Politeness and memory for the wording of remarks

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Three experiments were conducted to examine whether people spontaneously remember the wording used to convey politeness. In all experiments, subjects heard statements varying in politeness that had been made by either a high-status (e.g., a professor) or equal-status (e.g., another student) speaker. Subjects' incidental memory for these statements was then tested with either a recognition (Experiments 1 and 3) or a recall (Experiment 2) procedure. As expected, there was evidence of significant memory for wording that conveyed politeness, and subjects were more likely to remember forms that were incongruous with the speaker's status. There was also some evidence that subjects encoded the politeness of a remark even when they were unable to recall the specific remark. The results demonstrate the role of the interpersonal dimension in the processing of language in context.

There have been only a handful of studies that have examined incidental memory for the wording of remarks in naturally occurring situations. This is unfortunate, because language use in real interactions (as opposed to the abstract materials used in laboratory studies) has an interpersonal dimension, and it is likely that this dimension will play some role in memory for the wording of remarks. One feature of language with clear interpersonal implications is politeness (P. Brown & Levinson, 1987). In this research, I examined whether people spontaneously remember the wording used to convey politeness and how memory for politeness might vary as a function of the social context.

Much early research on memory for verbal materials indicated that sentences were quickly transformed into an underlying abstract meaning and the original surface structure was lost (Ackerman, 1982; Bransford & Franks, 1971; Brewer, 1977; Jarvella & Coulmas, 1974; Kemper, 1980; Sachs, 1967, 1974; Schweller, Brewer, & Dahl, 1976; Wanner, 1974). This is not to say that people cannot remember the wording of sentences; they can if, for example, they are instructed to attend to this dimension (Graesser & Mandler, 1975) or if the test for retention does not require conscious recognition decisions (Masson, 1984). In general, however, this research suggests that people tend to remember the content of what was said but not how it was said.

In contrast, other researchers have argued that in actual interactions, remarks sometimes convey *interpersonal* information, and, as a result, memory for the wording of these remarks can be quite good. For example, researchers who have examined students' memories of class lectures (Kintsch & Bates, 1977) or participants' memories of previous discussions (Keenan, MacWhinney, & Mayhew, 1977; MacWhinney, Keenan, & Reinke, 1982) have found evidence of significant memory (i.e., better than chance) for the wording of remarks that were high in "interactional value" (e.g., jokes).

There is thus an issue here to be resolved. Specifically, under what conditions do people spontaneously remember the wording of remarks? The research of Keenan et al. and MacWhinney et al. suggests that one such condition is found when subjects are actual participants in an interaction and the remarks in question are high in interactional value. A major problem with this formulation is that interactional value is not clearly defined or tied to specific theories regarding language production and memory. What is needed is an a priori specification of when and how remarks convey interpersonal information, and how this can affect memory for wording.

Politeness Theory

With regard to language production, a number of researchers have been concerned with specifying the interpersonal implications conveyed by the wording of remarks (P. Brown & Levinson, 1987; Ervin-Tripp, 1976; Holtgraves, 1992; Lakoff, 1973). Of these accounts, P. Brown and Levinson's (1987) theory of politeness is the most comprehensive and empirically validated (e.g., Baxter, 1984; R. Brown & Gilman, 1989; Clark & Schunk, 1980; Holtgraves, 1992; Holtgraves & Yang, 1990, 1992). The essence of their argument is that interactants are generally concerned with managing each other's *face* (Goffman, 1967), or desire to be regarded highly and not to be imposed upon. Speakers can convey varying degrees of

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concern for the hearer's face by varying the wording of his/her remarks. For example, to request another person to shut a door, a speaker can say: "Shut the door," "You should shut the door," "I'd like you to shut the door," or "Could you shut the door?" These requests can be ordered (from least to most) in terms of the extent to which they grant the hearer autonomy, or freedom from imposition. The greater the autonomy granted the hearer, the less face-threatening—and hence the more polite—the request (Clark & Schunk, 1980; Holtgraves & Yang, 1990, 1992). In this way, the wording associated with politeness (termed here *politeness wording*) implicates the extent to which the speaker is concerned with the face of the hearer.

Politeness, then, is a clear interpersonal dimension of language use. Do people spontaneously remember this feature of language? No one has directly examined this issue. There are, however, several reasons to suspect that this feature of language will be encoded and later remembered. First, Clark (1979) has provided evidence that interactants in natural contexts do notice variations in politeness wording. In several experiments, he found that hearers altered their responses to requests as a function of the wording of the requests, even though all of the requests were identical in their conveyed meaning.

Second, and more importantly, in studies demonstrating significant memory for wording, it is usually because the wording is important in some way (Bates, Kintsch, Fletcher, & Giuliani, 1980; Bates, Masling, & Kintsch, 1978; Murphy, 1992). Recently, Murphy and Shapiro (1994) have articulated this view in their pragmatic account of memory for wording. They argue that hearers attend to features of text that are most relevant for their current goals. At times, wording becomes important because an understanding of the speaker's beliefs or communicative intentions (e.g., sarcasm) requires relatively deep processing of the surface form of a remark. Thus, when wording is important, people will attend to the wording, and hence there should be some memory for surface form. Politeness wording implicates the speaker's view of the interpersonal situation and, as such, is important for interactants' interpersonal goals. Thus, in this research, I expected subjects to demonstrate better-than-chance memory for wordings that conveyed politeness.

The Role of the Social Context

Even though people should show an overall tendency to remember politeness wording, it is likely that some politeness forms will be more memorable than other forms, and this differential memorability should be dependent on the social context within which the forms are used. This is because people have expectations regarding the appropriateness of different politeness wordings, and this appropriateness varies as a function of the interpersonal context (P. Brown & Levinson, 1987). Specifically, research demonstrates that people tend to be more polite when the hearer is relatively high in status, the relationship is relatively distant, and/or the performed act is relatively imposing (Holtgraves & Yang, 1990, 1992).

