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IN SEARCH OF THE WRONG IMPRESSION

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IN SEARCH OF THE WRONG IMPRESSION

By

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ABSTRACT

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This research focused on examining the cognitive processes involved in forming evaluative impressions of persons who were alleged by direct assertions and innuendoes to engage in a variety of activities. Attention was paid to examining explanatory models that could describe how innuendes foster negative evaluations.

Theory and research suggest that the impressions formed of an innuendo target may result from a contractual violation between message source and recipient. Information embedded in a message that is accepted as "given" by both source and recipient can be juxtaposed through grammatical transformations of direct allegations by the message source. The resulting communication, while syntactically benign, conveys "new" information that is accepted and used by the recipient to form impressions similar to those based on a direct allegation.

Against this "given-new contract" model, an alternative model was proposed. The audience to an innuendo stores the message in a declarative kernel form, and tags the memory with the appropriate syntactic transformation. When the message is recalled, the tag interferes with semantic meaning, and the evaluative impression of the target is modified accordingly.

Experiment 1 tested the first postulate of this "memorial tag" model by presenting sets of innuendoes, allegations and control statements to subjects and, after a short delay, asking them to engage in a recogntion task. A substantial number of recognition errors were made. Analysis of subsequent target evaluations indicated that innuendo effects of questions may be tied to encoding errors, whereas denial innuendoes may work as a function of a decrement of memory tags.

Experiment 2 examined how tags might interfere with the recall of information embedded in original communications. The contribution of the various components of a sentence to the formation of impressions were examined under innuendo. It was found that different patterns of presentation of verbs and objects yielded different proportions of evaluative variation as a direct function of different allegation types. These results indicated that the notion of given information must be more complicated than previously described and tenatively suggest that memorial tags may operate most effectively on verbs and their interactions with objects.

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The inexhaustable patience of my dear wife, Anne, and the generous understanding of my son, Nathan, were the most important contributions to the completion of this research. Also, the encouragement of my parents throughout this ordeal cannot be denied as a necessary ingredient for its success.

On the scholarly end of this work, Bill Crano deserves first mention, of course, for his encouragement, support, consideration, and guiding hand. Larry Messe was also indispensable for his advice and tireless good humor in the face (or opposite end) of adversity. Norbert Kerr has a special place in this research due to his pragmatism, criticism, and creativity; in good part, what honesty and practicality that is present in this research is a result of respect for his keen sense of how the world works. Charlie Johnson's comments and support also were appreciated, particularly in regard to maintaining an even strain.

While some readers of this dissertation may come to feel that there is a slippery, blackhearted villain who has obfuscated the situation to serve his own purposes, this may or may not be true. In any case, Dan Wegner is not the person in question. His contributions to this research are as obvious as its conclusions.

Finally, the sympathy, empathy, and good will of fellow graduate students, and the hard work of a number of undergraduates should be acknowledged with appreciation.

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INTRODUCTION

Innuendo Effects: Research and Theory

Recently, considerable interest has been generated in the social psychological inquiry of the role of psycholinguistic phenomena in impression formation (c.f., Abelson, 1968; Gollob, 1974(a); Kanouse, 1971; Wegner, Kerker, & Beattie, Note 1; Wyer, 1974). Although little research has examined directly issues raised by formal linguisitic theorists (e.g., Chomsky, 1965; Clark & Clark, 1977; Wason, 1965), a number of studies have concentrated on examining impression formation and attributions from the standpoint of grammatical forms and transformations in those forms (c.f., Gollob, 1974(b), Gumenik & Dolinsky, 1969, Thompson, Gard, & Phillips, 1980, Wegner et. al., Note 1).

The purpose of the present research is to examine one aspect of the impression formation process, innuendo effects, as they have been found to relate to simple transformations in the grammar of sentences that provide the information upon which impressions are based. Specifically, transformations of direct statements into question and denial innuendo forms, and the subsequent impact of those transformations on the impression formed of those sentences' subjects, will be systematically examined.

This study first will review previous research most relevant to the issues at hand. Theories, studies, and interpretations by

Wegner, Kerker, & Beattie (Note 1), Buldain & Crano (Note 2), and Gumenik & Dolinsky (1969) are most central to this examination. Issues raised by these researchers will be explored in detail. From this groundwork, competing alternative explanations from the research on memory (Mehler, 1962) and information processing (Fillenbaum, 1970) also will be considered. Finally, two experiments will be reported that will shed some light on these competing positions, and may resolve some of the controversies raised by the various theoretical interpretations.

Innuendo Effects and the Given-New Contract

Wegner, Kerker and Beattie (Note 1) completed a series of three experiments that examined "innuendo effects" in impression formation. Concerned primarily with how people interpret communications that do not directly allege wrongdoing (thereby reducing the risk of libel or slander suits for the communicator), Wegner, et al. examined the effect of questioning or denying an individual's wrongdoing on the evaluative impression (Osgood, Suci, & Tannenbaum, 1957) formed of the targeted individual (hereafter referred to as the target). For example, Wegner et al. hypothesized that negative impressions of the target "Bob Talbert" would form regardless of whether it was reported in fictitious newspaper headlines: (a) "Bob Talbert linked with Mafia", (b) "Is Bob Talbert linked with Mafia", or (c) "Bob Talbert not linked with Mafia". To test this hypothesis, they presented subjects with sets of headlines, each containing a different target, and each with a unique allegation in either its direct, question, or denial form, or a target who was the subject of a neutral statement (e.g., "Bob Talbert arrives in city"). By systematically balancing presentation orders of targets and allegation forms, each subject

could read about all four targets, but only one allegation form of each type would be available for evaluation of a given target. Across subjects, all possible combinations of allegations and targets were presented. Analyses of the evaluative impressions formed of the various targets generally confirmed these researchers' assumptions. In the first experiment, direct allegations and question innuendoes resulted in extreme negative evaluations relative to control headlines ("Bob Talbert arrives in city"), while denial innuendoes generated moderately negative evaluations.

Accepting these results as support for the effectiveness of incriminations that may result from question innuendo and direct allegation headlines, Wegner, et al. (Note 1) examined the more general case of innuendo effects. Taking as a rationale that questions and denials in newspaper headlines are rhetorical in form, i.e., that the body of any article following such headlines might provide confirmation for the question or cast doubt on the denial, Wegner, et al. considered an alternative: that "innuendo is inherent in language understanding processes," (p. 6) and, therefore, might be present in communications other than headlines. Their second experiment examined this proposition by presenting subjects with excerpts from letters of recommendation written for graduate school applicants. Four of the excerpts contained either a direct allegation (e.g., "Joseph falsified data for a research project"), a question (e.g., "Did Rita steal one of the psychology department's tape recorders?"), a denial (e.g., "Patricia did not copy an article in a journal for her senior thesis"), or a control statement (e.g., Paul has taken several courses in psychology") embedded in stock information regarding GRE scores, GPA's, and three

additional, but uniform statements from other letter writers. Analyses of subjects' evaluative ratings revealed extreme negativity towards targets of direct allegations, and moderately negative impressions formed of targets of question and denial innuendoes relative to control targets.

Accordingly, Wegner, et al. concluded that innuendo effects in impression formation occur in contexts other than newspaper headlines, and inferred that they are general linguistic phenomena. Moreover, the negative impressions formed of targets in the denial sentence transformations provided support for their contention that such transformations are effective as innuendoes.

The final experiment reported by Wegner, et al. (Note 1) attempted to develop an explanation of how innuendo effects operate. Extrapolating from the psycholinguistic research of Clark and Haviland (1977), Wegner, et al. suggested that agreements between the source and the recipient regarding how information is to be presented are implicit in every communication. To conform to this agreement, syntax is applied to sentences in a fashion that allows the message recipient to distinguish information already known by both source and recipient from novel information provided by the source. Thus, sentences generally are constructed in a manner that designates information upon which both parties may agree--<u>given</u> information--and specifies information that provides qualifications and <u>new</u> meaning. A given is "an address to information already in (the recipient's) memory," (Haviland & Clark, 1974, p. 513) that the communicator judges available to the recipient. "Mafia" is an example of a given that most persons will agree has certain memorable

properties; such properties include that it is a secret organization of people, and that it is involved in extensive criminal activities. Given this information, membership by individuals is axiomatic. Nothing new, therefore, is transmitted from source to recipient when the statement is made "Some people are members of the Mafia," unless such a statement is used in a context where emphasizing the human component of that organization has importance. "Linked" is another example of a given as a verb, with certain properties of imaginableness involving chains or connectiveness. By invoking a proper name such as "Bob Talbert", an individual person is designated. So far nothing new could be provided by separate messages containing only one of these givens. As these givens are juxtaposed in a sentence, i.e., "Bob Talbert linked to Mafia", however, new information is transmitted: an unsuspected member of this secret criminal organization has been exposed through a chain of evidence. In other words, the syntax of this sentence presupposes the given information accepted by all but a few that there is a Mafia and that someone is linked to it. It offers the new information that Bob Talbert is the someone. The agreement between source and recipient that the "source is cooperative and has good judgment about what (the recipient) does and does not know" (Haviland & Clark, 1974, p. 513), and that the recipient can distinguish between given and new information and utilize each appropriately, is called the given-new contract.

While Clark and his associates (Clark & Clark, 1977; Clark & Haviland, 1977; Haviland & Clark, 1977) never directly addressed the application of the given-new contract analysis to question and denial

innuendoes, they consistently have suggested that subtle violations of the contract may be perpetrated. Such a notion is not a new one, but has been dealt with by rhetoricians since the times of Aristotle (see, for example, his discussion of "topoi" in Book I of Rhetoric). Deception in communication and the morality of such deception has been dealt with extensively throughout the history of the study of rhetorical communication. In classical rhetorical thought, deception involves the illogical or emotional juxtaposition of premises and conclusions in an argument by communicators of amoral or immoral Ethos (McCroskey, 1966).

Similarly, in Wegner, et al.'s (Note 1) analysis, premises may be distorted and hidden such that what is perceived as given by the message recipient is really a novel proposition. By doing so, the focus of the sentence for the audience could be placed on what is syntactically new information under the terms of the given-new contract while semantically new information is provided in syntactic structures normally containing given information. For example, according to Clark and Clark (1977), questions call for new information in the form of confirmation or denial of information embedded in them. Wegner, et al. (Note 1) observed that some questions can be formed so that they violate the contract between questioner and audience in that, by answering them, the respondent accepts novel premises embedded in the question as given information, confirming the veracity of those premises in the minds of the audience. A demonstration of such a violation is the old cocktail party joke where one partier approaches another who is engaged in serious conversation with potential business contacts and asks, "Hi,

Fred...does your wife feel better since you've stopped beating her?" As a question, this communication requires confirmation or denial of the major proposition, "Does your wife feel better?" in order to complete the given-new contract between questioner and answerer. However, by flat confirmation or denial of this proposition, the respondent confirms the premise, i.e., the respondent's wife was not feeling well. Moreover, regardless of confirmation or denial of this major premise, the hidden novel premise presented as given information in the dependent clause, "since you've stopped beating her," would be confirmed in the minds of the audience as providing an acceptable explanation of why she was not feeling well in the first place.

The final experiment reported by Wegner, et al. (Note 1) attempted to ascertain if an audience to innuendoes would be convinced of the truth of given information "violations" to the same extent that it would accept the new information contained in them. As a second issue, they also tested the extent to which source credibility could modify innuendo effects in impression formation. Since given information is assumed to be accepted by both source and recipient and only new information is attributable to the source, source credibility effects (Hovland, Janis, & Kelley, 1953) should not affect negativity in impression formation resulting from incriminations embedded in given information.

In this experiment, subjects were asked to rate candidates for the U.S. House of Representatives on evaluative dimensions after reading allegations in newspaper headlines. Two levels of source

credibility were systematically balanced among groups--high credibility (The New York Times, or The Washington Post) vs low credibility (National Enquirer, or Midnight Globe). Direct allegations, question and denial innuendoes, and control statements served as levels of the repeated measures factor in their design in the same manner as Experiments I & II; four different targets were counterbalanced systematically across this factor. After completing the evaluative impression scales, subjects were asked to respond to seven questions by marking truthfulness scales (true = 7; false = 1). These questions were directed at uncovering the extent to which subjects accepted given and new information in question and denial innuendoes.

For example, regarding the fictitious candidates, if a subject was presented with a question innuendo "Is Bob Talbert linked with Mafia?", the denial innuendo "Karen Downing not associated with fraudulent charity," and the control statement "Andrew Winters celebrates birthday," the seven questions to be rated for truthfulness were:

1. Bob Talbert may be linked to Mafia. (given-question innuendo)
2. The newspaper wants to know if Bob Talbert is linked with Mafia. (new-question innuendo)
3. Karen Downing may be associated with fraudulent charity. (given-denial innuendo)
4. Karen Downing is not associated with fraudulent charity. (new-denial innuendo)

5. Andrew Winters may be connected to bank embezzlement. (non-present given-control--for question and denial comparison)
6. The newspaper wants to know if Andrew Winters is connected to bank embezzlement.(non-present new-control--for question comparison)
7. Andrew Winters is not connected to bank embezzlement.(Non present new-control--for denial comparison)

Wegner, et al. conceptualized responses to these questions as fitting two 2 x 2 within-subjects designs (given-new vs innuendo-control), such that truthfulness ratings of statements 1 and 2 above would assess the believability of the given and new information in the question innuendo and comparisons with statements 5 and 6 would provide the same information in the control statement. Similarly, comparisons of rated truthfulness of statements 3 and 4 with 5 and 7 would indicate the believability of the given or new information in the denial innuendo relative to given and new information in the control statement. Finally, the believability of each source was assessed on a 7-point scale.

Analyses of the evaluative impression data revealed a pattern of results similar to those reported in Wegner, et al.'s Experiment 1. Direct allegations and question innuendoes created extreme negative impressions of targets, while denial innuendoes generated moderately negative impressions relative to control statements. The reliability of this statistical innuendo effect was supported once again.

Since the two high credibility sources did not differ in their rated believability, the two low credibility sources did not differ along this dimension, and high credibility sources were rated more believable than low credibility ones, the potential effects of general source credibility (high vs low) were examined in terms of impression formation. Source credibility was found to impinge only upon direct allegations, such that high credibility sources created more unfavorable impressions than low credibility sources. This result was taken cautiously as support for the contention that when premises are hidden in given information, source credibility effects may not be observed, but when the premises are presented as new information--as in the case of direct allegations--source credibility may play an important role.

Analyses of variance of the relative truthfulness of the given and new information in innuendo vs control statements were undertaken via the 2 x 2 within-subjects designs described above. When the truthfulness of the given and new information was contrasted between the question and control statements, a main effect was observed for question vs control. Both given and new information were rated as more truthful in the question innuendo than their counterparts in the control statement. In the analysis of truthfulness of given and new information in denial innuendoes vs control statements, a main effect for given and new information was reported; new information (e.g., "Karen Downing is not associated with fraudulent charity," and

""Andrew Winters is not connected to bank embezzlement") was rated as more truthful than given information (e.g., "Karen Downing may be associated with fraudulent charity," and "Andrew Winters may be connected to bank embezzlement."). A main effect was also observed for denial innuendoes vs control statements. Both given and new information presented in denial innuendoes were rated as more truthful than the same information presented in control statements. Taken together, Wegner, et al. concluded that these results lent support to the given-new contract analysis of innuendo effects: "...while neutral or non-incriminating new information is conveyed through innuendo, an equal amount of damaging given information is transmitted in parallel." (p. 16).

To examine the relationship between acceptance of the given or new information as true and the general impression formed of the target, Wegner, et al. correlated truthfulness ratings and evaluative ratings. For question innuendoes, no relationship was reported between impression negativity and the judged truthfulness of new information. A positive relationship was observed between impressions and rated truthfulness of given information. For denial innuendoes, no relationship was apparent in the correlation of impression negativity and the truthfulness ratings of the given information, but a significant negative correlation was observed between impressions and the truthfulness of new information. This pattern was interpreted as suggesting that the negativity of impressions formed of a target of a question innuendo stems from belief in the premises embedded in the given information, while the impressions formed of the denial innuendo target operate as a

function of disbelief in the new information.

In the concrete terms of our example target, "Bob Talbert", the research of Wegner, et al. (Note 1) suggests that asking the question "Is Bob Talbert linked to Mafia?" in a headline could be as harmful as stating that such a link exists. The damage to Bob's evaluation is related to the message recipient's willingness to believe that he may be linked to the Mafia, and not at all related to the recipient's perception of the motives of the newspaper asking the question. The recipient accepts that someone is linked to the Mafia, and that someone may be Bob.

The impression formed of Bob may be as negative when a newspaper states "Bob Talbert not linked to Mafia". In this form of innuendo, the given is that someone was linked to the Mafia. The new states that the someone was not Bob. The negativity of impression formed of Bob is due to the message recipient's disbelief in the new information.

Questioning or denying Bob Talbert's involvement with the Mafia is probably not as damning as directly alleging such involvement, but such statements are more damaging than saying nothing at all. By embedding damaging premises in given information, problems one has with his or her own credibility may be avoided. Shakespeare to the contrary, one need not be a trustworthy Iago to twist a gullible Othello into smothering his Desdemona.

Innuendo and Additional Trait Information

The research by Wegner, et al. (Note 1) made a number of intriguing and provocative points. As noted, very little research has examined the role of syntax in impression formation. The landmark studies of Asch (1946) addressed the role of single trait words and lists in impression formation. The studies of Warr and Knapper (1968) embedded trait adjectives and trait combinations in paragraphs and examined impression formation from the perspective of detailed context. For the most part, the findings of Warr and Knapper were not dissimilar from the findings of previous researchers who used trait adjective lists. The findings that certain adjectives created differentially positive or negative impressions were supported by research that embedded those trait adjectives in syntactic context. The syntactic contexts employed in the Warr and Knapper studies were simple declarative sentences linked together in paragraph form. By extension, through grammatical transformation, the experiments of Wegner, et al. could be thought of as an exceptional set of circumstances where embedded derogatory characterizations of a target result in correspondingly negative impressions being formed.

Following the example of Warr and Knapper (1968)--embedding traits in detailed paragraphs--Buldain and Crano (Note 2) explored the effects of embedding innuendoes in the context of detailed descriptions about their targets. Taking as a general starting point the finding of Wegner et al. (Note 1) that the act of denying or questioning wrongdoing may be as harmful as directly accusing a target and is difficult to defend against, Buldain and Crano set out to find ways to modify the impressions formed of the targets of

innuendoes. Assuming that the typical information processor, much like nature, abhors a vacuum, and drawing from previous models in the area of information adding and averaging (e.g., Anderson, 1974; Fishbein & Hunter, 1964), these researchers questioned the potential impact of providing additional information about the target on the subsequent impression formed of the target. Believing that additional information about the target would alter the probability that the given-new relationship in an innuendo would be acceptable to the message recipient, Buldain and Crano suggested that the number and likeableness of traits in sentences describing the target would differentially modify the impression formed of the target.

The research of Buldain and Crano (Note 2) addressed this problem to resolve a number of issues. First, if nothing else should be known about a target, as was the case in the Wegner, et al. experiments, the impression formed of a target would be a function of the onerousness of the hidden premises in the given part of the innuendo. While experimentally ideal, in that it simplifies analysis, this approach lacks mundane realism. More often, innuendoes occur in discourse; in media presentations they are followed by additional information that supports or does not support their hidden allegations. The questioning headline is a rhetorical, attention-getting device, followed by an article that expounds on events and circumstance. The denial headline is followed by information relating to the plausibility of the denial. That such questions, denials and text are newsworthy suggests that their subjects are somewhat public figures. Given their public nature, one would assume that people who are aware of those figures would have

existing impressions.

For example, both Spiro Agnew and Bert Lance claimed that they were driven from public office by innuendoes in the press. Yet both men were exposed to the public during their ascension to those public offices, and details--circumstantial or otherwise--of their lives and characters were reported extensively. Similarly, information about them was reported during their declines from positions of power. Accordingly, the positivity of regard in which each man subsequently was held may be a function of those "non-innuendo" characterizations. Depending on the kind, amount and temporal occurence (pre- or post-innuendo) of salient non-innuendo information, one of those gentlemen may have suffered less in the regard of the general public than the other, assuming the insinuations of the press were equally damning.

Following this logic, Buldain and Crano (Note 2) hypothesized that the magnitude of innuendo effects would operate as a function of additional information presented about a target, the tone (positivity or negativity) of such information, and the temporal relation of such information to the presentation of the innuendo. Acknowledging the findings of Asch (1946), these researchers expected a primacy effect to occur; when innuendoes were presented prior to additional information, the evaluations of targets would be in accordance with the information insinuated by the innuendoes. When additional information was presented prior to the innuendo, the evaluation would be in accordance with that additional information.

Finally, Buldain and Crano (Note 2) questioned the certainty with which people regarded the information contained in innuendoes. Where Wegner, et al. (Note 1) examined the relative truthfulness of given and new information in innuendoes relative to control statements, Buldain and Crano hypothesized that people's certainty that the information presented in statements was accurate would vary according to grammatical transformation. That is, people would be more certain of information contained in direct allegations and control statements than they would be of the same information contained in innuendoes. Consequently, while evaluative impressions of targets might be equally negative for direct allegations and innuendoes, less stability or certainty of impressions based on innuendoes would be apparent.

