MEMORY AS A SOCIAL PROCESS:

SOURCE MONITORING AND RESPONSE CONFORMITY

by

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(Under the direction of Richard L. Marsh)

ABSTRACT

Subjective states of awareness surrounding a memory trace often provide indications of the memory's veracity and should be fairly immune to external influence. In three experiments, bogus information ostensibly reflecting a previous participant's remember and know responses were provided to participants in order to determine the extent to which social conformity operates in a source-monitoring framework. Participants' own claims of remembering and knowing were influenced by this information. Additionally, the diagnosticity of the sources used at encoding affected the degree of conformity. The results imply that when accurate feedback is provided, participants report experiencing greater recollective details and display improved memory performance.

INDEX WORDS: Source Monitoring, Response Conformity, Social Conformity, Subjective Awareness, Autonoetic Memory, Noetic Memory

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INTRODUCTION

Memory for an item or an event is not an all-or-none phenomenon; it has a graded quality determined by the number of recollective details available defining one's memory of the event. In everyday life, we tend to use the amount of recollection to determine a memory's veracity. For example, sufficient recollective details accompanying memory for a movie scene may indicate that one actually watched the movie rather than just imagined doing so. More evidence via such details increases both believability in the memory and one's confidence in having experienced the event originally.

In a reciprocal fashion, memory for the qualitative characteristics surrounding an event may facilitate memory for the instance itself. The ability to remember information about the source of an event may aid in retrieval of the event itself. That is, remembering the smell of popcorn in the movie theater may assist in retrieval of details about the movie itself. In addition, ability to accurately monitor source may potentially affect future behavior. For example, successful memory for this movie may prevent inadvertently renting it once it is released in the video stores. As another example, learning from a gossip magazine that the ground waters have been contaminated with anthrax would be unlikely to affect current drinking behavior. However, hearing about this on the news would immediately halt one's consumption of water. Later reflecting on the information without accurate memory for the source may adversely impact behavior in either situation.

Theoretically, one's subjective awareness of recollective details surrounding an event reflects autonoetic awareness (Wheeler, 2000), or memory that is accompanied by a

personal sense of the past in either time or place. On the other hand, a lack of distinct recollection for the specific details is termed noetic awareness. Noetic memory is accompanied by a vague sense of knowing or familiarity about an event and occurs without concrete memory for details surrounding the event. Although autonoetic memory is based in the episodic memory system, noetic awareness is best exemplified as semantic memory.

Autonoetic and noetic memory are tested experimentally using the remember-know paradigm. That is, participants are instructed to indicate that they remember an item if they have specific recollective detail regarding its earlier presentation. Examples of remembering include remembering items that came before or after the item, where in the sequence the item was encountered, or thoughts or feelings that were evoked by the item. Conversely, participants should indicate knowing when they cannot recollect specific details of an item's presentation but have a sense of familiarity that they encountered it before. Knowledge of brushing one's teeth two weeks ago will probably not be accompanied by a specific memory of the event, thereby reflecting knowing.

Both terms refer to subjective states of awareness that are idiosyncratic to a given individual and should be relatively immune to external influence. However, Hirshman and Henzler (1998) successfully manipulated claims of remembering and knowing by strategically altering participants' decision criteria. Prior to the memory test, they misled people to believe that the test was composed of 70% (or 30%) studied items, when in fact it was always composed of 50% studied items. Increasing (or decreasing) beliefs about the number of studied items on the memory test caused the number of remember and know judgments to likewise increase (or decrease). Therefore, although the subjective

reports of remembering or knowing should be static, instead they can be shown to be dynamic relative to the demands of the task.

Other characteristics could likewise affect reports of remembering and knowing. Given the fact that oftentimes memory is not retrieved in a vacuum but in a social context, it is possible that the simple presence of another person could affect how memory is retrieved. In a social context, one may receive feedback in reference to a memory trace. Strong agreement between feedback and the original memory lends credence to the memory trace. However, memorial contradictions may cause doubt in what has been retrieved from memory, potentially leading to a reconsideration and eventual change of opinion concerning the original memory trace.