What impact will this have on memory for politeness wording? On the one hand, people sometimes remember information well because it is consistent with an expectation (e.g., see Alba & Hasher, 1983). If this is the case, then polite forms that are consistent with the interpersonal context (e.g., the polite forms of a low-status speaker and the impolite forms of a high-status speaker) should be particularly memorable. On the other hand, numerous studies demonstrate that information that is inconsistent with an expectation will often be remembered relatively well (Graesser, 1981; Hastie & Kumar, 1979; Nakamura, Graesser, Zimmerman, & Riha, 1985; Smith & Graesser, 1981; Srull, 1981). If this is the case, then politeness forms that are inconsistent with the context (e.g., the polite forms of a high-status speaker and the impolite forms of a lower status speaker) should be remembered relatively well.

The relative memorability of consistent versus inconsistent information depends, in large part, on which information processing stage is being affected by an expectancy (Graesser, 1981). In general, inconsistent information is remembered well if an expectancy functions at encoding due to the increased attention paid to the inconsistent information. In contrast, consistency effects tend to occur when an expectancy operates at retrieval. Politeness violations are particularly relevant for interactants' interpersonal goals, and so politeness forms that are inconsistent with the interpersonal context should be noticed when they occur. Thus, politeness violations should affect encoding rather than retrieval. Because of this, I expected forms inconsistent with the speaker's status (polite forms of a high-status speaker and impolite forms of an equal-status speaker) to be more likely to be remembered than forms consistent with the speaker's status.

Three experiments were conducted to examine people's spontaneous memory for the politeness wording of remarks. In Experiments 1 and 3, this involved (following Wanner, 1974) testing subjects' memory for the instructions given by the experimenter in a psychology experiment. In Experiment 2 (following Kitayama & Burnstein, 1988), subjects who were studying in a library were unexpectedly asked to recall a small request that had just been made of them. In all three experiments, then, memory for remarks was examined in ecologically valid contexts in which subjects were active participants rather than passive observers.

EXPERIMENT 1

Subjects in this experiment listened to or read detailed experimental instructions at the beginning of a psychology experiment. The politeness of target sentences within these instructions was manipulated. Later, subjects' memory for politeness wording and meaning was assessed with a recognition test procedure.

Several issues were examined in this study. First, it was expected that overall memory for politeness wording would be significant (i.e., exceed chance). Second, in this experiment, the speaker (i.e., the experimenter) is

higher in status than the hearers (i.e., the experimental subjects), and so polite forms are more inconsistent with the context than are impolite forms. Thus, it was expected that memory would be better for polite forms than for impolite forms.

Third, memory for meaning as a function of sentence politeness was examined. This was an exploratory analysis, and precise predictions were not possible. On the one hand, increased attention to the wording of polite forms might result in improved memory for the meaning of the remarks. On the other hand, there is some evidence that when speakers use very indirect wordings, the content carries less weight in subsequent judgments (Erickson, Lind, Johnson, & O'Barr, 1978) and actions (Goguen & Linde, 1983). Because of the possible theoretical and practical implications, it seemed wise to include analyses of memory for meaning.

Fourth, to examine whether subjects would spontaneously encode politeness wording, some of the subjects were told that their memory for the instructions would be tested; others were not told of the impending memory test. If people spontaneously encode politeness wording, then memory for politeness wording should be roughly equal in the incidental and intentional conditions (Hasher & Zacks, 1979). Finally, stimulus modality was varied for exploratory purposes, and subjects either read or listened to the instructions.

Method

Subjects. One hundred fifty-five subjects participated in this experiment. These subjects were all enrolled in introductory psychology courses and participated in order to fulfill a course requirement.

Design. Three variables were manipulated in this experiment. First, the presentation modality of the instructions was varied. Approximately one half of the subjects read the instructions (written condition); the remainder listened to a tape-recorded version of the instructions (auditory condition). Crosscutting this manipulation was the subjects' processing goal: the subjects either expected to perform the experimental tasks, and hence did not expect a memory test (incidental memory condition), or they were told that their memory for the instructions would be tested later (memory condition). Third, there were three polite forms and three impolite forms used to manipulate remark politeness. The design was thus a $2 \times 2 \times 2 \times 3$ (modality $\times$ goal $\times$ politeness $\times$ form) factorial with repeated measures on the last two variables.

Stimulus materials. Experimental instructions (see Appendix A) were written that contained 30 target sentences (i.e., sentences for which the wording could be manipulated). The meaning of each target remained the same, but the politeness wording was varied. Three polite and three impolite forms were constructed for each target. The three impolite forms were a direct form (the imperative), a strong direct form (You must . . .), and an assertion of the hearer's obligation (You should . . .). The three polite forms were much less imposing on the hearer and hence more polite. Two forms were based on an assertion of desire (We'd like you to . . .; We'd appreciate it if you would . . .) and one was a suggestion (It would help if you . . .). The forms for one of the target sentences were:

Impolite

1. *Direct*—Write out the full name for each state you recall.
2. *Strong Direct-Must*—You must write out the full name for each state you recall.

3. *Obligation-Should*—You should write out the full name for each state you recall.

Polite

1. *Desire-Like*—We'd like you to write out the full name for each state you recall.
2. *Suggestion-Help*—It would help if you write out the full name for each state you recall.
3. *Desire-Appreciate*—We'd appreciate it if you would write out the full name for each state you recall.

Pretest subjects ($n = 43$) rated the politeness (1 = *extremely impolite* to 7 = *extremely polite*) of the six forms. Overall, the polite forms were perceived as significantly more polite ($M = 4.85$) than the impolite forms [$M = 3.99$; $F(1,42) = 16.35$, $p < .001$].

Six versions of the instructions were created so that, across the experiment, each of the 30 target sentences appeared in each of the six forms and, within each version of the instructions, each of the six forms occurred five times.