To summarize, Buldain and Crano (Note 2) hypothesized that the evaluative impressions formed of targets would vary as a function of the presence, quantity and positivity of additional information about those targets. When present, information presented before allegations would modify impressions relative to the same information presented following allegations; a primacy (or recency) effect for allegations was sought. Less impression certainty would be associated with innuendoes than with direct allegations. Belief in innuendo headlines would be less than belief in headlines containing direct allegations.

To test these hypotheses, Buldain and Crano (Note 2) used a 4 x 2 x 4 x 4 design with repeated measures on the last factor to examine the effects of Trait Positivity (likeable vs mixed likeable and

unlikeable vs mixed unlikeable and likeable vs unlikeable), Allegation Position (before or after trait descriptions), Allegation Order (a control factor that allowed targets to be systematically balanced across allegations) and Allegations (direct allegation, question innuendo, denial innuendo and control statement) on the dependent measures of evaluative impression, certainty in impression, and confidence in information accuracy. An offset control block that incorporated the last two independent factors (Allegation Order--four orders of presentation between groups, and Allegations--repeated measurements on subjects) from the overall design was included to test the impact of no additional information about targets against providing such information, and to test the reliability of the findings of Wegner, et al. (Note 1).

To create the trait descriptions, 48 descriptors were taken from Anderson's (1968) list of likeable and meaningful trait adjectives. One half of these traits were likeable ($\underline{M}$ trait likeableness = 503.5, S.D. = 22.31; $\underline{M}$ trait meaningfulness = 366.67, S.D. = 5.22) and the other half were unlikeable ($\underline{M}$ trait likeableness = 97.04, S.D. = 15.73; $\underline{M}$ trait meaningfulness = 369.0, S.D. = 5.28) as rated by Anderson's subjects. Sets of eight trait adjectives were formed by random selection with replacement from this initial pool of 48 descriptors, such that sets of eight likeable traits, eight unlikeable traits, and of four likeable and unlikeable traits were created. Declarative sentences were written that described an individual with the traits from a single set. For half of those sets that contained four likeable and four unlikeable traits all the likeable trait sentences were ordered to precede the unlikeable trait

sentences. For the other half, the likeable trait sentences followed unlikeable ones. A set of sentences could be used to describe someone by the name of Carl Watson, Gary Brooks, Mark Hanes, or Bob Talbert. For example, a likeable description of Bob included:

> Bob Talbert has been described by personal acquaintances as a warm and helpful individual and as appreciative of and responsible to his family. His business associates have indicated that he is kind in his dealings and reliable when he says he will get things done. His employers have remarked that he is both self-disciplined and alert.

Only four male proper names were used as targets in order to simplify the design. Any description set could not vary from target to target.

Four direct allegations of wrongdoing were written, and question and denial transformations of those allegations were created. The allegations were in the form: a) "Gary Brooks was a hit-and-run driver," b) "Carl Watson stole from charity," c) "Mark Hanes connected to organized crime in the county," and d) "Bob Talbert stole funds from a local bank." A control statement describing an innocuous event such as "finding a wallet" was written for each target.

Test booklets were then prepared for each subject. Each booklet contained four statements: a direct allegation, a question and a denial innuendo, and a control statement embedded in the context of "local" newspaper headlines. These allegations were systematically balanced into four Allegation Orders across subjects, i.e., in one order, Mark Hanes connection to organized crime was questioned, Bob Talbert's theft was denied, etc.; in another order, Mark Hanes

connection to organized crime was directly alleged, Bob Talbert's theft was questioned, and so on.

Trait descriptions were crossed with the allegation statements according to cells in the design. Each of the four targets could occur with each statement, but could not occur twice in a booklet. Each allegation-trait description combination occured on a page and pages were randomly ordered in a booklet. Following each allegation-trait description was a page of 10 semantic differential items that had been found, on the basis of previous factor analyses (e.g., Wegner, et al., Note 1), to measure the evaluative dimension of judgment. These scales were presented in four random orders of the set: fresh-stale, beautiful-ugly, cruel-kind, dishonest-honest, worthless-valuable, irrational-rational, pleasant-unpleasant, good-bad, sociable-unsociable, and intelligent-unintelligent. To the right of each semantic differential scale was a space where subjects could rate their confidence in their semantic differential rating from 1 (not at all confident) to 7 (completely confident). Additionally, four 9-point Likert scales were included that tapped perception of the target's personal integrity, moral character, friendliness, and competence. Certainty ratings for these scale judgments also were called for. Finally, a scale was provided for subjects to rate their confidence that the target was involved in the events described in the allegation.

Booklets were presented to 215 male and female undergraduate volunteers who received course credit in introductory psychology classes in return for their participation in the study. The subjects

filled out the booklets in groups of approximately 30. A page of instructions preceded the set of allegations that informed subjects the researchers were "interested in how people consider information from various sources about other people." Subjects were then informed of their task--to rate a number of individuals on the basis of the information they would read--and instructed in the use of the rating scales.

Subjects' ratings of semantic differential items, certainty in those ratings, and confidence in the headlines were submitted to correlational analyses to determine underlying structure and interrelationships. Subsequently, analyses of variance were performed on each of the dependent measures derived from the structure of the scales and on the confidence and certainty ratings.

Principal axes factor analyses with varimax rotations (Harmon, 1967) suggested three strong factors that accounted for approximately 53% of the total variance of the dependent measures. As expected on the basis of previous research, one factor was composed of the semantic differential items (less the "fresh-stale" item) and the ratings of the target's competence, moral character, personal integrity, and friendliness. A second factor was composed of the certainty ratings of the evaluative impressions. The third factor was composed of the singleton, confidence in the newspaper headline. Reliability analyses of the elements that composed the first two factors indicated that the evaluative impressions factor and the certainty factor both had high internal consistency (coefficient alpha = .91 for the impressions; coefficient alpha = .93 for the

certainty ratings). Accordingly, each set of evaluative impression ratings and each set of certainty ratings were treated as a scale. The items comprising each scale were summed and divided by the number of impressions or certainty ratings to yield mean scale scores.

To obtain insight into the interrelationships of evaluation impressions, certainty of evaluations, and confidence in the newspaper headline, the summary scores were intercorrelated across all experimental conditions of target likeableness and allegation. The resulting correlations are presented in Table 1.

Examination of the significant correlations between positivity of impressions and the certainty with which the evaluations were formed suggested that positive impressions were made with greater certainty when likable persons were the targets of denial innuendoes. This association was significantly weaker when likeable individuals were the targets of question innuendoes and direct allegations. Denying wrongdoing on the part of likable individuals enhanced the certainty with which positive evaluations were made and degraded the relationship between certainty and negative evaluations. This effect was moderated when likeable targets were the subjects of direct allegations or question innuendoes.

Strong negative correlations were observed between impression positivity and certainty when dislikable individuals were the targets of direct allegations, denial innuendoes, and control headlines. Denying or directly alleging wrongdoing, or reporting an innoccuous activity resulted in greater certainty in negative impressions. Oddly, the dislikable targets of question innuendoes apparently did

Table 1

Correlations of Evaluative Impression (EI), Impression Certainty (IC), and Confidence in Headline (CH)a

		Target Traits									
		Likable		Likable-Dislikable		Dislikable Likable		Dislikable		No Description	
Allegation Type		IC	CH	IC	CH	IC	CH	IC	CH	IC	CH
Direct											
	EI	28*	-43**	-20	-40**	18	-34**	-58**	-24	-26	-20
	IC		-30*		11		-07		14		00
Question											
	EI	30*	-10	-06	-38**	11	-57**	-15	-30*	-17	-23
	IC		08		-22		-15		-10		11
Denial											
	EI	45**	08	18	01	-05	-03	-50**	-24	-03	32
	IC		13		12		17		-02		30
Control											
	EI	19	28*	17	16	34**	-08	-40**	31*	29	32
	IC		26*		-29*		25*		-05		50**

a Adapted from Buldain and Crano (Note 1)

* $p < .05$

** $p < .01$

not suffer from greater certainty of negative evaluations, although a subsequent examination of the distribution characteristics of the certainty ratings of dislikable targets indicated the lack of correlation was due to a restriction in range: dislikable targets were evaluated with uniformly high certainty.

Strong negative correlations between impression positivity and confidence in the headline were observed for all mixed trait targets of question innuendoes and direct allegations, likable targets of direct allegations and dislikable targets of question innuendoes. These relationships indicated that greater faith was placed in the information contained in question and direct allegation headlines when ambiguous descriptions were given about targets. To a certain extent, these two types of allegation may have operated in a similar fashion. The negative correlation between confidence in headline and impression for likable targets may have been due to subjects discounting the headline information when making positive evaluations. No such effect was observed for question innuendoes. Conversely, greater confidence in headlines may have been associated with negative impressions when dislikable persons were the targets of question innuendoes.

The pattern of relationships revealed in Table 1 provided partial support for the hypotheses of Buldain and Crano (Note 2). Additional information about the target differentially influenced the relationship of evaluative impression and certainty in those impressions when allegations were made. Comparison of the pattern of correlations within any condition of target likeableness with the

correlations when no description was made of targets forcefully demonstrated the impact of additional information about the target. Moreover, the nonequivalence of the patterns of correlation among allegations was indicative of the different operating characteristics of each vis a vis the relationships of evaluative impression to certainty in those impressions or to the confidence with which the information contained in allegations was held. While question innuendoes and direct allegations were associated with improved certainty of negative impressions when ambiguous information is present about the target, denial innuendoes were not. While readers of denial innuendoes directed at likable targets may have discounted the allegation in their impressions of the target, readers of direct allegations and question innuendoes did not.

In order to ascertain how additional information specifically modifies innuendo effects in impression formation, analyses of variance of each of the summary dependent measures were undertaken.

Evaluation Impression. A significant main effect for the factor of Trait Positivity was revealed, $F(4,196) = 143.252$, $p < .001$. Since it was hypothesized that likeable descriptions would be evaluated more positively than dislikeable ones, with mixed-trait descriptions intermediate, orthogonal comparisons of the means (Kirk, 1968) for this effect were completed. These comparisons disclosed that a more favorable impression was formed of targets described with likeable traits ($M = 3.34$) than with the mixed likeable-dislikeable or dislikeable-likeable combinations of traits ($M = 4.88$, and $M = 4.79$, respectively). The mixed trait description impressions did not

differ from one another, but were significantly more positive than impressions for the completely dislikeable target ($\underline{M}$ = 6.19). The offset control group that received no additional information about targets was compared to each of the Trait Description groups with Dunnett's test (Kirk, 1968) and was found to have formed impressions that were about the same as those formed by the mixed likeableness of trait groups ($\underline{M}$ = 5.20).

A significant main effect for Allegation was also uncovered, $\underline{F}(3,588) = 31.446$, $\underline{p} < .001$. Since it was hypothesized on the basis of the research of Wegner, et al. (Note 1) that direct allegations would create impressions as negative or more negative than question innuendoes, question innuendoes would have impressions associated with them that were as negative or more so than denial innuendoes, and that question and denial innuendoes would generate impressions more negative than control statements, $\underline{t}$-tests comparing each pair of means were performed. The comparisons between the means for this effect confirmed the overall statistical reliability of the innuendo effect. Question and denial innuendoes were not found to differ, but had significantly more positive impressions formed of their targets than direct allegations and significantly more negative impressions than control statements.

Both of these main effects were qualified by a significant interaction of Trait Positivity and Allegation Type, $\underline{F}(12,588) = 7.905$, $\underline{p} < .0005$, the means of which are presented in Table 2. Subsequent analyses of simple main effects (Winer, 1971) disclosed significant effects for conditions of trait likeableness within each

Table 2

Cell Means of the Trait Positivity by

Allegation Interaction from Buldain & Crano (Note 2)(a)

	Allegation Type			
Trait Positivity	Question	Denial	Direct	Control
Likable	3.466	3.228	3.660	3.003
Likable-Dislikable	4.880	4.776	5.073	4.782
Dislikable-Likable	5.054	4.795	4.998	4.320
Dislikable	6.148	6.203	6.372	6.030
Control	5.970	4.947	6.172	3.172

(a) Lower values indicate greater positivity of evaluation.

type of allegation. When question innuendoes were used to make implications, targets described in unlikeable terms and those not described at all by additional traits formed the most negative impressions. Targets described in mixed likeable and unlikeable terms, regardless of the order of those terms, had moderately negative impressions formed of them. Targets described only in likeable terms suffered the least from question innuendoes. The pattern of impressions formed on the basis of the likeableness of traits when direct allegations were made was identical to the pattern resulting from question innuendoes in terms of the mean values of the evaluative impressions for likeable, mixed, and dislikeable and undescribed targets.

The pattern of impressions was almost identical for targets of denial innuendoes, but those that were not described by additional traits seemed to benefit. The mean impression formed of the denial innuendo target who was not described by additional traits was more similar to the mixed trait targets mean rather than the unlikeably described target mean.

Comparisons of impressions formed on the basis of trait descriptions in control statements revealed significant differences among all means. Likeable targets were given the most positive evaluations, followed by the undescribed targets. Dislikably, then likably described targets received moderately positive evaluations; likably, then dislikably described targets formed moderate impressions. Dislikable targets were given the most negative evaluative impressions.

Examining the simple effects of Allegation Type at each level of Trait Positivity, significant effects were disclosed only for the mixed dislikable-likeable targets, $F(3,588) = 8.087$, $p < .001$, for the likably described targets, $F(3,588) = 5.92$, $p < .001$, and for the targets who were not described with additional traits, $F(3,588) = 30.528$, $p < .001$. A Newman-Keuls test (Kirk, 1968) for differences among means was performed for each of these significant effects.

When the target was described in likable terms, the direct allegation was significantly more damaging to the impression formed than the control statement, and created only a marginally more negative impression than the denial innuendo. The question innuendo, while not significantly different from the the direct allegation or the denial innuendo, did generate a marginally more negative impression than the control statement, as did the denial innuendo.

When the mixed unlikable-likeable target was presented, the question and denial innuendo and the direct allegation did not differ from one another, but each was significantly more negative in terms of impression than the control statement.

When no traits were used to describe the target, direct allegations and questions were equal in creating the most negative impressions. Both types of allegation were significantly different from the denial innuendo and the control statement. The denial innuendo created a significantly more negative impression than the control statement. It should be noted that this simple effect parallels the findings reported in Wegner, et al.'s (Note 1) Experiments I and III.

Confidence in headline. Analysis of variance for this measure disclosed a single significant main effect and no significant interactions. Confidence in the information presented in headlines varied as a function of the Allegation Type, $F(3,588) = 13.27$, $p < .001$. Confidence in control statement headlines ($M = 4.28$) was greater than that expressed in direct allegations ($M = 4.921$) or denial innuendoes ($M = 4.954$). While not differing from one another, the mean confidence in direct allegations and denial innuendoes was significantly greater than that for question innuendoes ($M = 5.518$).

Evaluation certainty. A marginally significant main effect for Allegation Type was revealed for this variable. Evaluations were made with greater certainty that the target had the degree of the rated quality when a control statement appeared in a headline ($M = 2.23$) than when a direct allegation ($M = 2.35$), question innuendo ($M = 2.33$), or a denial innuendo ($M = 2.35$). Direct allegations, question and denial innuendoes did not differ from one another.

To summarize, the experiment by Buldain and Crano (Note 2) demonstrated the importance of additional information as an influence on the overall impression formed of targets of allegations. The relationship of the means in the interaction of likableness of the target and the type of allegation indicated that this additional information could modify impressions differentially on the bases of the type of allegation and the affective positivity of the information. First, regardless of the affective positivity of the information, its presence attenuated the magnitude of the statistical innuendo effect. Moreover, while the significant pattern of

relationships among direct allegations, question and denial innuendoes and control statements was apparent, it was so when the target was described only with likable traits or with a mixture of unlikable followed by likable traits. Innuendo effects in negative impression formation may operate as a function of the likableness of the target, and possibly as a function of the recency of likableness information about the target. As targets were described with more unlikable traits or with unlikable traits last, the innuendo effects tended to disappear altogether. This suggests that innuendoes will not create a more unfavorable impression of a villain nor will they work against a moderately bad guy.

The certainty with which negative impessions are formed of an implicated target does not appear to operate in exactly the same manner as the impressions themselves. While the correlational analyses suggested some covariation between impression and certainty in impression, the overall certainty in impressions was undifferentiated among the allegations and somewhat less than impression certainty resulting from control statements.

Toward a Comprehensive Understanding of Innuendo

A Conceptual Fork in the Road

The findings of Buldain and Crano (Note 2) clearly and forcefully demonstrated the impact of additional information and context on the impression formation process as it results from innuendoes. They also opened a number of avenues for future research. Two of these paths are quite apparent. First, extensions of the research of Buldain and Crano could be undertaken to define

the characteristics of innuendo effects as additional information is provided for impression formation. Second, a more thorough examination of the explanation for innuendo effects and a consideration of the merits of alternative formulations could be performed. Each path will be considered in turn.

Based on the means presented in Table 2, one must be struck by the dramatic differences between the impressions formed according to allegation type when no additional information about targets was present. Regardless of the positivity of traits, these differences virtually disappeared when eight traits were used to describe the target. Innuendo effects attenuated with additional information. Whether such attenuation occurs as exponential or as additive linear decay when the number and positivity of traits used as descriptors of the target are incremented is an empirical question that could be answered in an experimental framework. The relative impact of innuendo on the positivity of impression formed of a target occuring as a function of the positivity of additional traits could be pursued.

A number of theoretical models (c.f., Anderson, 1974, and Hodges, 1973) suggest that the impression formed of an individual will be a function of the combination of the values of the traits used to describe him or her. Generally, these models assume the form:

$$I_k = b_1 T_1 + b_2 T_2 + b_3 T_3 + \ldots + b_n T_n + c.$$

where the impression (I) of the kth individual is the sum of a set of traits (T_j) used to describe the individual, those traits weighted by

a number of factors (b_i) such as information value, positivity, salience, etc., as well as (depending on the theoretician) the total number of weights employed in the description plus (again depending on the model) a constant. Thus, any arbitrary weight (b_i) could assume a value ranging from negative to positive and/or could be expressed as a ratio. Since innuendoes appear to have a differential impact in terms of the confidence placed in them according to particular form relative to direct allegations, one might question where and how they might be incorporated into such models.

Two possibilities are immediately apparent: (1)innuendoes might contribute just one more bit of trait information with a peculiar weight, and/or (2)innuendoes might serve to modify the weights assigned to other traits. Regardless of these possibilities, the results reported by Buldain and Crano (Note 2) suggest the modifications of overall impression by innuendo are fragile and are easily overpowered by as few as eight additional traits in a minimal information setting.

The more intriguing path stems from the reliability of the innuendo effect as demonstrated in both the experiments of Wegner, et al. (Note 1) and of Buldain and Crano (Note 2), and from the only extant explanation for the effect, derived from the psycholinguistic researches of Clark and his associates.

Wegner (Note 3) has suggested that for an innuendo to be maximally effective, the target must be represented in a new linkage with a given that involves activity. For example, asking the question "Is Bob Talbert honest?" is not nearly as damaging to the target as asking the question "Did Bob Talbert rob the First National Bank?". Action verbs are more effective than verbs of inaction. "Helping" or "harming" should be more effective in an innuendo given than "wishing" or "believing".

Careful analysis of question or denial innuendoes reveals that, after grammatical transformation (Chomsky, 1965) of the innuendo into a direct action allegation, the target invariably becomes the sentence subject. For example, the innuendo, "Beautiful Betty beaten by Bob?" may be expressed as, "Bob beat beautiful Betty," after transformation to its active kernel form. In the given-new analysis, the innuendo given, "someone beat beautiful Betty," is linked to the new information, "that someone was Bob," through the communication contract between message source and recipient. Damaging given information about the sentence subject is always presented in the transformed sentence predicate. Transformation from a question or denial form to a kernel form should not logically lead to the implication of the subject because an interrogative or negation qualifier either makes no assertion or denies one; however, the pragmatic implication (Harris & Monaco, 1978) apparently is made.

Combining these observations, a set of conceptual equalities may be described. First, the target of an effective denial or question innuendo, i.e., one involving activity, may be transformed into the

subject of a kernel declarative action sentence. Second, the implication of wrongdoing involves juxtaposing that target with the given information supplied in the predicate of the transformed kernel action sentence. Thus, the damaging given is offered in the predicate, and the damaged target is presented as the subject of a transformation to a direct allegation. Is it possible that message receivers are prone to making such transformations and then ignoring or forgetting the qualifiers used in the original, non-incriminating form of a sentence? Asked another way, is it possible that innuendoes are successful in blemishing the character of a target not only because they are subtle violations of a communication contract by a message source, but also because the recipient is an imperfect information processor?