Hoffman, Granhag, Kwong See, and Loftus (2001) recently investigated social effects on source-monitoring processes. Participants viewed pictures of objects and were instructed to imagine seeing other objects. Later, they were asked to remember whether they had perceived or imagined items or to determine if they were new. A confederate's responses were provided to participants before their source judgments were given. The results indicated that participants conformed to the confederate's responses with both perceived and imagined items relative to baseline items in which no confederate responses were provided prior to the source judgments.

Conformity effects also emerge in situations not involving source discriminations. Schneider and Watkins (1996) tested the impact of a confederate's confidence on the degree of conformity. Participants were paired with a confederate, and the pair viewed a list of words. During the recognition memory test, the participant and the confederate alternated turns responding. They were instructed to determine whether each word was

old or new and to give a confidence rating for their judgment. When the confederate responded first, the experimenter nonverbally signaled her on how to respond in order to control confederate response order between participants. The results indicated that participants were more likely to conform to the confederate's responses when she was more confident relative to a baseline in which participants responded first (i.e., no opportunity to conform to another person's answer).

Roediger, Meade, and Bergman (2001) further explored memory conformity using a false memory paradigm. Participants were paired with a confederate and viewed slides of common household scenes. During the memory test, the participant and the confederate alternated turns recalling items from each scene. Each participant subsequently performed an individual recall test in which they were instructed to recall as many items from the original scene as possible. In this second memory test, participants recalled items typical of the scene that had been previously falsely recalled (i.e., erroneously introduced) by the confederate more often than they recalled typical items that had not been falsely recalled by the confederate. This outcome indicates that conformity can occur even when the memory is false.

In the following experiments, social conformity was tested using the remember-know paradigm in order to further explore memory conformity. Additionally, we varied the source of the information presented in order to assess whether conformity to claims of remembering and knowing differed with the particular combination of sources used. Provided that the distinction between remembering and knowing is purely subjective and is relatively immune to external influence, the presence of another participant's responses may not influence claims of recollection versus knowing on a source-monitoring test.

However, given previous results demonstrating some malleability of remembering and knowing (Hirshman & Henzler, 1998), participants' responses of remembering and knowing may exhibit social conformity.

Conformity to another person's reported state of awareness is likely to depend on the particular sources being discriminated from one another. Sources yielding only partial recollective details require participants to produce memory judgments based on familiarity (Marsh, Hicks, & Ritschel, in press). Therefore, participants should have less certainty in memory for these sources thereby leading to greater conformity for these "weaker" sources. That is, when participants are not able to rely as much on their own memory, they should be more likely to allow another person to influence their responses. Therefore, in the first experiment we paired a source of this type with one that generates more recollective details in order to observe a dissociation in which conformity effects occurred with one source but not with the other.

EXPERIMENT 1

In this experiment we attempted to produce conformity in participants' responses of remembering versus knowing when presented with bogus information concerning another person's subjective state of awareness. We used pleasantness judgments to be the source eliciting more recollective details and the number of syllables in a word as the source yielding fewer recollective details. We anticipated that conformity would increase with decreasing memory for details. That is, conformity was expected to be greater for items judged on syllables than for items judged for pleasantness.

Method

Participants. Seventy-two undergraduates from the University of Georgia volunteered in exchange for partial credit toward a course requirement. A total of 36 undergraduates participated in the experimental condition in which a confederate's responses were provided during the memory test, whereas the remaining 36 participated in a control condition in which no response was provided. Each participant was tested individually in sessions that lasted approximately 40 minutes.

Materials and Procedure. A set of 120 medium frequency words were selected as stimuli in this experiment. A total of 80 words were randomly selected for each participant and were presented individually on the screen of a computer during the study phase. The remaining 40 words served as distractor items on the subsequent memory test. Before each word was presented during encoding, participants saw a brief fixation point in the center of the screen accompanied by a short tone for 250 msec followed by

the presentation of the word itself for 3 s. Participants were queried to judge one-half of the 80 study items on the pleasantness of the word using a 7-point Likert scale; they were asked to rate the other 40 items on the number of syllables composing it. Participants read the instructions for the study phase on the screen of the computer. They were informed that they should try to learn the words for an unspecified memory test. The experimenter then verbally summarized the instructions for each participant.

