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Full Name of Author — Nom complet de l'auteur

YVONNE YEE KING MARIA KO

Date of Birth — Date de naissance

FEB 9, 1959

Country of Birth — Lieu de naissance

HONG KONG

Permanent Address — Résidence fixe

9108 - 152 AVE  
EDMONTON, ALBERTA  
CANADA T5E 2R7

Title of Thesis — Titre de la thèse

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MICHAEL ENZLE

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Signature

Yvonne Ko

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Covariation and Augmentation Schemata Effects on Causal  
Attributions

by



Yvonne M. Ko

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH  
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE  
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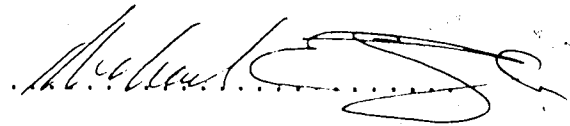
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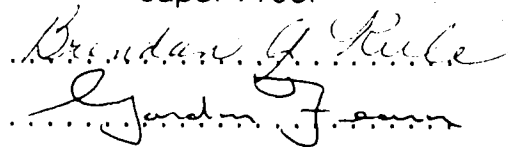

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## Abstract

The thesis investigated the combined effects of covariation and augmentation information on causal attributions. A cognitive zeal model was presented. The model predicted that augmentation, in the form of inhibition information, would serve to enhance the causal attributions implied by covariation information (consensus or distinctiveness) when individuals were highly motivated to arrive at accurate attributions. Thus, a stronger stimulus attribution was expected to result when high distinctiveness information was presented in combination with inhibition information. Similarly, an enhancement of a dispositional attribution was anticipated when inhibition information was provided along with low distinctiveness information. Parallel patterns were predicted for high and low consensus information when combined with inhibition.

Two hundred and seventy-eight female undergraduate students were randomly assigned to the conditions of two separate experiments. Each experiment had manipulations of inhibitory causal information (presence versus absence), motivation to accurately attribute the target behavior (high versus low) and the nature of the target behavior to be attributed (two behavioral scenarios). The first study, manipulated consensus information (high versus low), while the other included a manipulation of distinctiveness information (high versus low). Therefore, each experiment was a 2 X 2 X 2 X 2 factorial design. After the subjects

arrived in the laboratory, they were given bogus clinical behavior profiles. The profiles contained the consensus, distinctiveness or inhibition manipulations along with a target behavior. After studying the profile, subjects were either induced to be relatively motivated (making correct attributions would become important), or be relatively unmotivated (subjects were asked to concentrate on the timing of the experiment). Finally, subjects were required to form attributions about the target behavior. The results did not support the predictions generated by a cognitive zeal model. Only traditional consensus, distinctiveness and inhibition main effects were found. There was little evidence of an enhancement of causal attributions when inhibition information was provided. Although the results did not support predictions generated from a cognitive zeal model, the results did replicate past attribution findings when covariation information was presented.

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## I. Introduction

Attribution theory, first formulated by Heider (1958), was further developed in Kelley's analysis of variance (ANOVA) model for causal attribution (1967). This ANOVA model assumes that people are able to think in some respects like competent statisticians. In the theory, it is assumed that man is capable of weighing the various causal information sources and then logically arriving at an attributional explanation for the causes of one's own and/or other's behaviors in a social context. Perceivers will thus attribute the cause of the effect to either stimulus, disposition or circumstance sources. A stimulus attribution indicates that a stimulus object has caused the particular behavior. A dispositional attribution indicates that the behavior is caused by personal characteristics of the actor. And finally, a circumstance attribution indicates that the behavior only occurred at a particular instant in time due to an unknown confluence of causes.

Kelley also proposed that perceivers utilize three types of information to aid them in the attribution judgment process. The three information sources are consensus, distinctiveness and consistency. Consensus refers to information about how others behave towards the stimulus object. High consensus suggests agreement between the actor's and the others' actions. That is, everyone else responds in the same way towards the stimulus. Low consensus suggests that the actor behaved uniquely and that no other

person responds in the same way towards the stimulus. For example, suppose that one observes character X purchasing newly released record by singer Y. High consensus would indicate that many other persons also bought the new release. Conversely, low consensus means that hardly any other person purchased this record by singer Y. The second information source, distinctiveness, refers to how the actor behaves toward a particular stimulus in comparison to other stimuli. High distinctiveness means that the actor reacts in a specific manner only towards the one particular stimulus. For example, character X only purchases the new release by singer Y, ignoring new releases by other singers in Y's musical category. Low distinctiveness means that the actor behaves similarly towards other similar stimulus objects. For example, apart from buying records by singer Y, character X also purchases new releases performed by a variety of other singers. Finally, consistency provides information about variation over time or modality. That is, high consistency exists when an actor behaves in a similar manner towards the particular stimulus over time. In addition, high consistency can also provide the information that an actor behaves in a similar manner towards the stimulus regardless of where the stimulus is encountered. Low consistency suggests variable reactions towards this stimulus over time. As well, low consistency can suggest variable reactions towards this stimulus across presentational contexts. Therefore, from the example above, high

consistency would indicate that character X purchases singer Y's records each time there is a newly released album. Or, high consistency over modality would mean that although character X typically purchases record albums, he would also purchase a new release of singer Y's work if it were only available in cassette tape. Low consistency over time would mean that character X purchases some new releases by singer Y but not all, while low consistency over modality would occur if he bought new releases in record album but not in tape format.

Kelley suggests that once presented with these types of information, a perceiver will be able to make a rational causal inference. The implication of this ANOVA model is that different combinations of antecedent information will lead to different attributions. For example, a stimulus attribution will be more frequently made when an observer is presented with high consensus (many other people purchased this record by singer Y), high distinctiveness (character X only purchases new releases performed by singer Y) and high consistency (character X frequently purchased new releases by singer Y) information. A dispositional attribution will be made if a low consensus (hardly anyone else bought the record by singer Y), low distinctiveness (character X purchases new releases by many singers) and high consistency (character X frequently purchased new releases performed by singer Y) combination is presented. Finally, a circumstance attribution should result from low consensus (hardly anyone

else purchased the record by singer Y), high distinctiveness (character X does not purchase records by other singers) and low consistency (in the past, character X only purchased some of the records by singer Y) combination.

McArthur (1972) investigated Kelley's model by providing subjects with one of the eight possible information combinations concerning an actor's behavior. She found that high consensus, high distinctiveness and high consistency information resulted in significantly more stimulus attributions than when no information was given about these dimensions. Furthermore, the combination of low consensus, low distinctiveness and high consistency resulted in more dispositional attributions than when no information was presented. In addition, high consensus, high distinctiveness and high consistency independently resulted in stronger stimulus attributions than low consensus, low distinctiveness and low consistency sources. McArthur's basic results have been replicated in numerous studies (e.g. Ruble & Feldman, 1976; Zuckerman, 1978).

Kelley's covariation model basically involves the presentation of a single cause over a time modality. However, common everyday usage of the attribution process involves the presentation of multiple causes within a specific time frame for a single effect. People must examine each of the plausible causes and then decide which is the causal factor most responsible for the effect. In addition, people may have to combine informational sources about

causes in order to arrive at a reasonable causal attribution for the effect. In view of this feature of real-life, Kelley (1972) introduced the discounting and the augmentation principles. The discounting principle states that the estimated impact of a particular cause is reduced if other plausible causes are also present. This principle implies that perceived causal influence is divided among all of the plausible causes. Because of the multiple causes involved, an observer is less certain about one particular causal force. As an illustration of the discounting principle, suppose that one observes character X purchasing a record by singer Y along with the observation that character X's girlfriend very much likes singer Y. One should be uncertain about the true cause of X's behavior. Did X purchase the record because he enjoys singer Y's music or is it because of his girlfriend's preference? The discounting principle claims that an observer's explanation is divided among the various possible causes and that the observer is less confident about pointing out the enjoyment of the record as a potent cause of the behavior than if pleasing the girlfriend were not known to also be a plausible cause of the behavior.

Similar to the discounting principle, the augmentation principle also involves the presence of multiple causes. However, the additional factor is some form of an inhibitory cause. The augmentation principle states that if there exists both an inhibitory cause and a facilitative cause,



the effect is attributed more strongly toward the facilitative cause than if the facilitative cause alone were present. Thus, if an effect is present along with an internal facilitative cause and an external inhibitory cause, the attribution made should be biased towards the internal facilitative cause. In the record buying example, the behavior would be attributed with increased strength to an internal dispositional cause if it is observed that X buys singer Y's new releases all the time and now observes X buying another record by Y with money that is actually required by an emergency. The emergency would act as an inhibitory force against the purchase of the record. Since it is observed that X nevertheless buys the record, the conclusion is that especially strong causes within X are facilitating the behavior (i.e., X must really like singer Y in order for him to buy the record despite the fact that he will be unable to cope with the emergency). Although Kelley did not explicitly discuss the point, it is a logical extension that given an external facilitative cause and an internal inhibitory cause, the effect would be attributed more strongly towards the external facilitative cause than if only the external facilitative force were present. This reasoning might occur, for example, if one observes that a large number of people bought singer Y's record. This would imply that the record itself is attractive. In addition, it is known that X never buys records because he believes that one should not spend money on transitory pleasures such as

records. However, character X is observed to have purchased the particular record. In this case, the effect should be attributed more strongly towards the external force (the quality of the record) because the information suggests that there must be something appealing about singer Y's record that prompted X into buying it despite X's internal inhibitions about such purchases.

An elaboration of Kelley's ANOVA attribution model was presented by Orvis, Cunningham and Kelley (1975). They suggested that information patterns of consensus, distinctiveness and consistency discussed by Kelley (1967) serve as templates against which incoming information is evaluated. Orvis, Cunningham and Kelley (1975) defined three major templates, 1) high consensus, high distinctiveness and high consistency (HHH), 2) low consensus, low distinctiveness and high consistency (LLH) and 3) low consensus, high distinctiveness and low consistency (LHL). These templates correspond to stimulus, dispositional and circumstance attributions, respectively. This template matching approach assumes that each information source is first compared to these basic templates. An attributional response is then generated depending upon the template matched. Thus, if low distinctiveness and low consistency information is given, the observer matches the low distinctiveness information with the LLH template and matches the low consistency information with the LHL template. The interpretation is

that something about the disposition of the person and/or circumstances have caused the effect. In addition, low consensus is inferred from the information given because both the dispositional and the circumstance attribution patterns are characterized by low consensus. The results found by Orvis et al. basically support this template matching approach to the interpretation of behavioral information patterns and the generation of attributions.

Hansen (1980) redefined this template matching process as being a principle of cognitive economy. He suggests that observers infer causation by first advancing a facilitative force for the behavior and then searching for supporting causal information. Hansen reasons that since Kelley defines distinctiveness as variance within an actor across stimuli and consensus as variance within a stimulus across actors, distinctiveness and consensus therefore convey information about the actor and the stimulus, respectively. In other words, distinctiveness information, by focussing on multiple instances of the actors behavior, directly focusses our attention on whether or not the actor has a personal characteristic that causes the behavior. Consensus information, by grouping the actor among many other actors, while dealing with a single stimulus, focusses our attention on whether or not the stimulus can evoke the same reaction from many people. Hansen then seems to implicitly raise the question as to whether or not people use attribution templates in an unbiased fashion, or in all of their

completeness. His answer seems to be that they do not. He proposes that in the absence of causal information, people approach the attribution process with an a priori causal hypothesis, positing that the observed behavior was either caused by the person or the stimulus. He then claims that people access only those parts of causal templates that are relevant to the hypothesized cause, and attend to or seek information only relevant to that hypothesized cause as represented in the partial template.

Thus, Hansen (1980) suggests that observers with an a priori hypothesized dispositional explanation for a behavior rely more on distinctiveness information than on consensus information. Observers with a hypothesized stimulus explanation for the behavior would seek consensus information as support. Hansen views this differential usage of information as "cognitive economy". Thus this principle claims that perceivers would seek support for the least complicated causal explanation with the most congruent type of information.

Hansen attempted to explore cognitive economy as a stepwise attribution process. The first step involves a translation of causal information into propositions regarding causal forces. These propositions, which are inherent in the action of the stimulus, may be facilitory or inhibitory. For example, information in the form of "character X always purchases records by singer Y" translates into a facilitory proposition of "X likes Y's

music". Thus, propositions supporting dispositional causes can be derived from distinctiveness information while propositions supporting stimulus causes can be derived from consensus information. It must be noted that Hansen provides little rationale as to why individuals generate one type of hypothesis over another. He merely claims that such naive hypotheses derive from sources such as attributional biases, sex of the actor and the type of behavior witnessed. Step two of the attribution process involves a comparison between the given causal information and the observer's own explanation of the behavior. A match would result in advancing the explanation as being correct. Another aspect of cognitive economy seems to be a limit on the search process when confirmatory evidence is found. Observers who make a dispositional facilitative hypothesis and subsequently receive low distinctiveness information would discover a match between the hypothesis and the proposition. Their attribution process would end at this point even if other relevant information were available. A similar "economical" attribution process would exist for stimulus hypotheses and high consensus propositions.