Memorial Tags

Research based on Chomsky's (1965) theories of transformational grammar has accumulated some evidence suggesting that persons who receive communications in the form of questions and denials will make grammatical transformations of those communications into simple declarative kernel forms and then "tag" those kernel forms in memory with information relevant to the syntax of the original communication (e.g., Mehler, 1963; Morris, Rankine, & Reber, 1968, Savin & Perchnock, 1965). There is considerable evidence for denial and question sentences requiring more time for meaning processing (c.f., Wason, 1965; Smith, 1965; Slobin, 1966) and for inducing errors of meaning recall (Johnson-Laird & Bethel-Fox, 1978; Rohrman, 1968; Brewer & Lichtenstein, 1974) or recognition (Fillenbaum, 1970).

Taken together, the literature proposing memory storage of grammatically transformed sentences as direct kernel statements with "memorial tags" denoting the syntactic transformation, and the literature indicating greater time and more errors are involved in processing such transformations, suggest that innuendo effects in impression formation might occur when a simple error in information recall or recognition is made. The deep structure or semantic meaning of the kernel transformation of the innuendo may contribute to the evaluative impression of the target. The syntactic tag attached to the stored meaning may serve to modify the confidence placed in the source of the impression, i.e., the damaging information embedded in the original innuendo, as found in the experiment by Buldain and Crano (Note 2), as well as to modify the relative extremity of the evaluation, i.e., the innuendo effect. The extremity of the evaluation would then operate as a function of the relative difficulty in processing any given syntactic tag. The relationship of evaluations observed in the innuendo effect literature suggests that denial tags are easier to recall than question tags since evaluations made on the basis of denial innuendoes are less extreme than those for questions.

This analysis of innuendo leads to two straightforward hypotheses. First, when asked to recall or recognize allegations about a target, communication recipients should erroneously but frequently identify innuendoes in their direct action kernel forms relative to any other possible transformations. Second, the impact of processing the syntactic tags associated with innuendo transformations on using the semantic information in the kernel

action form of innuendoes to create impressions should result in a different pattern of predicate usage from that of using the same information from direct allegations that do not have such memorial tags.

Examining the merit of the first hypothesis poses no significant methodological problems. An experiment could be undertaken wherein a set of control, direct and innuendo allegations are communicated to recipients and evaluative impressions of the targets are obtained. Subsequently, sets of the same allegations in various grammatical forms could be offered to recipients for purposes of recognition matching and target evaluation. Analysis of errors in recognizing original allegations should confirm or verify this hypothesis.

The second hypothesis is somewhat more intricate. It demands that the available sources of information in any allegation be partialled into meaningful subsets and then that an assessment of the effects of combinations of those subsets be made.

Up to this point, explanations for innuendo effects have assumed some information combination process. Wegner, et al.'s (Note 1) interpretation of Clark and Haviland's (1977) given-new contract asserts that the given subset of information intersects with the new subset in an implicit contract between communicator and recipient. The evaluative impression of the target stems from the information presented in the given subset of the communication implicating the target. Evaluative variations of the target vary in innuendoes because the probability of the given-new linkage is affected.

The reinterpretation of the given and new subsets offered in the present formulation suggests that the given information is always provided in the predicate of an active kernel sentence form of any allegation. Taken one step farther, the predicate of a declarative statement involving an action verb may be analyzed as being composed of a verb and an object. To the extent that the information contained in the verb and object of the predicate of an allegation differentially contribute to the overall impression formed of a target when the allegation is presented directly or in various innuendo transformations, one may conclude that those variations in impression are due to the impact of a particular transformation. Such variations might be considered to reflect the effects of the particular syntactic tag's interference with the implication strength of the verb, the object, or their combined effects when forming impressions.

To the extent that such variations occur one must conclude that the given-new contract analysis of innuendo is insufficient in that it implicitly hypothesizes "no difference"; the given information presented in a direct allegation should be used no differently than the given information presented in a question. Rather, in the given-new model, the linkage between the given and the new should be affected by innuendo. In other words, the extent to which an impression is formed on the basis of the value of the verb and/or the object in an allegation should not systematically differ according to allegation type.

Stated more simply, the present formulation hypothesizes that innuendo effects should be tied to modifications in the impact of the use of the verb, the object or the entire predicate of the direct kernel action transformation on the evaluation of the target. Innuendoes should modify the use of the given information in evaluating the target.

Before rushing headlong into a description of a method to test the second hypothesis and its ramifications for the given-new contract explanation, some review of previous research that has attempted to examine differences in social inference from the standpoint of the contribution of various parts of the sentence should be provided.

The only research, with the exception of that reported above by Wegner, et al. (Note 1) and by Buldain and Crano (Note 2), that has examined the potential impact of encoding and processing questions and denials on the subsequent impressions formed of the sentence subject was reported by Gumenik and Dolinsky (1969). In this study, CVC nonsense syllable subjects were combined with "good" or "bad" active verbs and objects to form active kernel sentences. Passive, negative and question transformations of the active kernel sentences were created from these kernel sentences and one of each of the 16 forms of different subject-verb-object combinations was presented to 45 respondents for evaluation on "good-bad" and "active-passive" scales. On the basis of congruity theory (Osgood, Suci, & Tannenbaum, 1957), Gumenik and Dolinsky hypothesized an associative bond would be formed between subject and object when a "good" verb was employed and

a disassociative bond would be formed when a "bad" verb was used. Thus, since the evaluation of the subject would shift toward the object when an associative bond was formed, they expected a negative evaluation of a sentence subject who, for example, "likes the killer". A disassociative bond would be formed when a denial was employed and evaluations would be correspondingly positive when the sentence subject "does not like the killer". Since a question does not assert, Gumenik and Dolinsky hypothesized that the subject should not be evaluatively affected by the positivity of the verb or the object.

Their analyses of the scale ratings were undertaken in two separate 4 (grammatical transformation) x 4 (good-bad verb object combination) within-subjects analyses of variance of "good-bad" and "active-passive" ratings. For good-bad ratings, active, passive, and question transformations yielded a similar pattern of results. Consistent verb-object combinations (good-good or bad-bad) resulted in positive evaluations of the subject. Inconsistent combinations (good-bad or bad-good) led to negative subject evaluations. For negative transformations, this pattern was reversed except for the bad-bad verb-object combination. Analysis of variance of the activity scale revealed no differences among active, passive and question transformations, but significantly less perceived activity for denial transformations except when the denial of a "good" verb was combined with a "bad" object.

Given the anomolous finding with regard to an associative and disassociative bonding in question transformations and the positive

evaluation of negating a bad-bad verb object combination, Gumenik and Dolinsky (1969) were only partially satisfied with the congruity theory explanation for their results. Their discussion suggested innuendo effects might be responsible for the pattern of evaluation and activity results obtained for question transformations, but offered no explanation of how innuendo effects might occur.

Three points from the study by Gumenik and Dolinsky (1969) are important to consider in the context of the present review. First, the overall pattern of their results only partially supported their congruity theory hypotheses. Second, although their results did support the transformational grammar hypotheses, i.e., that questions and denials are encoded or retained in memory as kernel sentences that reflect deep semantic structure and tagged to reflect syntactic structure, no direct test of this process was made. Finally, combinations of "good" and "bad" verbs and objects were treated as four levels of a repeated measures factor of "verb-object combination" in their design, rather than crossed 2 x 2 factors, thereby rendering an interpretation of the contribution of each part of the sentence--verb, object, and verb-object interaction--impossible.

The implications of the first two points are obvious. First, Gumenik and Dolinsky (1969) could not explain innuendo effects in the context of congruity theory. Second, a more direct test of the possibility that a grammatical transformation process might underly innuendo effects in impression formation should be undertaken.

The implication of the final point of consideration from the Gumenik and Dolinsky (1969) study is not quite so clear and is tied to the implications of the first point, as well as the notions presented in the interpretation of the given-new contract model made by Wegner, et al. (Note 1). The confounding of verb and object in the design of Gumenik and Dolinsky (1969) made the same assumption used in Wegner et al.'s explanation: information that will determine the evaluative impression formed of the sentence subject is embedded in the entire sentence predicate. Both Wegner, et al. and Gumenik and Dolinsky adopt a position that assumes a semantic interaction between the meaning of verbs and objects from which impressions are formed and both assume that the crux of the evaluation of the target lies in the "bonding" or "linkage" of the predicate to the target. The given has a constant value regardless of transformation, and only the relationship of the given to the target may vary.

The second hypothesis, restated, predicts that the variation in impressions formed from different allegation types will be due to the interference of memorial tags on the extremity of a subject inference based on informational cues provided in the verb, the object, or a combination of verb and object in the allegation predicate. Specifically, the pattern of results from an analysis that examines the relative contributions of the verb, the object, or the verb-object interaction on the evaluative impression of the target will indicate the extent to which the given information varies as a function of the innuendo transformation. Impressions of the target should be different for a direct allegation, a question innuendo, and a denial innuendo to the extent that questions and denials interfere

with using the predicate parts to form the impressions. In this scheme, the tags that designate innuendo transformations modify the predicate, and evaluations of the target are based on this modification.

Pitted against this hypothesis is the given-new contract hypothesis that asserts only the probability of the linkage between the damaging predicate and the target subject is affected, but the given, the premises, should be used identically in each allegation form. At issue is the stability of sources of variation due to verbs and objects across allegation types.

Examination of the sources of variation, their respective relationships to, and their relative ability to explain the total variance of evaluation and certainty of evaluation in a design that crosses the positivity of verbs, objects, and allegation types while separating out the interaction of verbs, objects and targets should provide an adequate comparison of the relative merits of the memorial tag hypothesis vs. the given-new contract hypothesis.

Summary and Hypotheses

Two approaches to understanding the effects of innuendo on impression formation have been conceptualized. The first, offered by Wegner, et al. (Note 1) has maintained that the negativity of impression that results from an innuendo is the direct result of a process of pragmatic implication on the part of the communicator and of pragmatic inference on the part of the communication recipient. The vehicle for this process, the given-new contract, has been

described in some detail and experimental support for it has been discussed. From the perspective of this approach we have gained a picture of the recipient as the naive victim of a breach of social contract--a breach that is successful because innuendo is "inherent in language understanding processes," (Wegner, et al., p. 6).

The second approach, offered in the present formulation, is not really too different from the first. Expanding on the idea that innuendoes are linguistic processing phenomena, an attempt is made to determine what those processes might be. On the basis of previous theory and research, a two stage process has been proposed. In the first stage, allegations are encoded or stored in memory in kernel declarative form and tagged to indicate particular syntactic form. In the second, or inference, stage, a general impression of the target is created on the basis of the implication strength (Warr & Knapper, 1968, p. 153) of the damaging information contained in the verb and object predicate of the kernel declarative. Memorial tags indicating questions and denials are apparently difficult obstacles to forming impressions in that they require longer time to process and tend to generate errors in recognition. To the extent that these tags interfere, they generate information-appropriate impressions. Thus, we might go so far as to suggest that question tags are more difficult to encode and retain, since evaluations of targets of question innuendoes are so similar to evaluations of targets of direct allegations. A denial, on the other hand, the syntactic equivalent of a logical negation, is easier to encode and retain; therefore we might expect less extreme evaluations and fewer recognition errors involving denials at a later time. In this model,

the communication recipient is an imperfect information processor who falls prey to a communication that capitalizes on imperfection.

The second approach also makes two hypotheses very clear:

> Hypothesis 1. There is a tendency on the part of communication recipients to encode or store innuendoes as kernel declarative sentences. Accordingly, attempts to recognize innuendo allegations presented to them at a prior time will result in a significantly greater number of errors towards specifying declarative statements than any other recognition error.
>
> Hypothesis 2A. Memorial tags that specify the original syntax of an allegation differentially interfere with the impression formation process according to allegation or innuendo type, i.e., direct, question, or denial, by altering the implication strength of the information presented in the sentence predicate. Accordingly, the percentage of variation in evaluative impression attributable to each part of the predicate, i.e., the verb, the object and the verb-object interaction, will vary according to allegation type.

The given-new contract approach to explaining innuendo effects offers an alternative to Hypothesis 2A:

> Hypothesis 2B: Given information, contained in a sentence predicate, is invariant across allegation types; only the probability that a target is implicated by the given information varies according to allegation type.

In order to assess the merits of each hypothesis, two experiments were undertaken. In the first, innuendoes, direct allegations and control statements were presented to respondents for their evaluation of the target. Following a brief delay, 11 transformations of allegations and control statements were presented for recognition matching. Evaluative impressions of targets were measured again on the basis of the remembered statement. Two sets of relationships directly bearing on the first hypothesis--confirmation of the innuendo effect from the initial evaluations and the error patterns of recognition--were examined, as were the subsequent

evaluations of the target made on the basis of the remembered statement.

The design of the second experiment crossed the affective positivity of transitive action verbs and objects in four sets of direct allegations, question and denial innuendoes and control statements. An analysis of the strength of the relationship between, and the proportion of total variance of evaluative impression associated with each source of variation obtained from respondents' ratings of targets provided a test of the relative merits of the memorial tag and the given-new contract hypotheses.

EXPERIMENT I

Method

Subjects and Experimenters. One hundred ninety four undergraduates volunteered to participate in the experiment in exchange for extra credit in their introductory psychology classes. The procedure whereby they were asked to volunteer was in accordance with United States Department of Health, Education and Welfare, Michigan State University, and Department of Psychology guidelines for the recruitment of human subjects for participation in experiments. Subjects were required to attend only one session.

Experimental sessions were held over the course of eight weeks and were attended by groups of approximately 30 subject volunteers. Four experimenters, two males and two females, conducted the experimental sessions in opposite sexed pairs.

Only one subject failed to complete the entire experimental session. In the middle of completing the filler task, this subject jumped up from the desk where he was completing the second booklet and ran out of the room. A second subject completed only three of the eight sets of ratings involved in the experiment. Both subjects' data were discarded and data requred to complete the design obtained from replacement subjects. Thus, while 194 subjects participated in

the experiment, only the responses from 192 subjects were retained for the analyses.

Materials. Three booklets were created for each subject. Sample copies of each booklet are included in Appendix A. The first was composed of a set of instructions and four headlines taken from the fictitious "Washington Evening Post", each headline followed by a set of nine semantic differential and four Likert rating scales. The instructions read:

> We are interested in how people consider information from various sources about other people and how this information affects their performance on other tasks. In this first booklet, your job will be to rate different individuals on the basis of information presented about them in newspaper headlines. While you may or may not be familiar with the persons named in each headline, the headlines were selected from the front page of issues of the Washington Evening Post, published in Washington D.C. between September and October of 1980. If you are familiar with the particulars of the article that followed the headline, or have heard of the person named in the headline, please write the word "FAMILIAR" at the bottom of the page where the headline appears. Regardless of your knowledge of the person named in the headline, please read the headline carefully and then complete the rating scales about that person. Do not look back while you are completing the rating scales. For each person, there are 13 ratings you are to make. Please think very carefully about each of the characteristics of the person about whom the headline was written in order to make an intelligent judgment. In rating these characteristics, please remember that there are no right or wrong answers. Don't worry or puzzle over individual items. On the other hand, please don't be careless, because we want your true impressions.

Additional instructions were provided instructing subjects in the use of semantic differential and Likert rating scales. Finally, subjects were instructed to return the booklet when finished to the experimenter and receive additional instructions.

Following the instructions, four headlines were presented, one on a page, each followed by two pages of rating scales. The first page of 9-point scales asked for responses on nine semantic rating

dimensions that have been reported to reflect the evaluative dimension of judgment (c.f., Buldain & Crano, Note 2; Wegner, et al., Note 1). These dimensions are (a) beautiful-ugly, (b) cruel-kind, (c) dishonest-honest, (d) worthless-valuable, (e) irrational-rational, (f) pleasant- unpleasant, (g) good-bad, (h) sociable-unsociable, (i) intelligent-unintelligent. Four nine-point bipolar adjective rating scales appeared on the second page following a headline. These scales tapped the moral integrity with which the target was perceived and were comprised of (a) personal integrity, (b) competence, (c) moral character, and (d) friendliness. The anchors for these scales ranged from "very little" to "very much". Four different random orders of all of the scales were created and each order was randomly assigned to each of the headlines with the stipulation that the same order could not appear twice in a booklet.

The four headlines that appeared in each booklet were a direct allegation of wrongdoing, a question and a denial innuendo, and a control statement. Four different kernel declarative sentences were used to create the different allegation headline forms: (a) "Gary Brooks is a hit-and-run driver," (b) "Carl Watson steals from charity," (c) "Bob Talbert steals funds from local bank", and (d) "Mark Hanes connected to organize crime in the county," and a control statement involving each subject was also created, e.g., "Mark Hanes finds wallet." Each headline and allegation form could appear only once in a booklet. Only one of the twenty four possible orders of the four headlines were possible in a booklet. To simplify the experimental design, only male targets were used in headlines.

The second booklet given to subjects was a filler task that involved a set of instructions and five pages of dots. The instructions for this booklet stated:

> In the second part of this experiment, you will complete a brief spatial gestalt task. In order to do this, you will have to draw a a series of lines that connect the dots presented on each page of this booklet. Specifically, we would like for you to look at the pattern of dots on a page and try to imagine a figure, a picture, or a design. Then, with your pencil, carefully connect the dots with single straight lines that will most accurately depict the figure, picture, or design. While there are obviously no right or wrong ways to connect the dots on each page, it is very important that you carefully consider each configuration of dots that you look at. Try to look for the best way to connect the dots that gives, for you, the overall figure while keeping in mind the relationship of all the parts. You do not have to use all of the dots on any page to draw the figure, picture, or design that you think is most apparent. Also, you may use the dots on any page to draw more than one figure, picture, or design. When you finish a page, please try to BRIEFLY describe what you have drawn on the back of the paper. Do not spend too much time on your description. One or two words will suffice.

The third and final booklet was composed of a set of instructions and four pages of 11 statements, each page of statements followed by two pages containing one of the four random orders of the 13 rating scales used in the first booklet. The instructions informed the subjects that:

> In the third part of this experiment, you will be asked to recall the headlines presented in the first booklet you completed, and to match what you remember to one of a number of statements provided in this booklet. In order to do this you must think about what was said about a particular person in the first booklet, and then mark the statement that is most like what you remember. MARK ONLY ONE STATEMENT WHICH IS MOST SIMILAR TO WHAT YOU REMEMBER. To do this, read through all of the statements about a person on a page, find the ONE that means the same as what you remember, and put an "X" in the space in front of that statement. After you identify the statement that meant the same as the headline in the first booklet, turn the page and rate the person on the basis of what you remember. MARK THE SCALES on the basis of what you remember about the person. Please use these scales in the same manner as you did in the first booklet.

Each page of statements contained (a) the active present-tense declarative kernel form of the allegation associated with a target, (b) the question transformation of that allegation, (c) the denial, (d) the past-tense declarative, (e) the past-tense question, (f) the past-tense denial, (g) the past-tense active negated question, (h) the passive past-tense direct allegation, (i) the active present-tense control statement, (j) the denial transformation of the control statement, and (k) the question transformation of the control statement. For example, the eleven statements presented for recognition matching when "Carl Watson" was the target were:

(a) Carl Watson steals from charity.
(b) Does Carl Watson steal from charity?
(c) Carl Watson does not steal from charity.
(d) Carl Watson stole from charity.
(e) Did Carl Watson steal from charity?
(f) Carl Watson did not steal from charity.
(g) Didn't Carl Watson steal from charity?
(h) Carl Watson collects wheels.
(i) Carl Watson does not collect wheels.
(k) Does Carl Watson collect wheels.

Four random orders of statement alternatives were created for each target.

Each booklet contained a space on the first sheet where subjects provided information about their sex, the last four digits of their social security number, and the last two digits of their Michigan State University student identification number.

Procedure. At the designated times, subjects assembled in the experiment room and were randomly assigned first booklets within the constraint that booklets designated for females were given to females and males received the remaining half. The experimenter informed the

volunteers of the nature of the experiment, i.e., that they would have to read and rate a number of sentences, draw a number of figures, and complete a memory task, and also informed them of their rights as human volunteer subjects. Subjects were then given their assigned booklets and told that the instructions were in the booklets and were self-explanatory, but should they have any questions, to raise their hands and the experimenter would try to help. Any questions were answered by the experimenter reading the section of instructions most pertinent to the subjects' inquiries. When no additional questions were forthcoming, subjects were told to begin.

Upon completion of the first booklet, the experimenter exchanged the first booklet for the second booklet, and the subject proceeded to perform the figure drawing task.

When finished with the second booklet, subjects received the third booklet, coded by digits to match the condition and order of the first booklet, for completion. Finally, after completion of the third booklet, the experimenter signed the volunteer's subject credit card, and offered to provide debriefing after everyone had finished.

Results

Preliminary analyses. To determine the extent to which each of the ratings made by subjects measured their evaluative impression and certainty in that impression, confirmatory cluster analyses (Hunter & Gerbing, 1980) were performed on those ratings and estimates of the unidimensionality in measurement of evaluations and certainty were calculated.

