse between Equals, although one must doubt if even in that circumstance it would occur to many native speakers to use it.

A comparison of the results for the four stimulus items shows that, except for the ELP group, all test groups give the widest
acceptability to the use of will. For the ELP subjects, Number 3, using would rates only one count higher than either Sentence 2 (will) or Sentence 4. (I wonder if...). The ESL results, generally, might be a reflection of the traditionally marked linguistic regard for teachers, elders, and others among many cultural groups. This would account for the rather high number of times that the ultra-polite forms are selected by the ESL populations; a question, such as the one posed by this sub-set of stimulus frames, is almost not to be asked, it seems, in any less polite form.

The ESL subjects' preference for will and would over the imperative form in most interactions, as well as their selection of would over will in highly formal settings, indicate that they have developed the pragmatic sense of notional 'politeness' or 'honorific' in regard to the null-will-would-would + contrast. This hierarchical scale of informal to formal, or sociological gradience, is in accord with the observations about native speaker usage made by writers such as Leech (1980), Azar (1981), and Close (1975).

4.6.3.2 Pass the Salt: sub-group 2

5. Will you (please) pass the salt?
6. Would you pass the salt (please)?

Both Sentences 5 and 6 prove to be generally acceptable to all the test groups. Although the ELP group displays a strong tendency to favor Number 5, using will. ELP subject DIO observes that the sentence with would is "more polite;" however, overall, the group selects the sentence with will. The accepted use of these forms from Husband to Wife (M/F) contrasts with their acceptability from Wife to
Husband (F/M) for this group of subjects. The results give a ratio of 4:3 for will and 8:7 for would from Husband to Wife (M/F). One subject, E4 (a Spanish speaker), notes that the would form is used "stranger to stranger," giving support to the use of would (and past-tense modal forms generally) to mark this highly formal interpersonal relationship.

The ESL Test group clearly chooses the will over the would form by a ratio of 7:4 uses. The major contrasts are in the preference for will from Parent to Child (S/I) and between Equal Adults (E); otherwise, the two forms seem equally acceptable to these subjects.

The native speakers, on the other hand, consistently show a preference for would in these two items. Although the number of speakers represented here is too small to support any definite statement about modal use, the across the board selection of the traditionally more 'polite' form is interesting.

According to the results of the analysis of the responses to these two stimulus sentences (refer to Appendix XIII for details), the ESL subjects display a general tendency to use the will-would modal pair in agreement with the rules in sources such as Leech (1980), Azar (1981), and Close (1975). The will form is preferred in the Superior/Inferior and Male/Female settings, while the would form is more acceptable in the Inferior/Superior relationship. Apparently, these individuals understand the pragmatics of underlying intention marked by the use of these two modal auxiliaries.
4.6.3.3 Can You Wait?: sub-group 3

7. Can you wait until I finish?
8. Could you wait until I finish?

The notional contrast between can and could does not seem to be strong for the native speakers in this study. It is interesting to note that this group of subjects considers neither form to be acceptable between Employer and Employee (S/I). Among the ESL groups, too, both forms appear to be fairly equally acceptable. The ESL Test group seems to prefer can for use from Wife to Husband (F/M) and could from Husband to Wife (M/F). While ELP subjects prefer can from Parent to Child (S/I) and between Friends (E). Their lowest count for can is at the other Equal relationship, Adult to Adult. The use of can and could between Husband and Wife is equal for this group. Could has its highest acceptability between Equals (E), both Friends and Adults; one ELP subject, D10, remarks that in all cases could is "more polite." Both of the stimulus structures are acceptable in all relationships for the 099 subjects; however, the could count is considerably higher than the can count (36:20, a ratio of 9:5). The heaviest could counts are found between Equals and between Husband and Wife.

The native speakers accept neither can nor could in the Employer/Employee relationship (S/I), while the ESL test group excludes can but accepts could for this purpose. On the other hand, at least some members of both the ELP and 099 groups are equally comfortable with either modal verb. This situation can be compared to that of the other Superior/Inferior relationship, Parent to Child, in which both modals are generally acceptable to these ESL speakers. The
slight difference between the two counts might be due to the age spread inferred by the respondents in the Parent/Child setting, or perhaps, to the family-based nature of this relationship.

The overall preference for could in every category but Superior/Inferior, Parent to Child, is an indication that the significance of could (past-tense form modal) as a marker of differential esteem is understood by these ESL subjects. The percentages of the total subject response that accepts can or could in each relationship for each of the two stimulus sentences is given in Table 24. The first set of figures includes the native speaker sample; the second set excludes this subject group's responses.
Table 24

Percentages of Subjects' Uses of Can and Could in SE Item 5: sub-group 3

<table>
<thead>
<tr>
<th></th>
<th>Superior/Inferior</th>
<th>Inferior/Superior</th>
<th>Equals</th>
<th>Male/Female</th>
<th>Female/Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Including Native Speaker Sample Responses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAN</td>
<td>56%</td>
<td>45%</td>
<td>38%</td>
<td>41%</td>
<td>47%</td>
</tr>
<tr>
<td>COULD</td>
<td>44%</td>
<td>55%</td>
<td>62%</td>
<td>59%</td>
<td>53%</td>
</tr>
<tr>
<td>Totals</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

|                      |                   |                   |        |             |             |
| B. Excluding the Native Speaker Sample Responses |                   |                   |        |             |             |
| CAN                  | 55%               | 45%               | 39%    | 41%         | 48%         |
| COULD                | 45%               | 55%               | 61%    | 59%         | 52%         |
| Totals               | 100%              | 100%              | 100%   | 100%        | 100%        |

4.6.3.4 Can I Make a Suggestion?: sub-group 4

9. Can I make a suggestion?
10. May I make a suggestion?
11. Might I make a suggestion?
12. Would you mind if I made a suggestion?
13. Could I make a suggestion?

In this set of stimulus sentences, the modals are supposed to imply underlying levels of 'politeness' in interactive situations. Each of the four subject groups displays its own slightly different scalar arrangement of the five modals with some trends that persist.
throughout, such as the higher count for could, may, and would in the Inferior/Superior and Equal positions, and the equality of acceptability of may between Husband and Wife. The level of language acquisition may account for the use preferences of each group as a whole.

The native speakers in this study chose not to use could at all in the family setting, preferring may between Husband and Wife and either can or might from Parent to Child. They also prefer may for use between Equals. Could or would, both generally marked as 'polite', are the only acceptable forms for use from Inferior to Superior. Would, in fact, is acceptable in all circumstances except from Parent to Child. Might apparently is usable everywhere except from Inferior to Superior. Table 25, based on the responses to this set of sentences, might represent a 'scale of politeness' for these native English speaking subjects.

Table 25

| 'least polite' | can/might       | Superior/Inferior |
|               | may/would       | Equals, Male/Female/Male |

| 'most polite' | could           | Inferior/Superior |

According to the ESL test group, can is the most acceptable modal for use between Equals. Whereas may is especially useful from
Inferior to Superior, the past-tense form modals, _could_, _might_, and _would_, are also acceptable for use in this relationship. _Could_ and _may_ are used more from Husband to Wife than they are in the other direction. Although the form appears to work in all other positions, _would_ is the only modal excluded in the Parent to Child (S/I) setting. Table 26 suggests a possible 'scale of politeness' for the ESL Test group subjects based on their responses to this set of stimulus sentences.

Table 26

'Scale of Politeness' for ESL Test Group in This Study

| 'least polite' | could    | Superior/Inferior |
|               | can      | Equals            |
|               | could/might | Male/Female     |

| 'most polite' | may (might/would) | Inferior/Superior |

The ELP test group shows a definite preference for _can_ between Equals, although _could_ is a close second choice. _Could_, _may_, and _would_ seem to be the most acceptable modals for use from an Inferior to a Superior. _Can_ rates as slightly more appropriate than the other modals for use from a Superior to an Inferior. Usage between Husband and Wife seems to be fairly even for all forms with the exception of _would_, which is favored from Wife to Husband (Female/Male). _Would_, it seems, is to be used from an Employee to his Employer, according to subject D4; however, subject D14 feels that the _may_ structure is most
appropriate in this setting. Subject D19 also notes that the *may* form is "more polite." Based on the ELP group's responses to the stimulus sentences in this set, Table 27, below, represents a possible 'scale of politeness' for this subject group.

Table 27

<table>
<thead>
<tr>
<th>'least polite'</th>
<th>can</th>
<th>can (could)</th>
<th>would</th>
<th>Superior/Inferior</th>
<th>Equals</th>
<th>Female/Male</th>
<th>Inferior/Superior</th>
</tr>
</thead>
<tbody>
<tr>
<td>'most polite'</td>
<td>could/may/would</td>
<td>Superior/Inferior</td>
<td>Equals</td>
<td>Female/Male</td>
<td>Inferior/Superior</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to the responses of the 099 group in this study, *would* and *can* are both especially appropriate between Equals, whereas *may*, *might*, and *would* are to be preferred from an Inferior to his Superior. *Can*, followed closely by *may*, is the most accepted modal form from a Superior to an Inferior. As with the ELP group, the modal selection between Husband and Wife is fairly even. Again, the only exception is *would*; with this group, *would* is to be slightly preferred from Husband to Wife. The group's responses to stimulus Items 9-13 are the basis of the 'scale of politeness' presented in Table 28, below.
To develop a possible 'scale of politeness' for ESL users, the counts of all three ESL subject groups (40 ESL subjects in total) are combined for each interpersonal setting. These totals are shown in Table 29. Using the counts in this table, it is possible to establish these ESL users' ranking of politeness for the five modals used in the sentences in this stimulus set. This rank order is presented in Table 30.
Table 30

Most and Least Preferred Modal Forms at Each Interpersonal Social Level

(Numbers in parentheses equal total count for modal in this relationship)

<table>
<thead>
<tr>
<th>RELATIONSHIP</th>
<th>PREFERRED</th>
<th>NOT PREFERRED</th>
</tr>
</thead>
<tbody>
<tr>
<td>'least polite'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Superior/Inferior</td>
<td>can (24)</td>
<td>might (15)</td>
</tr>
<tr>
<td>Equals</td>
<td>can (41)</td>
<td>might (24)</td>
</tr>
<tr>
<td>Male/Female</td>
<td>could (13)</td>
<td>can/would/may (10)</td>
</tr>
<tr>
<td>Female/Male</td>
<td>would (12)</td>
<td>might (7)</td>
</tr>
<tr>
<td>'most polite'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inferior/Superior</td>
<td>may (22)</td>
<td>can (13)</td>
</tr>
</tbody>
</table>

