HEDGING YOUR BETS:
L2 LEARNERS' ACQUISITION OF PRAGMATIC DEVICES IN ACADEMIC WRITING AND COMPUTER-MEDIATED DISCOURSE

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ABSTRACT

This study had two purposes: The first was to investigate the effects of instruction on pragmatic acquisition in writing. In particular, the focus was on the use of hedging devices in the academic writing of learners of English as a second language. The second purpose was to discover whether this training transferred to a less-planned, less-formal, computer-mediated type of writing, namely a Daedalus interaction. Graduate students enrolled in an academic writing class for non-native English-speakers received treatment designed to increase their metapragmatic awareness and improve their ability to use hedging devices. Data were compared to a control group that did not receive the treatment. The treatment group showed statistically significant increases in the use of hedging devices in the research papers and in the computer-mediated discussion.

INTRODUCTION

Since Kasper and Schmidt's article "Developmental issues in interlanguage pragmatics" (1996) arguing for the inclusion of interlanguage pragmatics (ILP) as a legitimate focus of inquiry within the larger body of second language acquisition research, there has been an increased interest in the effects of instruction on ILP development. This is most notable in the number of new studies concerned with the role instruction plays in the development of pragmatic fluency of second language learners (Bouton, 1994; House, 1996; LoCastro, 1997). Recent works presented at the 1998 Second Language Research Forum (SLRF) dealt with classroom instruction and the use of interactional role-play to improve consciousness-raising and metapragmatic awareness (Fukuya, 1998; Tamanaha, 1998). Another study looked at the effect of metapragmatic discussions on increasing pragmatic awareness and instructional techniques used to focus learner attention (Pearson, 1998). These studies demonstrate that instructional activities designed to raise the consciousness of adult L2 learners combined with metapragmatic information regarding pragmalinguistic and sociolinguistic norms in the L2 can be

effective and enhance pragmatic acquisition.

Previvous research discussing the "inseparability of language and culture" (Agar, 1994; Roberts, 1998, p. 109) has further supported this trend of having second language instruction focus explicitly on raising learners' metapragmatic awareness. Roberts (1998) asserts that intercultural communicative awareness (highlighting communicative styles) should be included as an extension of the notion of "Language Awareness" (Roberts, 1998, p. 109) because it is clear that communicating effectively and efficiently in any given language requires more than just linguistic knowledge. The ability to use pragmatic knowledge strategically allows one both to convey and interpret meaning. Culture obviously plays a significant role in defining what we may and may not say, when and where we say it, to whom we say it, and why we say it.

For second language learners, all communication in the target language takes place within an intercultural context (Roberts, 1998). However, distinct discourse communities exist intraculturally, as well as interculturally, making metapragmatic awareness "all the more important and difficult to achieve" (Roberts, 1998) for second language learners. Metapragmatic awareness increases the language learners' sensitivity to these differences and should aid in the development of pragmatic competence.

Instruction meant to raise the learner's awareness of these types of intracultural communicative variations can be extended to written discourse communities, as well. In analyzing the writing of non-native English speaking students in graduate writing classes, many times an opinion or a belief will be expressed as if it were a statement of fact. Gilbert (1991) reported that this may be a function of non-native English speakers (NNESs) misinterpreting instructions that English writing is expected to be direct. She asserts that NNESs often produce written texts that are so straightforward they are considered by the reader to be inappropriately blunt. Generally, instructors suggest a sentence revision which includes some sort of mitigator like "I think...," "I believe...," "This could be due to...," "One possible explanation is..." However, no published studies have looked specifically at the effects of instruction on the acquisition of pragmatics in academic writing in the L2. Nor have studies looked at the transfer of pragmatic training from one type of writing task to another in the L2. This study seeks to investigate if, through more explicit, metapragmatic instruction, students acquire this skill in their planned academic writing and, if they do, is it also transferred to more informal, less planned writing such as a Daedalus discussion (a computer-mediated, synchronous, dialogic form of written discourse). This study addresses the following research questions:

1. To what extent does pedagogical intervention facilitate the acquisition and development of pragmatic competence (specifically hedging techniques) of

NNESs in planned academic writing?

2. Is there any transfer of pragmatic training in planned academic writing to a less-planned, computer-mediated, written communicative mode?

Instruction, Awareness, and Acquisition of Pragmatics

Unlike grammar, it is widely accepted that pragmatics is something we teach to young children as they acquire their L1. One's knowledge of pragmatics and capacity to use pragmatic strategies are gained both implicitly and explicitly. Parents and peers provide corrective feedback, rules, and models that assist in the development of L1 pragmatic ability (Kasper & Schmidt, 1996). As Kasper and Schmidt (1996) point out, there is no pragmatic equivalent to the language acquisition device that would eliminate the need for *any* explicit pragmatic instruction. We are socialized into a cultural paradigm of politeness.

Like L1 pragmatics, then, acquiring pragmatic fluency in the L2 is likely to require instruction (Bouton, 1994; Cohen, 1996; House, 1996; Hinkel, 1997; LoCastro, 1997). Schmidt (1993) and Bialystok (1993) offer two complimentary proposals: Schmidt (1993) argues that the initial stages of foreign language pragmatic acquisition require that learners notice and focus attention on relevant input and Bialystok (1993) argues that in order for adults to acquire pragmatic competence they must be able to "develop the control strategies to attend to the intended interpretations...and to select forms...that satisfy the social and contextual needs of the communicative situation" (1993, p. 54). At the very least, noticing is necessary to build metalinguistic knowledge, giving a learner the ability to discuss the language (Roberts, 1998; Truscott, 1998). In the absence of this, communicative activities in the classroom often encourage production practice, but do not expose learners to the types of sociolinguistic input that would facilitate pragmatic acquisition (Porter, 1986, cf. Kasper & Schmidt, 1996). Other researchers (Erickson, 1979; Chick, 1996) agree that noticing and critical awareness training are superior to any sort of "direct teaching of culturally specific contextualization cues" in isolation (Chick, 1996, p. 345). They claim that learners who are encouraged to raise their metapragmatic awareness are better equipped to make appropriate pragmalinguistic choices (Erickson, 1979; Chick, 1996).