After the study phase, participants proceeded to read detailed instructions for the memory test. Participants were instructed to determine whether each word was rated on pleasantness, was rated on the number of syllables, or was a completely new word. They made their responses by depressing the appropriately labeled key on the keyboard. After responding that a word was old (i.e., rated on pleasantness or the number of syllables), they indicated whether they *remembered* this information or simply *knew* it.

For the experimental condition only, the final portion of the instructions informed participants that they would be provided extra information in the form of the previous person's responses and that this information would appear on the screen with each test stimulus. The exact instructions were stated as follows:

> Finally, when each word initially appears in the middle of the screen, some other information will appear along with it. With their permission, we have included the REMEMBER, KNOW, and NEW responses of the participant who was run in this experiment directly before you. They studied the same list of words as you did. We have supplied this information because it could help you on the test. However, you do not have to use this information if you feel that the previous

participant's response does not match your memory for a particular item. In any case, please consider this information before making your response on each trial. Below the queries, participants were provided with this information for the duration of the word on the screen. This "response" was actually correct feedback for each item. That is, unbeknownst to the participants, they were provided with *remember* and *know* responses for old items and *new* responses for new items. These responses were counterbalanced with source such that half of the pleasantness items were called *remember* by the previous participant and half were called *know*, and likewise for syllable items. All new words were called *new*. Correct old-new feedback was provided in order to prevent participants from realizing the information was inaccurate and subsequently discounting it.

The experimenter verbally reiterated all test instructions. After the participant expressed understanding of the test instructions, they were asked to sign a bright yellow form that allowed the experimenter to use that participant's responses for the next participant. Although his or her responses were not actually used, this was intended to add believability to the experiment. All participants willingly signed this form.

For each of the 120 test items, a brief fixation point and warning tone preceded each word. The inter-trial interval between test items was 700 msec, and the test phase was self-paced. Two lines below each word was the initial query *pleasantness, syllable, or new?*. If the participant indicated that the word was presented during the study phase, then a *remember or know?* prompt replaced the source query. In the experimental condition, the feedback appeared four lines below each test word and was displayed at the onset of it. For example, the information that the *previous person claimed Remember*

appeared on the screen with the word and remained on the screen until all responses were given for each word. Words from the two sources were presented in a random order for each participant during both study and test phases of the experiment.

A separate control condition consisted of the same procedure without any reference to how a previous participant behaved. Therefore, the relevant portion of the test instructions was removed, participants were not requested to disclose their responses for the next participant, and no information regarding the previous person's responses was provided to them on the computer screen during the test phase. Participants in this condition did not participate in the experimental condition.

Results and Discussion

Statistical significance does not exceed the conventional value of 5% for a Type I Error unless otherwise reported with an exact probability value. The main hypothesis concerns participants' conformity in remember-know responses to the additional information about the subjective state of the previous participant. Therefore, overall source discriminations are not of primary interest but are included in the Appendix. Furthermore, because recollection and familiarity are argued to be independent processes, the data have been transformed using a procedure consistent with previous research (e.g., Jacoby, Debner, & Hay, 2001). That is, in order to make the measure of familiarity independent of that of recollection, knowing has been calculated using K/(1-R). Thus, measures of remembering and knowing directly correspond to estimates that would be obtained from a process-dissociation procedure (Jacoby, 1991).

First and foremost, however, is the impact of conformity on old-new discrimination. Inferred recognition hit rates were calculated based on old items

identified as old regardless of source of attribution. Presence of the feedback caused participants to correctly identify more items as old (M = .91) than when no feedback was provided (M = .83), $t(70) = 4.49$. This outcome indicates that, at some level, participants were influenced by the feedback and justifies further analysis of the data.