The recognition test was a four-item forced-choice measure consisting of four alternatives for each of the 30 target sentences plus eight fillers. The four alternatives consisted of the sentence as it had appeared in the instructions, a sentence with the same form as the presented sentence but with the meaning changed, a sentence with the correct meaning but in a form different from what had appeared in the instructions, and a sentence with a different form and incorrect meaning. For example, the four alternatives for one target in one version of the memory test were: (1) *Correct Wording/Meaning*—You should write out the full name for each state you recall. (2) *Correct Wording/Incorrect Meaning*—You should spell correctly each state you recall. (3) *Incorrect Wording/Correct Meaning*—You must write out the full name for each state you recall. (4) *Incorrect Wording/Incorrect Meaning*—You must spell correctly each state you recall.

Six versions of the recognition test were constructed corresponding to the six versions of the experimental instructions. The recognition test versions were constructed so that each of the five incorrect forms appeared as a lure once for each presented form.

Procedure. The subjects were run in groups of 5–10. In the *written* condition, the experimenter randomly distributed versions of the written instructions to the subjects, and then instructed them to read the instructions carefully. In the *memory* condition, the subjects were told that this was actually an experiment on memory, and that their memories for the wording and meaning of the sentences in the instructions would be tested later. The subjects in the *incidental* condition did not receive this information (i.e., they expected to perform the tasks described in the instructions). They were told to read the instructions only once, and all did so in less than 4 min. In the *auditory* condition, the experimenter played a tape recording of the instructions. These recordings were made by a middle-aged male, who read the instructions slowly and with frequent pauses.

After the subjects had read or listened to the instructions, they engaged in a 5-min distracter task (recall all of the states in the United States). Upon completion of this task, recognition memory test booklets were distributed. For each item, the subjects were told to indicate which of the four alternatives had been presented in the instructions. They were given unlimited time to complete this task, and all finished in less than 20 min. After completing the memory test, the subjects were debriefed and then dismissed.

Results and Discussion

Overview. Memory for politeness wording was calculated by subtracting the proportion of times a form was indicated as having been presented when it had not been presented from the proportion of times a form was indicated as having been presented when it had been presented. This is an unbiased and easily interpretable measure of mem-

ory for wording (Bates et al., 1978). A score of 0 equals chance memory, and a score that is significantly greater than 0 indicates significant memory for form.¹

Memory for politeness. The relevant data are presented in Table 1. Unless otherwise noted, the Type I error rate was .05 for all analyses. Overall memory for politeness wording ($M = .077$) was significantly greater than 0 [$F(1,151) = 37.9$, $MS_e = .15$]. This effect was constant over processing goal [$F(1,151) < 1$], presentation mode [$F(1,151) = 2.0$, $p > .15$], and their interaction [$F(1,151) < 1$]. These results thus provide evidence that people do remember the wording used to convey varying degrees of politeness.

Not all forms, however, were remembered equally well. As expected, memory was significantly better for the polite forms ($M = .104$) than for the impolite forms [$M = .051$; $F(1,151) = 11.17$, $MS_e = .06$]. This effect was constant over mode [$F(1,151) = 1.27$], goal [$F(1,151) < 1$], and their interaction [$F(1,151) < 1$]. When memory for each of the six forms was tested separately, memory was significantly greater than chance for each of the three polite forms; only memory for the direct form exceeded chance for the three impolite forms (see Table 1). Polite forms used by a (relatively higher status) experimenter are interpersonally informative (i.e., their use indicates a view of the relationship that is different from what one would expect) and violate expectations regarding the appropriate level of politeness. Thus, these results support the view that memory will be better for forms that are inconsistent with the speaker's status.

Finally, people might sometimes encode the politeness of a sentence but not the exact wording used to convey politeness. To examine this, two measures were calculated: the proportion of times subjects incorrectly recognized a politeness form that was from the same politeness group as the presented form, and the proportion of times subjects incorrectly recognized a politeness form

from the opposite politeness group. These measures were adjusted for the overall probability that a subject incorrectly recognized each particular form. There was a small, but statistically reliable, difference between these two measures. The subjects were more likely to incorrectly recognize sentences within the same politeness group ($M = .19$) than sentences in the opposite politeness group [$M = .172$; $F(1,151) = 4.37$, $MS_e = .01$]. For example, if the presented sentence had been the impolite form "You must put your name at the top of the page," the subjects were more likely to falsely recognize the impolite form "You should put your name on the top of the page" than the polite form "We'd appreciate it if you would put your name on the top of the page." This suggests that subjects, at times, encoded a vague impression of the politeness of a target, and that this representation guided their subsequent recognition decisions. This finding was explored further in Experiment 2.

Memory for meaning. As one would expect in this context, memory for meaning was quite good. Overall, the proportion of correct responses ($M = .90$) far exceeded the chance rate of 50% [$F(1,151) > 2,000$, $MS_e = .03$]. Memory for meaning, however, did not differ as a function of remark politeness [$F(1,151) < 1$, $MS_e = .02$].

EXPERIMENT 2

Experiment 1 demonstrated that people sometimes spontaneously remember the politeness wording of remarks contained in experimental instructions. An experimental session, however, is a formal, well-structured situation in which undergraduate students attend closely to the remarks of the higher status experimenter. It is possible, then, that memory for wording in Experiment 1 was due to the students' extra attentiveness in this situation. Moreover, the results of Experiment 1 are limited to a situation in which the speaker is higher in status than the hearer. If differential memory for politeness wording is a result of the speakers' using forms that are inconsistent with their status, an opposite pattern of results (i.e., better memory for impolite than for polite forms) should occur when the speaker and hearer are roughly equal in status. A second experiment was conducted to examine these and other issues.

In this experiment, students in a university library were unexpectedly asked to recall the wording of a small request that had just been made of them. The politeness of the wording used to make this request was varied. In contrast to Experiment 1, this was a very informal setting; indeed, a situation in which the processing of requests has been described as mindless (e.g., Langer, 1989). Also, in this situation, the speaker and hearer were roughly equal in status (as opposed to the speaker's being higher in status, as in Experiment 1). When interactants are roughly equal in status, polite forms are consistent with the interpersonal context, but impolite forms are not. On the basis of the finding of better memory for inconsistent forms in Experiment 1, it was expected that memory would be better for the impolite forms than for the polite forms.