Conversational data have provided the bulk of the empirical evidence for the effectiveness of instruction in developing pragmatic fluency. Models of politeness, such as the one proposed by Brown and Levinson (1987), rely on a well-delineated, non-culture specific hierarchy of politeness strategies in which speakers mitigate Face Threatening Acts (FTAs). Their system assumes a continuum of negative and positive face in which an interlocutor develops rational strategies to deal with social interactions

based on three variables: "the social distance between the Speaker and the Hearer (D); the relative difference in power between the Speaker and the Hearer (P); and the rank of the imposition" (Myers, 1989, p. 2). The speaker's goal is to achieve "the highest pay-off with the least loss of face" (1989, p. 2).

Myers extends these strategies and uses them to interpret scientific articles, a genre of writing that makes "two kinds of impositions: claims and denials of claims" (1989, p. 1). It is the use of hedging devices that mitigates the illocutionary force of propositions and claims (Cherry, 1988; Myers, 1989). Like Myers, other researchers have recognized that academic research and technical articles use phrases, rhetorical features, and strategies that are highly routinized and formulaic (Graham, 1957; Hinkel, 1997; Hyland, 1998; Shaw & Liu, 1998).

Audiences for these types of articles are particularly sensitive to pragmalinguistic and politeness conventions. In order to make an extension of the Brown and Levinson paradigm logical and to analyze published scientific articles in terms of politeness, Myers defines an intended audience or addressee for this type of written text and defines the cultural context in which the text is written. According to Myers, the audience is divided into two groups: a general audience familiar with the research area "and an immediate audience of individual researchers and particular groups of researchers doing similar work" who *eavesdrop* (1989, p. 3). Authors use politeness strategies to display to the general audience "the proper respect for the face of members" of the more immediate audience (1989, p. 3). Hinkel's (1997) findings suggest a need to address issues of politeness in L2 writing instruction.

Hedges in Academic Writing

The view that academic writing is no more than a collection of facts, unfolding in a direct and impersonal manner, and eventually leading the reader to an inescapable truth, is untenable upon closer scrutiny of the research article (Bloor & Bloor, 1991; Hyland, 1998). Areas of scientific inquiry are pragmatically sophisticated and are teeming with examples of hedges. Hedges are an "essential element of academic argument" (Myers, 1989; Hinkel, 1997; Hyland, 1998, p. 6) and help structure the research paper. Writers are trying to advance either support for or repudiation of some theory(ies) or hypothesis(es). In so doing, hedges allow writers "to express a perspective on their statements" or the statements of others, "to present unproven claims with caution and to enter a dialogue with their audience" (Hyland, 1998, p. 6).

For NNESs, mastering this particular genre can prove elusive. Several articles commenting on the difficulties of writing research papers have shared similar findings: unqualified and direct writing typically distinguishes NNESs from their native English

speaking counterparts (Hu, Brown, & Brown, 1982; Skelton, 1988; Bloor & Bloor, 1991). Unfortunately for NNESs, while researchers have found that the use of hedges in academic writing is necessary to advance and support claims (Cherry, 1988; Myers, 1989; Swales & Feak, 1994), instructors of writing for NNESs often unwittingly give the impression that writing research articles in English requires direct, linear arguments and that they are weakened by *any* personal references or hedges (Bloor & Bloor, 1991; Gilbert, 1991). Textbooks also reinforce this stereotype of directness, some even advising writers "to avoid hedging altogether (e.g., Strunk & White, 1959; Winkler & McCuen, 1989)" (Hyland, 1998, p. 8). As a result, students become so direct in their writing that it is considered inappropriate and they are criticized for being offensive. Thesis supervisors for English L2 writers are often required to edit for appropriate degrees of qualification (both more and less) in expressing claims (Dudley-Evans, 1991).

For NNESs in graduate programs, mastery of linguistic and rhetorical devices in English is requisite if they wish to publish their work in journals, English being the "lingua franca of scientific research" (Hyland, 1998, p. 8). Having research published in English language journals guarantees the widest possible audience for research. Hyland cites the lack of materials devoted to this topic as one of the main reasons that "second language students find hedging their propositions notoriously problematic" (1998, p. 8). The good news for NNESs is that many researchers believe that learning how to use hedging devices effectively is something that can be taught by making learners aware and drawing their attention to hedging and by direct instruction (Bloor & Bloor, 1991; Hinkel, 1997; Hyland, 1998; Shaw & Liu, 1998).

Hedging

According to Webster's II, New Riverside Dictionary (1984), a hedge is any "deliberately ambiguous statement" or any equivocal statement. House and Kasper (1981) include hedges among other mitigating devices in their politeness marker category "Downgraders." They call these devices hedges, play-downs, understaters, downtoners, or "minus" committers. (For a complete description of these devices in speech, see House & Kasper, 1981.)

However, in academic writing, hedging is most appropriately described as "either (a) a lack of complete commitment to the truth value of an accompanying proposition, or (b) a desire not to express that commitment categorically" (Hyland, 1998, p. 1). In Myers' (1989) discussion of the use of politeness in scientific writing, he groups all such linguistic devices under his category of "negative politeness and hedging," focusing less on the description of the linguistic devices themselves than on their purpose or motivation. He states, "Hedging is a politeness strategy when it marks a claim, or any

other statement, as being provisional, pending acceptance in the literature, acceptance by the community—in other words, acceptance by the readers" (p. 12). Myers goes on to point out that hedging can be realized in many different linguistic forms, and gives examples of the use of conditional statements, modifiers, verb choice, framing statements that indicate the weight a statement should have or the degree of doubt involved, and even statements of personal opinion. Examples Myers provides that illustrate these strategies include the following:

1. Thus, a *plausible* model for the synthesis of the mature hexon mRNA *would be*… (Berget, Moore, & Sharpe, 1977).
2. The three short segments...are *probably* spliced to the body of this mRNA… (Berget, Moore, & Sharpe, 1977).
3. These findings *suggest* that U1 RNP is essential for the splicing of mRNA precursors… (Padgett et al. 1983).
4. Thus, *it seems highly likely* that RNA-RNA splicing is truly the mechanism for bringing "mosaic" mRNAs together (Darnell, 1978).
5. *We believe* the functioning gene in the myeloma will consist of… (Tonegawa et al., 1978).