The remember-know data of critical interest are summarized in Table 1. Accurate source attributions are presented with the respective remember and know responses separated by condition. These proportions were analyzed using a 2 (condition: conformity vs. control) by 2 (source: pleasantness vs. syllable) by 2 (claim: remember vs. know) mixed model Analysis of Variance (ANOVA). The three-way interaction was not significant, $F(1, 70) = .40$, indicating that remember and know responses are moving in the same direction for both sources in both conditions.

However, the source by claim interaction was significant, $F(1,70) = 100.32$, with greater remembering occurring with the pleasantness source and greater knowing occurring with the syllable source. These results are consistent with the idea that pleasantness rating is a more elaborate encoding manipulation than is syllable counting, leading to greater recollection in items that are judged on pleasantness than on the number of syllables in the word. This finding is supported by a main effect of source, $F(1,70) = 53.44$, with memory for words judged on pleasantness greater and more accurate than that for words in which the number of syllables were determined.

Because pleasantness rating is a stronger source than is syllable counting and more recollective detail is associated with it, memory for this source is likely to be less influenced by external cues, namely conformity to another person's subjective state. A significant condition by source interaction, $F(1, 70) = 11.82$, indicates that participants

conformed more to the feedback given on the syllable-counting source than to feedback given on the source of pleasantness judgments, consistent with the original hypothesis.

Finally, performance for accurate source attributions overall was greater in the conformity condition than in the control condition, even though feedback did not consist of source information, $F(1, 70) = 9.34$. However, this effect was driven solely by the source of syllable counting because this is the only source for which conformity occurred. Nonetheless, this outcome provides evidence that feedback is serving as partial information reinstatement that facilitates old-new recognition memory as well as memory for the weak source (Marsh et al., in press). All other statistical analyses were not significant.

In summary, these results are consistent with the idea that more recollective details lead to less conformity. Thus, participants who distinctly remember or know information regarding an event will be less influenced by another person. However, when only partial information is available, participants will consider alternative information and will incorporate this into their responses.

EXPERIMENT 2

The inability to affect claims for the stronger source in the previous experiment and the strong conformity occurring for the weaker source suggests the presence of much recollective detail will prevent participants from incorporating external information in judgments about their own subjective state of awareness. Therefore, the level of conformity should increase when both sources are relatively "weak." In this next experiment, two sources that are relatively equal in their diagnosticity have been used in order to ascertain whether conformity would be observed on both sources.

Method

Participants. Eighty-two undergraduates from the University of Georgia participated in this experiment in exchange for partial credit toward a course requirement. None had participated in the previous experiment. A total of 41 undergraduates composed the experimental condition, whereas the remaining 41 participated in the control condition.

Materials and Procedure. The procedures that were used in the previous experiment were largely used again. However, the former pleasantness and syllable judgments were changed to seen and heard sources. One-half of the words during the study phase were presented on the screen of the participant's computer to be read silently (i.e., seen items). The remaining words were presented on the experimenter's computer, unseen by the participant, and were spoken aloud by the female experimenter (i.e., heard items). Additionally, the memory test instructions were altered to reflect the change in sources. In all other respects the procedure was identical to that used in Experiment 1.

Results and Discussion

The inferred recognition hit rate again indicated that correct identification of old items was greater in the conformity condition (M = .83) than in the control condition (M = .69), $t(1,80) = 5.51$. Therefore, further analyses were conducted on the data to explore this effect of conformity.

The primary data of interest are displayed in Table 2. The three-way interaction of condition by source by claim was significant, $F(1,80) = 4.04$. In the control condition, remember and know responses were virtually identical for both sources, both t's < .20. In the conformity condition, both remember and know responses increased for heard items, $t(1,80) = 1.87$ (marginally significant, $p < .07$) and 2.26, respectively. However, for seen items remember responses increased, $t(1,80) = 2.53$, but know responses did not, $t(1,80) = .46$.