Hansen <sup>1</sup> also discusses the discounting and augmentation principles in terms of his cognitive economy model. He claims that when observers discover that there is more than one facilitative force relevant to an actor's

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<sup>1</sup>Hansen, R. D., & Thompson, M. H. Cognitive economics and commonsense attribution. Manuscript submitted for publication, 1982.

behavior, they must discount their already held explanation for the behavior. For example, if observers acquire high consensus information when they have advanced a dispositional facilitative force, the stimulus facilitative force (inferred from high consensus) should logically discount the hypothesized dispositional force. In this case, the observers must use both covariation and discounting in arriving at a causal attribution. The observers should not be able to rely solely on their initial hypothesis.

Another difficult attributional process involves using covariation along with augmentation. To illustrate this complex process, suppose that observers are given low consensus information for an actor's behavior. Low consensus implies an inhibitory force in the stimulus. Hansen's reasoning is that if X's reaction is atypical of most others', then the stimulus (a) did not cause X's reaction and (b) actually seems to inhibit such responses among people in general. Thus, observers must engage the augmentation principle before they can arrive at a causal solution. The observation that the actor still performed the behavior even when an inhibitory force (the low consensus provoking stimulus) is present implies that there must be a strong facilitative force in the actor. If observers had advanced a dispositional facilitative hypothesis to account for the behavior, then the facilitative force derived from serial application of covariation and augmentation is matched with the advanced explanation. No other processing

procedure is required. However, if observers had advanced a stimulus facilitative hypothesis for the behavior, the facilitative force derived from the application of covariation and augmentation would not match with the advanced hypothesis. The observers must discount their advanced stimulus facilitative force. Therefore, the observers must use covariation, augmentation and discounting to conclude that low consensus does not support a stimulus attribution. The process first involves the conversion of covariation information into either inhibitory or facilitative forces. Then these forces are either augmented and/or discounted with the facilitative force in the stimulus or person. Certainly, such processing seems complex and at variance with a notion of cognitive economy.

Hansen tested his predictions in a series of studies. He confirmed that observers tend to generate naive hypotheses when confronted with a causal explanation task. That is, observers did generate a priori stimulus or dispositional attribution hypotheses (circumstance cases will not be discussed because Hansen chose to focus on stimulus and dispositional explanations only). Furthermore, he found that observers with stimulus hypotheses search for consensus information while observers with dispositional hypotheses search for distinctiveness information to confirm their naive explanations. In addition, observers preferred information that did not require further augmentation or discounting processes. Finally, he documented that observers

use distinctiveness to confirm dispositional attributions and use consensus to confirm stimulus attributions. There was also evidence to suggest that observers prefer causal information that directly implies the causal attribution rather than information that indirectly implies the attribution via augmentation or discounting. For example, the strength of dispositional attributions did not increase even if observers were given low distinctiveness, low consensus and high consistency information as opposed to only low distinctiveness information. Similarly, observers given simple high consensus information made strong stimulus attributions regardless of whether or not high distinctiveness and high consistency information were also given. It appears that once the observers' hypotheses are confirmed, additional information search and utilization is discontinued. This is one of the most important underlying principles of his proposed cognitive economy model.

Hansen's proposals are also partially supported from results of a study by Garland, Hardy, and Stephenson (1975). Garland et al. used an information search paradigm where subjects were given either stimulus or dispositional attributions for an act and were asked to request for additional information needed in order to support the particular attribution. They found that there were more requests for consensus information for a priori stimulus than for dispositional attributions. In contrast, there were more requests for distinctiveness information in the



dispositional attributions than in the stimulus attribution conditions.

To summarize, Hansen proposes that the most economical attribution process involves using only covariation information. When an inhibitory force is implied from the causal information, observers are then required to use augmentation to infer some type of facilitative force. Low consensus and high distinctiveness information imply inhibitory forces which would require fully processing observers to augment before arriving at a facilitative force explanation. Related to this augmentation process is the discounting process. If observers are faced with more than one plausible cause for the actor's behavior, full processing of information would mean that they must discount their advanced causal explanation. In both of these cases, fully processing observers would have to use covariation, augmentation and discounting simultaneously when making their causal judgment. Although Hansen discusses these more complicated attribution processes, he is skeptical that they would be commonly used. In effect he suggests that observers will run the risk of making the wrong inference rather than considering all aspects of the antecedents to a behavior. When covariation is combined with augmentation and/or discounting information, observers will generally use only the covariation information. This view of information usage characterizes the social perceiver as an inefficient and at times misdirected consumer of information.

It can be alternatively argued, however, that perceivers are much more sophisticated when they are deliberating the causes of behavior. If a causal judgment is important, perceivers should carefully weigh all the antecedent events before making an attribution. Past researchers have found that factors such as disconfirmation of expectations (Pyszczynski & Greenberg, 1981), unexpected events (Berlyne, 1960), lack of control (Pittman & Pittman, 1979), anticipated future interaction with another person (Berscheid, Graziano, Monson, & Dermer, 1976) and threatened self-esteem (Zuckerman, 1979) lead to enhanced information search and attributional processing. These factors suggest that motivation is important for the instigation and pursuit of attribution processes. Thus, if observers are highly motivated to understand someone, the attribution process becomes a significant source of information. If the process is significant, it would be important for the observers to be correct in their attributional judgments. Therefore, given a set of relevant information pertaining to an effect, motivated observers should be highly inclined to employ all relevant information in arriving at a causal attribution. An alternative to the principle of cognitive economy is thus proposed. This alternative suggests that individuals search out diverse available causal information and engage in complex attribution processing when it is important for them to achieve an accurate understanding of the actor. In contrast

to Hansen's notion of cognitive economy, it is proposed that social perceivers may sometimes be characterized by cognitive zeal.

The present writer thus proposes that perceivers can be more analytic than suggested by Hansen (1980). Once they acquire opposing types of information or when they acquire causal information that points the cause towards more than one causal source, observers may frequently weigh, in complex ways, all aspects of the causal forces before making an inference, provided that the resultant causal attribution can yield important information to the perceiver. This is the principle of cognitive zeal. Hansen argues otherwise. He maintains that only information which supports the perceivers' naive hypotheses will be utilized. All other conflicting yet relevant information will be ignored. The present view is that cognitive economy is likely to occur only when social perceivers are relatively unmotivated to achieve accurate information about people.

The present study examines whether cognitive zeal is a viable concept. In order to permit a comparison to Hansen's notion of cognitive economy, it is necessary to recognize a difference in assumptions between the two approaches. While Hansen assumes that observers start the attribution process with a naive hypothesis, the present approach does not nor does it consider initial hypotheses to be important. Thus, in developing comparative hypotheses from the two approaches, it must be understood that different starting

points are implied. Thus, for Hansen, economy becomes an issue whenever covariation information contradicts the naive hypothesis. Because his model does not specify the origins of naive hypotheses in sufficient detail to permit experimental control over when economy becomes an issue at this level, another approach is taken here that focusses on a later stage in the attribution process. The research literature shows, and Hansen seems to agree, that simple distinctions between high and low distinctiveness information and high and low consensus information reliably produce, respectively for each type of information, stimulus and dispositional attributions. Thus, we can assume that even cognitive economizers can proceed through one source of covariation information and arrive at a theoretically specifiable attribution. The economy versus zeal issue can therefore be addressed by the question of whether or not people will engage in further complex processing strategies (e.g., augmentation) to arrive at causal attributions, even though available and relatively simple covariation information would suffice to produce an attributional judgment.

For example, when high distinctiveness information is available, both Kelley and Hansen agree that a stimulus attribution would result. What would result if this high distinctiveness information were combined with information relevant to the augmentation principle? Assume that the augmentation information represents an external inhibition

against behaving in the observed manner. Thus, when the observer discovers high distinctiveness information, a stimulus attribution might automatically be made. However, with knowledge of the inhibition information, which serves as another external force, the attribution should be increasingly biased toward the stimulus and away from a dispositional attribution. So, if one observes character X buying a specific record by singer Y and acquires the information that X purchases records by no other singers, the information would result in a stimulus attribution. That is, it must be something about singer Y that prompted X into buying that record. However, if more information is given about character X, for example, X actually needs the money for something else more important than the record, this lack of available money would serve as a kind of inhibition information. Lack of money should inhibit X from buying that record. However, since it is observed that X did buy the record, this implies that there must be something very appealing about singer Y such that X cannot resist buying the record. This would result in an enhancement of the stimulus attribution. This is a primary prediction for cognitive zeal, assuming that the perceiver has a vested interest in understanding character X. Cognitive economy, on the other hand, proposes that observers would merely notice the high distinctiveness information, make the appropriate stimulus attribution and that inhibition information would not be significant in their attribution process. Therefore,

a similarly strong stimulus attribution would be made whether inhibition information were present or not according to Hansen's model.

In the case of low distinctiveness, the general attribution made would be a dispositional attribution. Hansen's cognitive economy predicts that if observers would generate the dispositional attribution, perhaps with some difficulty, and that the attribution process would end. The cognitive economy model predicts that inhibition information will not be utilized. However, the cognitive zeal model predicts that inhibition information would produce increased strength of the dispositional attribution. Thus, if one observes character X buying a record by singer Y and receives the information that X buys records by many singers, the information would result in a dispositional attribution. That is, character X must really enjoy music and the purchasing of records. However, if inhibition information is given, such as, X needs the money for something more important than the record, motivated observers should interpret this information to mean that X must really like buying records since he cannot resist buying even when he lacks the money. The result would be enhancement of the dispositional attribution.

Similar zealous processing would occur for consensus information. Normally, high consensus would result in a stimulus attribution. The addition of inhibition information would result in a stronger stimulus attribution. Thus, if it

is observed that character X purchased a record by singer Y and it is also known that many other people (high consensus) purchased the record, a stimulus attribution would result. If it is also known that X lacks money but still purchased the record, this implies that the record by singer Y must be very special. The inhibition information (lack of money) intensifies the stimulus attribution. Conversely, low consensus would result in a dispositional attribution. For example, character X purchases a record by singer Y and it is known that hardly anyone else (low consensus) bought the record. This implies that X must prefer Y's music in order for him to buy the record since hardly anyone else bought the record. When inhibition information is provided in addition to the low consensus information, that is, X is very short of money, this would result in an enhancement of the dispositional attribution. Thus, an observer would rationalize that since hardly anyone else bought the record, it must be something about X that prompted him into buying the record. Furthermore, X is short of money and yet still purchased the record implies that X must really enjoy Y's music. Therefore an enhancement of the dispositional attribution would result if inhibition information were presented along with low consensus information.

The present investigation is composed of two experiments. Each experiment is a 2 (high versus low motivation for attributional accuracy) X 2 (stimulus material replication) X 2 (inhibition versus no inhibition

information) X 2 (high versus low covariation) factorial design. The first experiment involves consensus covariation while the second involves distinctiveness covariation. With regard to the motivation variable, low motivation conditions are intended to represent cases where the formation of accurate attributions is unimportant for the observer. It is predicted that for the low motivation conditions, the results will reflect the cognitive economy model. That is, there will only be main effects for covariation and no interaction effects with the inhibition variable. Therefore, the high consensus conditions should yield stimulus attributions while low consensus should produce dispositional attributions regardless of the inhibition information. Similarly, high distinctiveness should lead to stimulus attributions while low distinctiveness should produce dispositional attributions across all conditions of the inhibition variable. This set of predictions is consistent with Hansen's cognitive economy model.

In high motivation conditions, the attribution process was made important for the observers. That is, the observers were primed toward making correct attributions. These zealous observers were therefore expected to use inhibition information, and interaction between the inhibition and the covariation information was thus anticipated. High consensus would again indicate a stimulus cause, but when combined with inhibition information, the result should be a stronger stimulus causal effect. Low consensus, on the other hand,



indicates a dispositional cause. When low consensus is combined with inhibition information, a much stronger dispositional effect should result. Covariation in the form of high distinctiveness should result in a stimulus attribution. An enhanced stimulus effect was anticipated when high distinctiveness was combined with inhibition information. Conversely, low distinctiveness information combined with inhibition information should result in a stronger dispositional attribution than when low distinctiveness information was presented alone. These high motivation condition predictions illustrate the principle of cognitive zeal.