The ESL rank order, from 'least' to 'most' polite, can-could/would-may, agrees in part with the results from the native speakers surveyed in this study. Can seems to carry the least implication of 'formality' or 'politeness' of all the modals tested in this set of stimulus items. May and the past-tense form modal, each to a greater or lesser extent, represent some level of 'honorific' regard. That most of the subjects in this ESL cross-sectional analysis clearly do not regard might appropriate in either the Superior/Inferior or Equal positions, while they generally avoid can in the Inferior/Superior relationship are factors that lend support to the impression that ESL speakers at the level of acquisition represented here have largely mastered the 'scale of politeness' for the modal auxiliaries of English.
4.6.3.5 Shall I Answer the Phone?: sub-group 5

14. Shall I answer the phone?
15. Should I answer the phone?

Stimulus sentences 14 and 15 were included on the SE to determine whether or not the ESL speakers actually demonstrate a usage difference between the forms of the SHALL modal, and if they do make a differentiation, how it would be represented according to the interpersonal relationships presented in the task. One interesting aspect of the study was that the native speakers and ESL Test groups present almost parallel responses to this stimulus set. Apparently both groups find that neither shall nor should are usable in the Superior/Inferior setting; however, they both find either modal form perfectly acceptable in any of the other relationships. The ELP group, on the other hand, shows a preference for shall in the Inferior/Superior situation. This includes subject D4's write-in of "Employee to Employer." Shall is also more acceptable for use from Husband to Wife for this group. Should, then, serves in the Superior/Inferior and Equal settings, and, as subject D9 adds, with "Friends and Relatives from afar." The 099 group's counts differ only slightly between the two modal forms. The difference for them appears in their preference for should in both the Equal and the Inferior/Superior positions. Subject E9, unlike subject D4 cited above, feels that should is the correct form for use from an Employee to his Employer.

Table 31, listing the combined response counts and percentages regarding this sub-group for the three ESL groups in this study, shows a slight preference throughout for shall, with the exception of the
Inferior/Superior relationship. The difference between the two forms in this position is only one. As with the results of the previously examined stimulus sentence sets in this item, the most formal (i.e., the Inferior to Superior interpersonal relationship) calls for the past-tense form of the modal. An interesting point reflected in the response count is that some subjects consider both modal verbs acceptable in a given context.

Table 31

Combined ESL Response Count and Percentages for Stimulus Sentences 14 and 15

<table>
<thead>
<tr>
<th>MODAL</th>
<th>RELATIONSHIP</th>
<th>No.</th>
<th>%</th>
<th>No.</th>
<th>%</th>
<th>No.</th>
<th>%</th>
<th>No.</th>
<th>%</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Superior/Inferior</td>
<td>18</td>
<td>55</td>
<td>10</td>
<td>48</td>
<td>29</td>
<td>54</td>
<td>17</td>
<td>55</td>
<td>15</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>Inferior/Superior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Equals Male/Female</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female/Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>33</td>
<td>21</td>
<td>54</td>
<td>31</td>
<td>28</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.6.3.6 Summary

Throughout the analysis of this set of stimulus items, the ESL users tested demonstrate a strong tendency to use language and context
appropriate levels of honorific regard or 'politeness' through the proper choice of implicative modal forms for each hypothetical linguistic interaction. Their errors tend to be in the direction of too much politeness, by native speaker standards, in a given linguistic interchange.

The most important areas of potential difficulty for these ESL subjects appear to be in the realm of temporal relationships and the use and comprehension of the lower frequency modal auxiliaries. The results of SE Item 3 also indicate that the rank ordering of the mid-range modals in terms of 'probability' or 'likelihood', could cause some confusion for these individuals.

In all, the results of the Scalar Evaluation show that the ESL user at this level still has much to acquire about the inherent semantic properties of the individual modal auxiliaries if he is to achieve native-like access to the range of modal notions and overtones used unconsciously by the truly fluent English speaker.
5.1 Summary and Conclusions

The evidence of the analyses of the responses to the sub-studies in this research all lend support to the commonly held view that ESL learners, even at the most advanced level, are unsure and unsophisticated in their pragmatic use and comprehension of the semantics of the modal auxiliary system. Beyond supplying data to prove the empirical observation of general ESL difficulty with modal notions, the intent of the research program was to establish with some precision the exact nature of the confusion and inadequacy in the comprehension of modal auxiliaries by ESL learners. To accomplish this goal, written and oral corpora, based on both free and controlled elicitation techniques, provided the data for an analysis of both frequency and notional content of the ESL subjects' use of modal auxiliaries and their expression of modal propositions. The results of this study show that the ESL writers and speakers do, in fact, use modal auxiliaries less frequently, and with a much narrower range of notional content, than does a sample of native speaking writers. This sample of native English speaking standard is based on the results of the Brown Corpus and the other sources cited in Appendix VI.

The highly structured and controlled elicitation procedures used in the paraphrases and sentence completion tasks of the Survey-Questionnaires were useful in demonstrating specifics of the
comprehension problems encountered by the ESL learner. As predicted by Major (1974), the low frequency modals (especially ought) proved to be extremely confusing to the subjects. Further, notional uses of the modal auxiliaries outside of the "core" of meanings established by Coates (1983) resulted in responses that did not reflect the intention of the writer of the stimulus sentences. On the other hand, not infrequently, when confronted with a fairly high frequency modal, the ESL subjects produced paraphrases and contexts that proved acceptable to native speaker intuition, even though the responses strayed from the source text gloss.

In the Scalar Evaluation of modal propositions such as 'likelihood' and 'probability', the ESL subjects often seemed to differ somewhat from the cited 'authority'. However, their rating scale proved to be fairly consistent with the contemporary western North American sample examined by Hannah (1975).

In the honorific evaluation, too, the ESL sample's responses differ from both the native speaker sample and the source texts. The ESL groups displayed a strong tendency toward over use of the past-tense form modals by native speaker standards. These past-tense forms represent notional 'politeness' between speakers. This overt respect does not seem necessary (or desirable) to the native English speakers surveyed.

Throughout this study, the problem of relative frequency of modal input has been seen as a major negative factor in the ESL learner's acquisition process. High frequency modals such as would prove to be well understood except for the possible misconstrual of the past-tense
form as a marker of past time. As demonstrated by the Brown Corpus statistics, would is a common word in the language as a whole (ranked 39th in the corpus). Conversely, ought, the most difficult modal auxiliary for the ESL subjects to paraphrase or contextualize, is used so infrequently in the Brown Corpus that it is not listed in the table of rank order; shall, the second most difficult modal auxiliary for the ESL subjects is ranked at 354.

One further consideration in the acquisition process is the role of the actual frequency of modal use by the native speaking population vs. that of the "core" of modal notions explicitly taught to ESL students. The results of this study that apply to the ESL users' use of high frequency modals in their non-core meanings suggest that natural language input has had a strong influence on their comprehension of these modals in a wide range of their notional implications. On the other hand, the subjects' pragmatic comprehension of the mid- and low-frequency modal verbs tended to be restricted to the core uses taught in the ESL texts. These findings are an indication that current classroom texts are too narrow in their approach to this system, putting too much emphasis on the core meanings, while ignoring the realities of comprehensible frequency. This approach results in inadequate coverage of non-core interpretations of the low- and mid-range modals while contributing nothing to the learning of the high-frequency modal auxiliaries.

The results of the analyses of the research corpora suggest that ESL students need greater input of modal expression in naturally occurring contexts if they are to gain meaningful control of the full
range of notional implication. These subjects' responses, both in their free composition, paraphrases, and sentence completions, demonstrate that the syntactic structure of the modal verb phrase is understood and integrated into their composition skills. Writings by less sophisticated ESL learners confirm this observation about syntax. For example, the essay in Appendix XIV is written by a low-intermediate level Francophone. The ten instances of modal verb use in the essay all appear in the syntactically correct position.

Newer language teaching methodology, such as Terrell's 'Natural Approach' (1983) and the 'Functional-Notional' concepts (see, for example, Finocchiaro and Brumfit 1983) that have developed out of the research of the Council of Europe (refer to van EK and Alexander 1980 for details) seek to remedy the deficits of the traditional structural approaches to language instruction that have held sway in the English language teaching curriculum. These newer concepts offer increased awareness that the students' communicative needs, rather than the structural hierarchy of the language, should govern curricula planning. The results of this research on the pragmatic competence of ESL learners regarding modal concepts suggests that the students' need to experience contextualized language to develop the decoding and encoding skills required for mastery of modally phrased messages should be a priority. The Teaching Unit described in Chapter 3 and the results of the Post-Test disclosed in 4.5.11, suggest that notionally based teaching, in which elaboration and enrichment of the students' ideas guide the learners' developing modal concepts, serve this purpose well.
5.2 Implications for Future Research

Although the responses of 40 ESL subjects were included in the final analyses of the data, in making a cross-sectional study of the type described in this paper, the uneasiness persists for the researcher that the results apply to this group of subjects, only. Certainly, a similar study drawing on a larger selection of ESL learners would add credibility and depth to the overall picture of this phase of the acquisition process.

Additionally, the source gloss citations for the stimulus items used in this study were so frequently at variance with the intuitions of the native speakers surveyed throughout the course of this research, that a contemporary cross-sectional analysis of the modal intuitions of a large number of native English speakers would seem appropriate if one wants to establish a standard or norm for teaching or research purposes.

The impracticality of the collection and analysis of a vast quantity of ESL produced essays as the corpus for a document of this type is evident; yet, as with the Brown Corpus and (spoken word) Lancaster Corpus (Coates 1983) for natively produced English, such an organized and tabulated fund of ESL production would provide a wealth of data for researchers in the fields of second language acquisition and inter-language grammar.

Any research into the acquisition strategies of second language learners, whether descriptive, like this paper, or suggestive of ways to improve pedagogic approaches and to advance acquisition, continues to be a welcome addition to the growing body of knowledge in applied
linguistics. While recent years have seen a decided growth in the number of publications dealing with modality and the modal auxiliaries, the specific area of the acquisition of modal notions by second language learners has been all but ignored. This paper is in response to that gap in the literature. It is my hope that the data and analyses contained in this thesis will serve to encourage further consideration of the problems of pragmatic comprehension and accessibility of the target language for second language learners.
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Appendix I

Questionnaire I [Annotated]
The Comprehension of Modals

[Material in square brackets did not appear on the questionnaire].