Leaving alternative interpretations open is a politeness strategy aimed at "softening" a potential face-threatening activity (a term he borrows, along with the politeness theory he employs, from Brown & Levinson, 1987).

Just how face-threatening an act will be depends, in part, on the relative status of the interlocutors. Bardovi-Harlig and Hartford (1993) put the use of mitigators within their proposed framework of status congruence ("the match of a speaker's status and the appropriateness of speech acts given that status" p. 280). They suggest that using mitigators is a status-preserving strategy aimed at making a noncongruent speech act more congruent with the speaker's status in the situation. In writing a research paper, though, the writer's status vis-à-vis the reader is not predetermined. While writers do consider their readers, they are most concerned that the claims they are making "meet both adequacy and acceptability conditions"[1] (Hyland, 1998, p. 94). Hedges are meant to

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[1] Hyland sees the use of hedging devices as largely a result of the writer's awareness of audience. The writer must consider that "the reader's standpoint is not predetermined" and that "there can be opposition to any sentence through negation of its propositional content" (p. 91). This leads the writer to attempt to meet the "standards of correspondence with what is known (or believed to be) true in the world" (p. 91). Hyland refers to "the relationship between the proposition and an extra-linguistic representation of reality" (p. 91) as an *adequacy condition*. Propositions which are hedged due to reader considerations, in spite of the fact that they could be take the form of categorical assertions, are thought to incorporate an "awareness of interpersonal factors and this aspect of claim adjustment" (p. 91) is referred to as an *acceptability condition*.

reduce the risk of negation on both objective and subjective grounds (Hyland, 1998).

Planning Time

The complex relationship between the promotion of empirical facts and, at the same time, gaining acceptance for knowledge claims requires that a writer be able to make appropriate linguistic and rhetorical choices. Organizing these devices to effectively present one's arguments "has been shown to be a critical feature of good ESL and native speaker student writing" (Hyland, 1998, p. 50). However, acquiring these skills and being able to use them efficiently takes time (McCann, 1989; Ventola, 1992).

Researchers have had success in linking the amount of planning time ESL students have with language fluency and complexity (Crookes, 1989; Foster & Skehan, 1996; Skehan, 1996). Ochs defines planned and unplanned language in the following ways: "1. Unplanned discourse is discourse that lacks forethought and organizational preparation. 2. Planned discourse is discourse that has been thought out and organized (designed) prior to its expression" (Ochs, 1979, p. 55 cf. Crookes, 1989). If this distinction between planned and unplanned language is applied to the two writing tasks intended for study here (an academic research paper and a Daedalus discussion), we have a writing task which would fall on the high end of the continuum (more planning) and a writing task that falls on the lower end of the scale (less planning), respectively. One would expect to see more sophisticated and varied use of hedging devices, after acquisition, used in the research paper than those used in a computer-mediated communication, which takes place in real time.

Transfer of Training

Larsen-Freeman and Long (1991) state that, "it is reasonable to expect that formal [second language] instruction may trigger such processes as transfer, transfer of training and (over) generalization" (p. 325). However, studies demonstrating useful transfer of training in second language acquisition are very few. Most studies focus on negative transfer from the L1 (Kasper, 1992), the "misapplication of knowledge derived through teaching" (Kasper & Schmidt, 1996), or the inauthenticity of discourse style in the classroom that precludes successful transfer to situations outside the classroom (Kasper, 1982).

LoCastro (1997), on the other hand, found that explicit instruction in linguistic aspects of politeness resulted in a small, but discernible, amount of transfer of training between classes in an intensive English program. She examined the effects of instruction on pragmatic competence among L2 learners in a speaking skills class and the transference of that competence to a speech situation in another class (reading and

discussion). Although the observed transfer of training was not as great as had been anticipated, after nine weeks of instruction participants demonstrated greater linguistic variation in their requests, increased use of alerters (forms of address), more internal modification by use of modals, and more details to support the utterances' propositional content and illocutionary force (p. 92). LoCastro hypothesized that one reason that the students exhibited less gain than expected was that the speech act she chose to observe was a request put to peers who were assumed to be cooperative. In such a context, this type of FTA required less mitigation.

However, as Myers (1989) and Hyland (1998) have demonstrated, making claims in academic writing requires much mitigation. Therefore, it is believed that in this study the context of the written speech acts the students will be undertaking will require them to use the target pragmatic devices in both the research paper and the computer-mediated discussion to a greater degree than those in the LoCastro study (1997).

METHODOLOGY

The Study

In this study, I investigated the effects of instruction on the use of pragmatics in academic writing and the possible transfer of this pragmatic training to a less formal (although still academic), less planned form of written communication, specifically Daedalus interactions. Daedalus is a type of computer program that allows students to "talk" in real time by posting their written contributions to a chat room-like discussion and to respond to other participants' postings in writing. It is a dialogic, synchronous form of computer-mediated communication undertaken in a computer lab. The respondents are not anonymous, as their names are included with their postings. The audience is clearly defined and includes only the respondents' classmates and instructor.

As in LoCastro's study (1997), the purpose of the instruction was to draw the students' attention to and raise their awareness of pragmatic devices and the reading audience with the intention of improving the learners' pragmatic competence. Qualifications and hedges were specifically targeted, as well as calling on students to make strength of claim judgments about various verbs.

Participants

The participants in this study were 26 graduate students at a large public university on the Pacific Rim. The students were from Cambodia, Korea, Thailand, Japan, Taiwan, and the People's Republic of China. They were enrolled in one of two sections of a semester-long English writing class for graduate students, which is part of the English Language

Institute, a program providing ESL instruction to international students entering the university with TOEFL scores below 600. The course is designed to prepare students to write academically acceptable papers in their fields of study, while familiarizing them with technology commonly used in academia, such as electronic mail, web pages, chat rooms, and discussion lists. For all of the students, English is their second language. They have been studying English for 9.2 years on average (the treatment group averaged 9.3 years and the control group averaged 9.1 years). The average length of stay in the US was 12.5 months (10 months on average for the control group with a range of 3 months to 19 months and 15 months on average for the treatment group with a range of 6 months to 42 months).