## II. Method

### A. Subjects

The subjects were students enrolled in introductory psychology courses at the University of Alberta. They participated in this research to satisfy a course requirement. Two hundred and seventy-eight female students were randomly assigned to the conditions of two separate experiments that had in common manipulations of inhibitory causal information (presence versus absence), motivation to accurately attribute the target behavior (high versus low) and the nature of the target behavior to be attributed (two behavioral scenarios). One study included a manipulation of consensus information (high versus low), while the other included a manipulation of distinctiveness information (high versus low). Thus, each experiment was a 2 X 2 X 2 X 2 factorial design.

### B. Materials

Bogus clinical behavior assessment profiles were prepared. The profiles consisted of behavioral observations of a fictitious individual. The profiles included target behaviors for which subjects were later requested to make causal attributions. These profiles also included the manipulations of consensus, distinctiveness and inhibition manipulations. Video and audiotapes were prepared to standardize the presentation of the instructions. The

experimental questionnaire was presented on videotape and responded to on 11-point keyed response panels. The answers were recorded by an AIM micro-computer.

### C. Procedure

Three subjects participated in each experimental session, but they were isolated in individual rooms. After the subjects arrived in the laboratory, they were told that their task was to study and to remember information about an individual as presented in the behavior profile. The behavior profile consisted of vital statistics about an individual along with behaviors recorded by an observer. The recorded behaviors were actually manipulations of the consensus, distinctiveness and inhibition variables. In addition, a target behavior was included for which subjects were later required to provide a causal explanation. Subjects were given five minutes to study the profile.

### Scenario replications

Two scenarios and target behaviors were employed. Half of the subjects were presented with observations of a person stricken with a sore throat. The observations were of this person visiting a physician's office. Included was an apparently official physician's report indicating the person's health condition. The observations then continued through a work day at the person's office. The critical behavior observed was that of the person talking to another

individual during his coffee break.<sup>2</sup>

The other half of the subjects read a story that involved observations of a person spending an evening at home with a fitfully sleeping baby. The target behavior was that of the person laughing hysterically at a comedian performing in a television show.<sup>3</sup>

### Consensus manipulation

In the laryngitis story, high consensus involved the observation that the main character's office mates also talked with the stimulus person during the coffee break. Low consensus involved the observation that only the main character talked intensely to the stimulus person. The rest of the office mates ignored the stimulus character.

In the comedian story, high consensus provided the information that a survey was taken, and a strong majority of the television audience watched and enjoyed the particular comedian's performance. Conversely, low consensus showed that a very small number of people enjoyed the stimulus comedian's performance.

### Distinctiveness manipulation

In the laryngitis story, high distinctiveness information indicated that the main character only talked to the stimulus person, although others were available for

<sup>2</sup>All information relevant to this story is presented in Appendix A1.

<sup>3</sup>All information relevant to this story is presented in Appendix A2.

conversation. Low distinctiveness, on the other hand, indicated that the main character talked to different people during his coffee break.

In the second story, high distinctiveness provided the observation that the main character laughed at no other comedy routine. Low distinctiveness information indicated that the main character had laughed at various other comedy routines.

#### Inhibition manipulation

In the laryngitis story, the inhibition information occurred in the context of the main character visiting the physician because he had been suffering from a sore throat. The diagnosis was that the main character had laryngitis. The physician advised him not to use his voice under any circumstances for the next two days. In this first case, the individual's health inhibited him from talking. The no inhibition information condition merely stated that the main character had a sore throat and visited the physician's office for an examination. The physician stated explicitly that the main character need not restrain himself from talking.

In the comedian story, the inhibition information indicated that the baby must have absolute peace and quiet because the baby was not well. It was also observed that the main character finally put the baby to sleep after many trials. It was emphasized that there should not be a sound

in the house or else the baby would wake again. In the no inhibition condition, no information relevant to the necessity of being quiet was provided or implied.

Subjects were then told that when students and patients go to clinical psychologists and counsellors for help, they typically undergo a series of tests and assessments before actual counselling takes place. The instructions explained that a new assessment test had been developed by a group of clinical psychologists, and that these researchers supposedly wanted to evaluate the test's validity before introducing it for clinical use. The subjects' task would be to help refine this new assessment tool. The profile they had read was described as the assessment report of an individual who had participated in the first part of the evaluation program. The recorded behaviors were ostensibly made according to the new test's guidelines. Subjects were told that since this particular test was still in the development stage, the assessed individuals were members of the general nonclinical population. This new assessment test would supposedly be used in the mental health area after it had been refined.

#### **Motivation manipulation**

The motivation manipulation was intermixed with the explanation of the new assessment tool. These motivation instructions were presented after the subjects studied the profile in order not to confound information acquisition

with information processing. The motivation variable in this research was aimed at influencing information processing and not attention. Half of the subjects were given instructions intended to motivate attribution processing highly. They were told that the researchers were interested in comparing results from both trained and untrained assessors. The purpose of this comparison was to discover ostensibly what aspects of the assessment report were important for making accurate judgments. This presumably enabled researchers to effectively train new assessors to use the test productively. The subjects were told that they should put themselves into an objective position, similar to that of a clinician, and then carefully examine the assessment report. They were told that following the examination of the report, they would write an evaluation report about the person. They were also told that to help them write the report, they would be given a series of questions concerning the particular person whose behavior they had analyzed. Furthermore, their answers to that questionnaire would be compared with a set of correct answers generated by professional clinical psychologists.

The other half of the subjects were assigned to the low motivation condition. They were told that in order to refine the new assessment test, University students were being asked to evaluate the clarity of the instructions, the behavior profile, and the questionnaire. The particular questionnaire they were to work through was designed to help

clinicians in the assessment process. Subjects were told that they should answer the questionnaire and should pay attention to whether the questions were well formulated. In addition, the subjects were told that the researchers would like to time the presentation and the answering of the questions. The purpose of this exercise was to discover how long it would take individuals to read the questions and to answer accurately the questions since the answers were supposedly recorded by an expensive computer connection. The subjects were told that although the experimenters were only interested in the timing of their answering the questions, they should answer the questions as accurately as possible. They were told that following the questionnaire, they would write a short report commenting on the clarity of the behavior profile and the questionnaire.

After all the instructions were presented, the profiles were removed from the subjects' rooms, and a videotape of the experimental questionnaire was presented on the subjects' monitors. The videotape included both attribution and manipulation check items.<sup>4</sup> The subjects were required to answer on an 11-point response panel. Each question was displayed on the monitors for one minute, during which time subjects were required to enter an answer. After all of the questions were presented and answered, each subject was probed for suspiciousness. Finally, a videotaped debriefing was presented to the subjects.

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<sup>4</sup>The questionnaires are presented in Appendix A3.



### III. Results

Data from 22 subjects of the total sample of 278 participants were not included in the results due to recording failures in the AIM computer. Thus, eight subjects were included in each of the 32 cells of the two experiments.<sup>5</sup>

#### A. Manipulations

To check the effectiveness of the inhibition manipulation, subjects were asked three questions about each story. For the laryngitis story, subjects were asked how sore John's throat was when he decided to talk to Sandy, how much John should have used his voice according to his physician's advice and how much they thought John's throat hurt when he talked to Sandy. In the comedian story, subjects were first asked how quiet John should have been when he watched Harold K.'s performance. The second question asked whether John should have laughed hysterically and clapped loudly, and the third question asked if there was any risk in waking the baby when John responded to the comedian. In addition, the items from both scenarios were parallel in content and were associated with semantically similar scale labels. This allowed the answers from corresponding questions to be collapsed across conditions for the purpose of data analyses. Thus, for the first

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<sup>5</sup>See Tables 1 to 15 in Appendix B for source tables relevant to the consensus study. See Tables 16 to 29 in Appendix B for source tables relevant to the distinctiveness study.

question in both scenarios, the scale ranged from not at all (1) to extremely (11). The scale for the second items ranged from should not have (1) to no restriction (11). Finally, the scale for the third items ranged from none at all (1) to very much (11).

For the distinctiveness study, analyses of variance indicated a significant inhibition main effect for all three items,  $F(1,112) = 64.03, p < .001$ ,  $F(1,112) = 193.36, p < .001$ ,  $F(1,112) = 72.40, p < .001$ , respectively. The inhibition condition mean on the first item was 8.63 while the mean for no inhibition was 5.56. For the second item, the means for inhibition were 2.61 and 8.64, respectively. On the third item, the mean for inhibition was 9.30 while the mean for no inhibition was 6.30. For the consensus study, analysis of the first inhibition item yielded a significant inhibition main effect,  $F(1,112) = 28.73, p < .001$  with the means of 8.39 and 6.02 for the inhibition and no inhibition conditions, respectively. For the second item, there was also a significant inhibition main effect,  $F(1,112) = 167.58, p < .001$ . The means were 2.31 for inhibition and 8.39 for no inhibition. A significant main effect was also obtained for the third inhibition item,  $F(1,112) = 42.18, p < .001$ . The means were 9.16 and 6.38 for inhibition and no inhibition, respectively.

The results from all three items in both consensus and distinctiveness studies show that subjects knew that John's throat was sore and that he should not have talked to Sandy

in the inhibition cases while such restrictions did not exist for the no inhibition laryngitis conditions. Similarly, subjects thought that John should not have laughed and clapped loudly in the inhibition comedian story, while such restrictions were not apparent in the no inhibition conditions.

Analysis of the first inhibition check item in the consensus study also yielded a significant motivation X scenario interaction,  $F(1,112) = 3.90$ ,  $p < .05$ . The second item in this study revealed an inhibition X motivation interaction,  $F(1,112) = 5.58$ ,  $p < .02$ . This result indicated that subjects in the no inhibition-high motivation condition thought the main character should have laughed at the comedian and should have used his voice in the laryngitis scenario more so than subjects in the no inhibition-low motivation condition. In addition, a significant inhibition X scenario interaction,  $F(1,112) = 17.30$ ,  $p < .001$ , was also obtained for the second item along with a significant consensus X motivation X scenario interaction,  $F(1,112) = 4.97$ ,  $p < .03$ . Analysis of the final inhibition check item also yielded a significant scenario main effect and a significant motivation X scenario interaction effect with  $F(1,112) = 22.50$ ,  $p < .001$  and  $F(1,112) = 5.45$ ,  $p < .02$ , respectively. However, all of these main and interaction effects involving the scenario replication factor revealed no important discrepancies or suggest modification of the inhibition main effects for the consensus study. (The

relevant tables of cell means are presented in Tables A to F in Appendix C.)

The first and second inhibition check items in the distinctiveness study also produced significant inhibition X scenario interactions,  $F(1,112) = 6.41, p < .01$  and  $F(1,112) = 19.95, p < .001$ , respectively. Analysis of the third inhibition check item yielded a significant motivation main effect along with a significant scenario main effect,  $F(1,112) = 3.80, p < .05$  and  $F(1,112) = 22.07, p < .001$ , respectively. Finally, analysis of this third item showed a distinctiveness X inhibition X motivation interaction,  $F(1,112) = 3.80, p < .05$ . Similar to the consensus study, these main and interaction effects did not reveal any unexpected discrepancies that would conflict with the proposed hypothesis testing. (The relevant tables of cell means are presented in Tables G to K in Appendix C.)<sup>6</sup>

As a check on the effectiveness of the consensus manipulation, subjects were asked how enthusiastically John's office mates talked with Sandy and whether none or many others talked with Sandy in the laryngitis story. For the comedian story, subjects were asked how hysterically they thought other people laughed at Harold K. and whether none or many others laughed at Harold K. The scale used for

<sup>6</sup>Pearson correlations were performed on the three inhibition check items in each study. It was found that the three inhibition items were highly correlated (see Tables A and B in Appendix D for the correlation coefficients). Thus, analysis of variance was performed on the summed means (see Tables C to H in Appendix D for the relevant source tables and mean tables). The result was that many interaction effects previously found were no longer significant.

the first item in both scenarios ranged from not at all (1) to very much (11). The scale for the second items ranged from no one else (1) to many others (11). For the consensus study, there was a significant consensus main effect,  $F(1,112) = 467.91$ ,  $p < .001$  for the first item. The means were 8.80 for high consensus and 1.95 for low consensus. Analysis of the second item also yielded a significant consensus main effect,  $F(1,112) = 394.16$ ,  $p < .001$  with means of 8.92 and 2.11 for the respective high and low consensus conditions. Thus, subjects were able to identify the cases where many others performed the behavior in contrast to cases where few others performed it. There was also a consensus X scenario interaction for the second item,  $F(1,112) = 6.50$ ,  $p < .01$ . However, this interaction was due to the fact that the consensus manipulation was stronger in one scenario than in the other. (The relevant table of cell means is presented in Table L in Appendix C.)