Decide how close in meaning each of the lettered sentences in each group is to the numbered sentence. Rate all of the sentences according to their degree of similarity in meaning to the model: 1. Exactly the Same, 2. Nearly the Same, 3. Not the Same. Note that you can give the same rating to more than one sentence in each group.

If, in your mind, none of the sentences exactly matches the numbered sentence, please give your own paraphrase as D. or E.

Example:

model: Can I pour your tea? [Coates 1983:89] RATING
A. Do I have permission to pour your tea? [permission] 2 or 3
B. Am I capable of pouring your tea? [ability] 2 or 3
C. Is it possible for me to pour your tea? [possibility] 2 or 3
or D. Do you want me to pour your tea now? (paraphrase) ['offer', source text gloss]

1. Ten years ago I could drive all day, but now I can't. [Bander 1978:79]
A. When I was young, it was possible for me to drive all day. ['possibility']
B. Ten years ago, I was allowed to drive all day. ['permission']
C. My driving ability was better ten years ago than it is now. ['ability + past', source text gloss]
or D.
2. I must take one tablet after every meal.
   [van Ek and Alexander 1980:100]
   A. As a fact, it is so that I take one tablet after every meal.
      [statement of personal 'obligation']
   B. It is my duty to take one tablet after every meal.
      ['obligation']
   C. My doctor advises me to take one tablet after every meal.
      ['advice', source text gloss]
   or D.

3. A member of the Queen's Own Guards must be six foot six.
   [Joos 1964:152]
   A. All members of the Queen's Own Guards are obliged to be six foot six.
      ['moral duty']
   B. It is necessary to be six foot six in the Queen's Own Guards.
      ['necessity']
   C. All members of the Queen's Own Guards are six foot tall.
      ['assertion', source text gloss]
   or D.

4. You will understand that this is strictly confidential.
   [Zandvoort 1965:77]
   A. You already know that what we say is to go no further.
      ['assumption + present', source text gloss]
   B. You don't know now, but in the future, what we say is to be considered confidential.
      ['future']
   C. You wish that what we say stays between us.
      ['volition']
   or D.
5. You must be careful. [Leech and Svartvik 1975:145]
   A. I assume by your actions that you are careful.  
      ['assumption']
   B. I advise you to be careful.  
      ['advice']
   C. You are ordered to be careful.  
      ['command', source text gloss]
   D. You have a moral obligation to be careful.  
      ['obligation']

or E.

6. All the lights in Tom's room are turned off. He must be sleeping. [Azar 1981:168]
   A. Tom had better be asleep!  
      ['necessity']
   B. Tom has a responsibility to be asleep.  
      ['obligation']
   C. Tom is probably asleep.  
      ['probability', source text gloss]

or D.

7. I would like to see the whole world.  
   [van Ek and Alexander 1980:87]
   A. In the future, I plan to see the world.  
      ['future', source text gloss]
   B. I wish to see the world.  
      ['desire', source text gloss]
   C. Take me on a trip around the world.

or D.

8. You might have apologized. [Wishon and Burks 1980:232]
   A. I think you owe me an apology.  
      ['dissatisfaction', source text gloss]
   B. It is possible that you have apologized.  
      ['possibility + past']
   C. You had permission to apologize.  
      ['permission + past']

or D.
9. I ought to go now. [Palmer 1965:120]
   A. I need to leave now.
      ['necessity']
   B. It is a good idea for me to leave now.
      ['obligation', 'advice', source text gloss]
   C. I have a duty to leave now.
      ['duty', source text gloss]
   or D.

10. The bus should be here soon. [Azar 1981:176]
    A. The bus is probably going to be here soon.
       ['probability']
    B. It is advisable that the bus be here soon.
       ['advice']
    C. The bus is expected here soon.
       ['expectation', source text gloss]
    or D.

11. They would ask all kinds of questions. [Palmer 1974:128]
    A. Their manner is to ask questions.
       ['habitual + present']
    B. They used to ask a lot of questions.
       ['habitual + past', source text gloss]
    C. They are going to ask a lot of questions.
    or D.

12. If you should hear the news, Jane, please let me know.
    [Leech and Svartvik 1975:127]
    A. It is Jane's duty to hear the news.
       ['duty/obligation']
    B. Jane is likely to hear the news.
       ['probability/speculation', source text gloss]
    C. I expect Jane to hear the news.
       ['speculation', source text gloss]
    or D.
13. He couldn't be hiding. [Brown and Miller 1975:105]
   A. It is not possible that he is hiding.
      ['possibility', source text gloss]
   B. He is not able to hide.
      ['ability']
   C. No one gave him permission to hide.
      [permission]
   or D.

   A. Is it wrong for me to write on the blackboard?
      ['moral necessity']
   B. Am I obliged to write on the blackboard?
      ['obligation']
   C. Do you want me to write on the blackboard?
      ['interrogative + 2nd person volition', source text gloss]
   or D.

15. How would you like to come and spend a week with us next year?
    [Leech and Svartvik 1975:148]
    A. I strongly advise you to come and spend a week with us next year.
       ['advice']
    B. You are invited to come and stay with us for a week next year.
       ['invitation', source text gloss]
    C. Do you wish to come and stay with us for a week next year?
       ['interrogative + 2nd person volition']
    or D.

16. John must sleep in the car. [Hermeren 1978:92]
    A. I want John to sleep in the car.
       ['1st person volition']
    B. John is obliged to sleep in the car.
       ['obligation']
    C. It is certainly the case that John sleeps in the car.
       ['logical necessity', source text gloss]
    or D.
17. I must go now. [Brown and Miller 1975:109]
   A. Circumstances oblige me to go now.  
      ['logical necessity']
   B. Time is up—I don't want to go, but I have no choice.  
      ['necessity/obligation', source text gloss]
   C. It is quite possible that I have to leave now.  
      ['possibility']

or D.

18. If you went abroad, you would have to earn your own living.  
   [Leech and Svartvik 1975:144]
   A. Your moral duty is to pay for your own travel, etc.  
      ['moral duty', source text gloss]
   B. Your parents do not intend to pay your way.  
      ['3rd person volition']
   C. If you travel, you want to pay your own way.  
      ['2nd person volition']

or D.

19. Can I have two seats in the front row? [van Ek and Alexander 1980:88]
   A. Am I capable of having two seats in the front row?  
      ['ability']
   B. I request two seats in the front row.  
      ['request', source text gloss]
   C. Do I have your permission to have two seats in the front row?  
      ['permission']

or D.

20. When I was a student, I could travel at half-price.  
   [Leech and Svartvik 1975:143]
   A. I was allowed to travel at half-price when I was a student.  
      ['permission', source text gloss]
   B. It was possible for me to travel at half-price when I was a student.  
      ['possibility + past']
   C. I regularly travelled at half-price when I was a student.  
      ['habitual + past']

or D.
21. We might ask him to be chairman. [Zandvoort 1965:68]
A. It has been suggested that we ask him to be chairman.
['intention + future']
B. It is possible that we ask him to be chairman.
['possibility', source text gloss]
C. We are capable of asking him to be chairman.
['ability']

or D.

22. The railways can be improved. [Leech and Svartvik 1975:128]
A. The railways are allowed to be improved.
['permission']
B. It is possible to improve the railways.
['possibility', source text gloss]
C. The railways are capable of being improved.
['ability']

or D.

23. It ought to rain before long. [Joos 1964:152]
A. I predict that it is going to rain soon.
['prediction', source text gloss]
B. It is necessary that it rain before long.
['necessity']
C. It is desirable that it rain before long.
['preference']

or D.

24. If it's a story by P.G. Wodehouse, it should be amusing. [Zandvoort 1965:70]
A. A story by Wodehouse has an obligation to be amusing.
['obligation']
B. When we read a story by Wodehouse, we expect it to be amusing.
['expectation']
C. If the story is by Wodehouse, there is a strong probability that it is enjoyable to read.
['probability', source text gloss]

or D.
25. Let's just knock on the door lightly. Tom may be sleeping.  
[Azar 1981:168]  
| A. Tom is very probably asleep. |
| ['probability', source text gloss] |
| B. There is a chance that Tom is asleep. |
| ['possibility'] |
| C. Tom is allowed to be asleep. |
| ['permission'] |

or D.

26. Should that happen, he will be very disappointed.  
[Bander 1978:77]  
| A. Nothing has happened, but it is quite possible to. |
| ['hypothetical', source text gloss] |
| B. There is a plan for something to happen. |
| ['prediction + volition'] |
| C. We expect something to happen to disappoint him. |
| ['prediction'] |

or D.

27. You must not tell anyone my secret. Do you promise?  
[Azar 1981:155]  
| A. Logically speaking, you are not to tell anyone my secret. |
| ['logical necessity'] |
| B. You are not allowed to tell anyone my secret. |
| ['prohibition', source text gloss] |
| C. You have a duty not to tell anyone my secret. |
| ['obligation'] |

or D.

28. I'll help you as soon as I can. [van Ek and Alexander 1980:225]  
| A. I wish to help you. |
| ['1st person volition'] |
| B. I promise to help you. |
| ['promise'] |
| C. In the future, I intend to help you. |
| ['promise + future', source text gloss] |

or D.
29. My uncle will not be there tonight. [Wishon and Burks 1980:234]
   A. My uncle is unable to be there.
      ['ability']
   B. My uncle does not wish to be there.
      ['3rd person volition', source text gloss]
   C. My uncle does not plan to be there.
      ['probability']
   or D.

30. Will you join us on our trip tomorrow?
    [van Ek and Alexander 1980:95]
    A. We invite you to join us on our trip tomorrow.
       ['invitation/request', source text gloss]
    B. Is it your wish to come with us on our trip tomorrow?
       ['2nd person volition']
    C. In the future, are you to join us on our trip?
       ['future/prediction']
    or D.

    A. Please let me know.
       ['suggestion', source text gloss]
    B. It is possible for you to let me know.
       ['possibility + future']
    C. It is possible that you let me know.
       ['logical necessity']
    or D.