Table 1
Memory for Politeness Wording for
All Presented Politeness Forms: Experiment 1

Politeness Form	Wording Memory		Correct Recognition		Incorrect Recognition	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Impolite	.051	.268	.552	.270	.501	.274
Obligation-should	.027	.269	.663	.216	.636	.230
Strong direct-must	.041	.269	.383	.264	.342	.238
Direct	.084*	.263	.610	.243	.526	.269
Polite	.104	.277	.525	.255	.421	.262
Desire-like	.057*	.281	.609	.224	.552	.213
Suggestion-help	.132*	.280	.490	.251	.359	.233
Desire-appreciate	.124*	.266	.476	.268	.352	.284
Overall Mean	.077*	.273	.539	.263	.461	.271

Note—Wording memory equals the proportion of times subjects indicated seeing a form when it had been presented (correct recognition) minus the proportion of times subjects indicated seeing a form when it had not been presented (incorrect recognition). Politeness forms were as follows: obligation-should = "You should," strong direct-must = "You must," desire-like = "We'd like," suggestion-help = "It would help," desire-appreciate = "We'd appreciate it." The direct form was the imperative. *Significantly greater than 0 ($p < .05$).

There was, however, one exception to this general prediction. Memory for politeness wording will be affected by variables in addition to the appropriateness of the wording for the context. Specifically, some polite forms are very indirect (e.g., "It's warm in here" as a request for the hearer to open a window) and their comprehension requires close attention to the exact wording of the remark. This close attention results in very good memory for the wording of these remarks (Gibbs, 1981; Holtgraves, 1994). In the present study a polite form of this type (termed an off-record hint) was used. Because of these competing features (high politeness with an inference process required for comprehension), it was not possible to make a clear prediction for the off-record hint.

Finally, an interesting finding in Experiment 1 was that subjects' memory errors were not random, but were influenced by the form of the presented remarks. On the basis of the results of Experiment 1, it was expected that when the presented form was not remembered, the forms that subjects recalled would be higher in politeness when they received a polite request than when they received an impolite request.

Method

Subjects and Overview. A total of 240 students (120 men and 120 women), who were studying in the library at Ball State University, were approached by an experimenter, who asked to borrow a piece of paper from them. Each subject was then approached by a second experimenter and asked to recall the wording of the first experimenter's request. A total of 227 subjects (114 men and 113 women) provided usable data. The data from 13 subjects were discarded; 10 subjects paraphrased the request rather than recalling the exact wording (e.g., "She asked me for a piece of paper"), and three subjects recalled the request to participate in the experiment rather than the request for a piece of paper.

Procedure and Design. Six experimenters (3 men and 3 women), who were blind as to the specific experimental hypotheses, collected the data. They worked in pairs and alternated in making the request and in testing subjects' memories of the request. All possible pairings of the experimenters were used, resulting in 15 experimenter pairs. Each member of a pair made the request to 8 subjects (4 men and 4 women), while the other member tested memory. The experimenters then switched roles. Note that in this way male and female experimenters made an equal number of requests to male and female subjects.

The experimenter who would be testing memory randomly determined which request form was to be used and whether a subject should be male or female. The person making the request then selected a male or female subject. This experimenter was then told which request to use. Note that in this way knowledge of request type could not influence choice of subjects. The designated experimenter then approached the selected person and made the request with the appropriate form. This person walked away, and the other experimenter then approached the subject and asked if he or she would be willing to participate in a psychology experiment. If they agreed (all did), the subjects were given a blank sheet of paper and asked to recall exactly what the first person had said. This procedure was then repeated for the remaining three requests, and then for the four requests with subjects of the opposite sex. Finally, the experimenters switched roles and the procedure was repeated for 8 new subjects. Each of the 15 experimenter pairs collected data from 16 subjects, resulting in a total of 240 requests.

Stimulus materials. Four different (two polite and two impolite) requests were used. Each request contained a salutation ("Excuse me"), a request sentence, and a reason for the request ("I failed to bring some"). The four request sentences were based explicitly on P. Brown and Levinson's (1987) typology of superstrategies, and hence were slightly different from the forms used in Experiment 1. The two impolite forms reflected what Brown and Levinson term a "bald" (i.e., a direct form) strategy ("Give me a sheet of paper") and a positively polite strategy ("How about giving me a sheet of paper"). One polite form reflected what Brown and Levinson term a "negatively polite" request; in this instance, it constitutes a query of the hearer's ability to perform the requested act ("Could you give me a sheet of paper?"). The other polite request reflected an off-record strategy; in this case, the giving of a reason for why the requested act should be performed ("I don't have a sheet of paper to finish my homework").

Pretest subjects ($n = 42$) rated the politeness of these four requests on a 7-point scale (1 = *extremely impolite* to 7 = *extremely polite*). The requests were significantly different (all p s < .01) from each other in terms of perceived politeness. The direct form ($M = 1.69$) was perceived as the least polite, followed in ascending order by the positively polite form ($M = 3.17$), off-record form ($M = 3.95$), and negatively polite form ($M = 5.57$). Note that this ordering is not consistent with P. Brown and Levinson's (1987) theory, but is consistent with the research of Holtgraves and Yang (1990).

Guessing estimates. Because a free-recall procedure with only one item was used, it was not possible to compute an unbiased measure of memory as in Experiment 1. Thus, to test whether memory exceeded chance in this experiment, it was necessary to obtain guessing estimates for the four presented forms. To do this, a separate group of subjects (60 men and 60 women) were instructed to imagine that a 20-year-old student with whom they were unacquainted approached them in the Ball State Library "in order to ask you for paper to write on for some reason." One-half of the subjects (30 men and 30 women) were asked to imagine that a male student approached them; the remainder were instructed to imagine that it was a female student. The subjects were asked to write down exactly what they thought this person would say in this situation. These requests then served as guessing estimates for request form.