In the distinctiveness study, analysis of the first consensus item yielded a significant scenario main effect and a significant inhibition X scenario interaction effect,  $F(1,112) = 46.70$ ,  $p < .001$  and  $F(1,112) = 4.33$ ,  $p < .04$ , respectively. The second consensus item again yielded a significant scenario main effect,  $F(1,112) = 56.25$ ,  $p < .001$ . In addition, analyses revealed an inhibition X motivation interaction,  $F(1,112) = 9.15$ ,  $p < .003$ , an inhibition X scenario interaction,  $F(1,112) = 9.15$ ,  $p < .003$ , a distinctiveness X inhibition X motivation interaction,

$F(1,112) = 5.58$ ,  $p < .02$  and an inhibition X motivation X scenario interaction,  $F(1,112) = 4.12$ ,  $p < .05$ . (The relevant tables of cell means are presented in Tables M to R in Appendix C.)<sup>7</sup>

As a check for the distinctiveness manipulation, two questions were asked relevant to each of the two stories. For the laryngitis story, subjects were asked whether John never or always sat and talked to someone during his coffee break and how many others John talked enthusiastically with in the preceding week. In the comedian story, subjects were asked whether John never or always laughed and clapped at a comedian's jokes and how many comedians John laughed hysterically at in the preceding weeks. Once again, subjects answered on an 11-point scale that ranged from John never (1) to John always (11) for the first items. The scale for the second items ranged from no one at all (1) to laughed hysterically at every comedian or talked enthusiastically with someone everyday (11). For the distinctiveness study, analysis of the first item yielded a significant distinctiveness main effect,  $F(1,112) = 552.07$ ,  $p < .001$  with means of 3.73 and 9.78 for high versus low distinctiveness. There was also a scenario main effect,  $F(1,112) = 19.64$ ,  $p < .001$ , with the means of 6.18 and 7.33 for the comedian and

<sup>7</sup>Pearson correlations were also performed on the consensus manipulation check items in each study (see Tables I and J in Appendix D for the coefficients). It was found that the two items were highly correlated. Analysis of variance performed on the summed means found that many of the interaction effects were no longer significant (see Tables K to R in Appendix D for the relevant source tables and mean tables).

the laryngitis stories, respectively. A three-way interaction also appeared for the distinctiveness, motivation and scenario variables,  $F(1,112) = 13.72$ ,  $p < .001$ . However, it was merely the case that the effect for the laryngitis story was stronger than for the comedian story. (The relevant table of cell means is presented in Table S in Appendix C.)

Analysis of the second distinctiveness check item also revealed a significant distinctiveness main effect,  $F(1,112) = 349.34$ ,  $p < .001$ . The mean for high distinctiveness was 2.16, while the mean for low distinctiveness was 9.05. Subjects were aware of whether John performed the behavior toward other stimuli as opposed to cases in which the target behavior was unique to a particular stimulus. This analysis also yielded a significant story main effect,  $F(1,112) = 10.10$ ,  $p < .002$ , with means of 5.02 and 6.19 for the comedian and the laryngitis stories, respectively. There was also a significant distinctiveness X inhibition X motivation interaction effect,  $F(1,112) = 4.67$ ,  $p < .03$ . This result indicated that subjects in the low distinctiveness-high motivation condition perceived John to have talked to fewer people and to have laughed at fewer comedians when inhibition information was presented than those subjects who did not receive the inhibition information. This is consistent with the stimulus attribution result for the distinctiveness study which found that the difference between high and low distinctiveness was smaller in the

inhibition condition than in the no inhibition condition. (The relevant table of cell means is presented in Table I in Appendix C.)

In the consensus study, analysis of the first distinctiveness check item yielded a significant inhibition main effect,  $F(1,112) = 4.11$ ,  $p < .05$ , a significant scenario main effect,  $F(1,112) = 5.64$ ,  $p < .02$ , and a significant consensus  $\times$  inhibition  $\times$  scenario interaction,  $F(1,112) = 5.10$ ,  $p < .03$ . However, there were no significant consensus main effects for this item. Analysis of the second distinctiveness item revealed no significant consensus effect. However, there was a significant inhibition effect,  $F(1,112) = 9.56$ ,  $p < .003$ . There also was a motivation main effect,  $F(1,112) = 5.33$ ,  $p < .02$ . Finally, analysis revealed a significant consensus  $\times$  scenario interaction,  $F(1,112) = 4.93$ ,  $p < .03$ . The means in this interaction showed that in the laryngitis scenario, subjects in the high consensus conditions assumed that John talked to many others in the preceding week while those in the low consensus conditions assumed that John talked to few others. However, the reverse is true for the comedian scenario, subjects assumed that John laughed at fewer comedians in the high consensus than in the low consensus conditions. (The relevant cell means are presented in Tables U to Z in Appendix C.)<sup>8</sup>

<sup>8</sup>Pearson correlations were performed on the distinctiveness manipulation check items in each study (see Tables S and T in Appendix D for the correlation coefficients). It was found that the two items were highly correlated. Analysis of variance performed on the summed means found that many of the interaction effects were no longer significant (see



As a check on the motivation manipulation, subjects were asked how important their responses were in helping the experimenters determine the timing of the presentation of the questions. They answered on an 11-point scale with (1) indicating not at all important and (11) indicating extremely important. For the consensus study, analysis showed a significant motivation main effect,  $F(1,112) = 7.28$ ,  $p < .008$ , with means of 7.47 for high motivation and 8.69 for low motivation. For the distinctiveness study, there was also a significant motivation main effect,  $F(1,112) = 4.63$ ,  $p < .03$ , with means of 7.09 for high motivation and 8.05 for low motivation. Thus, it appeared that subjects in the low motivation conditions believed that the timing of the questions was an important procedure in the study. No other main or interaction effects occurred for this item for both studies.

The second motivation check question asked the subjects how important the correctness of their answers was to the development of the new psychological test. Once again, they were to answer on an 11-point scale with (1) indicating not important and (11) indicating extremely important. For the consensus study, analysis showed a significant motivation main effect,  $F(1,112) = 21.01$ ,  $p < .001$ , with the means of 7.31 for high motivation and 4.88 for low motivation. For the distinctiveness study, there also existed a significant motivation main effect,  $F(1,112) = 12.21$ ,  $p < .001$ , with the

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a(cont'd) Tables U to Bb in Appendix D for the relevant source tables and mean tables).

means of 7.09 and 5.31 for high and low motivation, respectively. In addition, a story main effect also existed,  $F(1,112) = 4.60$ ,  $p < .03$ , with the means of 6.75 and 5.66 for the comedian and the laryngitis stories, respectively. Finally, there existed two interaction effects. The first involved the inhibition  $\times$  motivation  $\times$  scenario interaction,  $F(1,112) = 4.35$ ,  $p < .04$ . The second involved the covariation  $\times$  inhibition  $\times$  motivation  $\times$  scenario interaction,  $F(1,112) = 6.95$ ,  $p < .01$ . However, both merely indicated that the manipulation was more salient for one scenario than for the other. The general trend was the case where high motivation condition individuals appear to believe that correct answers were very important to the development of the new psychological test. (The relevant tables of cell means are presented in Table AA and Table BB in Appendix C.)

#### B. Dispositional and Stimulus Attributions

The first attribution item involved ascriptions to the target stimuli in the scenarios. Subjects were asked how important external causes were in causing the particular behavior, and responded on an 11-point scale that ranged from not at all important (1) to extremely important (11). Analysis of variance yielded a distinctiveness main effect,  $F(1,112) = 30.07$ ,  $p < .001$ , with the means of 8.05 and 5.78 for high and low distinctiveness, respectively. This result indicated that subjects in the high distinctiveness condition attributed the actor's behavior more to stimulus

causes than did subjects in the low distinctiveness condition. This analysis also revealed three significant interaction effects. The first was a distinctiveness X inhibition interaction,  $F(1,112) = 4.98$ ,  $p < .03$ . (See Table 1 for the cell means.) These results show a stronger distinctiveness effect in the no inhibition conditions than in the inhibition conditions. Thus, subjects made stronger stimulus attributions under high distinctiveness than under low distinctiveness conditions.

Two additional interactions were found. The first was a distinctiveness X scenario interaction,  $F(1,112) = 9.38$ ,  $p < .003$ . The second was an inhibition X scenario interaction,  $F(1,112) = 4.02$ ,  $p < .05$ . Neither of these effects bear on the present hypotheses (see Table CC and Table DD in Appendix C for means).

For the consensus study, analysis of the stimulus attribution data yielded two main effects. The first was a consensus main effect,  $F(1,112) = 9.84$ ,  $p < .002$ . The means were 8.33 and 7.06 for high and low consensus, respectively. This result indicates that subjects attributed the target behavior more to the stimulus in the high consensus condition than in the low consensus condition. The second significant effect was for the scenario manipulation,  $F(1,112) = 7.56$ ,  $p < .007$ . The means for this effect were 7.14 and 8.25 for the respective comedian and laryngitis scenarios.

Table 1

The Means for Stimulus Attributions as a Function of the Level of Distinctiveness and Inhibition

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	Distinctiveness	
	High	Low
Inhibition	7.59 a	6.25 b
No Inhibition	8.50 a	5.31 b

Means with different subscripts differ at alpha less than .05 by Duncans. Higher numbers indicate more stimulus attributions.

The second attribution item involved dispositional causes. Subjects were asked how important the main character's personal characteristics were in causing the particular behavior, and answered on an 11-point scale that ranged from not at all important (1) to extremely important (11). For the consensus study, analysis of variance revealed a significant consensus X inhibition X motivation interaction effect,  $F(1,112) = 11.38, p < .001$ . No other significant main or interaction effects were found (see Table 2 for the cell means). Results of the Duncan's range test conducted on the means of this interaction show only one meaningful difference among the means. Within the low motivation conditions, inhibition information decreased personal attribution for the behavior under high consensus conditions. All other cell means were not statistically different.

For the distinctiveness study, the dispositional attribution item only yielded a distinctiveness main effect,  $F(1,112) = 17.17, p < .001$ . The means were 6.14 and 7.80 for high and low distinctiveness, respectively. This result indicated that subjects made stronger dispositional attributions under low distinctiveness than high distinctiveness conditions.

The third attribution item involved a joint consideration of dispositional and stimulus causes on the same 11-point scale. A rating of (1) indicated mainly dispositional causes while an (11) indicated mainly stimulus

Table 2

The Means for Dispositional Attributions  
as a Function of the Level of Motivation,  
Consensus, and Inhibition

	High Motivation Consensus	
	High	Low
	Inhibition	7.94 ab
No Inhibition	6.88 ab	7.94 ab
	Low Motivation Consensus	
	High	Low
	Inhibition	6.44 a
No Inhibition	8.44 b	7.13 ab

Means with different subscripts differ at  
alpha less than .05 by Duncans. Higher  
numbers indicate more dispositional  
attributions.

causes. For the consensus study, analysis of variance revealed a consensus main effect,  $F(1,112) = 7.25, p < .01$ , with the means of 6.33 and 5.11 for high and low consensus, respectively. This result indicates that subjects attribute high consensus effects relatively more to the stimulus while they attributed low consensus effects relatively more to the actor's dispositions. Analysis also yielded a scenario main effect,  $F(1,112) = 11.12, p < .001$ , with the means of 4.91 and 6.53 for the comedian and the laryngitis scenarios, respectively. There were no significant interaction effects.

For the distinctiveness study, analysis of this third item yielded a significant distinctiveness main effect,  $F(1,112) = 37.00, p < .001$ , with means of 7.06 and 4.42 for high and low distinctiveness, respectively. This result indicates that subjects made relatively stronger stimulus attributions under high distinctiveness conditions and relatively stronger dispositional attributions under low distinctiveness conditions. Analysis also revealed a significant inhibition main effect,  $F(1,112) = 6.90, p < .01$ , with means of 6.31 and 5.17 for inhibition and no inhibition conditions, respectively. This result indicates that inhibition information induced subjects to form stronger dispositional attributions than when no inhibition information was given. This finding is congruent with conventional results which find that the presentation of inhibition information biases causal attributions towards the actor. There were no significant interaction effects.

### C. Confidence in Causal Attributions

After each attribution question, subjects were asked how confident they were that their answer to the question was correct. The first confidence item concerned the dispositional attribution question. The associated scale ranged from not at all confident that the answer was correct (1) to extremely confident that the answer was correct (11). For the consensus study, analysis of variance on dispositional attribution confidence item data yielded a significant consensus main effect,  $F(1,112) = 4.43$ ,  $p < .04$ , with means of 8.13 and 7.42 for high and low consensus, respectively. This item also yielded a significant inhibition  $\times$  motivation interaction effect,  $F(1,112) = 4.04$ ,  $p < .05$  and a significant consensus  $\times$  inhibition  $\times$  motivation interaction effect,  $F(1,112) = 4.04$ ,  $p < .05$  (see Table 3 and Table 4 for means). These results basically indicate that subjects in the inhibition-high motivation conditions were less confident that their answers were correct. For the distinctiveness study, analysis of the data from this item yielded a significant distinctiveness main effect,  $F(1,112) = 4.70$ ,  $p < .03$ , with the means of 7.13 and 7.84 for the respective high and low distinctiveness conditions. This result indicates that subjects in low distinctiveness conditions were slightly more confident that their answer was correct than subjects in the high distinctiveness conditions.