32. That must be my wife. [Leech and Svartvik 1975:131]
    A. My wife has an obligation to be here.
       ['obligation/duty']
    B. I predict that my wife is here now.
       ['prediction', source text gloss]
    C. There is no doubt about it. That has to be my wife.
       ['logical necessity']
    or D.
33. It is very odd that he should do that. [Palmer 1974:129]
   A. That he did it surprises me.
      ['past', source text gloss]
   B. That he wished to do it surprises me.
      ['3rd person volition']
   C. That he had an obligation to do it
      surprises me.
      ['obligation']
   or D.

34. They say that movie is uninteresting. We might just as well stay at home. [Wishon and Burks 1980:233]
   A. We are well advised to stay home.
      ['advisability', source text gloss]
   B. We are allowed to stay home.
      ['permission']
   C. Let's stay home.
      ['1st person volition']
   or D.

35. I could do that. [Palmer 1974:117]
   A. I am capable and willing to do that if required.
      ['ability + volition', source text gloss]
   B. In the past, I was capable of doing that.
      ['ability + past']
   C. It is possible for me to do that.
      ['possibility']
   or D.

36. I could have passed, but I didn't study. [Wishon and Burks 1980:231]
   A. I didn't pass because I didn't study.
      ['past', source text gloss]
   B. I'm smart enough to pass if I study.
      ['hypothetical']
   C. If I study, I'm capable of passing.
      ['ability + hypothetical']
   or D.
37. I can not spend so much money. [van Ek and Alexander 1980:105]
   A. I am not capable of spending so much money.
      ['ability']
   B. It is not possible for me to spend so much money
      (because I am not that rich.
      ['possibility', source text gloss]
   C. No one has given me permission to spend so
      much money.
      ['permission']
   or D.

38. If you don't feel well you should go to a doctor.
    [van Ek and Alexander 1980:100]
    A. You are obliged to go to a doctor when you
       don't feel well.
       ['logical obligation']
    B. I advise you to go to a doctor if you
       feel ill.
       ['advisability', source text gloss]
    C. I demand that you go to a doctor if you
       feel ill.
       ['command/ 1st person volition']
    or D.

39. I would buy the book now if I were you.
    [Brown and Miller 1975:103]
    A. Do you want to buy the book?
       ['2nd person volition']
    B. I advise you to buy the book now.
       ['advice', source text gloss]
    C. It is my wish that you purchase the book now.
       ['1st person volition']
    or D.
40. The child ought to be reading by now. [Wishon and Burks 1980:236]
   A. It is advisable that the child read by now. ['advisability']
   B. The child is failing in his obligation to read. ['duty']
   C. It is assumed that a child of his age knows how to read. ['assertion', source text gloss]
   or D.

41. You will have heard that I'm going to America. [Zandvoort 1965:77]
   A. You know that I am going to America. ['assumption', source text gloss]
   B. It was your wish to know that I am going to America. ['2nd person volition']
   C. Someone is going to tell you that I am going to America. ['future']
   or D.

42. Don't be late, will you. [Leech and Svartvik 1975:146]
   A. Do you wish to be late? ['2nd person volition']
   B. Are you going to be late? ['future']
   C. Please, try not to be late. ['order + polite', source text gloss]
   or D.

43. He took dancing lessons for years. He should be an excellent dancer. [Wishon and Burks 1980:233]
   A. After all those lessons, he has an obligation to be an excellent dancer. ['duty/obligation']
   B. Of course, he's an excellent dancer. ['assertion/deduction', source text gloss]
   C. We expect, but we are not sure, that he is an excellent dancer. ['expectation']
   or D.
44. It mustn't rain on our picnic. [Joos 1964:64]
   A. I hope it doesn't rain on our picnic.
      ['desire/wish', source text gloss]
   B. It is not permitted to rain on our picnic.
      ['permission']
   C. It is not logical that it rain on our picnic. After all, it is July!
      ['logical necessity']
   or D.

45. Students should work hard. [Brown and Miller 1975:113]
   A. Students need to work hard.
      ['necessity']
   B. It's a good idea that students work hard.
      ['advisability']
   C. Students have a duty to work hard.
      ['duty', source text gloss]
   or D.

46. We could see the bottom of the lake. [van Ek and Alexander 1980:78]
   A. The bottom of the lake was visible to us.
      ['sensation + past']
   B. We are able to see the bottom of the lake.
      ['ability + present']
   C. It is generally possible to see the bottom of the lake.
      ['ability + sensation + tenseless', source text gloss]
   or D.

47. Can you wait until I finish ironing? [Bander 1978:76]
   A. Are you willing to wait until I finish ironing?
      ['2nd person volition']
   B. Is it possible for you to wait until I finish ironing?
      ['possibility', source text gloss]
   C. I tell you to wait until I finish ironing.
      ['command/ 1st person volition']
   or D.
   A. It is my duty to study tonight.  ['duty']
   B. It is advisable that I study tonight.  ['advisability', source text gloss]
   C. I have to study tonight.  ['necessity']
   or D. 

49. You ought to read this book. [Leech and Svartvik 1975:148]
   A. You probably want to read this book.  ['2nd person volition + probability']
   B. I recommend that you read this book.  ['advice', source text gloss]
   C. It is your duty to read this book.
   or D. 

50. May I invite you to dinner next Saturday?  [Leech and Svartvik 1975:148]
   A. Do I have your permission to invite you to dinner next Saturday?  ['permission']
   B. I am inviting you to dinner next Saturday.  ['invitation', source text gloss]
   C. Is it possible for me to invite you to dinner next Saturday?  ['possibility']
   or D. 

51. You say you want to pass. Then you must try harder.  [Wishon and Burks 1980:235]
   A. You have an obligation to try harder.  ['obligation/duty']
   B. There is no way to pass but to try harder.  ['logical necessity', source text gloss]
   C. I advise you to try harder.  ['advice']
   or D. 
52. "You may not go out tonight," he said. [Bander 1978:76]
   A. It is possible that you are going to stay home.  
      ['possibility']
   B. You are not able to go out tonight.  
      ['ability']
   C. You do not have permission to go out tonight.  
      ['permission/obligation']
   or D.

53. You must come again. [Palmer 1974:120]
   A. I insist that you come again. You have no choice.  
      ['1st person volition']
   B. It is your duty to return.  
   C. I am being polite, but not necessarily sincere.  
      ['1st person obligation + polite formula', source text gloss]
   or D.

54. I ought to phone my parents tonight, but I probably won't have time. [Leech and Svartvik 1975:144]
   A. It is my moral duty to phone my parents.  
      ['moral duty', source text gloss]
   B. Logically, my parents expect me to call tonight.  
      ['logical necessity']
   C. I definitely plan to call my parents tonight.  
      ['1st person volition']
   or D.

55. Shall I answer the telephone for you? [Wishon and Burks 1980:233]
   A. In the future, do you want me to answer the telephone for you?  
      ['future']
   B. Do you want me to answer the phone now?  
      ['2nd person volition + offer + request', source text gloss]
   C. Do I have your permission to answer the phone?  
      ['permission']
   or D.
56. You can wash your clothes downstairs.  
[van Ek and Alexander 1980:78]  
A. You have permission to wash your clothes downstairs.  
['permission', source text gloss]  
B. You are able to wash your clothes downstairs.  
['ability']  
C. It is possible to wash your clothes downstairs.  
['possibility']  
or D.

57. We could ask him to be chairman. [Zandvoort 1965:68]  
A. The speaker and his associates are in a position to ask him to be the chairman if they chose to do so.  
['possibility', source text gloss]  
B. We are capable of asking him to be chairman.  
['ability']  
C. We have permission to ask him to be chairman.  
['permission']  
or D.

58. "Why isn't John in class?" "I don't know. He might be sick." [Azar 1981:164]  
A. John is sick.  
['assertion of fact/strong probability']  
B. John is probably sick.  
['probability']  
C. It is possible that John is sick.  
['possibility', source text gloss]  
D. John is definitely not sick.  
['(not) possible']  
or E.

59. John must have arrived by now. [Leech and Svartvik 1975:131]  
A. John has a duty to have arrived by now.  
['moral obligation']  
B. It is advisable that John have arrived by now.  
['advisability']  
C. I predict that John is now at his destination.  
['prediction', source text gloss]  
or D.
60. We shall miss our connection at Liverpool.
   [van Ek and Alexander 1980:88]
   A. Someone wishes us to miss our connection at Liverpool.
      ['3rd person volition']
   B. We are determined to miss our connection at Liverpool.
      ['1st person volition']
   C. Probably, we are not on time to make our connection at Liverpool.
      ['probability', source text gloss]

or D.

61. He shouldn't be so impatient. [Leech and Svartvik 1975:145]
   A. I advise him not to be so impatient.
      ['weak prohibition', source text gloss]
   B. I prefer that he not be so impatient.
      ['stronger prohibition']
   C. He has a responsibility not to be so impatient.
      ['obligation']

or D.

62. They think I will accept the decision, but I won't.
   [Wishon and Burks 1980:234]
   A. They think I want to accept the decision, but that is not so.
      ['1st person volition', source text gloss]
   B. They think they control my acceptance of the decision.
      ['3rd person volition']
   C. They think that in the future I am going to accept the decision.
      ['future']

or D.

63. Can you pass the salt? [Leech 1980:91]
   A. Please pass the salt.
      ['request', source text gloss]
   B. Are you capable of passing the salt?
      ['ability']
   C. Are you allowed to pass the salt?
      ['permission']
   D. Is it possible for you to pass the salt?
      ['possibility']

or E.
64. We could go to the seaside tomorrow.  
[van Ek and Alexander 1980:195]  
A. We are capable of going to the seaside tomorrow.  
['ability']  
B. It is possible for us to go to the seaside tomorrow.  
['possibility']  
C. Let's go to the seaside tomorrow.  
['suggestion', source text gloss]  

or D.

65. Just as I was getting better, what must I do but break my leg.  
[Wishon and Burks 1980:233]  
A. I was almost better so I felt a duty to break my leg.  
['obligation']  
B. I was almost better, then I broke my leg. Too bad, but that's how it is.  
['resignation']  
C. When I was almost better, I unfortunately broke my leg.  
['untoward event', source text gloss]  

or D.