Ratings across targets, subjects and booklets were submitted to Spearman factor analyses wherin no constraints were placed on the number of factors to be extracted or on the factor membership of specific response items. The solution revealed two related dimensions ($\underline{r}$ = .08) that accounted for 60% of the variance of the original correlation matrix. The first factor was composed exclusively of certainty ratings and the second included the nine evaluation items hypothesized to measure evaluative impression plus the four Likert items that requested subjects to rate the target on friendliness, moral character, competence, and personal integrity. Standardized alpha coefficients (Nunnaly, 1978) were calculated to estimate the measurement error associated with each of these factors. Both factors displayed excellent internal consistency in measuring evaluative impression (coefficient alpha = .93) and certainty in evaluation (coefficient alpha = .96).

The results of these analyses justified calculating summary indices of evaluative impression and certainty. The mean evaluation and certainty ratings of a target by a subject in the first and last booklets were calculated to serve as representative evaluation or certainty scores and were used as the dependent measures in all subsequent analyses. Evaluation scores therefore could range from 1 (very positive evaluation) to 9 (very negative evaluation) and certainty scores could range from 1 (very uncertain) to 7 (very certain).

To determine if the control factors in the design affected subjects' responses to targets or allegations while completing the

first booklet, a 2 x 6 x 4 x 4 x 4 Latin Squares design with nesting and repeated measures on the last two factors was employed to ascertain the effects of Sex of Subject, Latin Square (six possible squares formed from the 24 possible permutation orders of four targets), Target Order (four specific orders nested within each square), Allegation Type (direct, question, negation, control), and Target (Mark Hanes, Gary Brooks, Carl Watson, and Bob Talbert, nested within allegation type). Four male and four female subjects served as the replication factor in the design, nested in each of the 24 Latin Square x Target Order cells.

Evaluation Impression. As predicted, a significant main effect for Allegation Type was revealed, $F(3,108) = 102.294$, $p < .01$. The means for this effect provided a replication of the statistical innuendo effect: direct allegations ($M = 5.56$) received significantly more negative evaluations than question innuendoes ($M = 5.17$), $t(191) = 6.516$, $p < .01$. Denial innuendoes ($M = 4.69$) and control statements ($M = 4.67$) did not differ from each other, $t(191) = .221$, n.s., but were significantly more positive than direct allegations and question innuendoes, $t(191) = 11.50$, $p < .01$.

A significant interaction of Target x Target Order, $F(108,767) = 1.585$, $p < .01$, also was disclosed. To gain insight into the sources of this interaction, the 24 orders of presentation were categorized into the first through the fourth for each Latin Square and means for the four abstract levels of order were calculated. Examination of these means, presented in Table 3, disclosed that the highest means were associated with targets who received six direct allegations

Table 3

Cell Means (a) of the

Target by Target Order(b) Interaction from Experiment I

	Target Order			
Target	1	2	3	4
Gary Brooks	5.63	5.07	4.68	4.79
Carl Watson	4.97	4.85	4.70	5.53
Bob Talbert	4.95	4.91	5.45	4.93
Mark Hanes	4.85	5.64	4.85	4.62

a) Lower values indicate greater positivity.

b) Target Orders were collapsed across the six Latin Squares in the design

within each order. The remaining targets in each order each received two question, two denial, and two control statements. Accordingly, mean comparisons (Tukey's procedure, Kirk, 1969) were performed to detect differences between orders collapsed across squares, but the results of these tests showed no differences among the orders when target-allegation confounds were summed across.

Since differences between targets were predicted to occur as a function of the context in which those targets were embedded, t-tests were performed to determine the presence of target differences in the four orders collapsed across Latin Squares. The targets, Gary Brooks (M = 5.10) and Carl Watson (M = 5.11) were not found to differ from one another, nor were Bob Talbert (M = 4.92) or Mark Hanes (M = 4.96) different from each other. The mean evaluations of Gary Brooks and Carl Watson, however, were shown to be different from the evaluations of Bob Talbert and Mark Hanes, $t(191) = 2.93$, $p < .01$. Specific context effects were apparent in this experiment.

No other main effects or interactions were present in this analysis. (For a complete listing of the source table from this and all other analyses completed for Experiment I, the reader is referred to Appendix B.)

Certainty in evaluations. A significant main effect for Allegation Type, $F(3,108) = 17.969$, $p < .01$. and a significant interaction of Target Order x Target, $F(108,432) = 1.585$, $p < .01$, also were observed from the analysis of variance of the certainty scores. T-tests were performed on certainty of evaluations between allegation types, since the research by Buldain and Crano (Note 2)

indicated that greater certainty was expected when control statements were evaluated than when allegations were evaluated. No differences in certainty were expected among direct allegations and innuendoes.

In the present study, however, certainty of evaluations of direct allegations ($\underline{M}$ = 4.62) were significantly greater than certainty of evaluations based on control statements ($\underline{M}$ = 4.19), $\underline{t}(191) = 4.628$, $\underline{p} < .01$. Certainty in evaluating question ($\underline{M}$ = 4.02) and denial ($\underline{M}$ = 4.05) innuendoes did not differ, $\underline{t}(191) = .304$, n.s., but certainty in evaluations of these allegations was observed to be significantly less than certainty in evaluations of control statements, $\underline{t}(191) = 1.71$, $\underline{p} < .05$.

Turning to the Target Order x Target interaction, again the presence of six direct allegations for a target in one order of presentation appeared to be responsible for this artifactual result. Collapsing orders across the six Latin Squares into four orders revealed insignificant diiferences between the orders when the means were compared by Tukey's procedure. Also, comparisons of means for each target disclosed no differences between the certainty of evaluations of each target.

Thus, while evaluations of allegations and targets varied as predicted, and the certainty of evaluations was somewhat in line with previous research, certainty in evaluation of individual targets did not vary from target to target.

Having confirmed the goodness of the dependent measures and demonstrating that innuendo effects were present in the design, an

analysis was undertaken to detect error patterns in recognition of allegations in the last booklet.

Analyses of Recognition Errors. The frequencies of allegations presented in the first booklet that were correctly and incorrectly recognized as direct statements in the third booklet are presented in Table 4. To detect significant patterns of shifting from one Allegation Type to another between booklets, McNemar's Test for the significance of changes (Siegel, 1956) was used. As predicted, a significant number of shifts towards recognizing direct statements when initially presented with question innuendoes was observed, $\chi^2(1) = 4.56$, $p < .05$. As can be seen in Table 4, approximately twice as many errors were made towards recognizing direct statements in the last booklet when presented with questions in the first booklet than were made towards recognizing questions in the final booklet when presented with direct statements in the first.

A similar result was observed for the shift from reading denial innuendoes in the first booklet to recognizing direct allegations in the last booklet, $\chi^2(1) = 4.50$, $p < .05$. While fewer overall errors were made for this transition as for the question-direct transition, three times as many shifts occurred in the hypothesized direction as occurred in favor of recognizing a denial when initially presented with a direct allegation.

To determine if all transitions were equiprobable, i.e., that a transition to a direct statement recognition was no more likely than a transition from a question to a negation or vice versa, the number of negation to question and question to negation transitions were

Table 4

Frequencies of Recognizing Allegations in Booklet 3 of Experiment I

Allegation Presented in Booklet 1	Allegation Recognized in Booklet 3			
	Question	Denial	Direct	Control
Question	143	17	29	3
Denial	16	162	14	0
Direct	14	4	174	0
Control	3	1	1	187

analyzed, disclosing an insignificant relationship, $\chi^2(1) = 0.0$, n.s.. Also, comparisons of transitions from one innuendo to another with transitions from innuendoes to direct allegations were made. None of these comparisons revealed significant differences at the $p < .05$ level.

As a whole, the results of the analyses of changes from one allegation form to another were supportive of Hypothesis I in that they revealed that recognition errors were more probable in innuendoes than in direct statements and, in particular the probability of making an error towards recognizing a direct statement when presented with an innuendo was significantly more likely than recognizing an innuendo when presented with a direct allegation.

Chi-square analyses also were performed to determine if patterns of error recognition were tied to any of the other factors in the design of the first booklet. Insignificant relationships were observed between errors and (a) the Sex of Subject, $\chi^2(14) = 13.58$, n.s., (b) Latin Square, $\chi^2(70) = 66.14$, n.s., and (c) Target, $\chi^2(42) = 30.53$, n.s.. Thus, we may conclude that in this design the form of the allegation was the only identifiable source of errors in recognition in the third booklet.

Finally, unweighted means analyses of variance (Winer, 1971) were completed on the evaluation and certainty of evaluation measures across the initial ratings of targets and the ratings of targets made by subjects based on their recognition of allegations in the third booklet. This analysis was performed to compare patterns of initial evaluations with those based on a recognized allegation at a later

point in time. Of particular interest were evaluations based on recognition errors. It was hoped that some evidence for identifying the nature of the error committed by subjects when they evaluated the targets of innuendoes would be revealed. If innuendo effects occurred as a function of an encoding error in information processing, then persons who identified innuendoes as direct allegations at a later point in time should have made evaluations at the initial rating that resembled direct allegations. Conversely, if a memory error occurred, evaluations at the second rating should have been significantly more negative than those made initially.

Error Based Evaluations

Evaluative impression. To complete these analyses, those persons who made recognition errors of one of the four types most relevant to the hypotheses, Question to Direct (QD), Negation to Direct (ND), Direct to Question (DQ), and Direct to Negation (DN), were selected and matched to persons who did not make recognition errors. The matching procedure randomly selected one person of the same sex from the same Latin Square and Target Order to serve as a control counterpart (1).

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(1) For two subjects who made errors, no Target Order mates were available who did not also make errors. Both of these subjects made the most likely error, i.e., Question to Direct. Their matches were randomly selected from the next order within the Latin Square of which they were members.

To analyze these data, a 2 x 4 x 2 x 3 design with repeated measures on the last two factors was used to detect differences in evaluation and certainty according to Recognition (error or no error), Type of Error (QD, ND, DQ, DN), Time of Rating (booklet one or booklet three), and Allegation (innuendo, direct, control).

For the evaluation measure, significant main effects were observed for Type of Error, $F(3,86) = 3.122$, $p < .05$, and Allegation, $F(2,172) = 82.488$, $p < .01$.

Significant two- and three-way interactions qualified these effects. Allegation interacted with Recognition, $F(2,172) = 3.092$, $p < .05$, and with Type of Error and Time of Rating, $F(6,172) = 4.314$, $p < .01$. Type of Error was also observed to interact with Recognition and Time of Rating, $F(3,86) = 4.246$, $p < .01$.

These interactions, in turn, were qualified by the significant four-way interaction of all the factors in the design, $F(6,172) = 4.246$, $p < .01$. The means for this interaction are presented in Table 5. A decomposition of this interaction by simple-effects analysis (Winer, 1969) revealed a number of significant simple interactions and simple-simple effects.

Significant mean differences were observed between the evaluations of question innuendoes in the first booklet by subjects who committed recognition errors and those who did not commit such errors $F(6,172) = 6.039$, $p < .01$. Those who made errors were more harsh in their evaluations of targets incriminated by questions.

Table 5

Cell Means (a) of the Interaction of Allegations x Recognition x Type of Error x Time of Rating from Experiment I

Recognition	Time of Rating							
Error	Pre				Post			
Type of Error	Q-D	N-D	D-Q	D-N	Q-D	N-D	D-Q	D-N
Allegation								
Innuendo	5.664	4.577	5.259	5.179	5.529	5.406	5.126	4.308
Direct	5.563	5.608	5.685	5.718	5.570	5.720	5.433	4.564
Control	4.839	4.615	4.559	4.718	4.843	4.154	4.622	4.923

	Time of Rating							
No Error	Pre				Post			
Type of Error	Q-D	D-N	Q-D	N-D	Q-D	D-N	Q-D	N-D
Allegation								
Innuendo	5.010	4.725	5.154	4.769	5.133	4.911	5.119	5.205
Direct	5.776	5.706	5.287	5.256	5.692	5.664	5.308	5.282
Control	4.573	4.846	4.769	4.564	4.615	4.741	4.748	4.590

a) Lower values indicate greater positivity.

Moreover, those in the error Recognition group made evaluations on the basis of questions that were as extreme as their evaluations based on direct allegations in the first booklet; in the no-error Recognition group, evaluations of questions were significantly less extreme than evaluations of direct statements, as compared by Tukey's procedure, $q(172) = 6.53$, $p < .01$. Even so, evaluations of questions by the no-error Recognition group differed from their evaluations of control statements, $q(172) = 6.53$, $p < .01$; the same relationship between evaluations of questions and control statements by the error Recognition group was observed, $q(172) = 6.18$, $p < .01$.

No significant simple interaction of Recognition x Time of Rating for question innuendoes was observed, nor were any significant differences detectable between evaluations of questions by the QD Error group and the DQ Error group.

Taken together, these results suggest that evaluations of targets of question innuendoes were persistent across time and more harsh than evaluations of the subjects of control statements. Such a pattern supports an encoding error position for question innuendoes. Persons who reported having read direct statements in the third booklet when presented with a question in the first were more extreme in their evaluations at the outset of the experiment as well as in the recognition phase.

Turning to denials, those subjects who made recognition errors involving the identification of direct statements when presented with denials in the first booklet provided a different picture. Evaluations in the third booklet were more extreme than evaluations

of the same targets embedded in denials in the first booklet, $F(6,172) = 4.85$, $p < .01$. Moreover, evaluations of denials in the first booklet were significantly less extreme than those of direct allegations by persons who made this recognition error, $q(172) = 6.279$, $p < .01$, but were not different from control statements. A similar pattern could be observed for the group that made no recognition errors; denials were less harshly evaluated than direct allegations, $q(172) = 6.53$, $p < .01$. In the third booklet, evaluations of targets of denials in the first booklet by the error Recognition group were as extreme as those made of targets direct allegations, and were also significantly different from control statements, $q(172) = 7.553$, $p < .01$. In the no-error Recognition condition, evaluations of denials in the third booklet were similar to those made in the first booklet and not different from control statement evaluations.

This pattern of results supports a memory error or decrement position for denial innuendoes. The passage of time increased the harshness of evaluations of targets by those persons who committed the recognition error. No such enhancement of negative evaluation could be observed for those persons who did not make the recognition error. Accordingly, we may tenatively conclude that the passage of time enhances the innuendo effect of denial statements.

For the errors involving DQ and DN transitions, no significant patterns of change in evaluations could be observed across booklets.

Finally, for the most part the remaining differences among means observed in the analysis of simple effects appeared to be tied to

differences one would expect according to the statistical innuendo effect. For both Recognition error groups, evaluations of questions generally tended to be more extreme than evaluations of denials in both booklets. Direct statements always were more extreme than negations, except in those cells of the design where Recognition errors inolving DQ or DN transformations occurred in the second booklet. Denials were not found to differ from control statements except in the error Recognition group in the third booklet. Control statements were consistently associated with the least extreme evaluations, but differed among the cells in the design on two occassions. First, the evaluations of the control statements in the third booklet by subjects in the ND Type of Error condition were less extreme than evaluations of control statements by subjects in the QD Type of Error cell, $q(172) = 3.35$, $p < .05$ and by subjects who made the DN Type of Error $q(172) = 3.74$, $p < .05$.

Evaluation certainty. Analysis of variance for this dependent measure revealed no main effects or interactions for any factor or combination of factors in the design.

Summary

Errors in recognition occured in the predicted manner; question and denial innuendoes presented at an earlier point in time were recognized as direct allegations significantly often in a later task. Moreover, grammatical transformations that enhance innuendo effects were as likely to be recognized as another grammatical transformation. These results suggest that innuendo transformations were difficult to process and/or store in memory. These effects were

determined not to be tied to the experimental design.

A subsequent analysis of the evaluations based on allegations presented and remembered revealed that evaluations associated with erroneous recognition of question innuendoes as direct allegations were initially harsh and maintained across tasks. Errors in recognizing denials were associated with initially lenient evaluations that became harsh on a later task. Accordingly, the memorial tag hypothesis was only partially supported. The results of the subsequent analyses suggest that questions may be difficult to encode, thus evaluations were initially harsh and maintained across time. The pattern of evaluations based on denial innuendoes, however, fit the memorial tag hypothesis perfectly--initially moderate evaluations became more harsh at a later time. These results suggest that those qualifiers designating denials are more easily encoded than questions, but are more difficult to process in memory.

Comparisons of evaluations made by the group of subjects who made the hypothesized error with a group that did not provided mixed results. While denials did not result in harsher evaluations across booklets, question innuendoes were found to be associated with more extreme evaluations than control statements in each booklet. Thus while encoding and recognition errors that may be associated with memorial tags were found to occur in denial innuendoes, and encoding errors enhanced the innuendo effects of questions, innuendo effects were apparent in evaluations of question forms of allegations correctly retained and identified by subjects on a later task.

EXPERIMENT 2

Method

Subjects and Experimenters. The participation of 192 undergraduate volunteers as subjects was required to complete this experiment. The volunteer procedure and terms of participation were identical to those described for Experiment 1, however, a stipulation was made that no person who participated in Experiment 1 could participate in Experiment 2. Also, since sex differences in evaluations according to various allegation forms have not been detected in innuendo research, no restrictions were placed on the sex of subject.

As in Experiment I, four experimenters conducted experimental sessions, in opposite sex pairs.

Materials and design. Materials were prepared in the same format as those used for the first booklet in Experiment 1. Each booklet contained a set of instructions and four headlines, each separated by rating scales. The instructions were identical to those used in the first booklet of the first experiment, but no references to additional tasks were made. A sample copy of an experimental booklet is included in Appendix C.

Each booklet contained newspaper headline allegations presented as a direct kernel sentence, a question and a denial innuendo, and a control statement. Each headline was alleged to have come from a different (fictitious) newspaper, i.e., the Seattle Post, the San

Francisco Times Herald, the St. Louis Daily Record, or the Houston Star.

Four random orders of the same evaluative and judgmental rating scales used in Experiment 1 were randomly assigned to each of the headlines. Also, as in the first experiment, four Latin Squares of 24 presentation orders crossed with allegations nested within targets of headlines were used to create booklets. Each booklet contained four different headlines, each directed at a different target, and each contained a different allegation form or a control statement. Unlike Experiment I, allegations and targets were completely balanced in a given Latin Square, and the same presentation order of allegations never occurred twice in the experiment.

To establish some uniformity in the affective value of allegation subjects, verbs, and objects, pre-testing was performed on a sample of 36 volunteers to obtain postivity ratings of proper names, verbs, and objects. Volunteers rated thirteen proper names, fifteen verbs, and fifteen nouns on a nine point rating scale that asked for the positivity of their feelings (1 = negative, 9 = positive) about the word. Each volunteer rated all proper names, all verbs, and all nouns separately. Then volunteers were asked to provide a noun or verb that was most opposite in feeling from each name, noun or verb they had rated, and finally rate the words they provided in terms of how positively they felt about them.

From the first list of proper names, four were selected that were closest to the grand mean of evaluations of all proper names. The four proper names selected were: Frank Usseem ($\underline{M}$ = 4.64), Robert Hutton ($\underline{M}$ = 4.41), Susan Carver ($\underline{M}$ = 5.06), and Sherry Misiak ($\underline{M}$ =

4.52). From the lists of verbs and nouns, those verbs and nouns that were rated most extremely were chosen on the condition that a particular opposite was consistently supplied by the volunteers and that the opposite was as extremely rated in the opposite direction as the verb or noun presented to them. The four verbs selected and their opposites were: "helped" ($\underline{M}$ = 8.7), "harmed" ($\underline{M}$ = 1.4); "praised" ($\underline{M}$ = 8.2), "slandered" ($\underline{M}$ = 1.8); "created" ($\underline{M}$ = 7.85), "destroyed" ($\underline{M}$ = 2.28); and "gave to" ($\underline{M}$ = 7.75), "stole from" ($\underline{M}$ = 1.69). From the list of nouns, only two could be identified that were extremely rated and had opposites that were consistently chosen and rated in the opposite direction. However, from ratings of proper names included in the list, two items, were rated highly and had opposites consistently supplied and rated extremely in the opposite direction. These two pairs were: "Lincoln" ($\underline{M}$ = 8.0), "Nixon", ($\underline{M}$ = 1.83); and "United Way" ($\underline{M}$ = 8.4), "KKK" ($\underline{M}$ = 1.2). Accordingly these two pairs of proper names were included as object-pairs. The two other nouns and their opposites were: "philanthropist" ($\underline{M}$ = 7.8), "burglar" ($\underline{M}$ = 2.2); and "lawyers" ($\underline{M}$ = 7.5), "criminals" ($\underline{M}$ = 1.75).

A proper name was then assigned to a verb pair and an object pair was assigned to the subject-verb combination in a fashion that would give the combinations meaningfulness as a sentence. The four targets therefore could assume any allegation form involving the use of only one set of verb and object pairs. Allegations were formed of the following kernel elements:

(a) Robert Hutton created-destroyed the United Way-KKK

(b) Frank Usseem helps-harms lawyers-criminals

(c) Susan Carver gives to-steals from philanthropist-robber

(d) Sherry Misiak praised-slandered Lincoln-Nixon

Additionally, four control statements (e.g., Sherry Misiak builds house) were created to serve as a baseline for evaluations.