Similar to the results of Experiment 1, the feedback influenced responding in the conformity condition differently for the two sources. A conformity effect increased knowing for heard items but there was no concomitant increase for seen items. One explanation for this pattern of results is that the seen items at study were in the same modality as at test. The match between study and test may have generated ecphoric synergy between study and test items in the seen source (Tulving, 1983), thereby giving participants a feeling that the seen source was more diagnostic. If this were so, then perhaps participants were more likely to discount the previous person's responses when they believed the item had been seen. This notion is supported by a source by claim interaction, $F(1,80) = 4.31$, indicating that more know responses were assigned to the heard source than to the seen source.

Again, there was a main effect of condition in this experiment, $F(1,80) = 7.26$. No other comparisons in this experiment were significant. Therefore, the goal of increasing conformity effects using similar sources was moderately accomplished. However, the conformity effect for one source still differed from that for the other source.

EXPERIMENT 3

Although the purpose of the previous experiment was to use sources comparable in diagnosticity, we inadvertently selected sources that elicited differential conformity. We intended to increase conformity for remember and know responses for both sources and achieved this only partially. In Experiment 3, sources were chosen that have previously been found to lead to similar memory performance, continuing our attempt to find sources of equivalent strength.

Method

Participants. Sixty-nine undergraduates at the University of Georgia volunteered for this experiment in exchange for partial credit toward a course requirement. None had participated in either of the previous experiments. A total of 34 undergraduates participated in the experimental condition, whereas the remaining 35 participants were tested in the control condition.

Materials and Procedure. In line with Marsh, Durley, and Hicks (2002), 120 homographs were chosen from the normative data collected by Gawlick-Grendell and Woltz (1994) to be used as stimuli for this experiment. Eighty homographs were randomly selected to be used during the study phase and the remaining 40 were used as distractor items during the memory test. Half of the studied words were learned in the context of their dominant meaning (RANGE as in interval) and half in the context of their nondominant meaning (RANGE as in stove). Words were spoken in either a male voice or a female voice, counterbalanced such that half of the male words were composed of dominant contexts and half were composed of the nondominant contexts. Female words

consisted of the same composition. The word list was recorded on a cassette tape at a rate of 5 s per item, fixing the presentation sequence and sources. The memory test was conducted on the homographs themselves without regard to the context of their presentation during study.

All other aspects of the procedure were identical to that of the previous experiments.

Results and Discussion

As in previous experiments, the inferred recognition hit rate was greater in the conformity condition (M = .79) than in the control condition (M = .68), $t(1,67) = 3.04$. Further analyses were conducted in order to investigate this phenomenon more thoroughly.

The primary remember and know responses of interest are depicted in Table 3. In this experiment, conformity emerged in a different fashion than in previous experiments. Unfortunately, there was not a uniform increase in conformity as we had expected to find based on the previous experiments. In Experiments 1 and 2, information about a previous participant's claims appeared to increase either or both remember and know responses. However, in this experiment, it seems that know responses increased while remember responses decreased for the female source and stayed the same for the male source. This is supported by a condition by claim interaction that was marginally significant, $F(1,67) = 3.19$, $p < .08$. Considering that there were an equal number of remember and know responses per source provided via feedback, this conformity effect patterns the feedback more closely. That is, in this experiment, participants had a tendency to

conform by equalizing the number of remember and know responses rather than by increasing both types of responses overall.

Although we intended for this experiment to have the greatest conformity effects, it surprisingly it did not. Perhaps equating the sources on modality had an adverse impact on remember and know responses. That is, because the sources were so similar—using both perceptual sources within the same modality—there were fewer qualitative details available to distinguish between the sources during test.

The smaller conformity effect may further be due to the fact that all of the effects in this experiment were much smaller than in previous experiments. That is, because the inferred recognition hit rate in both the conformity and the control groups was smaller relative to previous experiments, there was less potential for conformity within remember and know responses. Above and beyond this measure, remember and know responses were affected by the feedback, but again the effects were much smaller than in Experiment 1 or Experiment 2. Even though there were fewer remember and know responses overall, remembering was still greater than knowing, $F(1,67) = 4.37$. All other analyses were not significant.