66. I will pass this course.  
[Wishon and Burks 1980:234]  
A. I intend to pass this course sometime in the future.  
['future']  
B. I am determined to pass this course.  
['1st person volition', source text gloss]  
C. I wish to pass this course.  
['desire/wish']  

or D.
67. Mary isn't in class today. She must be sick. [Azar 1981:176]
   A. Mary is necessarily sick since she is not in class.
      ['logical necessity']
   B. Mary is most likely sick since she is not in class.
      ['probability', source text gloss]
   C. Mary is obliged to be sick since she is not in class.
      ['moral duty']

   or D.

68. I may go, but I don't really want to. [Wishon and Burks 1980:231]
   A. It's not possible for me to go.
      ['(not) possible']
   B. I am likely not to go.
      ['possible', source text gloss]
   C. It's very likely that I go.
      ['probability']
   D. I have to go.
      ['obligation']

   or E.

69. It can snow in April. [Wishon and Burks 1980:231]
   A. It usually snows in April.
      ['probability']
   B. It sometimes snows in April.
      ['possibility', source text gloss]
   C. It is possible for it to snow in April.
      ['possibility', source text gloss]

   or D.

70. John must have missed the train.
    [Leech and Svartvik 1975:130]
   A. It's (almost) certain that John missed his train.
      ['logical necessity', source text gloss]
   B. It is possible that John missed his train.
      ['possibility']
   C. John missed his train.
      ['definite assertion']

   or D.
71. Can I open the door for you? [van Ek and Alexander 1980:195]
   A. Am I able to open the door for you? 
      ['ability']
   B. Is it possible for me to open the door for you? 
      ['possibility']
   C. Let me open the door for you. 
      ['offer/permission', source text gloss]

or D.

72. We could, and did save him: by acting quickly we were able to save him from drowning. [Leech and Svartvik 1980:130]
   A. It was possible to save him, so we did. 
      ['possibility + past', source text-gloss]
   B. We were given permission to save him, so we did. 
      ['permission']
   C. Fortunately, we are capable swimmers, so we were able to save him. 
      ['ability']

or D.

73. If nations behaved more rationally, more of the world's problems could be solved. [Wishon and Burks 1980:231]
   A. The possibility of solving the world's problems existed some time ago. 
      ['possibility + past']
   B. We have the ability to solve the world's problems if nations are more rational. 
      ['ability + present']
   C. It is possible to solve the world's problems, except for national interests. 
      ['hypothetical + possible + present', source text gloss]

or D.

74. She can be very catty (sarcastic). [Palmer 1965:116]
   A. She is allowed to say unkind things to and about others. 
      ['permission']
   B. She is capable of saying unkind things to and about others. 
      ['ability']
   C. It is possible for her to say unkind things to and about others. 
      ['3rd person volition + possibility + present', source text gloss]

or D.
75. There must be a hundred people there. [Palmer 1974:135]
   A. We need to have 100 people there.
      ['necessity/obligation']
   B. By looking at the crowd, I judge there to be 100
      people there.
      ['assumption + logical', source text gloss]
   C. We have a duty to have 100 people there.
      ['obligation']
   D. There are probably 100 people there.
      ['probable + assumption']
   or E.

76. You mustn't smoke. [Leech and Svartvik 1975:145]
   A. You are not permitted to smoke.
      ['permission', source text gloss]
   B. I advise you not to smoke.
      ['advice']
   C. You have an obligation not to smoke.
      ['duty + moral']
   or D.

77. I would rather go to the park than stay home. [Azar 1981:176]
   A. I wish to go to the park.
      ['1st person volition']
   B. I don't want to stay home.
      ['1st person volition + negative']
   C. I want to go to the park, please.
      ['request/desire', source text gloss]
   or D.

78. The bus ought to be here soon. [Azar 1981:176]
   A. I expect the bus to be here soon.
      ['expectation', source text gloss]
   B. I want the bus to be here soon.
      ['wish/desire']
   C. It is the bus company's duty to get the
      bus here soon.
      ['obligation']
   or D.
79. He could play the piano when he was five.
[Leech and Svartvik 1975:129]
A. He was allowed to play the piano when he was five.
    ['permission']
B. He often played music on the piano when he was five.
    ['habitual + past', source text gloss]
C. He knew how to play the piano when he was five.
    ['knowledge + past', source text gloss]
or D.

80. Let's go to the lecture. It should be interesting.
[Azar 1981:169]
A. The speaker has a duty to give an interesting lecture.
    ['obligation']
B. The lecture is likely to interest us.
    ['probability']
C. I expect the lecture to be interesting.
    ['expectation', source text gloss]
or D.

81. If I had the time, I would go with you.
[Wishon and Burks 1980:234]
A. I intend to go with you.
    ['future + definite']
B. I request that you allow me to go with you.
    ['permission']
C. I wish to go with you, but it isn't convenient for me.
    ['hypothetical + future', source text gloss]
or D.

82. Will you help me open the window? [van Ek and Alexander 1980:225]
A. I want you to help me open the window.
    ['1st person volition + instruction/request', source text gloss]
B. Do you wish to help me open the window?
    ['2nd person volition']
C. At some future time, I want you to help me open the window.
    ['future + 1st person volition']
or D.
83. We won't stay longer than two hours.  
[Leech and Svartvik 1975:142]  
A. We predict that we depart within two hours.  
['prediction', source text gloss]  
B. We do not wish to stay longer than two hours.  
['1st person volition']  
C. We are not allowed to stay longer than two hours.  
['permission']  

or D.

84. Shall we dance? [Marino 1973:113]  
A. Do you wish to have this dance with me?  
['2nd person volition', 'interrogative', 'invitation', source text gloss]  
B. I demand that you dance with me!  
['command/request']  
C. Do you wish to dance with me in the future?  
['2nd person volition + future']  

or D.

85. Could I open the door for you? [van Ek and Alexander 1980:195]  
A. Was I capable of opening the door for you?  
['ability + past']  
B. I wish to open the door for you.  
['1st person volition', source text gloss]  
C. Is it possible for me to open the door for you?  
['possibility']  

or D.

86. (On hearing the phone ring) "This will be my wife."  
[Leech and Svartvik 1975:131]  
A. The woman on the phone is the woman I plan to marry.  
['future']  
B. My wife wishes to phone me from time to time.  
['3rd person volition']  
C. I know that she is due to phone at about this time; I therefore conclude that my wife is phoning now.  
['necessity/logical conclusion', source text gloss]  

or D.
87. You must be back by 2 p.m. I want you to do some cleaning. [Palmer 1974:120]
   A. I advise you to be back by then. ['advisability']
   B. I insist that you be back by then. ['1st person volition']
   C. You have to an obligation to be back by then. ['obligation', source text gloss]
   or D.

88. You shall do exactly as you wish. [Leech and Svartvik 1975:143]
   A. You are able to do exactly what you want in the future. ['ability + future']
   B. I predict that your wishes are to be followed. ['prediction']
   C. You are allowed to do exactly as you like. ['permission', source text gloss]
   or D.

89. Be careful or you will fall on the ice. [van Ek and Alexander 1980:98]
   A. It is distinctly possible for you to fall on the ice. ['possibility', source text gloss]
   B. I predict that you are going to fall on the ice. ['prediction']
   C. Do you wish to fall on the ice? ['2nd person volition']
   or D.

90. The railways may be improved. [Leech and Svartvik 1975:128]
   A. There are definite plans to improve the railways. ['probable + future']
   B. It is possible to improve the railways. ['possible', source text gloss]
   C. The railways have received permission to improve. ['permission']
   or D.
Our guests ought to (should) be home by now. [Leech and Svartvik 1975:131]
A. Our guests have a responsibility to be home by now.
   ['obligation']
B. Logically speaking, I expect our guests are home by now.
   ['logical necessity']
C. Our guests are probably home by now, but I'm not certain.
   ['probability', source text gloss]

Our guests have a responsibility to be home by now. [Leech and Svartvik 1975:131]
A. Our guests have a responsibility to be home by now.
   ['obligation']
B. Logically speaking, I expect our guests are home by now.
   ['logical necessity']
C. Our guests are probably home by now, but I'm not certain.
   ['probability', source text gloss]

Children should not cross busy streets alone. [Wishon and Burks 1968:236]
A. It is advisable not to allow children to cross busy streets alone.
   ['advisability']
B. Children are not allowed to cross busy streets alone.
   ['prohibition', source text gloss]
C. You have an obligation not to allow children to cross busy streets alone.
   ['obligation + moral']

Children should not cross busy streets alone. [Wishon and Burks 1968:236]
A. It is advisable not to allow children to cross busy streets alone.
   ['advisability']
B. Children are not allowed to cross busy streets alone.
   ['prohibition', source text gloss]
C. You have an obligation not to allow children to cross busy streets alone.
   ['obligation + moral']

You shall have the money tomorrow. [Leech and Svartvik 1975:150]
A. The money is to be yours tomorrow.
   ['promise', 'commitment']
B. You wish to have the money tomorrow.
   ['2nd person volition']
C. I promise to give you the money tomorrow.
   ['promise + 1st person', source text gloss]

You shall have the money tomorrow. [Leech and Svartvik 1975:150]
A. The money is to be yours tomorrow.
   ['promise', 'commitment']
B. You wish to have the money tomorrow.
   ['2nd person volition']
C. I promise to give you the money tomorrow.
   ['promise + 1st person', source text gloss]

We shall expect you at five. [van EK and Alexander 1980:95]
A. We invite you to join us at five.
   ['invitation']
B. We intend that you join us at five.
   ['polite demand', source text gloss]
C. We predict that you join us at five.
   ['prediction']

We shall expect you at five. [van EK and Alexander 1980:95]
A. We invite you to join us at five.
   ['invitation']
B. We intend that you join us at five.
   ['polite demand', source text gloss]
C. We predict that you join us at five.
   ['prediction']
95. Will you take out the garbage? [Leech 1980:87]
   A. Take the garbage out (please).
      ['request/demand + polite', source text gloss]
   B. Do you intend to take out the garbage?
      ['2nd person commitment']
   C. Do you wish to take out the garbage?
      ['2nd person volition']
   or D.

96. You might have a look at this book. [Leech and Svårtvik 1975:148]
   A. It is possible for you to look at this book.
      ['possibility']
   B. I advise you to look at this book.
      ['advice', source text gloss]
   C. You are allowed to look at this book.
      ['permission']
   or D.