Results

None of the reported effects were qualified by the sex of subject or experimenter, and the data were collapsed over these variables.²

Recall of form. The recalled requests and guessing estimates were coded in terms of which of the four request forms they reflected, regardless of the exact words recalled. The proportion of subjects correctly recalling the form of the presented remark and the corresponding guessing estimates for each form are presented in Table 2. As expected, there was significant memory for the form of the impolite requests. The proportion of subjects recalling the direct and positively polite forms far exceeded the guessing estimates for those forms (see Table 2). A different pattern occurred for the two polite forms. Memory for the off-record form was quite good and significantly greater than the guessing estimate. In contrast, memory for the negatively polite form was not significantly greater than the guessing estimate. However, because of the extremely high guessing estimate for the negatively polite form, it is not possible to know whether subjects' memories for this form reflected guessing or were due to accurate memory. If it was primarily due to

Table 2
Proportion of Correctly Recalled Presented Request Forms
and Corresponding Guessing Estimates: Experiment 2

Presented Request Type	Correct Recall	Guessing Estimate	χ^2
Impolite Forms			
Direct	.263	.008	30.28*
Positively polite	.224	.034	16.30*
Polite Forms			
Negatively polite	1.000	.958	2.51
Off-record hint	.519	.00	73.62*

Note—The request sentences were as follows: direct = "Give me a sheet of paper"; positively polite = "How about giving me a sheet of paper"; negatively polite = "Could you give me a sheet of paper?"; off-record hint = "I don't have enough paper to finish my homework." $N = 227$. * $p < .001$.

guessing, then verbatim memory for this form should be poor. Therefore, verbatim memory was also analyzed.

Verbatim recall. A recalled request was coded as verbatim memory if it matched the presented form exactly, with the exception that substitutions for the keyword "sheet" were allowed.³ In this analysis, decreasing politeness was significantly—and perfectly—associated with greater verbatim recall [$\chi^2(3, N = 227) = 9.81$]. Memory was best for the direct form (26.3%), followed by the positively polite (13.8%), negatively polite (6.9%), and off-record forms (3.7%). The 6.9% recall rate for the negatively polite form was not significantly greater than the recall rate of subjects who had heard the other three request forms and false alarmed with a negatively polite "could you" form [$\chi^2(1, N = 227) = 1.7, p > .15$]. Thus, memory for the negatively polite form was, indeed, quite poor.

Recall reconstructions. Three analyses were conducted to examine whether subjects had noticed and encoded the politeness of the presented form, even when they did not correctly recall the presented form. The results of these analyses are presented in Table 3.

First, the politeness of incorrectly recalled requests (i.e., requests recalled with the wrong form, or for negative politeness requests, requests that were not recalled with the "could you . . ." phrase) was analyzed. Three coders (blind as to experimental conditions) judged the overall politeness of each incorrectly recalled request on a 7-point scale (1 = *extremely impolite* to 7 = *extremely polite*). The reliability of these judgments was acceptable ($\alpha = .87$), and a mean politeness score was computed for each request. As expected, the politeness of the recalled requests varied as a function of the presented request [$F(3, 151) = 4.65, MS_e = .663$]; post hoc (Newman-Keuls) tests indicated that the politeness of the direct request was significantly less polite than the politeness of the other three forms. Thus, even when subjects heard a direct form and did not recall a direct form, the form that they did recall was relatively impolite.

Second, the type of verb recalled in the request sentence was analyzed. The incorrectly recalled requests (as defined above) were divided into two groups: those that

included the polite verb forms "lend" or "borrow" (e.g., "Would you lend me some paper?") and those that included the less polite verb forms "give" or "have" (e.g., "Can you give me some paper?"). The distribution of polite verb forms varied as a function of the presented form [$\chi^2(3, N = 142) = 14.55$].⁴ Although the ordering is slightly different from that of rated politeness, it is clear that the subjects tended to recall polite verb forms less frequently when they heard the less polite requests (54% overall) than when they heard the more polite requests (82% overall).

Finally, whether or not the incorrectly recalled requests included a salutation (a politeness marker) was examined. Consistent with the above, there was a marginally significant tendency for salutations to be included if the presented form had been polite (78% overall) than if it had been impolite [62% overall; $\chi^2(3, N = 167) = 6.53, p < .09$].

Discussion

The results of this experiment demonstrate that memory for politeness wording is not limited to formal settings in which the speaker is relatively high in status. This field experiment took place in a relatively informal setting in which the interactants were roughly equal in status. As expected, memory (both verbatim and for form) tended to be better for the impolite forms than for the polite forms. The one exception to this trend was that the subjects remembered the form (but not the exact wording) of the off-record hint. Off-record forms require an inference process for comprehension, and this increases their memorability (Holtgraves, 1994). The extra effort involved in recognizing the speaker's meaning probably reduces the likelihood that the exact words will be encoded, but increases the likelihood that the form will be remembered (i.e., hearers will remember that an inference was required and thus that the form was off-record).

Note that, in this experiment, only the verbal (and not the nonverbal) dimension of the requests was manipu-

Table 3
Politeness of Incorrectly Recalled Requests*
as a Function of the Presented Request: Experiment 2

Presented Request Type	Rated Politeness†		Polite Verbs‡	Salutation§
	<i>M</i>	<i>SD</i>		
Impolite Forms				
Bald	3.96 ^a	.82	63%	57%
Positive polite	4.40 ^b	.88	45%	67%
Polite Forms				
Negative polite	4.55 ^b	.68	69%	80%
Off-record hint	4.42 ^b	.89	95%	77%

*Includes requests recalled with the wrong request form and/or requests that were not recalled with the "could you" form when the presented form had been a negatively polite request. †Mean politeness rating of recalled requests. Means in this column that do not have a superscript in common are significantly different at $p < .05$, Newman-Keuls. ‡Proportion of recalled requests using a polite verb (e.g., lend or borrow) rather than an impolite verb (e.g., give or have). §Proportion of recalled requests including a salutation.

lated. This does not mean, however, that the experimenters did not vary their nonverbal behavior. They probably did. Because of the difficulty in making a request of a stranger with the imperative form, it is possible that the experimenters attempted to soften their requests when they used the less polite forms. Note, however, that if this occurred it would work *against* the present hypothesis. Softening an impolite request increases its politeness and hence makes it less memorable and less likely to be recalled as impolite (the exact opposite of what was predicted and found).