Table 3

The Means for Dispositional Attribution Confidence as a Function of Inhibition and Motivation (Consensus Study)

	Motivation	
	High	Low
Inhibition	7.31 a	8.19 b
No Inhibition	8.03 ab	7.56 ab

Means with different subscripts differ at alpha less than .05 by Duncans. Higher numbers indicate more confidence.

Table 4

The Means for Dispositional Attribution Confidence as a Function of Motivation, Consensus, and Inhibition (Consensus Study)

	High Consensus Motivation	
	High	Low
	Inhibition	7.88 ac
No Inhibition	7.81 ac	8.38 bc
	Low Consensus Motivation	
	High	Low
	Inhibition	6.75 a
No Inhibition	8.25 ac	6.75 a

Means with different subscripts differ at alpha less than .05 by Duncans. Higher numbers indicate more confidence.

The second question measured confidence in subjects' stimulus attributions. Subjects were asked how confident they were that their answer to the stimulus attribution question was correct. The scale was similar to the one used in the first item. For the consensus study, analysis of variance revealed a significant consensus main effect,  $F(1,112) = 12.25$ ,  $p < .001$ , with the means of 8.66 and 7.48 for the respective high and low consensus conditions. Analysis of variance also yielded a significant inhibition  $\times$  motivation interaction effect,  $F(1,112) = 4.41$ ,  $p < .04$  (see Table 5 for means). There was also a significant motivation  $\times$  scenario interaction effect,  $F(1,112) = 8.64$ ,  $p < .004$  (see Table EE in Appendix C for a table of means). Once again, these results show that subjects in the high motivation-inhibition condition were less confident that their answers were correct. A similar trend was observed in the significant inhibition  $\times$  motivation  $\times$  scenario interaction effect found for the distinctiveness study,  $F(1,112) = 4.36$ ,  $p < .04$  (see Table FF in Appendix C for a table of means).

The final confidence measure was associated with the third attribution item. It asked the subjects how confident they were that their answer to the bipolar dispositional-stimulus attribution question was correct. The response scale was similar to that for the first two confidence items. For the consensus study, analysis of variance revealed a significant motivation main effect,

Table 5

The Means for Stimulus Attribution  
Confidence as a Function of Inhibition  
and Motivation (Consensus Study)

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	Motivation	
	High	Low
Inhibition	7.59 a	8.63 b
No Inhibition	8.22 ab	7.84 ab

Means with different subscripts differ at  
alpha less than .05 by Duncans. Higher  
numbers indicate more confidence.

$F(1, 112) = 8.15, p < .005$ , with means of 7.65 and 8.64 for high and low motivation, respectively. This result indicates that subjects in low motivation conditions were more confident of their answer. No significant main or interaction effects were found for the distinctiveness study.

#### IV. Discussion

It is evident from the results that the cognitive zeal hypotheses are not well supported. There is little evidence of inhibition information augmenting the various covariation based attributions. The predicted patterns are found in neither the low nor the high motivation conditions. However, the present set of data is also discrepant with predictions from Hansen's (1980) cognitive economy model. Thus, neither the present formulation nor Hansen's model can easily explain the obtained data.

It should first be noted that the present study did find the conventional consensus and distinctiveness effects. High consensus and high distinctiveness information independently prompted stimulus attributions. Conversely, low consensus and low distinctiveness information independently led subjects to make dispositional attributions. These experimental findings are consistent with the causal patterns described by Kelley's (1967) analysis of variance model for causal attribution. Furthermore, these results replicate existing findings in the attribution area (e.g., McArthur, 1972; Zuckerman, 1978). The fact that inhibition information also affected attributions confirms the importance of this type of causal force in the attribution process (Kelley, 1971). The presence of inhibition information led to more dispositional attributions than when no inhibition information was presented. Furthermore, manipulation checks of consensus,

distinctiveness, inhibition and motivation all indicated that the manipulations of the variables were successful. Thus, there is clear evidence from the present study that distinctiveness, consensus and inhibition information independently affect causal attributions.

Although the manipulations of the independent variables appear to be successful, several issues must be addressed. One area of concern involves the motivation manipulation. It is an extremely complicated variable to manipulate. In the present study it is recognized that other sources of motivation do exist. For example, the subjects' motivation levels during the experiment may have affected the manipulated levels. Thus, a low motivation condition subject may actually be in a highly motivated state due to an intrinsically high level of motivation that preexisted the manipulation. This is a common problem, of course. All subjects may have been so highly motivated that the present manipulation had no impact. The second problem again involves motivation. In the present study, subjects were told that they were aiding in the development of a new clinical psychology test. It is possible that this cover story was sufficient in itself to produce uniformly high levels of motivation to arrive at accurate attribution. This would render low motivation an ineffective manipulation. Therefore, new motivation manipulations might be designed to fully test the contrast between high and low motivation. One possibility is to give instructions to actually reduce

motivation in some cases. Perhaps a better method would be to add a level to the existing high and low levels. This new level would provide no motivation manipulation instructions. Thus, this condition would serve as a baseline against which high and low motivation levels are contrasted.

A final issue in the research involves when people form causal explanations for behavior. It is probable that given the richness of information in the behavior profile, subjects may actually have formed causal attributions while reading the information, prior to the motivation manipulation. This would offset the motivation since the present study is concerned with how high and low motivated subjects differentially process information. An initial method of testing this possibility would be to give the motivation instructions before the subjects read the profiles and observe if differences occur in later attributions. Of course, this would confound the effects of motivation on information acquisition and processing, but would avoid the prior processing difficulty.

The main hypothesis of the present study, however, was that the presence of inhibitory causal forces would augment the causal attribution suggested by the nature of co-occurring covariation information (consensus or distinctiveness), especially when people are highly motivated to arrive at accurate attributions. Thus, the stimulus attribution suggested by high consensus information would be more extreme when the actor apparently acted in

opposition to an inhibitory force. Similarly, inhibition information was expected to enhance the dispositional attributions suggested by low consensus information. Parallel patterns were predicted for the distinctiveness information. However, these major predictions were not confirmed by the results. When inhibition information was presented concomitantly with covariation information, disparate attributions resulted. Only main effects were found consistently throughout the attribution items.

In contrast, Hansen's (1980) cognitive economy model predicted that inhibition information would not be used if covariation information were available due to economy. His model proposes that individuals tend to use the simplest forms of information when making causal attributions. According to Hansen, individuals infer causation by initially advancing a facilitative force for the behavior and then searching for supporting causal information. Thus, once supporting evidence is found, processing of information stops, regardless of whether other types of information are present. For example, inhibition information would be regarded as irrelevant to causal judgments if presented concurrently with covariation information. However, this prediction was not supported either in that inhibition information did affect causal attributions even when covariation information was also available.

One possible explanation for the present data could be derived if one examines the effect of inhibition information



more closely. From the stimulus attribution item, it was found that inhibition information decreased the impact of the distinctiveness information. There is a possibility that inhibition information is indeed complex in nature, perhaps because inhibition information serves to make behavior unexpected or surprising. For example, the observation of an actor purchasing a record when he desperately needs the money for an emergency runs counter to expected behavior, regardless of whether the cause was apparently a superb record or the actor's personal desire. The expected behavior in either case would not be of the actor spending the money. One possibility, then, is that processing of the inhibition information itself may cause confusion when covariation is also present. The social perceiver might begin to posit a very complex causal explanation for which the available information provides no answer. Consider inhibited high distinctiveness behavior in the record buying example. The predicted result is that people will view the record as having outstanding characteristics. The inhibited low distinctiveness purchase should be seen as due to the buyer's strong preference for music by this singer. But there exists a higher order explanation that can incorporate both of these attributions. Specifically, the social perceiver could advance the hypothesis that the actor's counter inhibitory behavior reflects lack of self-control (a dispositional attribution), regardless of whether the apparent facilitative cause inferred from covariation

information is a personal disposition or the stimulus. Buying the record in the example could reflect irresponsibility regardless of the cause of the actor's attraction to the stimulus. Thus, the social perceiver might shift his attention to a new attributional problem, the possible responsibility of the actor, become uncertain of the answer to the question, and since insufficient information is available, become simultaneously less certain of the lower level analysis (from covariation information) that has become part of the new higher level problem.

This present view of the puzzling nature of inhibition information has some implicit advantages over Hansen's cognitive economy view. His claim that inhibition information is largely ignored in causal attributions imagines the observer as an unsophisticated user of information. The present results have provided some evidence that inhibition information is indeed processed by individuals even when covariation information is also available and used. However, the present results do not bear on discovering how subjects processed the information. Further studies would have to be conducted based on a new conceptual framework in order to examine this question.

Future research could, for example, focus on an information search paradigm. The purpose of this type of research would be to determine what information subjects require in combination with covariation and inhibition information before being able to confidently form causal

attributions. Subjects could be given various types of covariation and/or augmentation information, but would be allowed to request additional information prior to rendering causal judgments. If inhibition information leads to the consideration of irresponsibility hypotheses, subjects should request more information relevant to the actor's self-control in other situations than if inhibition information is not provided.

In summary, the present results do not show strong support for the proposed hypotheses. The results have replicated past attribution findings well with high consensus and high distinctiveness independently leading subjects to make stimulus attributions. Low consensus and low distinctiveness independently led subjects to make dispositional attributions. Although the results do not support the present proposals well, interesting patterns were found. These patterns have led to the speculation of a complex effect for inhibition information in causal attribution processes.

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## Appendix A1

### A. Laryngitis scenario

#### Inhibition information

John visited me for a medical examination. John has been suffering from a sore throat for the past few days and has nearly lost his voice today. John said that his throat really hurts when he talks. Talking gives him a sharp pain in the throat area. The diagnosis is that he has an infection resulting in laryngitis. I prescribed appropriate medication. I also mentioned to him that relief from the pain will not be immediate. In fact, he will continue to experience the sharp pain when he talks. The pain should dissipate after two or three days.

I have strongly urged him not to use his voice under any circumstances for the next two days. Otherwise, his throat will be more irritated and I will not be responsible for the consequences from continued infection.

OTHER TREATMENT(S): Under no circumstances should he use his voice for talking.

#### No inhibition information

John visited me for a medical examination. John has been suffering from a sore throat. I prescribed appropriate medication. He need not restrain himself from using his voice. OTHER TREATMENT(S): None

## Behavior

Friday, June 15, 10:15 am: John left the doctor's office and filled his prescription at a drugstore. He returned to his office and immediately took 2 pills. He went back to work and finished a production report.

Friday, June 15, 11:30 am: John left for lunch with 3 of his office mates. They arrived at their usual luncheon restaurant. John ordered a light lunch. His throat continued to be irritated and sore.

Friday, June 15, 2:30 pm: John and several of his office mates arrived in the office coffee room. Sandy (a visitor to the office) was sitting at a corner table. John walked over to the table. He said hello to Sandy and engaged Sandy in an enthusiastic and animated conversation, raising his voice several times to emphasize a point or to indicate agreement. The conversation lasted until the end of John's coffee break.

## High consensus-inhibition information

Observer's comment: I noticed that one by one John's office mates walked over to Sandy's table. All of them also talked enthusiastically with Sandy. In fact, they all continued to talk with Sandy until their coffee break ended.

It also was apparent that John's throat was very sore while he talked to Sandy. I noticed that he cleared his throat several times and he placed his hand against his throat on several occasions.

#### High consensus-no inhibition information

Observer's comment: I noticed that one by one John's office mates walked to Sandy's table. All of them also talked enthusiastically with Sandy. In fact, they all continued to talk with Sandy until their coffee break ended.

#### Low consensus-inhibition information

Observer's comment: I noticed that John was the only one to greet and talk with Sandy for the duration of the entire coffee break.

It also was apparent that John's throat was very sore while he talked to Sandy. I noticed that he cleared his throat several times and he placed his hand against his throat on several occasions.

#### Low consensus-no inhibition information

Observer's comment: I noticed that John was the only one to greet and talk with Sandy for the duration of the entire coffee break.

#### High distinctiveness-inhibition information

Observer's comment: I noticed that for the past week, John talked to no one in an enthusiastic and animated manner for the entire duration of the coffee break. He generally socialized in a subdued fashion with a group of his office mates.



It also was apparent that John's throat was very sore while he talked to Sandy. I noticed that he cleared his throat several times and he placed his hand against his throat on several occasions.