Although different from the previous two experiments, we did achieve our goal of creating a conformity effect that behaved the same for both sources. However, this finding was contingent on the fact that the inferred recognition hit rates in the conformity and control conditions were smaller, causing decreased conformity relative to previous experiments.

GENERAL DISCUSSION

Taken together, the results of the experiments reported here indicate that when given the opportunity to consider another person's statement regarding an event, people sometimes conform in the reports of their own memories. However, this argument is qualified by the context of the event, or the sources involved. In Experiment 1, participants were more likely to conform to a previous person's remember and know judgments when the source of information was relatively weaker than when it was stronger. The sources were changed in Experiment 2 to be more equivalent in strength but different in modality, and conformity was found for both sources in claims of remembering but not in claims of knowing. For knowing, claims for the heard source increased whereas those for the seen source did not. In Experiment 3, participants conformed to sources that were equal in strength and in modality, although the ability to find a conformity effect was hampered by smaller inferred recognition hit rates in both the control and the conformity conditions relative to the previous two experiments.

Although we did not expect to find such an overwhelming effect of source on conformity measures, retrospectively it makes sense. In Experiment 1, pleasantness judgments and syllable counting represent two internal, conceptual sources. The former source is a generative source causing it to lead to stronger encoding and the latter, non-generative source was relatively weaker. Because more recollective details surround generated items (i.e., the generation effect), they were more easily remembered and were less influenced by feedback. However, fewer recollective details come with a weaker

source and feedback can serve as partial information reinstatement, causing a greater conformity effect.

Perceptual sources such as seeing and hearing items are less memorable than conceptual sources. Furthermore, they are more equivalent to each other in encoding strength but can still be distinguished by modality. The reinstatement of seen items at study generates ecphoric synergy for these items, producing response differences between the sources. Conformity appears as an increase in both remember and know responses in the heard source and an increase in remember responses for seen items. Therefore, these sources are more susceptible to conformity than those of Experiment 1 in which conformity occurred only for one source.

Finally, in Experiment 3, when the sources were equated on both strength and modality, a new type of conformity emerged, that which replicated the pattern of composition of the feedback. As the number of remember and know responses in the feedback were equivalent, participants in the conformity condition tended to equate their own remember and know responses relative to those in the control condition. However, because overall memory was lower for these items than in previous experiments, the conformity effect overall was smaller than in previous experiments.

These results support a signal-detection model of the remember-know paradigm (e.g., Hirshman & Master, 1997). Participants maintain two criteria during a memory test. One criterion (C) is used for the old-new discrimination. Items falling above this criterion are identified as old and those falling below it are new. A second criterion (RC) is located to the right of the first and is used to distinguish remembering from knowing.

Items falling above this criterion are called remember and items falling between the two criteria are called know.

This model can account for the dissociations in conformity found in these experiments as well as the experiment described previously by Hirshman and Henzler (1998). That is, a shift in C results in a change in the inferred recognition hit rates found in all three experiments reported here. Furthermore, a shift in RC accounts for differential remember and know responses between control and conformity conditions. Other models, such as the dual-process approach, suggest that a shift should only occur with C, affecting old-new detection and know responses, and that RC should be fixed, unaffected by experimental manipulations. Because remembering responses are affected by conformity, the dual-process model is insufficient for the current results. However, the issue of whether the results found here are due to a C/RC shift or a change in d' (or a combination of the two) is yet to be addressed.

Nonetheless, we have shown that subjective states of awareness as indicated by remember and know judgments may not necessarily be true descriptions of the states of the memory traces. The process of recognizing an item as old and obtaining recollective details regarding it does not appear to be immune to external influence. Subjective reports of the amount of recollective detail surrounding a memory trace may be influenced by another person's responses. The implications of these findings are widespread.