Finally, when subjects heard impolite forms (direct or positively polite) but failed to recall the form, they (relative to subjects who heard the polite forms) tended to produce requests that were rated as less polite, contained impolite verbs, and did not include a salutation. This is consistent with Experiment 1 and demonstrates that people will sometimes encode a judgment of the politeness of a remark but not the exact wording of the remark; this stored politeness judgment will influence subsequent memory for the remark.

EXPERIMENT 3

One of the major findings in Experiments 1 and 2 was that memory was better for politeness forms that were inconsistent with the speaker's status. This makes perfect sense, because forms violating expectancies are more interpersonally informative, and hence should be particularly memorable. However, these results may have occurred because Experiments 1 and 2 differed in ways (e.g., different setting, different remarks, etc.) other than the speaker's relative status. Thus, it would be desirable to examine memory for politeness when speaker status was manipulated within a single experiment. Experiment 3 was conducted to provide such a test.

Subjects in this study were given verbal instructions about how to perform a reaction time task. Speaker status was manipulated by having the experimenter introduce himself to the subjects as either an undergraduate student or as a professor of psychology. The politeness of target sentences within the instructions was manipulated. After completing the reaction time task, subjects' memory for the instructions was assessed with a recognition-test procedure. On the basis of the results of Experiments 1 and 2, it was expected that subjects would be more likely to correctly remember forms inconsistent with the speaker's status (i.e., polite forms in the high-status condition and impolite forms in the equal-status condition).

Method

Subjects. Thirty-six subjects participated in this experiment. These subjects were all enrolled in introductory psychology courses and participated in order to fulfill a course requirement.

Design. Two variables were manipulated. First, for one-half of the subjects, the experimenter introduced himself as a professor of psychology (high-speaker-status condition); for the remainder of the subjects, the experimenter introduced himself as an undergraduate student (equal-speaker-status condition). Second, each of the target sentences appeared in either a polite or an impolite form.

Each subject saw an equal number of politely and impolitely worded targets. Thus, politeness wording was a within-subjects variable.

Stimulus materials. Experimental instructions were written that contained eight target sentences. A polite and an impolite version were created for each target. The impolite version was always the imperative (e.g., "First, give me your credit slip so I can sign it."). The polite version was always an indirect request based on a query about the hearer's ability to perform the requested actions (e.g., "First, could you possibly give me your credit slip so I can sign it?"). The two versions of the eight targets are presented in Appendix B.

Two versions of the instructions were created. These two versions were mirror images of each other; each target phrased politely in one version was phrased impolitely in the other version. In this way, each subject heard four polite and four impolite targets, and across the experiment, an equal number of subjects heard the polite and impolite versions of each of the eight targets.

The recognition test consisted of eight items. Four of the items (two polite and two impolite) were target remarks that the experimenter had actually said (old items). The remaining items (two polite and two impolite) were remarks that the experimenter had not said (new items); two of these items were polite versions of two of the presented impolite remarks and two were impolite versions of two of the presented polite remarks. Thus, there were two old polite remarks, two old impolite remarks, two new polite remarks, and two new impolite remarks. Two (mirror image) versions of the recognition test were constructed so that each of the eight target remarks was presented as an old or new item an equal number of times.

Procedure. The subjects were run individually. The experimenter was a 23-year-old male graduate student, who could plausibly pass as either an undergraduate student or as a beginning assistant professor. The experimenter introduced himself to each subject as either Ben Lasky, a sophomore psychology student who was helping a professor with research, or as Dr. Lasky. The experimenter varied his dress to be appropriate with the role. Thus, he dressed more casually (jeans, etc.) when he performed the equal-status role, and more formally when he played the professor role.

The experimenter then instructed the subject (following one of the two scripts) in the performance of the reaction-time task. After completing the reaction-time task (approximately 15–20 min), the subjects were asked to complete the recognition memory test. The subjects were instructed to indicate their judgments of whether the experimenter had said each of the eight recognition-test items. The subjects were told to base their decisions on the exact wording of the remarks, and the following 6-point scale was used: 6 = *definitely certain he said this*, 5 = *fairly certain he said this*, 4 = *not sure, but think he said this*, 3 = *not sure, but don't think he said this*, 2 = *fairly certain he did not say this*, and 1 = *definitely certain he did not say this*. "Yes" judgments were defined as responses 4–6, and "No" judgments were defined as responses 1–3. Finally, a manipulation check was included to ascertain whether or not the subjects had paid attention to how the experimenter had introduced himself. The subjects were asked to indicate whether the experimenter had introduced himself as a professor, a graduate student, or an undergraduate student.

Results and Discussion

The data from 2 subjects who failed to complete the recognition memory test were discarded. In addition, subjects who incorrectly identified the status of the experimenter ($n = 7$) were excluded from the analyses. Memory accuracy scores (overall and separately for the polite and impolite forms) were computed for each subject by subtracting the false-alarm rate from the hit rate.⁵ Consistent with the results of Experiment 1, overall memory for politeness wording ($M = .213$) was significantly

greater than 0 [$F(1,26) = 9.19$, $MS_e = 1.22$]. Again, the subjects demonstrated significant incidental memory for the politeness wording of the remarks.