Throughout the fifteen-week semester, students received instruction on various aspects of writing. Twelve of the students were enrolled in the control group section, which met Tuesdays and Thursdays from 3:30-4:45 p.m. The other fourteen students were enrolled in the treatment group section, which met Mondays, Wednesdays, and Fridays from 2:30 to 3:20 p.m. Both classes emphasized things such as approaches to academic writing, organization, data commentary, written critiques, summarizing, and grammar. Students completed bi-weekly e-mail journals in addition to completing readings and short assignments from their textbook, *Academic writing for graduate students: A course for nonnative speakers of English* (Swales & Feak, 1994). In order to fulfill the requirements of the course, regular attendance and participation were required. Students were also expected to write two academic papers, one dealing with either cross-cultural communication or gender issues in some form (due mid-semester) and the other about a topic in their field of graduate study (due at the end of the semester).

Materials

During this study, various methods of data collection and treatments were used. The two Daedalus discussions required that each student have access to a computer in the computer lab with the Daedalus program installed. The prompts that were used appear in Appendices A and B. The complete transcripts of these discussions were saved and analyzed. One Daedalus discussion was done prior to any treatment and one occurred directly after treatment. The treatment took place during weeks nine and ten. On Friday of week nine, the instructor of the treatment group presented the explanation in the textbook about qualifications and strength of claim. One exercise from the textbook, Task Six, was done in small groups followed by a classroom discussion of the responses. (The textbook's explanations and the accompanying exercises appear in Appendix D). I observed the instruction, and participated, insofar as I offered my opinions when no consensus could be reached as to how different verbs might be interpreted. After the

completion of Task Six, a worksheet (see Appendix C) was assigned as homework. Students were instructed to complete three of the five prompts and hand them in to the instructor during the following class. In addition to bringing in the completed prompts, students were asked to bring in a research article from their field of study on the next class meeting. During the next class session, the other textbook exercise, Task Seven, was completed (see Appendix D) in small groups and followed by a discussion. I also attended and participated in this lesson. I gave a brief lecture on the function and appropriateness of hedges in academic writing, where in research articles they were most likely to occur, and the pitfalls associated with both underuse and overuse of hedges. Students were shown a chart (see Appendix E) of a glossed list of indirect phrases taken from academic articles and these were discussed. During the last part of the treatment, the students were given a handout containing the glossed list of indirect phrases commonly used in academic writing (see Appendix E) and asked to find evidence of hedges in the published research papers they had brought with them to class. Daedalus transcripts and research papers, pre and post-treatment, were collected from the treatment group students and were analyzed and compared to control group Daedalus transcripts and research papers.

Procedure

Prior to the treatment, baseline data on the students' use of hedging was collected from both the control and treatment groups using samples of their planned academic writing (their first papers) and from their unplanned writing (a forty-minute Daedalus interaction that took place in the computer lab using Daedalus prompt 1, Appendix A).

The treatment involved several activities that were included as part of the normal flow of the course. In the first treatment class meeting, the teacher presented various ways of hedging claims made in academic writing as shown in the students' text (see Appendix D). The students then worked in pairs or groups of three to complete a practice task from the textbook (see Appendix D) in which they had to choose the weaker (or more qualified) of two verbs to use in a sentence. Afterwards, the teacher asked the groups to report on the answers they had chosen. The students spent approximately forty-five minutes discussing the different nuances of meaning between the verbs in each pair. For homework, students were given a worksheet, which further explained the purposes of hedges in academic writing. They were asked to complete three of the five prompts and turn them in the following class. In addition to bringing in the completed prompts, students were asked to bring in a research article from their field of study on the next class meeting. They were not told what they would be doing with the article. During the following class, another task (see Appendix D) dealing with restatement of bald

claims was presented. As with the other task, students were asked to work in pairs or groups of three to complete the task and afterwards participated in a discussion of the different types of restatements that could be made to soften the claims. This took approximately twenty minutes. During the next twenty minutes, I talked generally about hedges, and answered concerns about cases in which they were and were not appropriate. The class also looked at the list of glossed hedges taken from published scientific studies (Appendix E) and their rather irreverent translations. Students spent the last ten minutes of class looking through the research articles they had brought to class for hedges and discussing what they found, which sections of the papers were more likely to have hedges, what types of statements were likely to be hedged, and what the effect of the hedge was on the reader. One aspect of this part of the treatment was to further focus learner attention by asking them to notice hedging devices, thus heightening metapragmatic awareness and providing opportunity for growth in pragmalinguistic competence.

Throughout the classroom instruction portion of the treatment, all students were actively engaged and on task. Many commented on the direct relevance of the treatment to the enhancement of their understanding of language routinely used in academic research articles and to the improvement of their own writing. Three of the students later approached me and told me that they thought the classes devoted to hedging were worthwhile. One student even e-mailed me about a comment she had received from one of her professors on a paper. She said she realized, after the lesson, that the comment was related to a claim she had made that needed to be mitigated.

One week after the treatment class, the students participated in another in-class Daedalus interaction in the computer lab using Daedalus prompt 2, Appendix B. (For the control group, the Daedalus treatment occurred during the same instructional week but without any intervening treatment.) The students spent approximately forty-five minutes responding to the prompt.

Before starting the discussion, the treatment group instructor reminded the students that the Daedalus interaction could be an opportunity for them, when stating claims or expressing their opinions, to practice using some of the hedging devices they had talked about in the previous class session.

The Daedalus discussions elicited varying degrees of participation, some responding in writing more frequently than others. All students did write multiple responses and all seemed to be attentively following the discussion by reading the comments of their classmates.