#### High distinctiveness-no inhibition information

Observer's comment: I noticed that for the past week, John talked to no one in an enthusiastic and animated manner for the entire duration of the coffee break. He generally socialized in a subdued fashion with a group of his office mates.

#### Low distinctiveness-inhibition information

Observer's comment: I noticed that for the past week, John always sat down and engaged someone in an animated conversation for the entire duration of the coffee break. On Monday he talked with Robert, on Tuesday with Sam, on Wednesday with Margaret and on Thursday with Chris.

It also was apparent that John's throat was very sore while he talked to Sandy. I noticed that he cleared his throat several times and he placed his hand against his throat on several occasions.

#### Low distinctiveness-no inhibition information

Observer's comment: I noticed that for the past week, John always sat down and engaged someone in an animated conversation for the entire duration of the coffee break. On

Monday he talked with Robert, on Tuesday with Sam, on  
Wednesday with Margaret and on Thursday with Chris.

## Appendix A2

### A. Comedian scenario

#### Inhibition information

Friday, June 15, 7pm: John was at home with the baby. The baby was at the doctor's this morning. The diagnosis is that the baby has a fever and must rest peacefully for a few days. John fed the baby and started to put it to bed. The baby began crying loudly. The crying continued for about 15 minutes. Finally the baby quieted down and slept. John returned to the living room.

Friday, June 15, 8:30 pm: A loud bang next door woke the baby. The baby began crying. John rushed into the bedroom to quiet the baby. John walked out 15 minutes later. The baby was asleep again.

Friday, June 15, 10 pm: A shout across the street woke the baby once more. The baby cried hysterically. John ran into the bedroom to soothe the baby. It took over 20 minutes to put the baby back to sleep. John quietly mumbled to himself that everything and everyone must be absolutely quiet tonight so the baby can sleep.

#### No inhibition information

Friday, June 15, 7 pm: John was home with the baby. John fed the baby and then put it to bed.

## Behavior

Friday, June 15, 11 pm: John turned on the television. John selected a program that introduced novice comedians. Each week a new comedian is featured. Tonight, the last segment of this particular comedy program, comedian Harold K. is highlighted. Harold K. started his routine and John responded by laughing hysterically and clapping loudly at the jokes.

## High consensus information

Observer's comment: The next day (Saturday, June 16) the television station conducted a survey of Friday's programs. They found that most people who watched the show also found comedian Harold K. to be very funny and entertaining.

## Low consensus information

Observer's comment: The next day (Saturday, June 16) the television station conducted a survey of Friday's program. They found that very few people found comedian Harold K. to be funny and entertaining.

## High distinctiveness information

Observer's comment: I observed that John has watched this particular comedy program every week. For the past 4 weeks, 4 different comedians have been featured. I noticed that John has never laughed or clapped at any of the other comedy routines.

**Low distinctiveness information**

Observer's comment: I observed that John has watched this particular comedy program every week. For the past 4 weeks, 4 different comedians have been featured. I noticed that John has laughed and clapped at each of the other comedians.

## Appendix A3

### A. Attribution questionnaire

1. How important were JOHN'S OWN PERSONAL CHARACTERISTICS in causing him to behave the way he did (to laugh hysterically and to clap loudly at the comedian's jokes)? That is, to what extent do you think his behavior was caused by something unique about John himself (for example, his tendency to laugh at jokes, his personality, etc.)?
2. How confident are you with respect to the answer you gave to question 1? That is, are you confident that your answer to the question is correct?
3. How important were CHARACTERISTICS OF THE SITUATION in causing John to behave the way he did (to laugh hysterically and to clap loudly at the comedian's jokes)? That is, to what extent do you think his behavior was caused by something unique about comedian Harold K., (for example, his jokes, his style of presentation, etc.)?
4. How confident are you with respect to the answer you gave to question 3? That is, are you confident that your answer to the question is correct?
5. Was John's behavior more influenced by his own PERSONAL CHARACTERISTICS (for example, personality traits, his tendency to laugh at jokes) or more influenced by CHARACTERISTICS OF THE SITUATION (for example, Harold

K.'s jokes, the style of presentation)?

6. How confident are you with respect to the answer you gave to question 5? That is, are you confident that your answer to the question is correct?

**B. Laryngitis scenario manipulation check questions**

1. To what extent did John enjoy talking to Sandy?
2. How enthusiastically did John talk to Sandy?
3. How sore would you say John's throat was when he decided to talk to Sandy?
4. According to John's physician, how much should John have used his voice?
5. How much would you say John's throat hurt when he talked to Sandy?
6. How enthusiastically did John's office mates talk with Sandy?
7. Did any of John's office mates talk with Sandy?
8. How often does John sit down and talk enthusiastically with someone during his coffee break?
9. During the immediately preceding week, how many people did John talk enthusiastically with during his coffee break?

C. Comedian scenario manipulation check questions

1. How much did John enjoy the comedian Harold K.?
2. How hysterically did John laugh and how loudly did John clap at Harold K.'s jokes?
3. How quiet should John have been when he watched the comedian Harold K.?
4. Should John have laughed hysterically and clapped loudly?
5. How much risk was there in waking the baby when John laughed hysterically and clapped loudly at the comedian?
6. How hysterically did other people laugh at Harold K.?
7. Did other people also laugh hysterically and clap loudly at Harold K.'s jokes?
8. How often does John laugh and clap at a comedian's jokes?
9. During the preceding weeks, how many comedians did John laugh hysterically and clap loudly at?



D. Motivation manipulation check questions

1. How important are your responses in helping us determine the timing of the presentation of the questions?
2. How worried were you about whether your answers were correct?
3. How important is the correctness of the answers to the development of this new psychological test?
4. How useful do you think your answers will be to the development of this new psychological test?

Appendix B

Table 1

Dispositional Attribution

Source	df	MS	F	p
A (Consensus)	1	0.19	0.04	ns
B (Inhibitor)	1	5.69	1.27	ns
AB	1	0.07	0.02	ns
C (Motivation)	1	0.38	0.09	ns
AC	1	0.19	0.04	ns
BC	1	2.26	0.50	ns
ABC	1	51.26	11.38	<.001
D (Scenario)	1	0.07	0.02	ns
AD	1	1.32	0.29	ns
BD	1	0.01	0.01	ns
ABD	1	0.95	0.21	ns
CD	1	5.70	1.27	ns
ACD	1	0.07	0.02	ns
BCD	1	9.57	2.13	ns
ABCD	1	4.13	0.92	ns
Error	112	4.50		

Table 2

Confidence of Dispositional Attribution

Source	df	MS	F	p
A (Consensus)	1	15.82	4.43	<.03
B (Inhibitor)	1	0.07	0.02	ns
AB	1	0.38	0.11	ns
C (Motivation)	1	1.32	0.37	ns
AC	1	4.13	1.16	ns
BC	1	14.45	4.04	<.04
ABC	1	14.45	4.04	<.04
D (Scenario)	1	0.95	0.26	ns
AD	1	0.01	0.01	ns
BD	1	5.69	1.59	ns
ABD	1	1.32	0.37	ns
CD	1	13.13	3.67	ns
ACD	1	4.13	1.16	ns
BCD	1	4.88	1.37	ns
ABCD	1	1.32	0.37	ns
Error	112	3.58		

Table 3  
Stimulus Attribution

Source	df	MS	F	p
A(Consensus)	1	51.25	9.84	<.002
B(Inhibitor)	1	13.13	2.52	ns
AB	1	0.95	0.18	ns
C(Motivation)	1	7.51	1.44	ns
AC	1	5.70	1.09	ns
BC	1	1.32	0.25	ns
ABC	1	0.20	0.04	ns
D(Scenario)	1	39.38	7.56	<.007
AD	1	6.57	1.26	ns
BD	1	4.88	0.94	ns
ABD	1	1.76	0.34	ns
CD	1	17.26	3.31	ns
ACD	1	7.51	1.44	ns
BCD	1	0.07	0.01	ns
ABCD	1	2.26	0.43	ns
Error	112	5.21		

Table 4  
Stimulus Attribution Confidence

Source	df	MS	F	p
A(Consensus)	1	43.95	10.5	<.001
B(Inhibitor)	1	0.20	0.05	ns
AB	1	0.63	0.18	ns
C(Motivation)	1	3.45	0.96	ns
AC	1	0.19	0.05	ns
BC	1	15.82	4.41	<.04
ABC	1	6.57	1.83	ns
D(Scenario)	1	1.76	0.49	ns
AD	1	0.38	0.11	ns
BD	1	6.57	1.83	ns
ABD	1	0.95	0.26	ns
CD	1	31.01	8.64	<.004
ACD	1	6.57	1.83	ns
BCD	1	0.38	0.11	ns
ABCD	1	0.07	0.02	ns
Error	112	3.59		

Table 5

## Dispositional/Stimulus Attribution

Source	df	MS	F	p
A (Consensus)	1	47.53	6.25	<.01
B (Inhibition)	1	15.13	1.99	ns
AB	1	0.03	0.01	ns
C (Motivation)	1	12.50	1.65	ns
AC	1	3.78	0.50	ns
BC	1	0.50	0.06	ns
ABC	1	0.78	0.50	<.001
D (Scenario)	1	84.50	11.12	<.001
AD	1	1.53	0.20	ns
BD	1	10.13	1.33	ns
ABD	1	11.28	1.49	ns
CD	1	28.13	3	ns
ACD	1	2.53	0.33	ns
BCD	1	0.00	0	ns
ABCD	1	11.28	1	ns
Error	112	7.60		

Table 6

## Dispositional/Stimulus Confidence

Source	df	MS	F	p
A (Consensus)	1	0.78	0.20	ns
B (Inhibition)	1	2.53	0.64	ns
AB	1	7.03	1.7	ns
C (Motivation)	1	32.00	8.15	<.005
AC	1	0.50	0.13	ns
BC	1	1.13	0.29	ns
ABC	1	0.13	0.03	ns
D (Scenario)	1	2.53	0.64	ns
AD	1	1.53	0.39	ns
BD	1	3.78	0.96	ns
ABD	1	0.28	0.07	ns
CD	1	0.00	0.00	ns
ACD	1	0.13	0.03	ns
BCD	1	2.00	0.51	ns
ABCD	1	3.13	0.80	ns
Error	112	3.93		

Table 7

## First Inhibition Manipulation Check

	df	MS	F	p
A (Consensus)	1	2.53	0.40	ns
B (Inhibitor)	1	180.50	28.73	< .001
AB	1	3.13	0.50	ns
C (Motivation)	1	1.13	0.18	ns
AC	1	10.13	1.61	ns
BC	1	9.03	1.44	ns
ABC	1	9.03	1.44	ns
D (Scenario)	1	9.03	1.44	ns
AD	1	2.53	0.40	ns
BD	1	1.13	0.18	ns
ABD	1	4.50	0.72	ns
CD	1	24.50	3.90	< .05
ACD	1	8.00	1.27	ns
BCD	1	13.78	2.19	ns
ABCD	1	0.03	0.01	ns
Error	112	6.28		

Table 8

## Second Inhibition Manipulation Check

Source	df	MS	F	p
A (Consensus)	1	0.95	0.13	ns
B (Inhibitor)	1	1182.20	167.58	< .001
AB	1	8.51	1.21	ns
C (Motivation)	1	17.26	2.45	ns
AC	1	10.70	1.52	ns
BC	1	39.38	5.58	< .02
ABC	1	13.13	1.86	ns
D (Scenario)	1	1.32	0.19	ns
AD	1	0.95	0.13	ns
BD	1	122.07	17.30	< .001
ABD	1	1.76	0.25	ns
CD	1	4.13	0.59	ns
ACD	1	35.07	4.97	< .03
BCD	1	7.51	1.06	ns
ABCD	1	4.13	0.59	ns
Error	112	7.06		

Table 9

## Third Inhibition Manipulation Check

Source	df	MS	F	p
A (Consensus)	1	3.13	0.53	ns
B (Inhibition)	1	247.53	42.18	<.001
AB	1	0.13	0.02	ns
C (Motivation)	1	0.00	0.00	ns
AC	1	0.28	0.05	ns
BC	1	3.13	0.53	ns
ABC	1	3.78	0.64	ns
D (Scenario)	1	32.00	22.50	<.001
AD	1	0.13	0.09	ns
BD	1	7.03	1.20	ns
ABD	1	2.00	0.34	ns
CD	1	32.00	5.45	<.02
ACD	1	0.28	0.05	ns
BCD	1	10.13	1.73	ns
ABCD	1	3.78	0.64	ns
Error	112	5.87		