Most importantly, and as expected, memory was better for forms that deviated from the experimenter's status, as indicated by a significant status $\times$ politeness interaction [$F(1,25) = 6.02$, $MS_e = .55$]. As can be seen in Table 4, memory was better for impolite forms when the experimenter was of equal rather than high status, and for polite forms when the speaker was of high rather than equal status. Separate tests indicated that the memory accuracy scores were significantly greater than 0 for the polite forms in the high-status condition [$F(1,13) = 8.0$, $MS_e = 1.14$] and the impolite forms in the equal-status condition [$F(1,12) = 6.94$, $MS_e = 1.56$]. In contrast, the memory accuracy scores were not significantly greater than 0 for the impolite forms in the high-status condition [$F(1,13) < 1$, $MS_e = .02$] and the polite forms in the equal-status condition [$F(1,12) = 3.26$, $MS_e = .48$]. These results, then, clearly demonstrate enhanced memory for politeness wording that is inconsistent with the speaker's status.

GENERAL DISCUSSION

Numerous laboratory experiments have demonstrated that people quickly forget the wording of remarks (e.g., Sachs, 1967). In the present research, however, subjects in each experiment demonstrated significant memory for wording. The difference is that the present research examined incidental memory for politeness wording in actual interactions. Thus, these results demonstrate an important boundary condition for the finding of no memory for surface forms.

There have been, of course, previous demonstrations of memory for surface forms (Keenan et al., 1977; Murphy & Shapiro, 1994). What the present research adds is an a priori specification of which dimensions of wording will be remembered, and why. Politeness wording will tend to be remembered because it serves an interpersonal function; it conveys the speaker's view of the interpersonal situation. In addition, the more one's politeness de-

viates from expectations, the more informative, and hence the more memorable, the wording will be.

Importantly, previous demonstrations of memory for surface forms can be interpreted within the present politeness framework. For example, address forms can convey politeness, and Murphy (1992) found evidence of memory for these terms. On the basis of the present results, an additional prediction could be made: address forms that are at odds with the relationship (e.g., an undergraduate addressing a university president by a first name) should be particularly memorable. Jokes and teases are instances of what P. Brown and Levinson (1987) term positive politeness (i.e., attempts to establish solidarity with the hearer), and hence they also should be remembered quite well (e.g., Keenan et al., 1977). Many other verbal acts (e.g., topic changes, disagreements, accounts, self-disclosures, etc.) have interpersonal implications and fall within the domain of politeness theory. An important avenue for future research would be to examine memory for these acts.

The present results are consistent with Murphy and Shapiro's (1994) pragmatic view of verbatim memory (see also Murphy, 1992). On that view, differential memory for surface forms is a function of differential allocation of attention at encoding. Specifically, when sentence wording has implications for the goals at hand, wording may receive as much attention as sentence meaning, and hence be remembered quite well. Thus, when a speaker's level of politeness is consistent with the hearer's understanding of the context, politeness wording should receive little additional attention and should not be encoded into long-term memory. As a result, when memory for wording is tested, people will simply guess the most appropriate forms for the context (see also Holtgraves et al., 1989). Thus, in Experiment 2, subjects falsely recalled polite (rather than impolite) forms, and in Experiment 1, they were more likely to incorrectly recognize impolite (rather than polite) forms. Similarly, in Experiment 3, the false-alarm rates were higher for the impolite forms when the speaker was of high status and higher for the polite forms when the speaker was of equal status.

In contrast, when a speaker's politeness exceeds some situationally dependent threshold (i.e., he or she is either too polite or too impolite), politeness wording will be noted and attended to. At this point, hearers may encode either the exact wording (which would account for correct memory) or a rough estimate of the politeness of the remark (i.e., that the remark was over- or underpolite). If the latter occurs, then this estimate may guide subsequent memory performance in that people will reconstruct forms (as in Experiment 2) or incorrectly recognize forms (as in Experiment 1) on the basis of this rough estimate. Thus, recipients of a polite or an impolite request may not remember exactly how the request was polite (Experiment 1) or impolite (Experiment 2), but they may remember that it was relatively polite or impolite for the context.

These results, then, suggest that memory for politeness wording involves both direct retrieval of wording and some type of modified reconstructive memory (see also

Table 4
Memory for Polite and Impolite Forms as a
Function of Speaker Status: Experiment 3

	Remark Form			
	Polite		Impolite	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
High Speaker Status				
Hit rate	.89	.21	.75	.32
False-alarm rate	.61	.45	.71	.32
Memory accuracy	.29	.38	.04	.46
Equal Speaker Status				
Hit rate	.77	.33	.85	.24
False-alarm rate	.58	.28	.50	.41
Memory accuracy	.19	.38	.35	.47

Note—Memory accuracy represents the difference between the hit and false-alarm rates.

Gibbs, 1981). The latter is most likely based on the representation of a specific speech act (e.g., a request for x) and an associated politeness judgment. Subsequent memory for wording then involves the construction of a form for that speech act based upon the stored politeness judgment. Note that this is probably not unique to politeness wording; it may occur for other features of surface structure. For example, Brewer and Hay (1984) presented subjects with texts written in different styles (e.g., academic, business, etc.). When the subjects later recalled the texts, they did not recall the material verbatim but did produce items that were consistent with the presented style.

The present results have additional implications. First, there is a growing body of empirical research on politeness theory (P. Brown & Levinson, 1987). Most of this research, however, has focused on language production or on how (which strategies) and when (which situations) people will be polite (see Holtgraves, 1992, for a review). The present results extend this research by demonstrating that people, at times, spontaneously encode this feature of language, and that the likelihood of encoding politeness wording varies as a function of the social context (in exactly the same way that the production of politeness is affected by the social context). Even when the exact wording used to convey politeness is not remembered, people may still encode a general impression of the politeness of a speaker's remarks. It seems as if people have antennae for politeness. This should not be too surprising, though; it is obviously important to know how we are thought of by others (see Fiske, 1993).