Data Analysis

The pre-treatment data for both the treatment group and the control group, which included the first research paper and the first Daedalus exchange, were examined in order to make sure that the groups were roughly equivalent and to become familiar with the types of hedges that the students were producing. Next, the students' completed practice tasks and observations of classes in which the students were actively engaged in hedging exercises designed to increase metapragmatic awareness were considered. Finally, the ways in which the students used hedging devices in the final drafts of their academic papers were analyzed along with the complete transcripts of the second Daedalus interaction for both the control and treatment groups. The Daedalus interaction which took place after the instruction on hedging devices was compared to the previous baseline data and to the second control group Daedalus interaction to determine if and how students were using the devices about which they had received explicit instruction in class. The collected data were used to confirm whether the students were using more mitigators than they did previously and, when used, whether the students were using the mitigators in a pragmatically appropriate context or overgeneralizing their use to inappropriate contexts.

Like LoCastro (1997) and Myers (1989), a decision was made to conduct the analysis primarily qualitatively so as to better address relevant contextual cues. In addition to counting tokens, the linguistic environment in which the hedging devices occurred was taken into account. This study is predominantly interested in a relative increase in use of politeness strategies, in this case, hedging. The answer to the questions postulated entails accounting for "the speech act realizations as well as the...perceived communicative goals within the context of the speech event" (LoCastro, 1997, p. 80).

RESULTS

Planned Writing: Pre- and Post-Treatment Results

The hedges examined for this paper were used to qualify or moderate the claim being made and generally fell into the linguistic categories of hedges delineated by Myers (1989): Verb choice, quantifiers, modifiers, conditional statements, and framing statements. The pre-treatment planned writing consisted of 26 papers written by the students, ranging in length from approximately 1,000 to 2,750 words. The topics of the papers varied but all were focused on some aspect of cross-cultural communication or gender issues. The students in the control group employed a total of 57 hedges, or 2.85 hedges for every 1,000 words, with an average of 4.75 hedges per paper. The students in the treatment group employed a total of 44 hedges, or 2.77 hedges for every 1,000 words,

with an average of 3.3 hedges per paper. Hyland (1998) found that the average number of hedges in research articles was 20.6 per 1,000 words, a number well above what these groups were producing.

The post-treatment planned writing consisted of 26 papers written by the students in the class, ranging in length from approximately 500 to 5,000 words. These papers dealt with subjects from the students' various fields of study, including biosystems engineering, business, electrical engineering, architecture, economics, and anthropology. The control group sample contained a total of 102 hedges, with an average of 7.8 hedges per paper for the control group. There were 7.09 hedges per 1,000 words, representing a 148 % increase from the first research papers. The treatment group sample contained a total of 350 hedges, with an average of 26.92 hedges per paper. There were 15.55 hedges for every 1,000 words, representing a 461 % increase from the first research papers.

Table 1 shows the pre-treatment comparison of the control and treatment groups. Because I was using intact groups, the two groups were compared pre-treatment to make sure they were equivalent. A two-tailed *t*-test was performed and the *p*-value is given.

Table 1
Pre-Treatment

	Control Group	Treatment Group	*p*-value
Mean hedges per 1,000 words	2.85	2.77	.98*

*This *p*-value indicates that there was no significant difference between the control group and the treatment group prior to the treatment.

Table 2 shows the post-treatment results of the treatment group compared with the control group. Another two-tailed *t*-test was performed and the *p*-value is given.

Table 2
Post-Treatment

	Control Group	Treatment Group	*p*-value
Mean hedges per 1,000 words	7.09	15.55	.000163*

*This *p*-value indicates that there was a significant difference between the control group and treatment group after the treatment.

Table 3 shows the pre- and post-treatment results for the treatment group. Again, a two-tailed *t*-test was performed and the *p*-values are shown for each hedge type and for the overall number of hedges used.

Table 3
Treatment Group Pre- and Post-treatment

	Pre-treatment	Post-treatment	*p*-value
Mean hedges per 1,000 words	2.77	15.55	.00000000038*

*This *p*-value indicates a significant difference between the treatment group's pre- and post-test means.

Although the number of hedges used per 1,000 words increased from the pre-treatment to the post-treatment writing, the types of hedges used did not vary appreciably. Below are examples from the treatment group papers:

1. Number of Conditional Statements as a percentage of total hedges: Pre-treatment (16%); Post-treatment (22.6%)

- "TQM in practice for HMR *might also mean* regular surveys, both formal..."
- "In the future, instead of being allies with the government as in the past, intellectuals *may choose* to be an independent force..."
- "...Al and Fe *could give rise* to further problems as far as the manufacturing of Al-Zn alloy coatings is concerned."

2. Number of Modifiers as a percentage of total hedges: Pre-treatment (25%); Post-treatment (24.3%)

- "Although corrosion is inevitable, its cost can be *considerably* reduced."
- "Also, *most of the* organ systems have tremendous reserves."
- "As we get older, we are *more likely* to develop some types of cardiovascular disease."

3. Number of Mitigating Verbs as a percentage of total hedges: Pre-treatment (32%); Post-treatment (27%)

- "Nevertheless, the direct proof *seems* to be somewhat elusive."
- "...the power to control the media *tends* to be concentrated on the major industries in Europe and the States."
- "In-situ spectroelectrochemical studies further *supported* these results."

4. Number of Framing Statements as a percentage of total hedges: Pre-treatment (9%); Post-treatment (5%)

- *"A recent trend has been* to coat steel with..."
- *"In general*, the methods include changing the material itself, changing the..."
- "*Generally*, their experiences vary by person..."

Unplanned Writing: Pre- and Post-Treatment Results

The pre-treatment Daedalus interaction lasted approximately forty-five minutes for the control group. Of the 71 responses that the students contributed to the discussion, 23 or approximately 32% of them contained one or more hedges. There were 29 hedges total with the discussion averaging 14.42 hedges per 1,000 words. Of the total number, three of the hedges (10.34% of the total number of hedges) were qualifiers of possibility, for example, "It *may* influence the other." Five of the hedges (17.24% of the total number of hedges) were modifiers, for example, "...but, *most of the time*, they are theoretical." The other 21 hedges (72.41% of the total number of hedges) contained the idea that the writer was expressing his or her own point of view. Eighteen of those 21 hedges were variations on the conversational hedge "*I think. ...*"

The treatment group had similar results in their forty minute Daedalus interaction. Of the 43 responses that the students contributed to the discussion, 14 or approximately 32% of them contained one or more hedges. There was a total of 20 hedges with an average of 15.53 hedges per 1,000 words. Of the total number, 3 of the hedges (15% of the total number of hedges) were modifiers, for example, "But *sometimes* theory contains *some* important aspects of ethics...". The remaining 17 hedges (85% of the total number of hedges) were variations on the conversational hedge "*I think...*".