In summary, the construction of each of the booklets was dictated by a 4 x 4 x 2 x 2 x 4 x 4 design that incorporated nesting and repeated measures on the last two factors. The design compared evaluative impressions and certainty in those impressions according to Latin Square (four squares of sixteen Target Orders), Target Orders (four orders nested in each Latin Square), Verb Positivity (affectively positive or negative verb), Object Positivity (affectively positive or negative object), Target (Frank Usseem, Robert Hutton, Sherry Misiak, and Susan Carver), and Allegation Type (direct, question, denial, or control). According to this design, each headline in each booklet was composed of a different allegation presented in a different Allegation Type. While each Allegation Type was represented in each booklet, no two sentence subjects, verbs, or objects were the same within a booklet. Nevertheless, there was consistency within any given booklet with respect to each sentence's subject, the Verb Positivity, and the Object Postivity. In other words, within the booklet read by a volunteer subject four different targets, a direct, a question, a denial and a control allegation, verbs that were representative of one level of positivity, and objects that were also representative of one level of positivity were present.

Procedure. At designated times, subjects assembled in the experiment room and were randomly assigned booklets. They were informed of the nature of the experiment, i.e., that they were to read about and rate some individuals, and of their rights as human subjects. Subjects were then given booklets and told that the instructions in the booklets were self-explanatory, but if they had any difficulty to raise their hands and the experimenter would try to help them. Any questions were answered by the experimenter reading the set of instructions most pertinent to the subject's inquiries. After a brief delay for questions, the subjects began the completion of the booklet. When finished, the experimenter thanked the subject for his or her participation, signed the subject's credit card and offered to debrief the subject when everyone was finished.

Results

Preliminary analyses. As in Experiment I, confirmatory factor analyses (Hunter & Gerbing, 1980) were performed to determine the extent to which the dependent measures were unidimensional estimates of evaluation and certainty in evaluation. The results of empirical Spearman factor analyses of the nine semantic differential items, the four items tapping personal integrity, friendliness, moral character and competence, and the certainty ratings associated with each of these items revealed two related factors (r = .14) that accounted for 48% of the variance of the original correlation matrix. The first factor was composed exclusively of the semantic differential items and the ratings of friendliness, competence, moral character, and personal integrity. The reliability coefficient alpha was computed

for this scale and was indicative of high internal consistency (coefficient alpha = .90). The second factor was composed exclusively of certainty ratings and was also determined to be free from measurement error (coefficient alpha = .93).

Accordingly, the evaluation ratings and certainty ratings by a single subject were summed separately for a given target, and these sums were divided by the number of ratings made by the subject to yield two average scale scores. These average scores were used in the remaining analyses as measures of target evaluation and certainty in those evaluations. Thus, an evaluative impression score could assume a value between 1 (extreme negative evaluation) and 9 (extreme positive evaluation), and evaluation certainty could assume a score between 1 (very uncertain) and 7 (very certain).

To determine the extent to which evaluations of targets varied according to the factors in the experimental design, analyses of variance were performed on evaluation and certainty scores. Of particular interest were the relative estimates of relationships between the simple main effects and interactions of Verb and Object Positivity at each level of Allegation Type and the evaluative impressions formed of the allegation targets. A complete description of the analyses is presented in Appendix D.

Evaluative impression. A main effect for Verb Positivity was revealed, $F(1,48) = 11.728$, $p < .01$, indicating positive verbs were evaluated more positively ($M = 5.58$) than negative verbs ($M = 5.24$).

A main effect for Allegation Type was also observed, $F(3,144) = 35.858$, $p < .01$, replicating the statistical innuendo effect. Question innuendoes ($M = 4.905$) and direct allegations ($M = 5.013$) did not differ from one another, but were both different from denials ($M = 5.013$), $t(191) = 1.78$, $p < .05$. Denials, in turn, were different from control statements ($M = 6.256$), $t(191) = 2.72$, $p < .01$.

A Verb Positivity x Object Positivity interaction, presented in Table 6, was also discovered, $F(1,48) = 15.86$, $p < .01$. Decomposition of this interaction by simple effects analysis disclosed a significant difference between affectively positive and negative objects when positive verbs accompanied them, $F(1,48) = 5.53$, $p < .01$. Positive objects were evaluated more positively than negative objects when a positive verb was included in the predicate. When a negative verb was employed, no significant differences between objects could be detected, $F(1,48) = 2.66$, n.s.. Examining verb positivity at each level of object positivity indicated that positive verbs were evaluated more positively than negative verbs when a positive object was contained in the predicate, $F(1,48) = 13.72$, $p < .01$; no differences were observed between evaluations of verb positivity when negative objects were present, $F(1,48) = .07$, n.s..

While no main effect for Target was observed, indicating context differences in the design similar to those found in Experiment I, a main effect for Target Order was observed, $F(48,128) = 1.67$, $p < .05$. Moreover, this main effect was qualified by interactions with the Target, $F(144,384) = 4.23$, $p < .01$, and with the Allegation Type,

Table 6

Interaction of Verb and Object Positivity from Experiment II(a)

Verb Positivity	Object Positivity: Positive	Object Positivity: Negative
Positive	5.816	5.348
Negative	5.079	5.403

a) Higher values indicate greater positivity

$F(144,384) = 2.01$, $p < .01$. Taken together, this effect and these interactions could only be attributable to relative context effects of nesting Allegations within Targets and Target Orders within the interaction of Verb Positivity, Object Positivity, and Latin Squares in the design. Unlike Experiment I, the counterbalancing of Targets and Allegations was complete, rendering an interpretation of these effects and interactions impossible at any meaningful level of generality other than to indicate the presence of powerful context effects.

An interaction of Verb Positivity x Object Positivity x Target was revealed to be significant, $F(3,144) = 3.317$, $p < .05$. Analyses of simple effects disclosed a simple interaction of Object Positivity x Target when affectively positive verbs were present in a sentence, $F(3,144) = 8.322$, $p < .01$. Simple-simple effects analyses revealed main effects for target at each level of Object Positivity when verbs and objects were positive, $F(3,144) = 2.616$, $p < .05$, and when verbs were positive and objects were negative, and $F(3,144) = 11.898$, $p < .01$. Comparisons of means (Tukey's procedure) computed at each of these levels in the design revealed no reliable differences when verbs and objects were positive, but the Target, "Robert Hutton", was evaluated more harshly than any other target when verbs were positive and objects were negative. Examined from a different angle, a simple-simple effect for Object Positivity was observed when verbs were positive only when "Robert Hutton" was the Target.

The only additional simple interaction observed from this effect was Verb Positivity x Object Positivity when, again, "Robert Hutton"

was the Target, $F(3,144) = 11.214$, $p < .01$. Verbs and Objects differed everywhere, except when the affectively negative verb "destroyed" was used.

Taken together, these results suggest that the kernel, "Robert Hutton created the KKK", and its transformations were evaluated somewhat more harshly than any other allegation in the experiment. Again, the presence of context effects was demonstrated.

More directly relevant to the research hypothesis at hand were the three significant interactions of Verb Positivity x Allegation Type, $F(3,144) = 14.11$, $p < .01$, Object Positivity x Allegation Type, $F(3,144) = 3.264$, $p < .05$, and Verb Positivity x Object Positivity X Allegation Type, $F(3,144) = 15.71$, $p < .01$. Analyses of these interactions were completed in two different fashions.

First, an analysis of simple effects was performed on the three-way interaction in order to determine if differences existed among the means presented in Table 7. Since the interaction of Verb Positivity x Object Positivity x Allegation Type qualified the interpretation of the two two-way interactions, simple effects analyses were completed only for this interaction. Second, since the hypotheses set against each other in this experiment stated that innuendoes either (a) differentially impinge on the relationship of the verb, the object, and the verb x object interaction to each other, or (b) affect only the relationship of these predicate components to the evaluation of the target, the strength of the relationship between verbs, objects, and their interactions for each Allegation Type and the target evaluations were calculated. On the

Table 7

Interaction of Allegation Type x Verb x

Object Positivity from Experiment II(a)

Positivity		Allegation Type			
Verb	Object	Question	Negation	Direct	Control
Positive					
	Positive	5.479	4.737	6.571	6.478
	Negative	4.558	5.753	4.851	6.229
Negative					
	Positive	4.546	5.740	3.831	6.196
	Negative	5.037	5.659	4.798	6.120

a) Higher values indicate greater positivity.

basis of these estimates, the proportions of total variance in evaluations explained by each of the sources in question were tested for significance and compared.

Decomposition of this interaction by simple effects analysis revealed a simple interaction of Object Positivity x Allegation Type when positive verbs were present in a statement, $F(3,144) = 15.94$, $p < .01$. Within this simple interaction, simple-simple effects for Allegation Type were disclosed at each level of Object Positivity and at every level of Allegation Type across Object Positivity except where the Allegation Type was a control statement. As can be seen in Table 7, if a positive verb was present in an allegation, positive objects were evaluated more positively than negative objects when question and direct allegations were made. This pattern was reversed when a denial was presented to subjects. Control statements did not differ.

Tukey's procedure was used to detect the presence of mean differences between Allegation Types at each level of Object Positivity when positive verbs were present. The results of these tests revealed that when negative objects were combined with postive verbs control statements and denials were not evaluated differently, but both were evaluated significantly more positively than questions and direct allegations. Questions and direct allegations did not differ. When objects and verbs were positive, questions and denials did not differ, but both of these allegations were evaluated significantly less positively than direct allegations and control statements. No differences were observed to exist between

evaluations of direct and control statements. This pattern of means is almost a mirror-image of the statistical innuendo effect heretofore reported in the literature.

A significant simple interaction of Object Positivity x Allegation Type was also observed when Verb Positivity was affectively negative, $F(3,144) = 3.032$, $p < .05$. Under these circumstances, positive objects were associated with less positive evaluations than were negative objects when questions and direct statements were alleged. Questioning or asserting that someone did something "bad" to something "good" was seen in a worse light than doing something "bad" to something "bad". No differences were observed between levels of Object Positivity when an affectively negative verb was used in a denial innuendo (e.g., "not harming a lawyer" was evaluated the same as "not harming a criminal"). Evaluations were not observed to differ between control statements in this simple interaction.

Looked at from a different angle, Allegation Types were observed to vary when affectively negative verbs were combined with positive objects and when they were combined with negative objects. Comparisons of means of Allegation Types when Object Positivity was negative and negative verbs were present yielded an identical pattern of results as when positive verbs were combined with negative objects: questions and direct allegations did not differ from one another, nor did denials and control statements. Questions and direct allegations were evaluated more negatively than denials and control statements. When negative verbs were combined with negative

objects, questions were evaluated only more harshly than control statements; denials were judged more positively than direct allegations; and direct allegations were evaluated more negatively than control statements. Implying a harmful action against a "bad" object appeared to attenuate the innuendo effect.

The simple interaction of Verb Positivity x Allegation Type when objects were positive, $F(3,144) = 28.86$, $p < .01$, disclosed mean differences between levels of Verb Positivity at each level of Allegation Type, again with the exception, of course, of the control statements. Affectively negative verbs were evaluated less positively than affectively positive verbs in questions and direct allegations. When a denial was used, this pattern reversed; positive verbs were evaluated more harshly than negative verbs.

Two additional simple interactions between Verb Positivity and Object Positivity were disclosed at levels of Allegation Type involving questions, $F(3,144) = 4.004$, $p < .01$ and Direct Allegations, $F(3,144) = 14.301$, $p < .01$. Each had an identical pattern of mean differences. When question innuendoes or direct statements were alleged, each level of Object Positivity was observed to differ at each level of Verb Positivity, but Verb Positivity was different only when affectively positive objects were present. In other words, when questions and direct allegations were made: (a) positive verbs and positive objects were evaluated more favorably than positive verbs and negative objects, (b) negative verbs and negative objects were evaluated more favorably than negative verbs and positive objects, (c) positive objects and positive verbs were

evaluated more favorably than postive objects and negative verbs, but (d) negative objects and negative verbs were not different from negative objects and positive verbs.

Analysis of Predicate Contributions. In the second phase of the analyses, the strength of the relationship between verbs, objects, and their interactions for each Allegation Type and the target evaluations were calculated. On the basis of these estimates, the proportions of total variance in evaluations explained by each of the sources in question were tested for significance and compared.

The measure of strength of association betweeen independent variables and dependent measures, Eta (Blalock, 1972), was calculated for each allegation from the interactions of Verb Positivity, Object Positivity and Verb Positivity x Object Positivity with Allegation Type. The values for each Eta and the F-values determining the significance of each Eta are presented in Table 8. Two additional coefficients presented in Table 8 are Eta^2 and ω^2 (Kirk, 1968); each is an expression of the total proportion of variance in a dependent measure accounted for by independent variables. While each of these measures of strength and covariation are calculable, little is understood about their underlying distributions (Blalock, 1972). Therefore, since the values of Eta^2 and ω^2 were approximately identical for each entry in Table 8, nonparametric tests for the significance between proportions (Bruning & Kintz, 1972) of evaluative variance as extimated by Eta^2 were performed within each main effect and interaction and between identical Allegation Types across the main effects and interactions. For example, within the

Table 8

Sources, Strengths, and Proportions of Evaluative Variation Attributable to Verb and Object Positivity Interactions with Allegations

Source					
Allegation	Sum of Squares	Eta	F(Eta)(a)	Eta^2	ω^2
Verb					
Question	2.468	.041	.407	.002	.000
Denial	9.916	.083	1.636	.007	.005
Direct	93.630	.255	15.449*	.065	.064
Control	1.838	.036	.303	.001	.000
Object					
Question	2.230	.039	.367	.001	.000
Denial	10.483	.085	1.729	.007	.006
Direct	2.267	.069	1.122	.005	.003
Control	.418	.029	.207	.001	.000
Verb x Object					
Question	9.540	.141	4.722*	.020	.018
Denial	11.623	.156	5.753*	.024	.023
Direct	62.367	.361	30.870*	.130	.128
Control	1.150	.049	.569	.002	.001

(a) F-values for all Eta's were calculated with 3 d.f. for the Source and 144 d.f. for Error.

*$p < .01$

simple main effect of Allegation Type at Verb Positivity, the proportion of evaluative variance accounted for by the question was compared to the proportion accounted for by the denial, the direct statement, and the control statement. As well, the proportion of evaluative variation accounted for by the question at Verb Positivity was compared to the proportion accounted for by the question at the Verb Positivity x Object Positivity interaction.

Examining the results of this analysis, presented in Table 9, the question, the negation, and the control differed from the direct allegation at $p < .01$ in the relative proportion of evaluative variation accounted for when Verb Positivity or the interaction of Verb Positivity x Object Positivity were examined. No differences in proportions were detected at Object Positivity.

Comparing the relative proportions of evaluative variation for identical allegations across main effects and interactions, the only difference observed between Verb Positivity and Object Positivity occurred when direct statements were alleged. A similar difference was observed in the relationships of the proportion of evaluative variance explained by Object Positivity and the Verb Positivity x Object Positivity Interaction when direct statements were made. In each case, a smaller proportion of evaluative variation could be attributed to Object Positivity. No significant differences were detected between Verb Positivity and the interaction of Verb Positivity x Object Positivity in any Allegation Type.

These results partially support Hypothesis 2. While the proportion of evaluative variation explained did not differ between

Table 9

Z-values for the Comparisons of Proportions of Evaluative Variation Accounted for by Each Source of Variation in the Interactions of Allegations with Verbs and Objects

Comparison	*Z*-Value	Comparison	*Z*-Value
Verb-Verb:		**Verb-Verb x Object:**	
Question-Denial	- .552	Question-Question	-1.174
Question-Direct	-2.444	Denial-Denial	- .881
Question-Control	.069	Direct-Direct	-1.312
Denial-Direct	-2.163**	Control-Control	- .153
Denial-Control	.606		
Direct-Control	2.466**		
Object-Object:		**Object-Verb x Object:**	
Question-Denial	- .599	Question-Question	-1.193
Question-Direct	- .401	Denial-Denial	- .857
Question-Control	.137	Direct-Direct	-3.369**
Denial-Direct	.221	Control-Control	- .239
Denial-Control	.698		
Direct-Control	.514		
Verb x Object -Verb x Object:		**Verb-Object:**	
Question-Denial	- .148	Question-Question	.028
Question-Direct	-2.053**	Denial-Denial	.028
Question-Control	.816	Direct-Direct	2.275**
Denial-Direct	-1.944*	Control-Control	.096
Denial-Control	.936		
Direct-Control	2.518**		

* $p < .05$
** $p < .01$

innuendoes according to Verb Positivity, Object Positivity or the interaction of these elements of the predicate, direct statements were associated with explaining more evaluative variance on the basis of the contributions of Verb Positivity and the interaction of Verb Positivity and Object Positivity. Innuendoes impinged only upon the use of the information provided in the particular components of the allegation predicate. The impact of the damaging given information was attenuated by innuendo relative to direct assertion, but only with respect to the contributions of components of the given, particularly the verb, as well as the interaction of verbs and objects, in forming the overall impression of the target. The direct contribution of objects to evaluation was stable regardless of allegation form.

Evaluation Certainty. A significant main effect for Allegation Type was disclosed, $F(3,144) = 7.546$, $p < .01$. Mean comparisons (Tukey's procedure) between means revealed that questions ($M = 4.32$) were evaluated with less certainty than direct and control statements ($M = 4.63$ and $M = 4.70$, respectively). Denials ($M = 4.43$) were evaluated with less certainty than control statements, but did not differ from direct statements and questions. Direct and control statements did not differ.

A significant interaction of Latin Square x Allegation was observed, $F(9,144) = 3.01$, $p < .01$. Decomposition of this interaction revealed significant simple effects of Latin Square only when questions, direct allegations, and control statements were presented. Tukey's tests for pooled errors (Kirk, 1968) revealed

that mean differences could be detected between Latin Squares II ($\underline{M}$ = 3.84) and III ($\underline{M}$ = 4.94), and betweeen Latin Square I ($\underline{M}$ = 4.13) and Latin Square III when questions were alleged, $\underline{q}'$ = 3.486, $\underline{p} < .05$. Square II ($\underline{M}$ = 4.28) was also determined to differ from Square III ($\underline{M}$ = 5.14) when control statements were presented, $\underline{q}'$ = 3.674, $\underline{p} < .05$. Evaluation certainty was found to vary as a function of Allegation Type and the particular configuration of sets of Target Order combinations presented to subjects.

No other main effects or interactions were revealed in the analyses.

DISCUSSION

The results of Experiments I and II provide mixed support for the "memorial tag" and "given-new contract" explanations of innuendo effects. Specific results will be discussed as they relate to each explanation and to the hypotheses associated with each. New information regarding explanations for innuendo effects will be presented and results of the present study will be applied to this information.

The Memorial Tag Hypothesis

Hypothesis I, that there is a tendency on the part of communication recipients to encode or store innuendoes as kernel declarative sentences, was partially supported. In Experiment I, question innuendoes were erroneously identified as direct statements twice as often as errors were made in the opposite direction. Denials, examined in the same framework, emphasized this directionality; although they were not identified as direct statements as often, those identifications occurred three times as often as identifying direct statements as denials. The large numbers of shifts from question to negation and negation to question transformations in recognition emphasized the instability of these grammatical forms in information processing.

Subsequent analyses of evaluations made by persons who committed

recognition errors only partially supported the memorial tag hypothesis. Denial innuendoes were associated with a dramatic shift in favor of harsh evaluations when the denial tag became unavailable in memory. One critical feature of the pattern of evaluations for denials was the lack of difference between those evaluations and control statements at the outset of the experiment both by the group that made the recognition error and by the group that did not. In the final stage of the experiment the group that did not make the recognition error still did not demonstrate an innuendo effect for denials. This set of relationships emphasize the importance of the passage of time or the lack of availability of the denial tag that might result from the passage of time to the denial innuendo effect.

On the other hand, questions that were associated with more harsh evaluations when recognition errors were committed in favor of direct allegations were extremely harsh in the intitial ratings of targets and more harsh than those made by a group that did not commit such errors. Moreover in the group that did not commit the recognition error, evaluations of question innuendoes were more harsh than those made of control statements. These results suggest that innuendo effects may be exacerbated by the loss of a memory tag, but even when the tag is available, innuendo effects will occur. Accordingly, we may tenatively conclude that an encoding error rather than a memory error is responsible in a large part for innuendo effects when questions are involved. In other words, the harsh evaluations associated with question innuendoes may be due to to a lack of consideration of the interrogative tag. People do not forget that a question was asked; they either never note that it was asked, or, having taken note, engage in a cognitive process that leads to a

harsher evaluation of the target.

These results may have some practical utility. Should, for example, a political party desire to weaken the stature of an opponent in an election through the use of innuendo, the two types of indirect allegation forms used in these experiments may be useful, but at different times and with different results. Questions, because of their immediate and dramatic results, should be used fairly close to an election. Denying that the opponent engaged in wrongdoing may be more useful earlier in the campaign, since their effects become apparent as the negation tag becomes unavailable for use, i.e., with the passage of time. One caveat for users of such tactics: innuendo effects of denials are apparently less dramatic and their occurrences are less probable than innuendo effects resulting from question allegations.