Second, the present pattern of results is generally consistent with research demonstrating superior memory for information that is incongruent with an expectation (Stangor & McMillan, 1992). Most previous research on this issue has been conducted in the laboratory with artificial stimuli. Thus, the present research represents an important extension by demonstrating this effect in naturally occurring situations. Only a few studies have examined memory for expectancy-congruent information in natural settings (e.g., Brewer & Treyens, 1981; Nakamura et al., 1985), and fewer still have focused on memory for linguistic materials in those settings.

Perhaps most importantly, the present research demonstrates the fundamental role of the interpersonal dimension in language processing. Previous demonstrations of poor memory for wording are partially a result of researchers' taking an individualistic perspective (Clark, 1985) and examining memory in laboratory tasks when language is divorced from actual use. An individualistic perspective ignores the inherently social aspects of language use, and one might go so far as to argue that language processing cannot be legitimately studied apart from its use in social situations. Politeness is one dimension of language with clear interpersonal implications, and the present research demonstrates that this feature of language is noticed and encoded. Politeness, of course, is only

one factor affecting memory for language. However, politeness theory allows one to capture within a single framework the myriad of interpersonal features of language use, and thus it provides a comprehensive framework for understanding how we both produce and understand language in context.

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NOTES

1. The problems with this measure, noted by Stevenson (1988) and Fletcher (1992), are not relevant for the present situation: for the present materials, there are no discourse constraints that would bias the likelihood of certain politeness forms' (unlike pronoun substitution) occurring at various points in the text. The data were also analyzed by computing d' . The results were essentially the same.
2. Following Kitayama and Burnstein (1988), I also included in the requests low-frequency key words ("sheet" in the request sentence and "failed" in the reason) as a means of assessing the degree of subjects' mindlessness. Similar to Kitayama and Burnstein's findings, the percentage of subjects who recalled the keyword "sheet" (31%) and the keyword "failed" (53%) was significantly higher than the guessing estimate for both "sheet" [17% ; $\chi^2(1, N = 347) = 8.67, p < .01$] and "failed" [0% ; $\chi^2(1, N = 347) = 97.0, p < .001$], indicating that processing of the requests was not completely mindless.
3. This was done because strict verbatim recall was extremely rare (4%), resulting in a floor effect. Strict verbatim recall did not vary significantly as a function of presented form.
4. Not all verbs could be classified in this way, resulting in a smaller n than in the other analyses.
5. Analyses using d' produced identical results.

APPENDIX A

One Version of Experimental Instructions Used in Experiment 1 (Target sentences are in italics.)

Instructions

You will perform several different tasks in this study, and these instructions will explain in detail each of the tasks you are to perform. *Read through these instructions before beginning to work on the tasks. You should read carefully these instructions because they will not be presented again.* The first task deals with your memory. *When the experimenter says to begin, you must turn to the second page of the experimental booklet. We'd like you to put your age on the top of this page. It would help if you would indicate your gender immediately below this. Do not put your name anywhere on the page. When the experimenter says begin, it would help if you write down all of the states in the United States that you can recall. For each state you recall you must write out the full name. You must not use abbreviations. Write these down in any order. It would help if you do not repeat any states. We'd appreciate it if you would stop writing when the experimenter says to stop. If the experimenter says stop while you are writing, you should finish the state that you are currently writing. At this point, you must not write down any more states.*

The second task is concerned with how people form impressions of others. To do this the experimenter will read descriptions of several different people. *It would help if you listen closely to the descriptions of these people. We'd like you to try to form an overall impression of each person as you listen to these descriptions.* When the list describing the first person is completed the experimenter will say count. *When he says this we'd appreciate it if you would start counting backwards from 100. At some point while you are counting the experimenter will say stop. This means that you should stop counting and that the list of traits describing the second person will now be read.*

We'd like you to carefully listen to these traits in order to form an impression of this person. At the end of this list the experimenter will again say count, and this means that you should again start counting backwards from 100. Before you finish counting the experimenter will say stop. Stop and listen to the next list of traits at this point. When this list is finished the experimenter will tell you to turn the page. When this happens turn to the next page in the experimental booklet. On this page there are a list of questions for you to answer. These questions pertain to your impressions of the three people that were described. You should answer all of these questions when the experimenter says to begin. We'd appreciate it if you would carefully circle the point on each scale that best reflects your judgment. There are no right or wrong answers for this task. Just give your most honest impression.

You should turn to the last page of the experimental booklet when you have finished answering all of these questions. On this page are listed a number of different occupations such as lawyer, doctor, farmer, and so on. For each occupation it would help if you give your judgment regarding which of the three people would be best for that occupation. We'd like you to put a 1 by that occupation if you think the first person described would be the best. If you think the second person described would be best put a 2 by the occupation. If you think the third person would be best put a 3 by the occupation. This is a timed task. When the experimenter says begin, you should make your judgment for the first occupation. You must make your judgment for the second occupation when the experimenter says next. If you haven't made your judgment by the time the experimenter says next, we'd like you to go on to the next occupation and leave that one blank. In this manner we'd like you to continue until you have given your judgment for the last occupation. We'd appreciate it if you would turn the experimental booklet over and wait for further instructions when you have given your last judgment.

APPENDIX B

Polite and Impolite Versions of Target Remarks Used in Experiment 3

First, give me your credit slip so I can sign it.

First, could you possibly give me your credit slip so I can sign it?

Now, read this statement of informed consent for me.

Now, could you possibly read this statement of informed consent for me?

OK. Shut the door for me.

OK. Could you possibly shut the door for me?

Now, adjust the brightness of the screen.

Now, could you possibly adjust the brightness of the screen?

OK. Push the ENTER key to see the instructions for me.

OK. Could you push the ENTER key to see the instructions?

Now, carefully read these instructions for me.

Now, could you carefully read these instructions for me?

OK. Do a couple of practice trials for me while I watch you.

OK. Could you do a couple of practice trials for me while I watch you?

Come and tell me when you are finished.

Could you possibly come and tell me when you are finished?

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