Table 4 shows the pre-treatment means of the control and treatment groups.

Table 4
Pre-Treatment Comparison of Control and Treatment Groups for Computer-Mediated Discourse*

	Control Group	Treatment Group
Mean hedges per 1,000 Words	14.42	15.56

* To avoid the possibility of Type I errors, a *t*-test was not performed on these data (Hatch & Lazaraton, 1991).

The baseline data for both the control group and the treatment group showed a strong preference for the conversational hedge "*I think. …,*" with a few equivalent statements of "*I believe...,*" "*In my opinion...,*" "*I mean...,*" and "*Personally, I feel... .*"

The second Daedalus interaction for the control group lasted approximately fifty-five minutes, with a total of 151 student contributions. Of those, 42 of the responses or approximately 27.81% contained one or more hedges for a total of 46 hedges. There were 15.03 hedges per 1,000 words. Of the total number of hedges, two were conditional statements (8.3% of the total number of hedges), for example, "The issue *might* be a chance to challenge them." Two of the statements (8.3% of the total number of hedges) were modifiers, for example, "*In some cases*, taking a leap is more efficient." Four of the

statements (16.6% of the total number of hedges) were instances of verb choice, for example, "*It seemed that... .*" The other sixteen hedges (69.5% of the total number of hedges) were variations on the conversational hedge "*I think... .*"

In the post-treatment Daedalus interaction, 70 student responses were posted to the Daedalus Interchange discussion in the course of forty minutes. In this case, the number of responses containing one or more hedges was 36. The total number of hedging devices used was 51 or 21.94 per 1,000 words. This was 41.27% higher than the number of hedging devices previously used in an equivalent amount of written interaction.

Table 5 shows the post-treatment means for the control and treatment groups. The treatment group used approximately seven more hedges per 1,000 words than the control group after receiving the treatment.

Table 5
Post-Treatment Comparison of Control and Treatment Groups for Computer-Mediated Discourse*

	Control Group	Treatment Group
Mean hedges per 1,000 words	15.03	21.94

* To avoid the possibility of Type I errors, a *t*-test was not performed on these data (Hatch & Lazaraton, 1991).

Table 6 shows the pre- and post-treatment means for the treatment group. Use of hedges for the treatment group subjects went up by approximately six hedges per 1,000 after receiving the treatment.

Table 6
Pre- and Post-Treatment Comparison of Treatment Group for Computer-Mediated Discourse*

	Pre-treatment	Post-treatment
Mean hedges per 1,000 words	15.56	21.94

* To avoid the possibility of Type I errors, a *t*-test was not performed on these data (Hatch & Lazaraton, 1991).

Not only did the number of hedges increase, but the kind and style of hedges used by the participants were more varied. Twenty-three of the hedges (45.09%) marked the statement as the writer's opinion, as in: "*I think* the rule of the tribe should be abolished because it is not civilized."

As with the hedges used in the planned writing, the other hedges in the post-treatment Daedalus interaction seemed to be used to qualify or moderate the claim being made and generally fell into the same linguistic categories of hedges:

1. Conditional Statements (10 total: 19.61%)

- "In other words, tradition *could be used* as a means of intensifying their power in the society."
- "The traditional and moral rules *can be used* to guide people's action."

2. Modifiers (5 total: 9.8%)

- "…*it is not likely* to be easy to abolish and change their long-term customs."
- "…but it's *usually* Western standards, not universal ones."
- "In *some* cultures, human life may not be important."

3. Framing Statements (4 total: 7.84%)

- "*Even though* Papua New Guinea is an island which is relatively small,...it is not likely to be easy to abolish and change their long-term customs."
- "*I would argue that* for the traditional law to act effectively, Ms Wilngal should be living in the village."

4. Verb Choice (3 total: 5.88%)

- "But, *it seems to me*, your opinion is vague."
- "...it *depends* on the kind of activity."

5. Quantifiers (6 total: 11.76%)

- "In *some* cultures, human life might not be as important. ..."
- "There are *many* areas where their traditional values. ..."
- "*Many* supported him at the time."

DISCUSSION

In both the planned and less-planned writing tasks, students increased their use of hedging devices. The types of hedging devices they used in the respective tasks varied in terms of formality. Students employed more formal types of hedges in the academic papers than in the Daedalus discussions, which had a more conversational tone. The prompts used for the Daedalus discussion were meant to elicit strong opinions, polarizing students on either side of the issue. The debate-style format of Daedalus seemed to invite ample opportunities for hedges. The text of the research papers required the writers to evaluate data and draw conclusions and many chose topics that required critical analysis and commentary, as well.

Bardovi-Harlig (1999) suggests that linguistic competence may be a necessary prerequisite for mastery of pragmatic competence, although linguistic competence does not ensure an equal level of pragmatic competence. The students' linguistic proficiency in the classes used for this study seemed to be at a level that allowed them to make use of the explicit instruction. Not surprisingly, however, linguistic competence varied among

students in the class. Some were able to grasp both the concept and the linguistic mechanisms almost immediately. On the whole, the students seemed to have the linguistic capabilities to understand the purpose of the hedging devices as presented to them in class, and to utilize them in their writing to a greater extent than they had previously. Although some students demonstrated less linguistic control over the hedging techniques in their Daedalus interaction, their pragmatic purpose was readily apparent: to qualify their statements. For example, one student wrote, "But it seems to me your opinion is vague." Another wrote, "I think it depends on a person's actions and on the law."