97. I could go now, if I wanted. (I don’t want to). [Wishon and Burks 1980:231]
   A. I have permission to leave.
      ['permission']
   B. It is possible for me to leave.
      ['possibility', source text gloss]
   C. It is within my power to leave.
      ['ability', source text gloss]
   or D.

98. The French will be on holiday today. [Palmer 1974:135]
   A. Today is a national celebration in France.
      ['assumption + present', source text gloss]
   B. The French wish to have a holiday today.
      ['3rd person volition']
   C. In the future, today is going to be a holiday in France.
      ['assertion + future']
   or D.
99. I would like to have a seat on the aisle. [Bander 1978:78]
   A. I want to sit on the aisle, if possible.
      ['request + polite', source text gloss]
   B. Give me a seat on the aisle.
      ['command']
   C. When I get to the show, I wish to sit in the
      first seat of the row.
      ['1st person volition + future']
   or D.

100. He could have joined us, but he didn't get our invitation
     in time. [Wishon and Burks, 1980:231]
     A. Although he wanted to come with us, he didn't
        because he didn't get our invitation in time.
        ['3rd person volition + possible + past', source
text gloss]
     B. He had permission to join us, but he didn't get
        our invitation in time.
        ['permission']
     C. Unfortunately, he isn't with us now because he
        didn't receive our invitation in time.
        ['past']
     or D.

101. You might have been hurt. [Wishon and Burks 1980:232]
     A. You came close to being hurt, but you weren't.
        ['hypothetical probability', source text gloss]
     B. It is possible that you were hurt.
        ['possibility + past']
     C. You were hurt, but now you're O.K.
        ['past']
     or D.

102. It is unthinkable that he should resign. [Leech and Svartvik 1975:127]
     A. We all refuse to believe that he is resigning.
        ['speculation', source text gloss]
     B. Others do not accept that he has a duty
        to resign.
        ['obligation']
     C. I refuse to consider his future resignation.
        ['future']
     or. D.
103. I'm so happy, I could cry. [Leech and Svartvik 1975:130]
A. I am probably going to cry.
   ['hypothetical probability', 'speculation', source text gloss]
B. I am able to cry for joy, but I am in control.
   ['ability']
C. I am definitely going to cry because I am so happy.
   ['future']

or D.

104. Could you go if I came by for you? [Wishon and Burks 1980:231]
A. Are you able to go with me?
   ['ability + present', source text gloss]
B. Do you have permission to go with me?
   ['permission']
C. Were you able to go with me at some previous time?
   ['past']

or D.

105. I will write as soon as I can. [Leech and Svartvik 1975:142]
A. I wish to write as soon as possible.
   ['1st person volition']
B. I plan to write as soon as possible.
   ['intention/prediction', source text gloss]
C. I am going to write at some future time.

or D.

106. He might not be hiding. [Brown and Miller 1975:105]
A. I assume that he is not hiding.
   ['assumption']
B. Perhaps he is lost, not hiding.
   ['possibility']
C. It is possible that he is not hiding.
   ['(im)possibility', source text gloss]

or D.
   A. Is there to be an opportunity to dance?
       ['interrogative + future', source text gloss]
   B. Do you wish to dance with me?
       ['2nd person volition/invitation']
   C. Do we wish to dance?
       ['1st person volition/desire']

or D.

108. You ought to come again. [Palmer 1974:120]
   A. Come again. I wish to see you again.
       ['invitation']
   B. It is your duty to return.
       ['obligation/moral duty', source text gloss]
   C. I advise you to return.
       ['advice']

or D.

   A. I request that you come.
       ['invitation/request', source text gloss]
   B. Do you wish to come?
       ['2nd person volition']
   C. I strongly urge you to come.
       ['advice']

or D.

110. All students should submit their work by a given date (...but some of them don't do it!)
     [Leech and Svartvik 1975:144]
     A. Students are advised to submit their work by a certain date.
        ['advisability']
     B. Students are always obliged to submit their work by a given date.
        ['obligation + logical', source text gloss]
     C. Students have a moral obligation to turn in their work by a given date.
        ['obligation + moral']

or D.
111. Bert may have been athletic once, but he isn't any more.  
[Wishon and Burks 1980:232]  
A. Bert was probably athletic in his youth.  
[ 'probability + past' ]  
B. Perhaps Bert was athletic in his youth.  
[ 'possibility + past', source text gloss ]  
C. Bert was allowed to be athletic in his youth, but not now.  
[ 'permission + past' ]  

or D.  

112. Should there be any difficulty in getting tickets?  
[Leech and Svartvik 1975:131]  
A. Do you advise me that there are difficulties in getting tickets?  
[ 'advice' ]  
B. Is it likely that there are going to be difficulties in getting tickets?  
[ 'probability', source text gloss ]  
C. Do you think that there are supposed to be difficulties in getting tickets?  
[ 'logical necessity' ]  

or D.  

113. Shall we listen to some music? [Leech and Svartvik 1975:148]  
A. Do you want to listen to some music?  
[ 'suggestion', '2nd person volition', 'wish', source text gloss ]  
B. I insist that we listen to some music.  
[ '1st person volition' ]  
C. Let's listen to some music some time in the future.  
[ 'suggestion + future' ]  

or D.
Either write a sentence that a) tells what the given sentence means, or b) is a paraphrase (a sentence that says the same thing in different words) of the given sentence.

[The number in square brackets refers to the stimulus item's number on Example: He could play the piano when he was five.
Paraphrase: He knew how to play the piano when he was five years old.

1. Ten years ago I could drive all day, but now I can't. [1]

2. I must take one tablet after every meal. [2]

3. If it's a story by P.G. Wodehouse, it should be amusing. [24]

4. A member of the Queen's Own Guards must be six foot six. [3]

5. You will understand that this is strictly confidential. [4]

6. You must be careful [5]
7. He took dancing lessons for years. He should be an excellent dancer. [43]

8. It mustn't rain on our picnic. [44]

9. You might have apologized. [8]

10. I ought to go now. [9]

11. Let's go to the lecture. It should be interesting. [80]

12. If you should hear the news, Jane, please let me know. [12]

13. How would you like to come and spend a week with us next year? [15]

14. He could have joined us, but he didn't get or invitation in time. [100]

15. Could you go if I came by for you? [104]

16. Be careful or you will fall on the ice. [89]

17. John must sleep in the car. [16]
18. If you went abroad, you would have to earn your own living. [18]

19. When I was a student, I could travel at half-price. [20]

20. We could ask him to be chairman. [57]

21. It ought to rain before long. [23]

22. You must not tell anyone my secret. Do you promise? [27]

23. I'll help you as soon as I can. [28]

24. My uncle will not be there tonight. [29]

25. You might let me know. [31]

26. They say that movie is uninteresting. We might as well stay home. [34]

27. I could do that. [35]

28. I can not spend so much money. [37]

29. I ought to study tonight. [48]
30. We shall miss our connection at Liverpool. [60]

31. I would rather go to the park than stay home. [77]

32. You might have been hurt. [101]

33. We won't stay longer than two hours. [83]

34. May I invite you to dinner next Saturday? [50]

35. I must go now. [17]

36. You must come again. [53]

37. "Why isn't John in class?" "I don't know. He might be sick." [58]

38. He shouldn't be so impatient. [61]

39. You shall have the money tomorrow. [93]

40. We could see the bottom of the lake. [46]

41. We shall expect you at five. [94]

42. You ought to read this book. [49]
43. They would ask all kinds of questions. [11]

44. You mustn't smoke. [76]

45. Our guests ought to be home by now. [91]

46. If I had the time, I would go with you. [81]

47. He couldn't be hiding. [13]

48. That must be my wife. [32]

49. We could go to the seaside tomorrow. [64]

50. Can you wait while I finish ironing? [47]

51. Should there be any difficulty in getting tickets? [112]

52. Will we dance? [107]

53. Could I open the door for you? [47]

54. It is unthinkable that he should resign. [102]

55. She can be very catty. (sarcastic) [74]
56. "You may not go out tonight," he said. [52]

57. Can I have two seats in the front row? [19]

58. I ought to phone my parents tonight, but I probably won't have time. [54]

59. You can wash your clothes downstairs. [56]

60. I may go, but I don't really want to. [68]

61. John must have arrived by now. [59]

62. They think I will accept the decision, but I won't. [62]

63. You might have a look at this book. [96]

64. Just as I was getting better, what must I do but break my leg. [65]

65. I could go now, if I wanted. (I don't want to). [97]

66. Should that happen, he will be very disappointed. [26]

67. The child ought to be reading by now. [40]
68. You will have heard that I am going to America. [41]

69. Students should work hard. [45]

70. I'm so happy, I could cry. [103]

71. He might not be hiding. [106]

72. Will you come? [109]

73. You say you want to pass. Then you must try harder. [51]

74. Shall I answer the telephone for you? [55]

75. You ought to come again. [108]

76. You shall do exactly as you wish. [88]

77. It can snow in April. [69]

78. Children must not cross busy streets alone. [92]

79. All students should submit (turn in) their work by a given date (...but some of them don't do it!) [110]
Appendix III

Survey Questionnaire III
Post-Test

Sentence Completion—Modal Sentences

Following the examples below, complete the thought expressed by each group of words, letting your reader know the speaker's reasons for his remarks.

Example: You must be careful because the road is busy, and I am afraid that you could get hurt by a car.

(The undelineed portion is added to explain the reasons that the speaker wants "you to be careful."

[The numbers in square brackets refer to the stimulus item's number on Questionnaire I (see Appendix I for annotation).]

1. I may go, but I don't really want to [68]

2. He said, "You may not go out tonight," [52]

3. They would ask all kinds of questions [11]

4. That must be my wife [32]

5. You might have been hurt [101]

6. Will we dance [107]

7. You will understand that this is strictly confidential [4]

8. I must go now [17]
9. I ought to study tonight [48]

10. You can wash your clothes downstairs [56]

11. Our guests ought to be home by now [91]

12. You must come again [53]

13. You will have heard that I am going to America [41]

14. You shall do exactly as you wish [88]

15. I ought to go now [9]

16. You might have apologized [8]

17. We could see the bottom of the lake [46]

18. I must take one tablet after every meal [2]

19. You ought to come again [108]

20. Be careful or you will fall on the ice [16]

21. You might let me know [31]
22. It is unthinkable that he should resign [102]

23. John must sleep in the car [16]

24. The child ought to be reading by now [40]

25. Will you come [109]

26. You ought to read this book [49]

27. You shall have the money tomorrow [93]

28. She can be very catty [74]

29. You might have been hurt [101]

30. He might not be hiding [106]
Appendix IV

Personal Information Questionnaire

Please answer the following questions as simply as possible:

1. Native language/language spoken at home.

2. Number of years resident in an English-speaking community?
   less than 1  1-3  3-5  5 or more.

3. Number of years of formal English training?
   less than 1  1-3  3-5  5 or more.

4. Regularity of spoken exchange with English speakers?
   every day  several-times a week  rarely or never.
5. Regularity and kind of written English input?

read newspapers/magazines daily

read newspapers/magazines sometimes

enjoy English language publications often

only read required academic materials

avoid all non-academic English language materials.