The results of Experiment II were also partially supportive of Hypothesis 2A: innuendo effects were tied to the interference of questions and denials on processing the allegation predicate.

Comparisons of the proportions of evaluative variation explained by verb and object positivity in each allegation form indicated that no significant differences existed between the amounts of variance of evaluations explained by verbs and their interactions with objects. Innuendoes, however, tended to suppress the total proportion of evaluation explained by verbs and verb-object interactions relative to direct statements. The contribution of objects to evaluative variation, however, was stable across allegation forms. This is not to say that objects were unimportant in subjects' considerations as evidenced by the interaction of objects with verbs and allegations.

It merely indicates that verbs and verb-object interactions were reduced by innuendoes in their importance for explaining evaluative variation to the level of the contribution of the object when a direct allegation was made.

In the concrete terms of the allegations used in this experiment, asking "Did Frank Usseem harm lawyers?" may have resulted in the audience discounting the probability that harm was done to lawyers. Similarly, presenting the denial, "Susan Carver did not steal from philanthropist," may have reduced the probability in the consideration of the audience that a theft occurred from a philanthropist.

A clear interpretation in favor of Hypothesis 2A is not possible because the results did not indicate striking variations in the amount of evaluative variation attributable to each source. Rather, a parallel decrease in the contribution of verb and verb-object components of evaluation was noted in the innuendo conditions whereas the contribution of objects was consistently low and flat. A likely alternative explanation is obvious; verb components overpowered object components in the design, and the parallel variations in evaluative variance accounted for by the verb and verb-object interactions may be attributable to the interaction of those components with the sentence subject. In other words, even though precautions were taken to insure the neutrality of sentence subject-targets, their potential interaction with the various verb and object components of variation was not assessed. It is possible that in conjunction, these three possibilities, weak objects,

powerful verbs and subject interactions with powerful verb effects could account for the pattern of results in Experiment II.

Thus, while it is plausible to interpret the results of Experiment II as indicating that the innuendo effects observed were the result of tags denoting denials or interrogatives interfering with the processing of verbs and their interactions with objects, it is also possible that these effects were due to linking sentence subjects with the powerful elements of the predicate. The same two examples described above could be interpreted as reducing the audience's belief that the target was the perpetrator of an act that doubtlessly occurred. Hypothesis 2B, the "given-new contract" explanation could be supported equally well.

Before coming to conclusions regarding the memorial tag or given-new contract explanations, additional information was provided in Experiment II that deserves some consideration. First, powerful context effects were evident in the results of the experiment. These effects were amply demonstrated in the interactions of targets with verbs and objects. In particular, alleging that "Robert Hutton created KKK," in any of its forms resulted in evaluations that were more extreme than for any other target. Apparently this act was viewed as particularly heinous by the audience and the target was evaluated accordingly. No other targets were found to be associated with such extremity of evaluation. It is very possible that this particular allegation had mundane realism, was involving or was in some way more salient for the experimental subjects than any other allegation in the design. As a consequence, the possibility must be

entertained that there may be some scenarios described by predicates that may amplify or overpower any qualifying tags of grammatical transformation and lead to evaluations in line with the information in the predicate or in line with innuendo effects.

Some evidence for such a possibility is offered in the research of Petty, Cacioppo, and Heesacker (Note 4), who reported that presenting rhetorical questions improved information processing of low involvement issues that were favored by the audience, but interfered with processing high involvement issues that were also favored. High involvement issues presented with rhetorical questions resulted in less polarized evaluations of the issues, while low involvement issues presented with rhetorical questions resulted in more polarized responses. These results are very much in line with the results reported by Buldain and Crano (Note 2) where less information about a target resulted in more extreme evaluations, while more information about a target resulted in attenuation of innuendo effects. Similarly, a salient issue, such as "creating the KKK" may have interfered with processing the grammatical information, but the unsavory nature of the issue may have led to more extreme evaluations.

The second piece of information gleaned from Experiment II regards the "positive innuendo". Question or denial forms of allegations involving "good" acts towards "good" objects resulted in less favorable evaluations than directly asserting that such acts occured. This is not the first reported observation of a positive innuendo effect; Beattie and Wegner (Note 5) reported obtaining such

an effect, but found it difficult to explain with the given-new contract. It would seem particularly difficult to explain in the context of Experiment II. Recall that the contract implies that the source will not supply irrelevant or erroneous given information. Presupposition on the part of the audience enhances the believability of the new information. Accordingly, greater positivity of evaluations would be expected for positive innuendoes than for innuendoes that imply wrongdoing. When questions were used to imply "right" actions, this expectation was met--evaluations were more positive than the evaluations of questions implying wrongdoing. When denials were used, however, evaluations of not doing a "good" thing were as harsh as the most extreme evaluation of a question innuendo alleging harm against an affectively positive object. In the case of denials used in the positive innuendo, the pattern of results argue strongly against the presupposition notions of the given-new contract explanation.

These points have practical and theoretical implications. First, while the research of Buldain and Crano (Note 2) indicated that it was difficult to employ innuendoes against targets who had been described in derogatory terms, the results of Experiment II suggest that choosing an object that has high involvement or salience for the audience and extremely negative affective value may enhance innuendo effects. For example, knowing that the constituency of an elected official is racially mixed and vehemently anti-abortion could provide the source of an innuendo for an unscrupulous opponent. Questioning the official's involvement in promoting abortions probably would be more effective than questioning his racial stance

in promoting the ill-will of the most people towards his incumbency. Alternatively, denying that he favored a radical anti-abortion measure may prove equally effective. While the use of innuendoes in any context is not advocated in this discussion, the results of Experiment II point to types of issues and the choice of innuendoes that may prove maximally effective in real world settings.

Theoretically, the salience of the verb and the object in the predicate may interact with the affective value of each part of the predicate to enhance or attenuate innuendo effects. In this sense, Hypothesis 2A is correct; different combinations of affective positivity led to a different usage of the information in the predicate in forming evaluations according to innuendo. Question and denial tags do not simply provide a vehicle for presupposition; their impact is determined by the peculiar combination of verbs and objects in the predicate.

Hypothesis 2B also may have an element of truth. When the predicate elements are extremely salient, the question or denial (in a logical sense--nothing asserted or an assertion denied) may be overpowered but the pragmatic implication of the predicate, the given presupposition offered by the message source, is successfully linked to the target.

To summarize, evidence was provided from Experiments I and II that supported both the memorial tag and given-new explanations of innuendo effects. The results from Experiment I were particularly supportive of the memorial tag hypothesis explanation for innuendo effects involving denials. Question innuendo effects in this

experiment, on the other hand, were better explained by a position that incorporates active information processing on the part of the message recipient. The given-new contract hypothesis provides such a model.

In Experiment II, mixed results also were apparent. The results were not interpretable in a straightforward manner; both the memorial tag and given-new contract models could be supported by many of the results. In one set of results, however, this was not true. After noting that effects were present for the role of the salience and the affective value of verbs and objects in innuendo effects, denial innuendoes again presented problems for the given-new contract model when affectively positive verbs and objects were present. The harshness of evaluations made under these circumstances was directly contrary to what one would expect from the given-new contract model.

Accordingly, a tenative conclusion can be reached that neither model provided a complete explanatory framework for interpreting innuendo effects. While the memorial tag explanation did work well for denial effects, it could not account for question effects. Conversely, the given-new contract model was fairly successful in accounting for question effects, but performed poorly at explaining denial innuendo effects in impression formation.

The Given New Hypothesis--An Update

It is worthwhile to note that Wegner and his associates have revised their explanations of innuendo effects (see Wegner, Wenzlaff, Kerker, & Beattie, 1981). In the new formulation, the given-new

contract is offered as a second, but not clearly separate, explanatory concept that may aid in coming to an understanding of innuendo effects.

The first explanatory concept offered presents the notion that innuendo effects are:

> "forms of indirect communication...that commonly consist of (a) a statement about a person and (b) a qualifier about the statement. Whereas the statement is a direct assertion linking the person with some quality or activity, the qualifier is an expression reducing the likelihood that the statement is true." (p. 822)

Rather than committing themselves to a particular position that might explain the interaction of statements and their qualifiers, Wegner, Wenzlaff, Kerker, & Beattie (1981) also resort to a salience position. In their version, however, they assert that "statements are more salient than qualifiers," (p. 823) and invoke a variety of possible reasons for this, such as imageableness (Carrol, 1978), susceptibility to explanatory attempts (Ross, Lepper, & Hubbard, 1975), concreteness (Nisbett, Borgida, Crandall, & Reed, 1976), increasing the probability of hypothesis testing (Snyder & Cantor, 1979), availability (Tversky & Kahneman, 1973), elaborativeness (Loftus, 1979).

Having offered these possible explanations of innuendo effects, presupposition through the given-new contract and the extreme salience of sentences relative to qualifiers, Wegner, Wenzlaff, Kerker, & Beattie (1981) provided no empirical support for nor tested any of the propositions that such explanations would involve. Rather, a third possible explanation for innuendo effects proposed by these researchers was tested extensively. The third explanation suggests that innuendoes work in the media because the audience is

aware of the possible motivations of the reporters. For example, if the audience feels that the reporter is motivated by a concern for the public good and has partial but not complete evidence, the effects of innuendoes would be enhanced. On the other hand, if the audience perceives the reporter's motives as an attempt to get even with the target or to damage the targets reputation merely to create news, innuendo effects would attenuate.

Three experiments were reported by Wegner, Wenzlaff, Kerker, & Beattie (1981). The first two were the same as Wegner, Kerker, & Beattie's (Note 1) first and third experiments, although the portions of the third experiment devoted to detecting the audience's acceptance of the given and new information were deleted. The new third experiment crossed questions and direct allegations with headline content to determine the audience's ability to detect reporter motives. Generally, the results of this experiment supported the contention that the audience can detect reporter motives, and when they do so, they modify their impressions of the target accordingly. For example, should the audience feel that the reporter is not providing complete information through innuendo, evaluations of the target improved. On the other hand, if the audience were to feel that the reporter had additional information that provided incriminating evidence, or if the audience felt that the reporter was avoiding retaliation by using innuendoes, the evaluation of the target became more harsh. Audiences are aware of the possible motives of the message source and use this information in their evaluation of the target.

In contrast, the present study adopted one particular position with respect to the relationship between statements and their qualifiers. The memorial tag hypothesis was fairly useful and successful in explaining innuendo effects as they result from denial innuendoes. Yet it fell considerably short at explaining question innuendo effects. By extension, we may assume that an availability explanation (e.g., Tversky & Kahneman, 1973) might encounter similar difficulties. Additional study should be undertaken to determine if any of the other possible cognitive processes proposed by Wegner, Wenzlaff, Kerker, & Beattie (1981) could account for the denial and question innuendo effects.

Second, while not by any means a corollary of the memorial tag hypothesis, the positive innuendo effect observed in Experiment II and reported by Beattie and Wegner (Note 5), is still a major stumbling block for the updated given-new contract explanation. Not to belabor the point, the given-new contract explanation stipulates that the audience believes that the presumptions of the message source are reasonable. The qualification appends the presumptions. Innuendoes work because of audience belief that the premises are not nonsensical. Asserting that "Bob Talbert did not rob the bank," may fit this model at first glance; someone "robbed the bank" and the new information "It was not Bob," is appended by qualification. But why would the message exonerate "Bob", unless it was possible that he "robbed the bank?" The source would not supply irrelevant information, therefore, the inference "Possibly, Bob robbed the bank," is made by the audience.

Even if the results of Experiment I did not demonstrate the inadequacy of this explanation, applying the same logic to the positive innuendo produces a bizarre and nonsensical result. For example, given a denial of the positive innuendo type, "Bob Talbert did not donate to the United Way," the premise would be, donations were being taken for the United Way", and the new information, "It was not Bob," is appended by qualification. But why would the message denote "Bob", unless it was possible that he "donated to the United Way?" The source would not supply irrelevant information, therefore, the inference "Possibly, Bob made the donation," should be made by the audience. Clearly, this is nonsense. Moreover, the evaluations of denials in positive innuendoes in Experiment II reflected an extremely harsh evaluation. It is more likely that the the audience to the innuendo "Bob Talbert did not donate to the United Way," would infer that "Bob" lacks a social conscience and judge that he probably should be dressed in duck feathers and paraded through a shopping mall.

In the positive innuendo case, the memorial tag explanation would hypothesize that "Bob" should receive an initially harsh evaluation, but as time passed, he would recover in the memory of the audience.

Finally, additional research should be completed to determine if the audience's ability to detect the reporter's motives include denial innuendoes. If people do not tend to detect that incrimination has occurred when denials are presented, and the innuendo effects are more subtle, relating to memory decrements, then

audience reports of awareness of the reporters motives should be considerably different from those stemming from exposure from questions.

CONCLUSIONS

Two experiments were performed to test the adequacy of the given-new contract and memorial tag explanations for innuendo effects. The results of Experiment I favored the memorial tag hypothesis for explaining innuendo effects resulting from denials. Question innuendoes were better explained by a cognitive process that involved active encoding, and possibly elaboration of the information presented in this allegation form. Experiment II provided equivocal results for determining the relative merits of the linkage between damaging information presented in innuendoes and innuendo targets. Some of the results, particularly those involving denials of laudable actions, were extremely difficult to explain with the given-new contract hypothesis. A revision of the explanatory framework for innuendo effects was discussed. Although some of the possibilities, particularly those involving memory explanations for question innuendo effects, and the retention of the given-new contract as a model for explaining positive innuendoes, were probably not correct on the basis of the results of the present research, additional research to clarify the operation of innuendo effects was called for.

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APPENDICES

APPENDIX A

Sample Booklets Used in Experiment I

There are two possible reasons to explain the presence of this page in Booklet 1. While you may think you have the explanation, it does not, in fact, involve a pack of iguanas in a feeding frenzy, nor does it have anything to do with Basque superstitions regarding bogus pages that ward off exile to Guam. When you feel you have the correct reasons for this page, wait for the experimenter to stand on his or her head, then turn the page, and begin.

BOOKLET 1

DATE ____

SEX ____

AGE ____

LAST FOUR DIGITS OF YOUR SOCIAL SECURITY NUMBER ____

LAST THREE DIGITS OF YOUR STUDENT ID NUMBER ____

BOOKLET NUMBER _____

We are interested in how people consider information from various sources about other people and how this information affects their performance on other tasks. In this first booklet, your job will be to rate different individuals on the basis of information presented about them in newspaper headlines. While you may or may not be familiar with the persons named in each headline, the headlines were selected from the the front page of issues of the Washington Evening Post published in Washington D.C. between September and October of 1980. If you are familiar with the particulars of the article which followed the headline, or have heard of the person named in the headline, please write the word "FAMILIAR" at the bottom of the page where the headline appears.

Regardless of your knowledge of the person named in the headline, please read the headline carefully and then complete the rating scales about that person. Do not look back while you are completing the rating scales.

For each person there are 13 ratings you are to make. Please think very carefully about each of the characteristics of the person about whom the headline was written in order to make an intelligent judgement. In rating these characteristics please remember that there are no right or wrong answers. Don't worry or puzzle over individual items. On the other hand please don't be careless because we want your true impressions.

In order to rate a person on a characteristic place an "X" on the scale over the space which is closest to your true impression. For example, if you were to rate a person on the dimension "happy-sad" and you felt the person was somewhat sad but not extremely sad you would mark the scale as follows:

HAPPY:___:___:___:___:___:___:_X_:___:___: SAD

If you thought the person was extremely happy mark the scales as follows:

HAPPY:_X_:___:___:___:___:___:___:___:___: SAD

If you thought the person was neither happy nor sad or that the scale did not apply to this person mark the scales as follows:

HAPPY:___:___:___:___:_X_:___:___:___:___: SAD

IMPORTANT: Do not mark between numbers, mark only on numbers.

Wrong: HAPPY:___X___:___:___:___:___:___:___:___: SAD

Right: HAPPY:___:_X_:___:___:___:___:___:___:___: SAD

Also, we are interested in how confident you are of your ratings. Following each scale, there will be a line drawn to the right as follows:

HAPPY:___:___:___:___:___:___:_X__:___:___: SAD ____

Please rate your confidence in your judgment of the quality described on the scale from 1 to 7. If, for example, you were extremely confident then you would put a "7" on the line to the right. If you were not at all confident you would put a "1" on the line, as follows:

HAPPY :___:___:___:___:___:___:_X__:___:___: SAD _1__

If you were moderately confident in your judgment, then you would mark a "3" on the line to the right:

HAPPY :___:___:___:___:___:___:_X__:___:___: SAD _3__

PLEASE USE ONLY ONE WHOLE NUMBER (E.G., "4" NOT "4-5" OR "4.2") TO EXPRESS YOUR CONFIDENCE RATINGS.

BE SURE TO MARK EVERY SCALE! DO NOT OMIT ANY.

Turn the page and begin.

GARY BROOKS IS A HIT-AND-RUN DRIVER.

		CONFIDENCE RATING
PLEASANT: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	UNPLEASANT	____
GOOD: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	BAD	____
BEAUTIFUL: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	UGLY	____
WORTHLESS: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	VALUABLE	____
INTELLIGENT: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	UNINTELLIGENT	____
CRUEL: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	KIND	____
SOCIABLE: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	UNSOCIABLE	____
IRRATIONAL: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	RATIONAL	____
DISHONEST: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	HONEST	____

Please rate the person on the following dimensions:

CONFIDENCE RATING

PERSONAL INTEGRITY

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

COMPETENCE

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

MORAL CHARACTER

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

FRIENDLINESS

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

BOB TALBERT DID NOT STEAL FUNDS FROM LOCAL BANK.

		CONFIDENCE RATING
WORTHLESS	:___:___:___:___:___:___:___:___:___: VALUABLE	____
INTELLIGENT	:___:___:___:___:___:___:___:___:___: UNINTELLIGENT	____
PLEASANT	:___:___:___:___:___:___:___:___:___: UNPLEASANT	____
IRRATIONAL	:___:___:___:___:___:___:___:___:___: RATIONAL	____
CRUEL	:___:___:___:___:___:___:___:___:___: KIND	____
GOOD	:___:___:___:___:___:___:___:___:___: BAD	____
DISHONEST	:___:___:___:___:___:___:___:___:___: HONEST	____
BEAUTIFUL	:___:___:___:___:___:___:___:___:___: UGLY	____
SOCIABLE	:___:___:___:___:___:___:___:___:___: UNSOCIABLE	____

Please rate the person on the following dimensions:

CONFIDENCE RATING

PERSONAL INTEGRITY

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

COMPETENCE

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

MORAL CHARACTER

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

FRIENDLINESS

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

MARK HANES FINDS WALLET.

		CONFIDENCE RATING
IRRATIONAL:	:___:___:___:___:___:___:___:___:___: RATIONAL	____
GOOD:	:___:___:___:___:___:___:___:___:___: BAD	____
INTELLIGENT:	:___:___:___:___:___:___:___:___:___: UNINTELLIGENT	____
DISHONEST:	:___:___:___:___:___:___:___:___:___: HONEST	____
BEAUTIFUL:	:___:___:___:___:___:___:___:___:___: UGLY	____
SOCIABLE:	:___:___:___:___:___:___:___:___:___: UNSOCIABLE	____
CRUEL:	:___:___:___:___:___:___:___:___:___: KIND	____
PLEASANT:	:___:___:___:___:___:___:___:___:___: UNPLEASANT	____
WORTHLESS:	:___:___:___:___:___:___:___:___:___: VALUABLE	____

Please rate the person on the following dimensions:

CONFIDENCE RATING

PERSONAL INTEGRITY

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

COMPETENCE

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

MORAL CHARACTER

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

FRIENDLINESS

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

DOES CARL WATSON STEAL FROM CHARITY?