Table 10

## First Consensus Manipulation Check

Source	df	MS	F	p
A (Consensus)	1	1498.78	467.91	<.001
B (Inhibition)	1	2.00	0.62	ns
AB	1	1.53	0.48	ns
C (Motivation)	1	8.00	2.50	ns
AC	1	3.78	1.18	ns
BC	1	8.00	2.50	ns
ABC	1	0.28	0.09	ns
D (Scenario)	1	0.28	0.09	ns
AD	1	3.13	0.98	ns
BD	1	0.78	0.24	ns
ABD	1	2.00	0.62	ns
CD	1	11.28	3.52	ns
ACD	1	1.13	0.35	ns
BCD	1	0.28	0.09	ns
ABCD	1	8.00	2.50	ns
Error	112	3.20		

Table 11

## Second Consensus Manipulation Check

Source	df	MS	F	p
A (Consensus)	1	1485.13	394.16	<.001
B (Inhibitor)	1	5.28	1.40	ns
AB	1	0.50	0.13	ns
C (Motivation)	1	7.03	1.87	ns
AC	1	4.50	1.19	ns
BC	1	1.53	0.41	ns
ABC	1	0.13	0.03	ns
D (Scenario)	1	5.28	1.40	ns
AD	1	24.50	6.50	<.01
BD	1	0.28	0.08	ns
ABD	1	0.13	0.03	ns
CD	1	9.03	2.40	ns
ACD	1	3.13	0.83	ns
BCD	1	1.53	0.41	ns
ABCD	1	8.00	2.12	ns
Error	112	3.77		

Table 12

## First Distinctiveness Manipulation Check

Source	df	MS	F	p
A (Consensus)	1	0.95	0.41	ns
B (Inhibitor)	1	9.57	4.11	<.05
AB	1	0.20	0.08	ns
C (Motivation)	1	4.13	1.77	ns
AC	1	0.07	0.03	ns
BC	1	1.76	0.76	ns
ABC	1	4.88	2.10	ns
D (Scenario)	1	13.13	5.64	<.02
AD	1	4.13	1.77	ns
BD	1	5.70	2.45	ns
ABD	1	11.88	5.10	<.03
CD	1	2.26	0.97	ns
ACD	1	0.38	0.16	ns
BCD	1	2.26	0.97	ns
ABCD	1	0.20	0.08	ns
Error	112	2.33		

Table 13

## 2nd Distinctiveness Manipulation Check

Source	df	MS	F	p
A(Consensus)	1	3.45	0.84	ns
B(Inhibitor)	1	39.38	9.56	<.003
AB	1	8.51	2.07	ns
C(Motivation)	1	21.95	5.33	<.02
AC	1	0.20	0.05	ns
BC	1	0.38	0.09	ns
ABC	1	0.01	0.001	ns
D(Scenario)	1	0.20	0.05	ns
AD	1	20.32	4.93	<.03
BD	1	6.57	1.60	ns
ABD	1	6.57	1.60	ns
CD	1	0.38	0.09	ns
ACD	1	0.63	0.15	ns
BCD	1	11.88	2.89	ns
ABCD	1	0.38	0.09	ns
Error	112	4.12		

Table 14

## Motivation Manipulation Check (Timing)

Source	df	MS	F	p
A(Consensus)	1	0.13	0.02	ns
B(Inhibitor)	1	2.00	0.31	ns
AB	1	5.28	0.81	ns
C(Motivation)	1	47.53	7.28	<.01
AC	1	8.00	1.22	ns
BC	1	0.00	0.00	ns
ABC	1	16.53	2.53	ns
D(Scenario)	1	1.53	0.23	ns
AD	1	2.00	0.31	ns
BD	1	2.00	0.31	ns
ABD	1	1.53	0.23	ns
CD	1	19.53	2.99	ns
ACD	1	2.00	0.31	ns
BCD	1	6.13	0.94	ns
ABGD	1	11.28	1.73	ns
Error	112	6.53		



Table 15

## Motivation Manipulation Check (Correct)

Source	df	MS	F	p
A(Consensus)	1	8.00	0.88	ns
B(Inhibitor)	1	0.03	0.003	ns
AB	1	0.78	0.09	ns
C(Motivation)	1	190.13	21.01	<.001
AC	1	3.13	0.35	ns
BC	1	9.03	1.00	ns
ABC	1	2.53	0.28	ns
D(Scenario)	1	3.78	0.42	ns
AD	1	9.03	1.00	ns
BD	1	1.13	0.12	ns
ABD	1	4.50	0.50	ns
CD	1	2.53	0.28	ns
ACD	1	3.78	0.42	ns
BCD	1	4.50	0.50	ns
ABCD	1	0.50	0.06	ns
Error	112	9.05		

Table 16

## Dispositional Attribution

Source	df	MS	F	p
A(Distinct)	1	87.78	17.17	<.001
B(Inhibitor)	1	1.13	0.22	ns
AB	1	0.78	0.15	ns
C(Motivation)	1	1.53	0.30	ns
AC	1	10.13	1.98	ns
BC	1	3.78	0.74	ns
ABC	1	10.13	1.98	ns
D(Scenario)	1	0.28	0.06	ns
AD	1	10.13	1.98	ns
BD	1	0.78	0.15	ns
ABD	1	1.13	0.22	ns
CD	1	1.13	0.22	ns
ACD	1	0.28	0.06	ns
BCD	1	0.13	0.02	ns
ABCD	1	0.03	0.01	ns
Error	112	5.11		

Table 17

## Dispositional Attribution Confidence

Source	df	MS	F	p
A (Distinct)	1	16.53	4.70	<.03
B (Inhibitor)	1	3.13	0.89	ns
AB	1	0.13	0.04	ns
C (Motivation)	1	0.13	0.04	ns
AC	1	3.13	0.89	ns
BC	1	1.53	0.44	ns
ABC	1	0.78	0.22	ns
D (Scenario)	1	4.50	1.28	ns
AD	1	2.00	0.57	ns
BD	1	0.28	0.08	ns
ABD	1	2.53	0.72	ns
CD	1	7.03	2.00	ns
ACD	1	7.03	2.00	ns
BCD	1	0.13	0.04	ns
ABCD	1	1.13	0.32	ns
Error	112	3.52		

Table 18

## Stimulus Attribution

Source	df	MS	F	p
A (Distinct)	1	164.26	30.07	<.001
B (Inhibitor)	1	0.01	0.001	ns
AB	1	27.20	4.98	<.03
C (Motivation)	1	0.07	0.01	ns
AC	1	6.57	1.20	ns
BC	1	0.01	0.001	ns
ABC	1	13.13	2.40	ns
D (Scenario)	1	1.32	0.24	ns
AD	1	53.26	9.38	<.003
BD	1	21.95	4.02	<.05
ABD	1	7.51	1.37	ns
CD	1	0.63	0.12	ns
ACD	1	11.88	2.18	ns
BCD	1	8.51	1.56	ns
ABCD	1	11.88	2.18	ns
Error	112	5.46		

Table 19

## Stimulus Attribution Confidence

Source	df	MS	F	p
A(Distinct)	1	0.03	0.01	ns
B(Inhibitor)	1	1.53	0.44	ns
AB	1	0.03	0.01	ns
C(Motivation)	1	2.00	0.58	ns
AC	1	1.13	0.32	ns
BC	1	2.00	0.58	ns
ABC	1	0.00	0.00	ns
D(Scenario)	1	1.53	0.44	ns
AD	1	2.53	0.73	ns
BD	1	0.28	0.08	ns
ABD	1	0.78	0.23	ns
CD	1	8.00	2.30	ns
ACD	1	1.13	0.32	ns
BCD	1	15.13	4.36	<.04
ABCD	1	1.13	0.32	ns
Error	112	3.47		

Table 20

## Dispositional/Stimulus Attribution

Source	df	MS	F	p
A(Distinct)	1	223.13	37.00	<.001
B(Inhibitor)	1	41.63	6.90	<.01
AB	1	15.82	2.62	ns
C(Motivation)	1	2.26	0.37	ns
AC	1	20.32	3.37	ns
BC	1	2.82	0.47	ns
ABC	1	10.70	1.77	ns
D(Scenario)	1	18.76	3.11	ns
AD	1	11.88	1.97	ns
BD	1	14.45	2.40	ns
ABD	1	17.26	2.86	ns
CD	1	4.88	0.81	ns
ACD	1	9.57	1.59	ns
BCD	1	1.76	0.29	ns
ABCD	1	11.88	1.97	ns
Error	112	6.03		

Table 21

## First Inhibition Manipulation Check

Source	df	MS	F	p
A(Distinct)	1	2.53	0.54	ns
B(Inhibitor)	1	300.13	64.03	<.001
AB	1	2.53	0.54	ns
C(Motivation)	1	11.28	2.41	ns
AC	1	10.13	2.16	ns
BC	1	0.03	0.01	ns
ABC	1	3.13	0.67	ns
D(Scenario)	1	0.78	0.17	ns
AD	1	0.50	0.11	ns
BD	1	30.03	6.41	<.01
ABD	1	10.13	2.16	ns
CD	1	0.13	0.03	ns
ACD	1	1.53	0.33	ns
BCD	1	4.50	0.96	ns
ABCD	1	2.53	0.54	ns
Error	112	4.69		

Table 22

## 2nd Inhibition Manipulation Check

Source	df	MS	F	p
A(Distinct)	1	11.28	11.87	ns
B(Inhibitor)	1	1164.03	193.36	<.001
AB	1	4.50	0.75	ns
C(Motivation)	1	0.13	0.02	ns
AC	1	0.78	0.13	ns
BC	1	0.28	0.05	ns
ABC	1	0.50	0.08	ns
D(Scenario)	1	1.53	0.25	ns
AD	1	6.13	1.02	ns
BD	1	120.13	19.95	<.001
ABD	1	0.03	0.01	ns
CD	1	16.53	2.75	ns
ACD	1	0.13	0.02	ns
BCD	1	0.50	0.08	ns
ABCD	1	5.28	0.88	ns
Error	112	6.02		

Table 23

## 3rd Inhibition Manipulation Check

Source	df	MS	F	p
A(Distinct)	1	6.13	1.54	ns
B(Inhibitor)	1	288.00	72.40	<.001
AB	1	0.03	0.01	ns
C(Motivation)	1	15.13	3.80	<.05
AC	1	0.78	0.20	ns
BC	1	1.53	0.39	ns
ABC	1	15.13	3.80	<.05
D(Scenario)	1	87.78	22.07	<.001
AD	1	1.13	0.28	ns
BD	1	0.00	0.00	ns
ABD	1	13.78	3.47	ns
CD	1	3.13	0.79	ns
ACD	1	3.78	0.95	ns
BCD	1	0.78	0.20	ns
ABCD	1	0	0.03	ns
Error	112	3		

Table 24

## First Consensus Manipulation Check

Source	df	MS	F	p
A(Distinct)	1	0.63	10.15	ns
B(Inhibitor)	1	4.13	0.95	ns
AB	1	0.01	0.002	ns
C(Motivation)	1	0.20	0.05	ns
AC	1	1.76	0.41	ns
BC	1	8.51	1.96	ns
ABC	1	13.13	3.03	ns
D(Scenario)	1	202.51	46.70	<.001
AD	1	0.01	0.002	ns
BD	1	18.76	4.33	<.04
ABD	1	0.07	0.02	ns
CD	1	9.57	2.20	ns
ACD	1	0.95	0.22	ns
BCD	1	1.32	0.31	ns
ABCD	1	0.38	0.09	ns
Error	112	4.34		

Table 25

## Second Consensus Manipulation Check

Source	df	MS	F	p
A(Distinct)	1	4.88	1.07	ns
B(Inhibitor)	1	2.82	0.62	ns
AB	1	3.45	0.76	ns
C(Motivation)	1	0.63	0.14	ns
AC	1	9.57	2.10	ns
BC	1	41.63	9.15	<.003
ABC	1	25.38	5.58	<.02
D(Scenario)	1	255.95	56.25	<.001
AD	1	4.13	0.91	ns
BD	1	41.63	9.15	<.003
ABD	1	13.13	2.89	ns
CD	1	2.82	0.62	ns
ACD	1	0.38	0.08	ns
BCD	1	18.76	4.12	<.05
ABCD	1	0.63	0.14	ns
Error	112	4.55		

Table 26

## First Distinctiveness Manipulation Check

Source	df	MS	F	p
A(Distinct)	1	1170.07	552.07	<.001
B(Inhibitor)	1	18.76	8.85	<.004
AB	1	3.45	1.63	ns
C(Motivation)	1	2.82	1.33	ns
AC	1	1.76	0.83	ns
BC	1	0.20	0.09	ns
ABC	1	0.63	0.30	ns
D(Scenario)	1	41.63	19.64	ns
AD	1	0.38	0.18	ns
BD	1	0.07	0.03	ns
ABD	1	29.07	13.72	<.001
CD	1	2.26	1.07	ns
ACD	1	0.63	0.30	ns
BCD	1	0.20	0.09	ns
ABCD	1	0.20	0.09	ns
Error	112	2.12		