The increase in the students' use of hedging devices supports the idea that explicit instruction in pragmatics, when it is provided at an appropriate time in the students' linguistic development, may be quite effective, at least in the short term (Bardovi-Harlig, 1999; Shaw & Liu, 1998). The teacher of the class I observed seemed to believe this as well. In fact, he told the students, "These are probably structures you already know about; you just may not be aware that you can use them as strategies for hedging." The teacher's statement points to the importance of metalinguistic awareness and pragmalinguistic competence. Second language pragmatic acquisition is enhanced when learners are made to notice and focus attention on certain aspects or features of the language. Acquiring pragmatic competence requires learners to attend to the selection of forms needed to convey their intended meaning. They must be able to "develop the control strategies to attend to the intended interpretations...and to select forms...that satisfy the social and contextual needs of the communicative situation" (Bialystok, 1993, p. 54). This study offers some confirmation that noticing is necessary to build metalinguistic knowledge, giving a learner the ability to discuss the language, and that this discussion plays a role in developing pragmatic proficiency.

It bears mentioning that linguistic proficiency may aid certain types of pragmatic transfer from the L1 to the L2 (Takahashi & Beebe, 1987; Maeshiba, Yoshinaga, Kasper, & Ross, 1996). I wanted to see if I could find evidence of transfer of training. The fact that I was looking at a group of highly proficient English learners could help account for the learners' increase in the use of hedging devices and their ability to transfer that knowledge from the context of their planned writing to the less-planned Daedalus discussion.

The high linguistic proficiency of the students in the control group can also help account for their apparent gains in the use of hedging devices in their academic writing. Although they did not increase as much as the treatment group, their second research papers reflected gains when compared with the first. I asked the instructor of the control group class whether she had spent any time going over the use of hedging devices with

the class. She said that, although she did not use the exercises from the text, she did discuss this concept with students during individual conferences on their papers. She noticed that many students would express their opinions as facts and cautioned students about making absolute claims based on personal experience or intuition, as the following excerpt from a student paper illustrates: "One cannot be a real woman without marriage and without bearing children. Women are more careful and attentive than men."

CONCLUSION

This study supports the idea that instruction does indeed serve to heighten students' pragmatic awareness, and thus assists in the development of learners' pragmalinguistic competence. However, researchers must keep in mind that measurable effects of instruction might be dependent upon the students' level of linguistic competency. The learners' level of linguistic competency also seems to influence whether or not transfer of training between different types of writing will occur. Although students were not prompted about specific types of hedges, students were reminded prior to the Daedalus discussion that it was an example of a context in which hedging could occur. While planning time did seem to be an influencing factor in whether or not the students in the study used hedging devices, the task type also seemed to be a mitigating factor since the kinds of hedging devices varied with the writing task. The trends found in this study suggest the need to investigate more fully and formally the effects of instructional intervention on the acquisition of hedging devices (as well as other types of pragmalinguistic strategies) in academic writing and whether transfer of pragmatic training to other types of writing tasks can be supported.

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Appendix A

Daedalus topic 1

Some people might say that it does not matter what you think about something; what matters is what you do. In other words, practical knowledge is more important than theoretical knowledge. Do you agree or disagree? What role *does* theory play in our lives?

Appendix B

Daedalus topic 2

Papua New Guinea, an island nation in the Pacific, became an independent state twenty-two years ago. It has only been a few decades since the tribes populating remote mountain regions of the island discovered they are not the only people on Earth. Village life in these areas still mostly follows ancient tribal traditions. Central to the tribal way of life, the compensation demanded when members of one clan kill the leader of another clan includes money, livestock, and a female clan member. Recently, for the first time in Papua New Guinea, a young woman, named Miriam Wilngal, refused to go along with the practice, fleeing instead to the home of relatives in Port Moresby, the capital of Papua New Guinea, more than three hundred miles from her village. Papua New Guinea has a system alongside of which the customary ancient tribal law coexists in an uncertain relationship. Ms. Wilngal went to court, represented by another woman, Ms. Susan Balen, who has broken with tradition to become a lawyer. Ms. Balen argued that the traditional tribal law can be challenged if it violates Papua New Guinea's democratic constitution. A judge in a court forty miles from Ms. Wilngal's village ruled in her favor. The elders of the aggrieved tribe are furious. They plan to take Ms. Wilngal's clan to court, in effect using the modern legal system to demand their traditional tribal rights. You are the judge in this case. What is your decision? On what grounds?

Appendix C

Graduate Writing Worksheet: Using qualifiers and hedges in writing

Many times in academic writing, we draw upon our personal observations, perceptions, and interpretations of the world. Sometimes, we make educated guesses. At other times, our experiences may lead us to believe strongly that something is true. We may wish to evaluate commonly held opinions, either concurring with them or speaking out against them. Or, we may have reservations about the data we wish to present. But, whatever your stance, it may be necessary to hedge, qualify, or mitigate your statements occasionally. This can be important when writing to and about experts in your field.

Try to use some form of hedging or qualification in the following exercises. Write a short paragraph for each problem. (If necessary, use the back of the page or a separate paper.)

1. You think Americans are loud and want to write about this in an essay. How would you introduce the topic?

2. You've just conducted a research experiment with Psychology 100 (General Psych) students. On a questionnaire, 85% of the respondents indicted that they regularly cheat to get better grades. How do you present these data in an essay? How would you generalize this to other/all university populations?

3. You've read a study about five children, all of who routinely viewed violent TV shows. All of these children exhibited violent, antisocial behavior at school. What conclusions can be drawn?

4. You have been asked to write an essay on whether guns should be banned completely to reduce crime. Consider that your audience may or may not share your views. How do you begin your essay?

5. You read one source which states that intelligence is innate (genetically determined) and another source that says intelligence is socially determined. How will you present both sources/studies in a paper?

Appendix D: Textbook explanations and exercises (Swales & Feak, 1994, pp. 86-90**)**

Qualifications and Strength of Claim

We said that highlight statements need good judgment. They also need good presentation of judgment. Thus, they have two requirements. One is the need to be cautious—and sometimes critical—about the data. As Skelton (1998) neatly observed, "It is important for students to learn to be confidently uncertain." The other requirement is to have the linguistic resources to express this caution. In this section, therefore, we deal with ways of qualifying or moderating a claim.