	CONFIDENCE RATING
GOOD:___:___:___:___:___:___:___:___:___:BAD	____
WORTHLESS:___:___:___:___:___:___:___:___:___:VALUABLE	____
SOCIABLE:___:___:___:___:___:___:___:___:___:UNSOCIABLE	____
BEAUTIFUL:___:___:___:___:___:___:___:___:___:UGLY	____
CRUEL:___:___:___:___:___:___:___:___:___:KIND	____
PLEASANT:___:___:___:___:___:___:___:___:___:UNPLEASANT	____
INTELLIGENT:___:___:___:___:___:___:___:___:___:UNINTELLIGENT	____
DISHONEST:___:___:___:___:___:___:___:___:___:HONEST	____
IRRATIONAL:___:___:___:___:___:___:___:___:___:RATIONAL	____

Please rate the person on the following dimensions:

CONFIDENCE RATING

PERSONAL INTEGRITY

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

COMPETENCE

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

MORAL CHARACTER

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

FRIENDLINESS

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

BOOKLET 2

DATE ____

SEX ____

AGE ____

LAST FOUR DIGITS OF YOUR SOCIAL SECURITY NUMBER ____

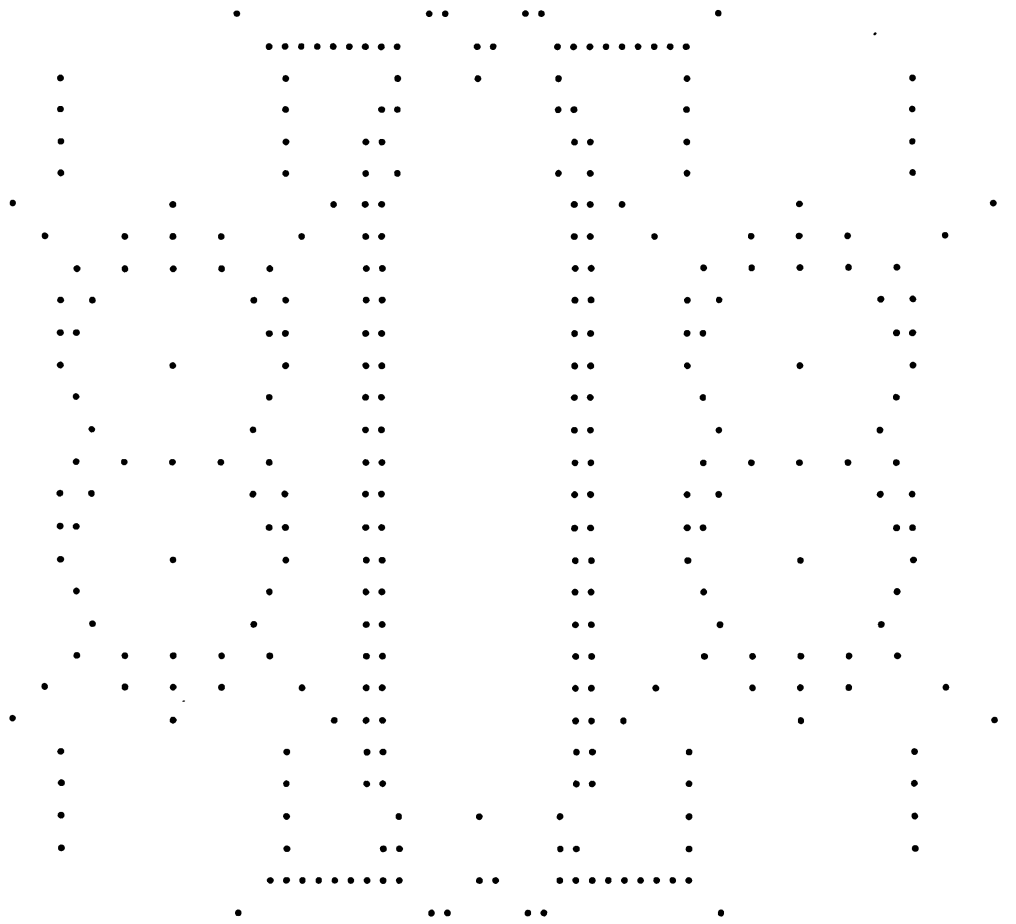
LAST THREE DIGITS OF YOUR STUDENT ID NUMBER ____

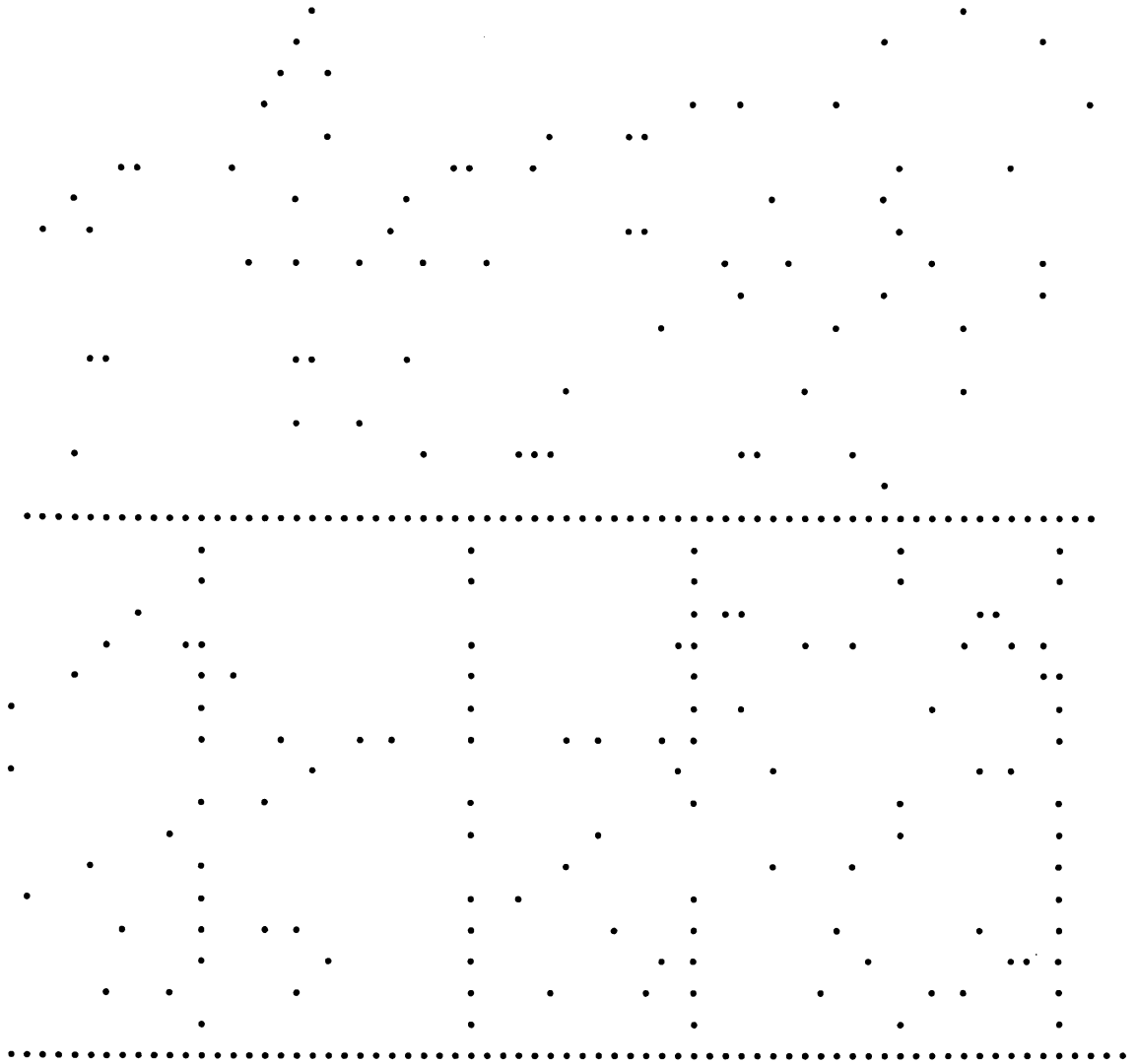
BOOKLET NUMBER _____

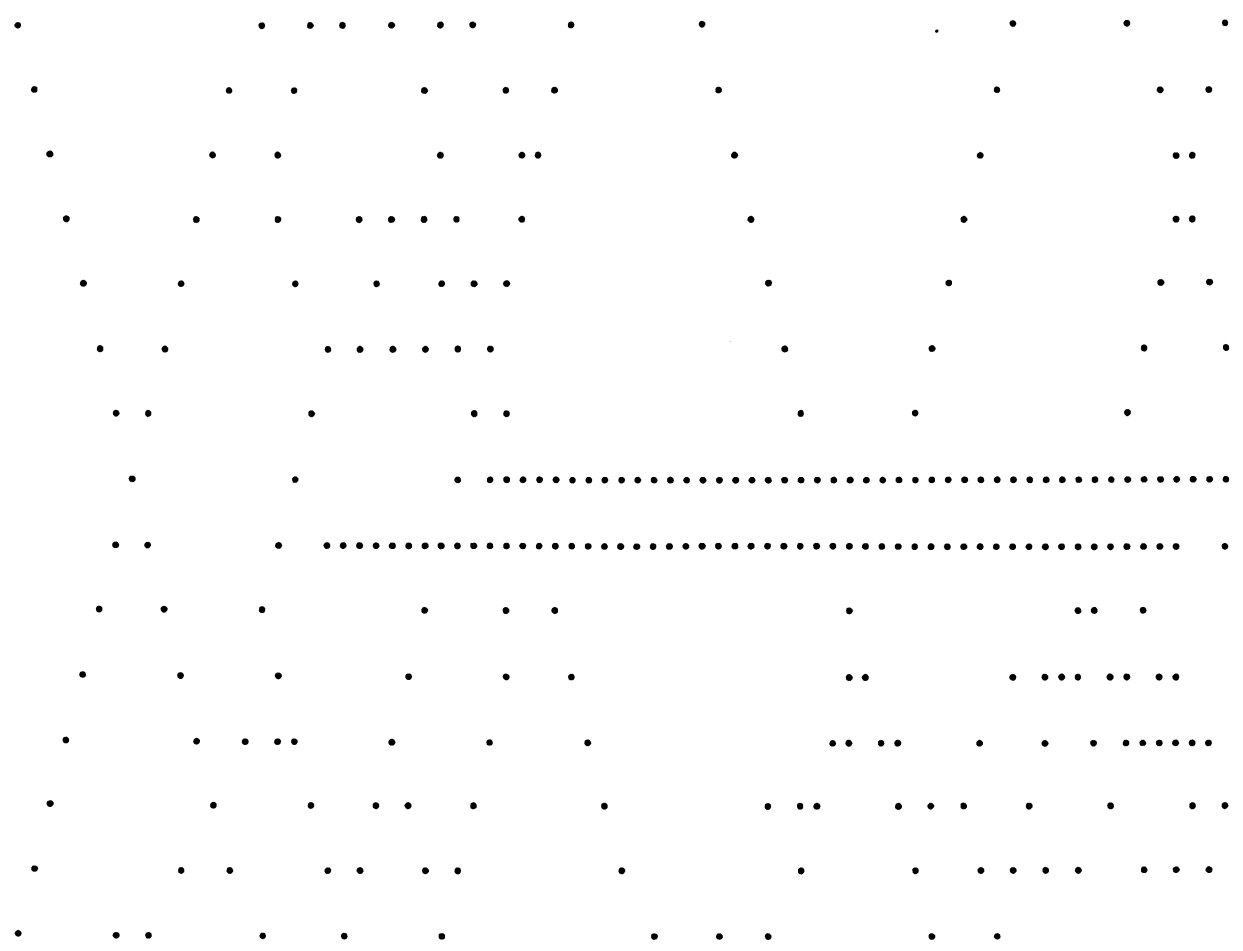
In the second part of this experiment, you will complete a brief spatial gestalt task. In order to do this, you will have to draw a series of lines which connect the dots presented on each page of this booklet. Specifically, we would like for you to look at the pattern of dots on a page and try to imagine a figure, a picture, or a design. Then, with your pencil, carefully connect the dots with a single straight line that will most accurately depict the figure, picture, or design.

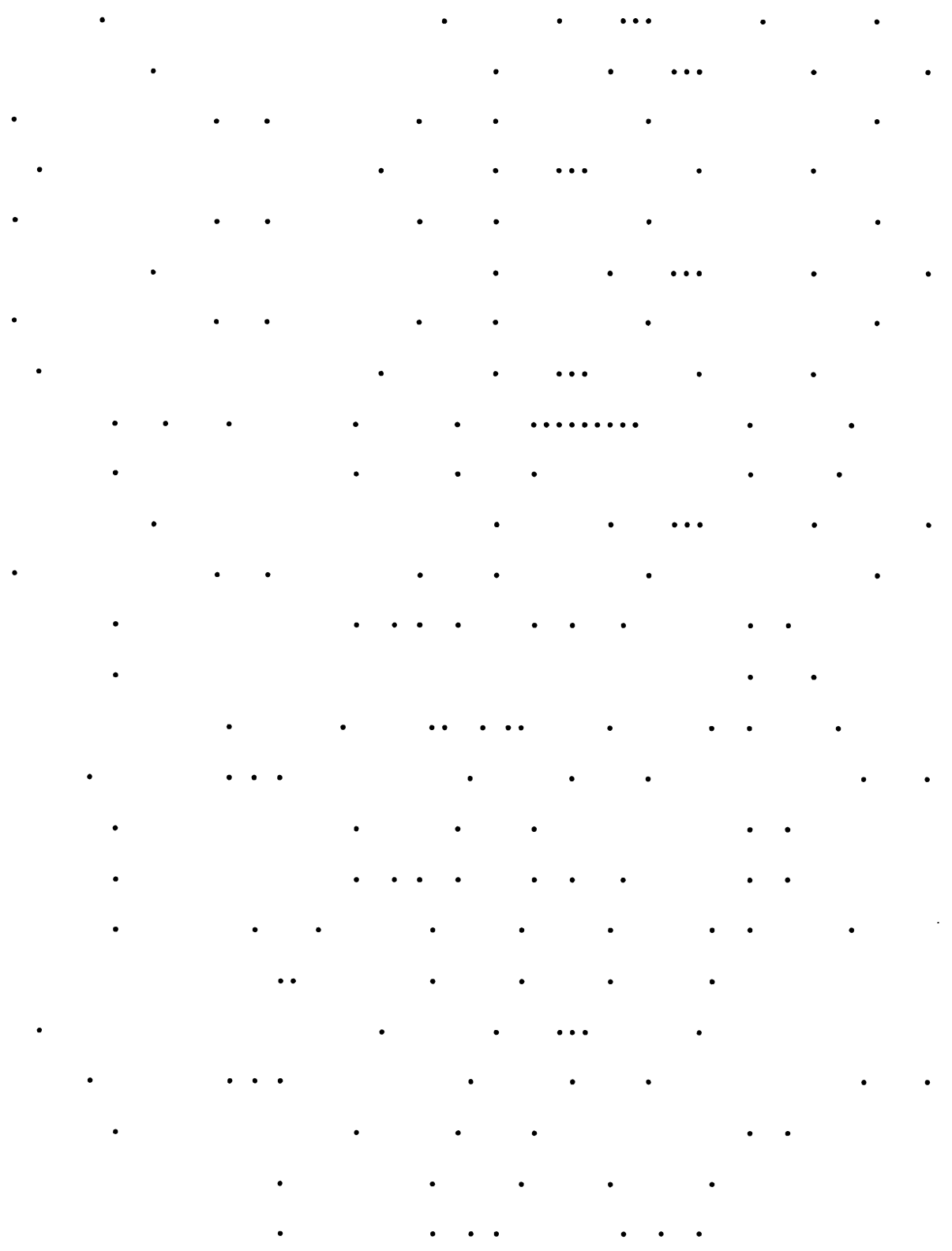
While there are obviously no right or wrong ways to connect the dots on each page, it is very important that you carefully consider each configuration of dots that you look at. Try to look for the best way to connect the dots that gives, for you, the overall figure while keeping in mind the relationship of all the parts. You do not have to use all of the dots on any page to draw the figure, picture, or design that you think is most apparent. Also, you may use the dots on any page to draw more than one figure, picture, or design.

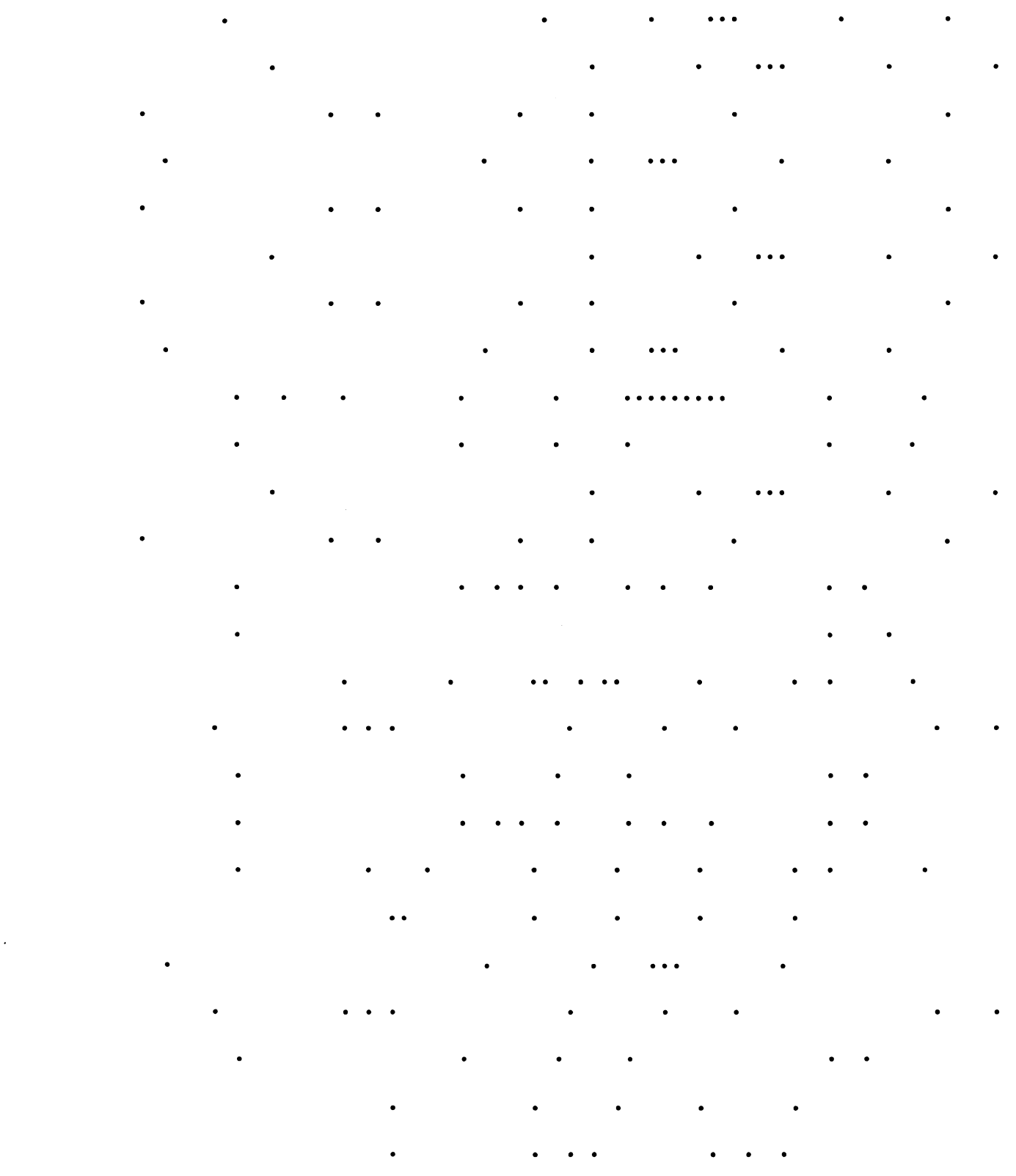
When you finish a page, please try to BRIEFLY describe what you have drawn on the back of the paper. Do not spend too much time on your description. One or two words will suffice.











BOOKLET 3

DATE ____

SEX ____

AGE ____

LAST FOUR DIGITS OF YOUR SOCIAL SECURITY NUMBER ____

LAST THREE DIGITS OF YOUR STUDENT ID NUMBER ____

BOOKLET NUMBER _____

In the third part of this experiment, you will be asked to recall the headlines presented in the first booklet you completed, and to match what you remember to one of a number of statements provided in this booklet. In order to do this, you must think about what was said about a particular person in the first booklet, and then mark the statement that is most like what you remember. MARK ONLY ONE STATEMENT WHICH IS MOST SIMILAR TO WHAT YOU REMEMBER. To do this, read through all the statements about a person on a page, find the ONE statement that means the same as what you remember, and put an "X" in the space that follows the statement.

After you identify the statement that meant the same as the headline in the first booklet, turn the page and rate the person on the basis of what you remember. MARK THE SCALES ON THE BASIS OF WHAT YOU REMEMBER ABOUT THE PERSON. Please use these scales in the same manner as you did in the first booklet.

MARK ONLY ONE STATEMENT WHICH IS MOST SIMILAR TO WHAT YOU REMEMBER.

MARK THE SCALES ON THE BASIS OF WHAT YOU REMEMBER ABOUT THE PERSON.