6. Regularity and amount of aural English input?

listen to English radio

go to English movies

watch English T.V.
7. How much English do you write?

only academic work? academic work and some personal materials?

some personal correspondence? I never write in English.

OTHER?
APPENDIX V

Scalar Evaluation Sheet (SE) [Annotated]
[The words in square brackets do not appear on the actual SE.]

Check ( ) the appropriate answer.

He was fifty-nine years of age and would be sixty next year [Zandvoort (1965:76)].

A. We are discussing the present. _______________________
B. We are discussing the future. _______________________
C. We are discussing the past. [actual past time frame] ____

Rank by number according to 'least' certain (1) to 'most' certain (9) [Close (1975:273), Hermerén (1978:94)].

- He ought to come tomorrow. ____
- He can come tomorrow. ____
- He will come tomorrow. ____
- He might come tomorrow. ____
- He may come tomorrow. ____
- He would come tomorrow. ____
- He could come tomorrow. ____
- He must come tomorrow. ____
- He should come tomorrow. ____

Rank according to how likely I am to study: (1) for 'least' likely to (4) for 'most' likely [Diver (1964)].

- I may study. _____
- I can study. _____
- I do study. ____
- I must study. _____

Rank according to how probable it is that I will pass this course: (1) for 'least' probable to (6) for 'most' probable [Hannah (1975)].

- I could pass this course. _____
- I may pass this course. _____
- I might pass this course. _____
- I will pass this course. _____
- I must pass this course. _____
- I should pass this course. _____
Rank according to the degree of duty or obligation felt by the speaker: (1) for 'least' duty to (3) for 'most' duty. Note that some may express the same degree [Close (1975) and others].

I ought to phone my parents tonight.  
I must phone my parents tonight.  
I should phone my parents tonight.  

Indicate the relationship between the speaker and the receiver of these messages. Note that more than one relationship can be possible [Azar (1981), Leech (1980)]

A. Parent to Child  E. Friend to Friend  
B. Parent to Child  F. Husband to Wife  
C. Student to Teacher  G. Wife to Husband  
D. Employer to Employee  H. Other (indicate)

1. Peel these potatoes.  
2. Will you peel these potatoes?  
3. Would you peel these potatoes?  
4. I wonder if you would be good enough to peel these potatoes?  
5. Would you pass the salt (please)?  
6. Will you (please) pass the salt?  
7. Could you pass the salt (please)?  
8. Can you pass the salt?  
9. Can I make a suggestion?  
10. May I make a suggestion?  
11. Might I make a suggestion?  
12. Would you mind if I made a suggestion?  
13. Could I make a suggestion?  
14. Shall I answer the phone?  
15. Should I answer the phone?  
16. Can you wait until I finish?  
17. Could you wait until I finish?
Some Modalities Expressed by Modals
(Referenced to Cited Source Texts)

Although many of these modality/modal relationships are suggested in more than one text, only one citation is given for each.

<table>
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<tr>
<th>MODALITY and OVERTONES</th>
<th>MODAL</th>
<th>SOURCE TEXT</th>
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</thead>
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<tr>
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<td></td>
</tr>
<tr>
<td>can</td>
<td></td>
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<tr>
<td>may</td>
<td></td>
<td>Hannah (1975)</td>
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<tr>
<td>will</td>
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<tr>
<td>Advisability</td>
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<td>desirable but not required</td>
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<td>Ehrman (1966a)</td>
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<td>instruction or suggestion</td>
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Ehrman (1966a)
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<tr>
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<td>Obligation</td>
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<td>Lebrun (1965)</td>
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</table>
contingent possibility may Twadell (1963)

Probable (scalar notion)
least probable could Hannah (1975)
may Hannah (1975)
less probable might Hannah (1975)
ought Wertheimer (1972)
should Hannah (1975)
must Hannah (1975)

stronger than can may Wertheimer (1972)
high probability would Ehrman (1966a)
most probable will Hannah (1975)

Propredicate

Pure Prediction shall Hannah (1975)
will Hannah (1975)
would Ehrman (1966a)

+ intent shall Hannah (1975)
will Hannah (1975)
ought Johannesson (1976)

Guarded prediction should Johannesson (1976)
will Hannah (1975)

Certainty must Hermeren (1978)

Qualified Generalization may Huddleston (1971)

Questions (first person) shall Twadell (1963)
asking for instructions shall Twadell (1963)
suggestions for future behavior shall Twadell (1963)

Request

can Hannah (1975)
may Hannah (1975)
will Hannah (1975)
would Hannah (1975)
could Hannah (1975)

Requirement
external societal authority must Ehrman (1966a)
required by rule or regulation to achieve an end with a higher probability than other methods.

Temporal categories include:
- Future: future + intent (inherent futurity)
- Future from past: past of will
- Future actuality: will
- Past of shall: shall
- Past of will: will
- Past of should: should
- Past of would: would

References:
- Wertheimer (1972)
- Ehrman (1966a)
- Hannah (1975)
- Twadell (1975)
- Coates (1983)
Modal, Modal Notion (Modality), and Sample context for Modal Auxiliaries Used in 1983-84 Linguistics 099 Essays

(Numbers in parentheses represents the number of times the modal is used to express the given modality.)

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<tr>
<th>Modality</th>
<th>Sample Context</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Can</strong></td>
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</tr>
<tr>
<td>Ability (16)</td>
<td>&quot;Now he can go to the places where no other animal can.</td>
</tr>
<tr>
<td>+ negative (1)</td>
<td>&quot;...in the sense that he cannot run as fast as a cheetah...cannot swim as well as a fish...&quot;</td>
</tr>
<tr>
<td>Have the Right (1)</td>
<td>&quot;Everyone can practice his religion the way he likes.&quot;</td>
</tr>
<tr>
<td><strong>Permit</strong></td>
<td></td>
</tr>
<tr>
<td>+ negative (2)</td>
<td>&quot;...if two persons can't get married.&quot;</td>
</tr>
<tr>
<td><strong>Could</strong></td>
<td></td>
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<tr>
<td>Ability</td>
<td>&quot;We could easily think about a bank...&quot;</td>
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<tr>
<td>+ hypothetical</td>
<td></td>
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<tr>
<td>(1)</td>
<td></td>
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<tr>
<td>+ past (2)</td>
<td>&quot;Man invented bicycles, cars and trains because he could not run fast...&quot;</td>
</tr>
<tr>
<td>Prediction</td>
<td></td>
</tr>
<tr>
<td>+ hypothetical</td>
<td>&quot;Love, the foundation of the marriage could easily be lost...&quot;</td>
</tr>
<tr>
<td>(2)</td>
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<tr>
<td><strong>May</strong></td>
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<tr>
<td>Possibility (3)</td>
<td>&quot;If books are not censored...they may be contain some kind of false ideas...&quot;</td>
</tr>
<tr>
<td>+ ability (1)</td>
<td>&quot;Sometimes, a tiny thing may mean a great deal to somebody.&quot;</td>
</tr>
<tr>
<td>+ hypothetical</td>
<td>&quot;Second reason is that the news may result in an aberration...&quot;</td>
</tr>
<tr>
<td>(1)</td>
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</tbody>
</table>
"He may still be the weakest of the animals..."

"One Chinese person may not be able to understand another if he is raised in a different part of the country."

"This might make the woman think that she is married to a crazy man."

"...and the interception might cause serious trouble."

"He might have been the weakest animal in the beginning..."

"A Buddhist wife or husband might not allow his or her partner to kill even mosquitoes in their tent."

"...such as the intelligence of the speaker and his or her ability...must be accounted for..."

"Marriage is a kind of duties which a lot of people must to be done."

"...people of different religions should not marry if they like to avoid having difficult married life."

"In conclusion, books, films and news should be censored by government agencies..."

"In case the book which is censored with sex or violence should be censored by government..."

"I want that the government should not
censor...

Interrogative (2)  "But what should be the way to censor such work?"

Obligation (4)  "...but government should be aware of its role and limit...

+ moral/ official (3)  "...and should be prohibited if they deal with sex."

Permit (7)  "It's not a statement make up be anybody that should stop love."

+ negative (1)  "I believe, although both play a very important role in our life, should be treated separately and most of all should not interfere with each other."

Will

Prediction (10)  "The freedom and right to know, to choose, and to express opinions will be immensely altered by a strict censure...

+ causitive/ hypothetical (1)  "If...the society will not be clean...

Volition (2)  "...if the people of different religion will not get marry."

+ prediction (1)  "I will give in my following essay three reasons why I disagree with that."

Would

Assertion (1)  "...and it won't be ceased or prohibited if there is not a government agency...

Hypothetical (2)  "...and he or she can do whatever likes to do with them—would not tolerate to sleep with the mosquitoes."

+ future (8)  "...which would make the masses of the poor self-supporting."

+ possibility (1)  "Everyone in town would have a equal change in touch with the uncensored books..."

+ prediction  "Each one of the parents would try to get
Past (1) "Both men thought it would be necessity for some kind of economic program..."

Prediction + causitive (1) "So if...they would also result in deviation and destruction of the believes of the society."

+ present (1) "To a Finn this would be amusing..."
### Appendix VIII

List of Modalities, Overtones, and Modal Verbs Used in the 1984-85 Linguistics 099 Azar-based Essays with Sample contextualizations

(Numbers in parentheses represents the times the modality or modal is used in these papers.)