Probability

There are many ways of expressing probability in written academic English. The simplest is the modal auxiliary. Notice how the claim progressively weakens in these three sentences.

A reduced speed limit *will result* in fewer highway injuries.
A reduced speed limit *may result* in fewer highway injuries.
A reduced speed limit *might/could* result in fewer highway injuries.

In these further examples, the phrases weaken in strength.

It is *certain* that...
It is *almost certain* that...
It is *very probable/highly likely* that... | a reduced speed limit will result in
It is *probable/likely* that... | in fewer injuries.
It is *possible* that...
It is *unlikely* that...
It is *very unlikely/highly improbable* that...

There is a *strong* possibility that...
There is a *good* possibility that... | a reduced speed limit will result in
There is a *definite* possibility that... | fewer injuries.
There is a *slight* possibility that...
There is a *remote* possibility that...

Distance

Distance is another way of removing yourself from a strong—and probably unjustified—claim. Compare these sentences.

Consumers *have* less confidence in the economy than 10 years ago.
Consumers *seem to have* less confidence in the economy than 10 years ago.
Consumers *appear to have* less confidence in the economy than 10 years ago.

Appendix D cont.: Textbook explanations and exercises (Swales & Feak, 1994, pp. 86-90**)**

It would appear that consumers have less confidence in the economy than 10 years ago.

An alternative strategy is to distance yourself from the data by showing in some way that it is "soft." Here are a few examples.

On the limited data available...
In the view of some experts... | a lower speed limit may
reduce According to this preliminary study... | highway fatalities.

Based on informal observations made
by highway patrol officers...

Generalization

The classic verb for qualifying (or defending) a generalization is the verb *tend*.

Consumers *have* less confidence in the economy.
Consumers *tend to have* less confidence in the economy.

Another way to defend a generalization is to qualify the subject.

Many consumers have less confidence in the economy.
A majority of consumers have less confidence in the economy.
In most parts of the country consumers *have* less confidence in the economy.
Consumers *in most income brackets* have less confidence in the economy.

A third alternative is to add exceptions.

With the exception of... | a few oil-rich states, national
Apart from... | economies in Africa are not likely to
Except for... | improve greatly over the next
                                          | decade.

Weaker Verbs

Finally, claims can be reduced in strength by choosing a weaker verb. At the beginning of this unit, we compared the following:

Deregulation *caused* the banking crisis. (stronger)
Deregulation *contributed to* the banking crisis. (weaker)

Appendix D cont.: Textbook explanations and exercises (Swales & Feak, 1994, pp. 86-90**)**

Task Six

Underline the verb making the weaker claim.

1. The results **indicate/establish** that there is a link between smoking and lung cancer.

2. Table 9 **suggests/shows** that Venezuelan scientists may need help with writing English.

3. The latest series of experiments **question/undermine** much previous research.

4. The results given in figure 4 **validate/support** the hypothesis.

5. The quantities displayed in the table have been **assumed/shown** to be about 98% accurate.

6. The test results **create/suggest** a basis for product modification.

7. Changes in the ambient temperature may have **influenced/distorted** the results.

8. In their earlier work, they **failed/neglected** to take ambient temperatures into account.

9. As can be seen from table 3, the new tax laws have **encouraged/stimulated** industrial investment.

10. Figure 12 **depicts/clarifies** the genetic relationship.

Combined Qualifications

Often, of course, several types of qualification are combined in order to construct a defensible highlighting statement. Here is an example. We start with a *big* claim:

  The use of seat belts prevents physical injuries in car accidents.

Now, see what happens when the following qualifications are added:

prevents ⇒ reduces   (weaker verb)
reduces ⇒ may reduce   (adding probability)
+ In some circumstances   (weakening the generalization)
+ certain types of injury   (weakening the generalization)
+ According to simulation studies (adding distance)

Appendix D cont.: Textbook explanations and exercises (Swales & Feak, 1994, pp. 86-90**)**

So we now have:

According to simulation studies, in some circumstances the use of seat belts may reduce certain types of physical injuries in car accidents.

This sentence is a nice example of the writer being "confidently uncertain." (Of course, you also need to beware of excessive qualification since this may result in your saying almost nothing.)

Task Seven

Now, see what you can do with any *four* of the following. Make the sentences academically respectable and defensible.

1. Physical attraction is important for marital happiness.

2. Economic sanctions are ineffective.

3. Alcohol causes people to become violent.

4. Passive smoking causes cancer.

5. Recycling is the best solution to the waste disposal problem.

6. Physical exercise lessens the severity of depression.

7. Great novels do not make great films.

8. Private schools provide better education than do public schools.

Appendix E

The following phrases, frequently found in technical writings, were compiled and "glossed" by C. D. Graham, Jr. in his article "A glossary for research reports", published in *Metal Progress*, vol. 71, No. 5, May 1957. They were circulated among colleagues by Mark Warschauer (e-mail message Oct. 28, 1996) for our own amusement... Enjoy!

PHRASE: "It has long been known that..."
DEFINITION: I haven't bothered to look up the original reference.

PHRASE: "Of great theoretical importance is..."
DEFINITION: Interesting to me.

PHRASE: "It is believed that..."
DEFINITION: I think...

PHRASE: "It is generally believed that..."
DEFINITION: A couple of other guys think so, too.

PHRASE: "The most reliable data are those Jones reported in..."
DEFINITION: Jones was a student of mine.

PHRASE: "Three of the samples were chosen for detailed study."
DEFINITION: The results of the others didn't make sense and were ignored.

PHRASE: "Handled with extreme care during the experiment."
DEFINITION: Not dropped on the floor.

PHRASE: "While it has not been possible to provide definitive answers to these questions..."
DEFINITION: The experiment didn't work out, but I wanted to publish anyway.

PHRASE: "It might be argued that..."
DEFINITION: I have such a good answer for this objection that I shall now raise it.

PHRASE: "It is clear that much additional work will be required for a complete understanding of..."
DEFINITION: I didn't understand it.

PHRASE: "Thanks to Joe Glotz for the assistance with the experiment, and to John Doe for valuable discussions."
DEFINITION: Glotz did the work and Doe explained what it meant to me.

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