MARK THE IDENTICAL HEADLINE HERE:

WASN'T GARY BROOKS A HIT-AND-RUN DRIVER? _____

IS GARY BROOKS A HIT-AND-RUN DRIVER? _____

HIT-AND-RUN DRIVEN BY GARY BROOKS? _____

GARY BROOKS DOES NOT KNOW DESKS. _____

GARY BROOKS WAS NOT A HIT-AND-RUN DRIVER. _____

GARY BROOKS IS NOT A HIT-AND-RUN DRIVER. _____

GARY BROOKS IS A HIT-AND-RUN DRIVER. _____

DOES GARY BROOKS KNOW DESKS? _____

GARY BROOKS KNOWS DESKS. _____

GARY BROOKS WAS A HIT-AND-RUN DRIVER. _____

WAS GARY BROOKS A HIT-AND-RUN DRIVER? _____

PLEASE RATE GARY BROOKS ON THE SCALES ON THE NEXT TWO PAGES:

Please evaluate the person you identified on the previous page:

		CONFIDENCE RATING
PLEASANT:	:___:___:___:___:___:___:___:___:___: UNPLEASANT	____
GOOD:	:___:___:___:___:___:___:___:___:___: BAD	____
BEAUTIFUL:	:___:___:___:___:___:___:___:___:___: UGLY	____
WORTHLESS:	:___:___:___:___:___:___:___:___:___: VALUABLE	____
INTELLIGENT:	:___:___:___:___:___:___:___:___:___: UNINTELLIGENT	____
CRUEL:	:___:___:___:___:___:___:___:___:___: KIND	____
SOCIABLE:	:___:___:___:___:___:___:___:___:___: UNSOCIABLE	____
IRRATIONAL:	:___:___:___:___:___:___:___:___:___: RATIONAL	____
DISHONEST:	:___:___:___:___:___:___:___:___:___: HONEST	____

Please rate the person on the following dimensions:

CONFIDENCE RATING

PERSONAL INTEGRITY

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

COMPETENCE

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

MORAL CHARACTER

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

FRIENDLINESS

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

MARK THE IDENTICAL HEADLINE HERE:

CARL WATSON DID NOT STEAL FROM CHARITY. _____

CARL WATSON DOES NOT STEAL FROM CHARITY. _____

CHARITY STOLEN FROM BY CARL WATSON. _____

DOES CARL WATSON STEAL FROM CHARITY? _____

CARL WATSON STEALS FROM CHARITY. _____

DOES CARL WATSON COLLECT WHEELS? _____

CARL WATSON COLLECTS WHEELS. _____

CARL WATSON STOLE FROM CHARITY. _____

DID CARL WATSON STEAL FROM CHARITY? _____

CARL WATSON DOES NOT COLLECT WHEELS. _____

DIDN'T CARL WATSON STEAL FROM CHARITY? _____

PLEASE RATE CARL WATSON ON THE SCALES ON THE NEXT TWO PAGES:

Please evaluate the person you identified on the previous page:

	CONFIDENCE RATING
WORTHLESS:___:___:___:___:___:___:___:___:___:VALUABLE	____
INTELLIGENT:___:___:___:___:___:___:___:___:___:UNINTELLIGENT	____
PLEASANT:___:___:___:___:___:___:___:___:___:UNPLEASANT	____
IRRATIONAL:___:___:___:___:___:___:___:___:___:RATIONAL	____
CRUEL:___:___:___:___:___:___:___:___:___:KIND	____
GOOD:___:___:___:___:___:___:___:___:___:BAD	____
DISHONEST:___:___:___:___:___:___:___:___:___:HONEST	____
BEAUTIFUL:___:___:___:___:___:___:___:___:___:UGLY	____
SOCIABLE:___:___:___:___:___:___:___:___:___:UNSOCIABLE	____

Please rate the person on the following dimensions:

CONFIDENCE RATING

PERSONAL INTEGRITY

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

COMPETENCE

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

MORAL CHARACTER

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

FRIENDLINESS

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

MARK THE IDENTICAL HEADLINE HERE:

DOES BOB TALBERT STEAL FUNDS FROM LOCAL BANK? _____

DID BOB TALBERT STEAL FUNDS FROM LOCAL BANK? _____

BOB TALBERT STEALS FUNDS FROM LOCAL BANK. _____

DID BOB TALBERT ARRIVE AT AIRPORT? _____

LOCAL BANK FUNDS STOLEN BY BOB TALBERT. _____

DIDN'T BOB TALBERT STEAL FUNDS FROM LOCAL BANK? _____

BOB TALBERT ARRIVES AT AIRPORT. _____

BOB TALBERT STOLE FUNDS FROM LOCAL BANK. _____

BOB TALBERT DID NOT STEAL FUNDS FROM LOCAL BANK. _____

BOB TALBERT DID NOT ARRIVE AT AIRPORT. _____

BOB TALBERT DOES NOT STEAL FUNDS FROM LOCAL BANK. _____

PLEASE RATE BOB TALBERT ON THE SCALES ON THE NEXT TWO PAGES:

Please evaluate the person you identified on the previous page:

		CONFIDENCE RATING
IRRATIONAL	___:___:___:___:___:___:___:___:___ RATIONAL	____
GOOD	___:___:___:___:___:___:___:___:___ BAD	____
INTELLIGENT	___:___:___:___:___:___:___:___:___ UNINTELLIGENT	____
DISHONEST	___:___:___:___:___:___:___:___:___ HONEST	____
BEAUTIFUL	___:___:___:___:___:___:___:___:___ UGLY	____
SOCIABLE	___:___:___:___:___:___:___:___:___ UNSOCIABLE	____
CRUEL	___:___:___:___:___:___:___:___:___ KIND	____
PLEASANT	___:___:___:___:___:___:___:___:___ UNPLEASANT	____
WORTHLESS	___:___:___:___:___:___:___:___:___ VALUABLE	____

Please rate the person on the following dimensions:

CONFIDENCE RATING

PERSONAL INTEGRITY

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

COMPETENCE

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

MORAL CHARACTER

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

FRIENDLINESS

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

MARK THE IDENTICAL
HEADLINE HERE:

MARK HANES IS NOT CONNECTED TO ORGANIZED CRIME IN THE CITY. _____

WASN'T MARK HANES CONNECTED TO ORGANIZED CRIME IN THE CITY? _____

MARK HANES CONNECTED TO ORGANIZED CRIME IN THE CITY. _____

MARK HANES FINDS WALLET. _____

MARK HANES WAS NOT CONNECTED TO ORGANIZED CRIME IN THE CITY. _____

IS MARK HANES CONNECTED TO ORGANIZED CRIME IN THE CITY? _____

WAS MARK HANES CONNECTED TO ORGANIZED CRIME IN THE CITY? _____

MARK HANES DOESN'T FIND WALLET. _____

ORGANIZED CRIME IN THE CITY CONNECTED TO MARK HANES. _____

MARK HANES WAS CONNECTED TO ORGANIZED CRIME IN THE CITY. _____

DID MARK HANES FIND WALLET? _____

PLEASE RATE MARK HANES ON THE SCALES ON THE NEXT TWO PAGES:

Please evaluate the person you identified on the previous page:

		CONFIDENCE RATING
GOOD:	:___:___:___:___:___:___:___:___:___: BAD	____
WORTHLESS:	:___:___:___:___:___:___:___:___:___: VALUABLE	____
SOCIABLE:	:___:___:___:___:___:___:___:___:___: UNSOCIABLE	____
BEAUTIFUL:	:___:___:___:___:___:___:___:___:___: UGLY	____
CRUEL:	:___:___:___:___:___:___:___:___:___: KIND	____
PLEASANT:	:___:___:___:___:___:___:___:___:___: UNPLEASANT	____
INTELLIGENT:	:___:___:___:___:___:___:___:___:___: UNINTELLIGENT	____
DISHONEST:	:___:___:___:___:___:___:___:___:___: HONEST	___
IRRATIONAL:	:___:___:___:___:___:___:___:___:___: RATIONAL	___

Please rate the person on the following dimensions:

CONFIDENCE RATING

PERSONAL INTEGRITY

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

COMPETENCE

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

MORAL CHARACTER

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

FRIENDLINESS

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

APPENDIX B

Analyses of Evaluation and Certainty Scores

from Experiment I

Table B1

Summary of Sex by Latin Square by Target Order by Allegation by Target Analysis of Variance of Evaluation Impression Scores from Task 1

Source	df	MS	F
Sex (S)	1	.072	.252
Latin Square (LS)	5	.270	.943
S x LS	5	.575	2.008
Target Order (TO) w/LSxS	36	.286	.740
Subjects Su w/TOw/LSxS	144	.387	
Allegation (A)	3	35.151	102.294*
S x A	3	.788	2.295
LS x A	15	.502	1.462
S x LS x A	15	.302	.881
Target (T)	3	1.339	1.399
S x T	3	.223	.173
LS x T	15	.501	.389
S x LS x T	15	.284	.221
TOw/LSxS x A	108(a)	.344	1.161
TOw/LSxS x T	108(a)	1.288	4.352*
Suw/TOw/LSxS x TA	432	.296	

a) non-additive estimates obtained from pooled TOw/LSxSxAxT interaction with total d.f. = 108 (c.f., Kirk, 1968)

*$p < .01$

Table B2

Summary of Sex by Latin Square by Target Order by Allegation by Target Analysis of Variance of Evaluation Certainty Scores from Task 1

Source	df	MS	F
Sex (S)	1	14.128	1.756
Latin Square (LS)	5	15.144	1.882
S x LS	5	3.228	.401
Target Order (TO) w/LSxS	36	.805	1.259
Subjects (Su) w/TOw/LSxS	144	.639	
Allegation (A)	3	14.463	17.969*
S x A	3	.140	.174
LS x A	15	.473	.588
S x LS x A	15	.402	.499
Target (T)	3	1.412	1.336
S x T	3	.886	.839
LS x T	15	.946	.895
S x LS x T	15	.576	.545
TOw/LSxS x A	108(a)	.805	1.207
TOw/LSxS x T	108(a)	1.288	1.585*
Suw/TOw/LSxS x TA	432	.667	

a) non-additive estimates obtained from pooled TOw/LSxSxAxT interaction with total d.f. = 108 (c.f., Kirk, 1968)

*$p < .01$

Table B3

Summary of Recognition by Type of Error by Time of Rating by Allegation Unweighted Means Analysis of Variance of Evaluation Impression Scores

Source	df	MS	F
Recognition (R)	1	.976	.193
Type of Error (TE)	3	1.766	3.122*
R x TE	3	.680	1.202
Subjects w/ R x TE (Sw/RxTE)	86	5.657	
Time of Rating (TR)	1	.018	.152
R x TR	1	.168	1.433
TE x TR	3	.264	2.257
R x TE x TR	3	.497	4.246**
Sw/RxTE x TR	86	.117	
Allegation (A)	2	38.105	82.488**
R x A	2	1.428	3.092*
TE x A	6	.883	1.912
R x TE x A	6	.972	2.105
Sw/RxTE x A	172	.462	
TR x A	2	.319	2.245
R x TR x A	2	.001	.005
TE x TR x A	6	.615	4.314**
R x TE x TR x A	6	.484	3.395**
Sw/RxTE x TR x A	172	.142	

*$p < .05$
**$p < .01$

Table B4

Summary of Recognition by Type of Error by Time of Rating by Allegation Unweighted Means Analysis of Variance of Evaluation Certainty Scores

Source	df	MS	F
Recognition (R)	1	.414	.487
Type of Error (TE)	3	8.427	.991
R x TE	3	7.540	.887
Subjects w/ R x TE (Sw/RxTE)	86	8.504	
Time of Rating (TR)	1	.267	.758
R x TR	1	.917	2.599
TE x TR	3	.215	.610
R x TE x TR	3	.146	.415
Sw/RxTE x TR	86		
Allegation (A)	2	1.803	1.943
R x A	2	.896	.966
TE x A	6	.684	.737
R x TE x A	6	.692	.746
Sw/RxTE x A	172	.928	
TR x A	2	.198	.627
R x TR x A	2	.248	.782
TE x TR x A	6	.369	1.165
R x TE x TR x A	6	.433	1.367
Sw/RxTE x TR x A	172	.317	

APPENDIX C

Sample Booklet Used in Experiment II

We are interested in how people consider information from various sources about other people and how this information affects their performance on other tasks. Your task in this booklet will be to rate different individuals on the basis of information presented about them. Please read all of the information and then turn the page complete the rating scales about that person. Do not look back while you are completing the rating scales.

For each person there are 13 ratings you are to make. Please think very carefully about each of the characteristics of the person about whom the information was given in order to make an intelligent judgement. In rating these characteristics please remember that there are no right or wrong answers. Don't worry or puzzle over individual items. On the other hand please don't be careless because we want your true impressions.

In order to rate a person on a characteristic place an "X" on the scale over the space which is closest to your true impression. For example, if you were to rate a person on the dimension "happy-sad" and you felt the person was somewhat sad but not extremely sad you would mark the scale as follows:

HAPPY:___:___:___:___:___:___:_X_:___:___: SAD

If you thought the person was extremely happy mark the scales as follows:

HAPPY:_X_:___:___:___:___:___:___:___:___: SAD

If you thought the person was neither happy nor sad or that the scale did not apply to this person mark the scales as follows:

HAPPY:___:___:___:___:_X_:___:___:___:___: SAD

IMPORTANT: Do not mark between numbers, mark only on numbers.

Wrong: HAPPY:___X___:___:___:___:___:___:___:___: SAD

Right: HAPPY:___:_X_:___:___:___:___:___:___:___: SAD

Also, we are interested in how confident you are of your ratings. Following each scale, there will be a line drawn to the right as follows:

HAPPY:___:___:___:___:___:___:_X__:___:___: SAD ____

Please rate your confidence in your judgment of the quality described on the scale from 1 to 7. If, for example, you were extremely confident then you would put a "7" on the line to the right. If you were not at all confident you would put a "1" on the line, as follows:

HAPPY :___:___:___:___:___:___:_X__:___:___: SAD _1__

If you were moderately confident in your judgment, then you would mark a "3" on the line to the right:

HAPPY :___:___:___:___:___:___:_X__:___:___: SAD _3__

PLEASE USE ONLY ONE WHOLE NUMBER (E.G., "4" NOT "4-5" OR "4.2") TO EXPRESS YOUR CONFIDENCE RATINGS.

BE SURE TO MARK EVERY SCALE! DO NOT OMIT ANY.

Turn the page and begin.

On December 14th, the St. Louis Daily Record contained the following headline:

"ROBERT HUTTON DESTROYED THE UNITED WAY"

		CONFIDENCE RATING
PLEASANT: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	UNPLEASANT	____
GOOD: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	BAD	____
BEAUTIFUL: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	UGLY	____
WORTHLESS: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	VALUABLE	____
INTELLIGENT: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	UNINTELLIGENT	____
CRUEL: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	KIND	____
SOCIABLE: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	UNSOCIABLE	____
IRRATIONAL: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	RATIONAL	____
DISHONEST: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	HONEST	____

Please rate the person on the following dimensions:

CONFIDENCE RATING

PERSONAL INTEGRITY

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

COMPETENCE

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

MORAL CHARACTER

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

FRIENDLINESS

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

The following headline appeared on the front page of the San Francisco Times Herald:

"DID FRANK USSEEM HARM LAWYERS?"

		CONFIDENCE RATING
WORTHLESS	:___:___:___:___:___:___:___:___:___: VALUABLE	____
INTELLIGENT	:___:___:___:___:___:___:___:___:___: UNINTELLIGENT	____
PLEASANT	:___:___:___:___:___:___:___:___:___: UNPLEASANT	____
IRRATIONAL	:___:___:___:___:___:___:___:___:___: RATIONAL	____
CRUEL	:___:___:___:___:___:___:___:___:___: KIND	____
GOOD	:___:___:___:___:___:___:___:___:___: BAD	____
DISHONEST	:___:___:___:___:___:___:___:___:___: HONEST	____
BEAUTIFUL	:___:___:___:___:___:___:___:___:___: UGLY	____
SOCIABLE	:___:___:___:___:___:___:___:___:___: UNSOCIABLE	____

Please rate the person on the following dimensions:

CONFIDENCE RATING

PERSONAL INTEGRITY

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

COMPETENCE

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

MORAL CHARACTER

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

FRIENDLINESS

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

The following headline was reported by the Seattle Post:

"SHERRY MISIAK DID NOT SLANDER NIXON"

		CONFIDENCE RATING
IRRATIONAL:	:___:___:___:___:___:___:___:___:___: RATIONAL	____
GOOD:	:___:___:___:___:___:___:___:___:___: BAD	____
INTELLIGENT:	:___:___:___:___:___:___:___:___:___: UNINTELLIGENT	____
DISHONEST:	:___:___:___:___:___:___:___:___:___: HONEST	____
BEAUTIFUL:	:___:___:___:___:___:___:___:___:___: UGLY	____
SOCIABLE:	:___:___:___:___:___:___:___:___:___: UNSOCIABLE	____
CRUEL:	:___:___:___:___:___:___:___:___:___: KIND	____
PLEASANT:	:___:___:___:___:___:___:___:___:___: UNPLEASANT	____
WORTHLESS:	:___:___:___:___:___:___:___:___:___: VALUABLE	____

Please rate the person on the following dimensions:

CONFIDENCE RATING

PERSONAL INTEGRITY

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

COMPETENCE

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

MORAL CHARACTER

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

FRIENDLINESS

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

The Houston Star ran the following headline on January 22nd:

"SUSAN CARVER HIRED BY FIRM."

		CONFIDENCE RATING
GOOD: ___:___:___:___:___:___:___:___:___:	BAD	____
WORTHLESS: ___:___:___:___:___:___:___:___:___:	VALUABLE	____
SOCIABLE: ___:___:___:___:___:___:___:___:___:	UNSOCIABLE	____
BEAUTIFUL: ___:___:___:___:___:___:___:___:___:	UGLY	____
CRUEL: ___:___:___:___:___:___:___:___:___:	KIND	____
PLEASANT: ___:___:___:___:___:___:___:___:___:	UNPLEASANT	____
INTELLIGENT: ___:___:___:___:___:___:___:___:___:	UNINTELLIGENT	____
DISHONEST: ___:___:___:___:___:___:___:___:___:	HONEST	____
IRRATIONAL: ___:___:___:___:___:___:___:___:___:	RATIONAL	____

Please rate the person on the following dimensions:

CONFIDENCE RATING

PERSONAL INTEGRITY

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

COMPETENCE

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

MORAL CHARACTER

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

FRIENDLINESS

:___:___:___:___:___:___:___:___:___: ____

very little | little | neither much nor little | much | very much

APPENDIX D

Analyses of Evaluation and Certainty Scores from Experiment II

Table D1

Summary of Latin Square by Target Order by Verb Positivity by Object Positivity by Allegation by Target Analysis of Variance of Evaluation Impression Scores

Source	df	MS	F
Latin Square (LS)	3	.785	.412
Verb Positivity (VP)	1	22.345	11.728**
Object Positivity (OP)	1	.984	.516
LS x VP	3	.524	.275
LS x OP	3	.939	.493
VP x OP	1	30.223	15.863**
LS x VP x OP	3	.441	.232
Target Order (TO) w/LSxVPxOP	48	1.905	1.670
Subjects (S) w/TOw/LSxVPxOP	128	1.141	
Allegation (A)	3	72.440	35.858**
LS x A	9	1.837	.909
VP x A	3	28.502	14.109**
OP x A	3	6.594	3.264*
LS x VP x A	9	1.001	.495
LS x OP x A	9	1.340	.663
VP x OP x A	3	31.733	15.708**
LS x VP x OP x A	9	.882	.437
Target (T)	3	8.984	2.117
LS x T	9	1.934	.456
VP x T	3	4.654	1.097
OP x T	3	4.588	1.081
LS x VP x T	9	1.070	.252
LS x OP x T	9	1.564	.369
VP x OP x T	3	14.078	3.317*
LS x VP x OP x T	9	.570	.134
TOw/LSxVPxOP x A	144(a)	2.020	2.014**
TOw/LSxVPxOP x T	144(a)	4.244	4.231**
Sw/TOw/LSxVPxOP x AT	384	1.003	

a) non-additive estimates obtained from pooled TOw/LSxVPxOPxAxT interaction with total d.f. = 144 (c.f., Kirk, 1968)

*p < .05
**p < .01

Table D2

Summary of Latin Square by Target Order by Verb Positivity by Object Positivity by Allegation by Target Analysis of Variance of Evaluation Certainty Scores

Source	df	MS	F
Latin Square (LS)	3	16.361	1.998
Verb Positivity (VP)	1	.860	.105
Object Positivity (OP)	1	.480	.059
LS x VP	3	2.726	.333
LS x OP	3	1.468	.179
VP x OP	1	2.044	2.497
LS x VP x OP	3	8.919	1.089
Target Order (TO) w/LSxVPxOP	48	8.187	1.096
Subjects (S) w/TOw/LSxVPxOP	128	7.469	
Allegation (A)	3	5.914	7.546**
LS x A	9	2.359	3.010**
VP x A	3	1.035	1.320
OP x A	3	1.803	2.301
LS x VP x A	9	.705	.899
LS x OP x A	9	.528	.673
VP x OP x A	3	.336	.429
LS x VP x OP x A	9	.692	.883
Target (T)	3	.695	.739
LS x T	9	1.024	1.089
VP x T	3	1.195	1.269
OP x T	3	.597	.634
LS x VP x T	9	1.277	1.357
LS x OP x T	9	.846	.899
VP x OP x T	3	.284	.302
LS x VP x OP x T	9	.722	.768
TOw/LSxVPxOP x A	144(a)	.783	1.277*
TOw/LSxVPxOP x T	144(a)	.941	1.533**
Sw/TOw/LSxVPxOP x AT	384	.614	

a) non-additive estimates obtained from pooled TOw/LSxVPxOPxAxT interaction with total d.f. = 144 (c.f., Kirk, 1968)

*p < .05
**p < .01