Especially important is the application of potential response conformity to eyewitness testimony. If several people witness a crime and confer on the details of it, one person's perspective may influence another person's memory. The results presented

here indicate that accurate feedback enhances memory with conformity, so eyewitnesses could benefit from discussing the crime scene. However, it is uncertain if conformity would occur based on inaccurate feedback. When misinformation is present, conformity could be particularly detrimental to the crime investigation.

In conclusion, recollection of specific details surrounding an event seems to be a cue for a memory's veracity in everyday experience. A joint effort to remember an event causes conformity in recollective details, which may serve as a partial information reinstatement for weak memory traces. However, the strength of the original memory trace determines the amount of conformity that will be demonstrated.

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Table 1

Average Proportions of Remembering and Knowing Responses of Correct Source Identifications by Condition in Experiment 1

	Assigned Condition	
	Conformity	Control
Original source and claims		
Pleasantness		
Remember	.65 (.03)	.64 (.03)
Know	.43 (.03)	.42 (.05)
Syllable		
Remember	.34 (.03)	.24 (.03)
Know	.60 (.03)	.44 (.03)

Note: Standard Errors are in parentheses.

Table 2

Average Proportions of Remembering and Knowing Responses of Correct Source Identifications by Condition in Experiment 2

	Assigned Condition	
	Conformity	Control
Original source and claims		
Seen		
Remember	.37 (.02)	.29 (.03)
Know	.33 (.02)	.35 (.03)
Heard		
Remember	.36 (.03)	.29 (.03)
Know	.43 (.02)	.35 (.03)

Note: Standard Errors are in parentheses.

Table 3

Average Proportions of Remembering and Knowing Responses of Correct Source Identifications by Condition in Experiment 3

	Assigned Condition	
	Conformity	Control
Original source and claims		
Male		
Remember	.31 (.02)	.28 (.02)
Know	.27 (.02)	.22 (.02)
Female		
Remember	.26 (.02)	.30 (.02)
Know	.27 (.02)	.23 (.02)

Note: Standard Errors are in parentheses.

APPENDIX

Table A1

Average Proportions of Remembering and Knowing Responses of All Source Identifications by Condition in Experiment 1

	Original Source		
	Pleasantness	Syllable	New
Condition and claims			
		Control	
Pleasantness	.79 (.02)	.12 (.02)	.03 (.01)
Syllable	.16 (.02)	.58 (.03)	.06 (.01)
New	.05 (.01)	.30 (.02)	.91 (.02)
		Conformity	
Pleasantness	.83 (.02)	.11 (.01)	.01 (.01)
Syllable	.15 (.02)	.74 (.02)	.03 (.01)
New	.03 (.01)	.15 (.02)	.96 (.01)

Note: Standard Errors are in parentheses.

Table A2

Average Proportions of Remembering and Knowing Responses of All Source Identifications by Condition in Experiment 2

	Original Source		
	Seen	Heard	New
Condition and claims			
		Control	
Seen	.54 (.02)	.17 (.02)	.07 (.01)
Heard	.15 (.01)	.53 (.03)	.07 (.01)
New	.31 (.02)	.30 (.02)	.85 (.02)
		Conformity	
Seen	.58 (.03)	.21 (.02)	.05 (.01)
Heard	.25 (.02)	.63 (.02)	.05 (.01)
New	.17 (.02)	.17 (.02)	.91 (.02)

Note: Standard Errors are in parentheses.

Table A3

Average Proportions of Remembering and Knowing Responses of All Source Identifications by Condition in Experiment 3

	Original Source		
	Male	Female	New
Condition and claims			
		Control	
Male	.44 (.03)	.25 (.01)	.12 (.02)
Female	.23 (.02)	.45 (.02)	.12 (.02)
New	.33 (.03)	.30 (.03)	.76 (.04)
		Conformity	
Male	.50 (.02)	.33 (.02)	.06 (.01)
Female	.29 (.02)	.46 (.02)	.06 (.01)
New	.21 (.02)	.21 (.02)	.88 (.02)

Note: Standard Errors are in parentheses.