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<thead>
<tr>
<th>Modality/Overtones</th>
<th>Modal Verb(s)</th>
<th>Sample Contextualization</th>
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<td>will (4)</td>
<td>&quot;One or the other will result in an accident&quot; (E8)</td>
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<td>&quot;If they don't receive enough of this time they would feel neglected&quot; (E13)</td>
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<td>could (3)</td>
<td>&quot;and it could become too costly&quot; (E13)</td>
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<td>could (1)</td>
<td>&quot;They could even regulate it to zero&quot; (E7)</td>
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<td>&quot;Maybe regulating the number to two would be acceptable&quot; (E7)</td>
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<td>&quot;Children in a poor family might not be able to go to school&quot; (E2)</td>
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<td>will (8)</td>
<td>&quot;There will be less gangsters&quot; (E2)</td>
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<td>&quot;Having two children would cost less&quot; (E13)</td>
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<td>Ability (11)</td>
<td>can (5)</td>
<td>&quot;I can understand that the population...&quot; (E7)</td>
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<td>&quot;Communication can be a problem&quot; (E3)</td>
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<td>Obligation/Duty (11)</td>
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<td>&quot;Everybody must do something about all these problems&quot; (E9)</td>
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<td>ought (2)</td>
<td>&quot;People ought to be educated by others&quot; (E9)</td>
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<td>should (7)</td>
<td>&quot;The government should do its best&quot; (E7)</td>
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Possible (8) can (2) "People can have a long-term schedule" (E5)
could (2) "I could say that..." (E7)
might (3) "Some people might even feel their parents..." (E13)
+ slight may (1) "One may have to make many sacrifices" (E3)

Ideal Situation (1) should (6) "Nevertheless, the child should have his own right to decide" (E8)

Necessity (3) + inevitable might (1) "...so they might as well split apart" (E8)
+ logical ought (1) "There ought to be some other way of controlling the population" (E7)
+ personal must (1) "I must disagree with the idea" (E7)

Advisability (3) should (3) "People of different religions should not marry; if they do, many problems could arise" (E3)

Permit/Allow (2) can (2) "A low income family can only have one child" (E11)

Have the Right (2) should (2) "The parents should control what materials are available" (E6)

Volition (2) + third person would (1) "every single family would like to have" (E7)
+ honorific would (1) "I would like to mention that" (E6)

Prediction (1) will (1) "Overpopulation will cause some other problems" (E11)
Appendix IX


1. (a) May I use your phone?
   (b) Could I use your phone?
   (c) Can I use your phone?

Consensus: stimulus sentences are 'asking for permission'; stimulus sentences indicate 'degrees of politeness'

Other Notions:
- can: informal, used between friends or close relations;
- could: past of can; similar to can; same as may;
  but may sounds better;
- can or could: only differ in level of politeness;
- may: most polite; high status; formal;
- might: permission.

2. (a) You should take an English course.
   (b) You ought to take an English course.
   (c) You have to take an English course.

Consensus: Should and ought (to) similar or same in meaning: 'You have to take it'

Other Notions:
- should: advice, advisability;
- ought: advice, obligation, have to;
- must: stronger than should; required, obligation, have to;
- have to: obligation.

3. (a) You should see a doctor about that cut on your arm.
   (b) You had better see a doctor about that cut on your arm.

Consensus: both are suggestions

Other Notions:
- should: advice, advisability, stronger advice;
  just a cut;
- had better: warning, more than should.
4. (a) You must not use that door.
   (b) You don't have to use that door.

Notions:
   **must**: shouldn't, prohibited, obliged not to use it,
   no choice, 'not allowed to use it';
   **had better**: choice, 'up to you', shouldn't use it, but there
   is a choice, don't have to use it;
   both the same meaning.

5. (a) I will be at your house by six o'clock.
   (b) I should be at your house by six o'clock.

Notions:
   **will**: more certain, future prediction at a definite time,
   unless something unexpected happens, promise, volition "my
   voluntary" (B9), probably definite, not really sure;
   **should**: less certain, "schedule for myself" (B12), around
   six o'clock sometime, "a certain thing makes me go" (B9),
   definite statement, not sure, but I'll try to make it'.

6. There is a knock at the door. Who do you suppose it is?
   (a) It might be Sally.
   (b) It may be Sally.
   (c) It must be Sally.

Notions:
   **might**: less sure or certain than may, not very sure,
   probably not high probability, least strong in way of
   probability, same as may;
   **may**: more sure than might, same as might, not very high
   probability, possibility stronger than might, less
   strong than must in way of probability;
   **must**: some reason, logical assumption, expect, very sure,
   high probability, certainty, no choice, strong.

7. (a) Jack might have gone home.
   (b) Jack must have gone home.
   (c) Jack had to go home.
   (d) Jack should have gone home.

Notions:
   **might**: possibility, probability not high, maybe, not sure,
   regretful;
   **must**: logical assumption based on evidence, quite sure,
   definite thing, sure he went, stronger than might,
   for sure;
   **had to**: definitely went for some reason, no choice, required,
   "something happened to him and he had to leave" (B12),
past of necessity;
should: advisable but didn’t go, not really sure, didn’t go,
strong possibility he is at home, supposed to go but
didn’t, probably because of evidence, more certain than
might.

8. (a) When I living at home, I would go to the beach every
weekend with my friends.
(b) When I was living at home, I used to go to the beach
every weekend with my friends.

Concensus: difference in level of actual frequency in the past

Other Notions:
would: hypothetical, not true, once a month, not continuous,
more regular than used to, sometimes only;
used to: not any more, every weekend, continuous, something
that happened in the past then stopped.
Appendix X

Scalar Ranking of Modal Auxiliaries by Subject Populations on Item 2
(In order of increasing certainty)

'He____ come tomorrow'

* This subject rated all options at either 1 or 9; therefore, his ranking may not reflect his actual understanding of the modal auxiliary in question.

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Totals 102% 100% 100% 99%
Appendix XI

Percentage Scalar Ranking of Modal Auxiliaries on SE Item 3 by Subject Populations
Ordered from 'Most' to 'Least' Likely

I _______ study

|MUST|
|---|---|---|---|
| | Native Speakers | ESL Test | ELP '84 | 099 84-85 |
| 'least likely' | 1 | -- | -- | 5 | -- |
| | 2 | -- | 14 | -- | 18 |
| | 3 | -- | -- | 5 | -- |
| | 4 | -- | -- | 5 | -- |
| | 5 | 17 | 29 | 5 | -- |
| | 6 | 83 | 14 | 10 | 27 |
| 'most likely' | 7 | -- | 29 (099) | 33 | 55 |

Totals 100% 100% 101% 100%
### MAY

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Totals 100% 99% 101% 99%

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Appendix XII

Percentage Scalar Ranking of Modal Auxiliaries on SE Item 4 by Subject Populations Ordered from 'Most' to 'Least' Probable

I _____ pass this course

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Totals 101% 99% 101% 100%
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Totals: 101% 100% 101% 99%

### SHOULD

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Peel the Potatoes: sub-group 1

1. Peel these potatoes.

**INTERPERSONAL RELATIONSHIP**

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2. Will you peel these potatoes?

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3. Would you peel these potatoes?

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4. I wonder if you would be good enough to peel these potatoes?

**INTERPERSONAL RELATIONSHIP**

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Pass the Salt: sub-group 2

5. Will you (please) pass the salt?

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6. Would you pass the salt (please?)

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Native Speakers  
14 14 14 14 14 14 14

ESL Test  
13 13 13 13 25 13 13

ELP '84  
15 11 13 11 19 17 15

099/84-85  
11 16 11 11 16 19 16

---

Can you wait until I finish? sub-group 3

7. Can you wait until I finish?

**INTERPERSONAL RELATIONSHIP**

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Native Speakers  
38 13 13 -- 13 13 13

ESL Test  
50 10 -- -- 10 -10 20

ELP '84  
18 7 15 18 18 15 15

099/84-85  
30 10 5 10 15 15 15
8. Could you wait until I finish?

INTERPERSONAL RELATIONSHIP

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Can I Make a Suggestion?: sub-group 4

9. Can I make a suggestion?

INTERPERSONAL RELATIONSHIP

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10. *May I Make a Suggestion?*

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Native Speakers

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11. *Might I Make a Suggestion?*

**INTERPERSONAL RELATIONSHIP**

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Native Speakers

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12. **Would you mind if I Made a Suggestion?**

**INTERPERSONAL RELATIONSHIP**

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13. **Could I Make a Suggestion?**

**INTERPERSONAL RELATIONSHIP**

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SHALL I ANSWER THE PHONE?: SUB-GROUP 5

14. **Shall I answer the phone?**

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15. **Should I answer the phone?**

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To Age Isn't to Die

One day, like everybody, we'll be an old man or old women. In West, the old age isn't worthful. In contrast, in Est the old persons take their place and wear a high status.

After sixty years old, here, the adult become useless. As a result, we put them all together as if they are waiting death. Of course, this fact bring many advantage. The quietness allow the old persons to rest and sleep. Nurses wait on them and bring them good foods. We take care of them. On the other hand, they like to play with children, and like to discuss with adults. They need to feel they they still can do something. They want to see live events rather than see theirs pals dying. Obviously, it might be beneficial for them to stay with their family. As there are also disadvantages everywhere, therefore, they might miss quietness or intimacy. The hard task would be for the tutor or the person who would take care of him or her. He or she might need intimacy, too, or might feel criticized by his or her parent since one generation separate each other. Because families are not so big than it was before, the old man or woman might feel alone. But, for sure, they would be happier, more lively and more delighted.

What it'll be happen to us later?
VITA

Surname: WARBEY  Given Names: MARGARETTA BERENICE

Place of Birth: London, England  Date of Birth: February 7, 1947

Educational Institutions Attended, with dates of entering and leaving:

San Francisco State University, California  1964 to 1965
Diablo Valley College, California  1970 to 1970
The University of British Columbia  1970 to 1972
University of Victoria, B.C.  1974 to 1976
University of Victoria, B.C.  1981 to 1986

Degrees, Diplomas, Etc., Awarded, with Dates and Names of Institutions:

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<td>M.A.</td>
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Honors and Awards:

Association of B.C. TEAL Scholarship, 1981
University of Victoria Graduate Fellowship, 1982/83/84
University of Victoria Graduate Travel Grant, 1985

Publications:


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Title of Dissertation

The Acquisition of Modal Notions by Advanced Level Adult English as a Second Language Learners

Author

Margaretta Warbey

May, 1986