Table 27

## Second Distinctiveness Manipulation Check

Source	df	MS	F	p
A(Distinct)	1	1519.38	349.34	<.001
B(Inhibitor)	1	0.01	0.002	ns
AB	1	8.51	1.96	ns
C(Motivation)	1	1.32	0.30	ns
AC	1	0.01	0.002	ns
BC	1	9.57	2.20	ns
ABC	1	20.32	4.67	<.03
D(Scenario)	1	43.95	10.10	<.002
AD	1	1.76	0.40	ns
BD	1	11.88	2.73	ns
ABD	1	1.76	0.40	ns
CD	1	1.32	0.30	ns
ACD	1	0.01	0.002	ns
BCD	1	5.70	1.31	ns
ABCD	1	0.07	0.02	ns
Error	112	4.35		

Table 28

## Motivation Manipulation Check (Timing)

Source	df	MS	F	p
A(Distinct)	1	2.26	0.36	ns
B(Inhibitor)	1	0.20	0.03	ns
AB	1	0.95	0.15	ns
C(Motivation)	1	29.07	4.63	<.03
AC	1	0.63	0.10	ns
BC	1	0.07	0.01	ns
ABC	1	2.26	0.36	ns
D(Scenario)	1	2.82	0.45	ns
AD	1	1.32	0.21	ns
BD	1	6.57	1.05	ns
ABD	1	5.70	0.91	ns
CD	1	10.70	1.71	ns
ACD	1	1.76	0.28	ns
BCD	1	1.76	0.28	ns
ABCD	1	10.70	1.71	ns
Error	112	6.27		

Table 29

## Motivation Manipulation Check (Correct)

Source	df	MS	F	p
A(Distinct)	1	6.13	0.74	ns
B(Inhibitor)	1	0.50	0.06	ns
AB	1	2.53	0.30	ns
C(Motivation)	1	101.53	12.21	<.001
AC	1	0.00	0.00	ns
BC	1	3.13	0.38	ns
ABC	1	0.28	0.03	ns
D(Scenario)	1	38.28	4.60	<.03
AD	1	4.50	0.54	ns
BD	1	21.13	2.54	ns
ABD	1	3.78	0.46	ns
CD	1	5.28	0.64	ns
ACD	1	4.50	0.54	ns
BCD	1	36.13	4.35	<.04
ABCD	1	57.78	6.95	<.01
Error	112	8.32		



## Appendix C

### Table A

The Means for Inhibition Manipulation  
Check as a Function of the Level of  
Motivation and Scenario (Consensus Study)

Motivation	Scenario	
	Comedian	Laryngitis
High	7.13 b	7.47 b
Low	7.81 b	6.41 a

Means with different subscripts differ at alpha less than .05 by Duncan's.

### Table B

The Means for Inhibition Manipulation  
Check as a Function of the Level of  
Motivation and Inhibition  
(Consensus Study)

Inhibition	Motivation	
	High	Low
Inhibition	2.13 a	2.50 a
No Inhibition	9.31 b	7.47 c

Means with different subscripts differ at alpha less than .05 by Duncan's.

Table C

The Means for Inhibition Manipulation  
Check as a Function of the Level of  
Inhibition and Scenario  
(Consensus Study)

	Scenario	
	Comedian	Laryngitis
Inhibition	3.19 a	1.44 b
No Inhibition	7.31 c	9.47 d

Means with different subscripts differ at  
alpha less than .05 by Duncans.

Table D

The Means for Inhibition Manipulation as  
a Function of Consensus, Motivation and  
Scenario (Consensus Study)

	High Consensus Scenario	
	Comedian	Laryngitis
Motivation High	6.25 b	5.94 ab
Low	4.25 a	5.31 ab
	Low Consensus Scenario	
	Comedian	Laryngitis
Motivation High	4.63 ab	6.03 b
Low	5.88 ab	4.50 ab

Means with different subscripts differ at  
alpha less than .05 by Duncans.

Table E

The Means for Inhibition Manipulation as  
a Function of Scenario (Consensus Study)

---

	Scenario	
	Comedian	Laryngitis
	8.78	6.75

Table F

The Means for Inhibition Manipulation as  
a Function of the Level of Motivation  
and Scenario (Consensus Study)

---

	Scenario	
	Comedian	Laryngitis
Motivation		
High	8.28 bc	7.25 ac
Low	9.28 b	6.25 a

Means with different subscripts differ at  
alpha less than .05 by Duncans.

Table G

The Means for Inhibition Manipulation as  
a Function of the Level of Inhibition  
and Scenario (Distinctiveness Study)

---

	Scenario	
	Comedian	Laryngitis
Inhibition	9.19 b	8.06 c
No Inhibition	5.16 a	5.97 a

Means with different subscripts differ at  
alpha less than .05 by Duncans.

Table H

The Means for Inhibition Manipulation as a Function of the Level of Inhibition and Scenario (Distinctiveness Study)

---

	Scenario	
	Comedian	Laryngitis
Inhibition	3.69 a	1.51 c
No Inhibition.	7.78 b	9.50 d

Means with different subscripts differ at alpha less than .05 by Duncans.

Table I

The Means for Inhibition Manipulation as a Function of Motivation (Distinctiveness Study)

---

	Motivation	
	High	Low
	7.45	8.14

Table J

The Means for Inhibition Manipulation as a Function of Scenario (Distinctiveness Study)

---

	Scenario	
	Comedian	Laryngitis
	8.63	6.97

Table K

The Means for Inhibition Manipulation  
Check as a Function of Distinctiveness,  
Inhibition and Motivation  
(Distinctiveness Study)

	High Distinctiveness Motivation	
	High	Low
Inhibition	8.56 cd	9.56 d
No Inhibition	6.06 ab	6.13 ab
	Low Distinctiveness Motivation	
	High	Low
Inhibition	9.56 d	9.50 d
No Inhibition	5.63 a	7.38 bc

Means with different subscripts differ at  
alpha less than .05 by Duncans.

Table L

The Means for Consensus Manipulation as  
a Function of the Level of Consensus  
and Scenario (Consensus Study)

Consensus	Scenario	
	Comedian	Laryngitis
High	8.69 a	9.16 a
Low	2.75 b	1.47 c

Means with different subscripts differ at  
alpha less than .05 by Duncans.

Table M

The Means for Consensus Manipulation  
Check as a Function of Scenario  
(Distinctiveness Study)

---

	Scenario	
	Comedian	Laryngitis
	5.42	2.91

Table N

The Means for Consensus Manipulation  
Check as a Function of Inhibition and  
Scenario (Distinctiveness Study)

---

	Scenario	
	Comedian	Laryngitis
Inhibition	5.22 a	3.47 b
No Inhibition	5.63 a	2.34 c

Means with different subscripts differ at  
alpha less than .05 by Duncan's.

Table O

The Means for Consensus Manipulation  
Check as a Function of Scenario  
(Distinctiveness Study)

---

	Scenario	
	Comedian	Laryngitis
	5.14	2.31

Table P

The Means for Consensus Manipulation Check as a Function of Inhibition and Motivation (Distinctiveness Study)

	Motivation	
	High	Low
Inhibition	4.38 b	3.38 c
No Inhibition	2.94 ac	4.22 b

Means with different subscripts differ at alpha less than .05 by Duncans.

Table Q

The Means for Consensus Manipulation Check as a Function of Distinctiveness, Inhibition and Motivation (Distinctiveness Study)

	High Distinctiveness Motivation	
	High	Low
Inhibition	5.13 c	2.69 a
No Inhibition	3.13 ab	4.75 bc

	Low Distinctiveness Motivation	
	High	Low
Inhibition	3.63 ac	4.06 a
No Inhibition	2.75 a	3.69 a

Means with different subscripts differ at alpha less than .05 by Duncans.

Table R

The Means for Consensus Manipulation Check as a Function of Inhibition and Scenario (Distinctiveness Study)

	Scenario	
	Comedian	Laryngitis
Inhibition	4.72 b	3.03 c
No Inhibition	5.56 b	1.59 a

Means with different subscripts differ at alpha less than .05 by Duncans.

Table S

The Means for Distinctiveness Manipulation Check as a Function of Distinctiveness, Motivation and Scenario (Distinctiveness Study)

	High Distinctiveness Scenario	
	Comedian	Laryngitis
Motivation High	2.75 a	4.19 b
Low	3.69 ab	4.31 b

	Low Distinctiveness Scenario	
	Comedian	Laryngitis
Motivation High	9.06 c	10.44 d
Low	9.25 c	10.38 d

Means with different subscripts differ at alpha less than .05 by Duncans.



Table T

The Means for Distinctiveness Manipulation  
Check as a Function of Distinctiveness,  
Inhibition and Motivation  
(Distinctiveness Study)

	High Distinctiveness Motivation	
	High	Low
Inhibition	2.44 a	2.38 a
No Inhibition	4.69 a	2.13 a

	Low Distinctiveness Motivation	
	High	Low
Inhibition	8.00 b	9.56 c
No Inhibition	9.88 c	8.75 bc

Means with different subscripts differ at  
alpha less than .05 by Duncans.

Table U

Means for Distinctiveness Manipulation  
as a Function of Inhibition  
(Consensus Study)

	Inhibition	
	Present	Absent
	6.66	7.20

Table V

Means for Distinctiveness Manipulation  
as a Function of Scenario  
(Consensus Study)

---

	Scenario	
	Comedian	Laryngitis
	7.25	6.61

Table W

Means for Distinctiveness Manipulation  
Check as a Function of Consensus,  
Inhibition and Scenario (Consensus Study)

---

	High Consensus Scenario	
	Comedian	Laryngitis
Inhibition	7.44 bcd	6.13 a
No Inhibition	6.88 ad	7.63 bd

	Low Consensus Scenario	
	Comedian	Laryngitis
Inhibition	6.94 ad	6.13 a
No Inhibition	7.75 bd	6.56 ac

Means with different subscripts differ at  
alpha less than .05 by Duncans.

Table X

Means for Distinctiveness Manipulation  
Check as a Function of Inhibition  
(Consensus Study)

---

Inhibition	
Present	Absent
5.30	6.41

Table Y

Means for Distinctiveness Manipulation  
Check as a Function of Motivation  
(Consensus Study)

---

Motivation	
High	Low
6.27	5.44

Table Z

Means for Distinctiveness Manipulation  
Check as a Function of Consensus and  
Scenario (Consensus Study)

---

Consensus	Scenario	
	Comedian	Laryngitis
High	5.66 b	6.38 a
Low	6.13 b	5.25 b

Means with different subscripts differ at  
alpha less than .05 by Duncans.

Table AA

Means for Motivation Manipulation Check  
as a Function of Inhibition, Motivation  
and Scenario (Distinctiveness Study)

Motivation	High Inhibition Scenario	
	Comedian	Laryngitis
High	7.63 <sub>bc</sub>	6.38 <sub>a</sub>
Low	6.81 <sub>bc</sub>	4.25 <sub>a</sub>
Motivation	Low Inhibition Scenario	
	Comedian	Laryngitis
High	8.06 <sub>c</sub>	6.31 <sub>ac</sub>
Low	4.50 <sub>a</sub>	5.69 <sub>ab</sub>

Means with different subscripts differ at  
alpha less than .05 by Duncans.

Table BB

Means for Motivation Manipulation Check  
as a Function of Distinctiveness,  
Inhibition, Motivation and Scenario  
(Distinctiveness Study)

High Distinctiveness-Inhibition		
	Scenario	
	Comedian	Laryngitis
Motivation		
High	8.25d	6.00a
Low	6.38cd	4.75ac
High Distinctiveness-No Inhibition		
	Scenario	
	Comedian	Laryngitis
Motivation		
High	7.88cd	7.13bcd
Low	6.13a	4.88ad
Low Distinctiveness-Inhibition		
	Scenario	
	Comedian	Laryngitis
Motivation		
High	7.00bcd	6.75bcd
Low	7.25cd	3.75ab
Low Distinctiveness-no Inhibition		
	Scenario	
	Comedian	Laryngitis
Motivation		
High	8.25d	5.50a
Low	2.88a	6.50bcd

Means with different subscripts differ at  
alpha less than .05 by Duncans.

Table CC

Means for Stimulus attribution as a  
Function of the Level of Distinctiveness  
and Scenario (Distinctiveness Study)

---

Distinctiveness	Scenario	
	Comedian	Laryngitis
High	7.31 c	8.78 b
Low	6.31 ac	5.25 a

Means with different subscripts differ at  
alpha less than .05 by Duncans.

Table DD

Means for Stimulus Attribution as a  
Function of the Level of Inhibition  
and Scenario (Distinctiveness Study)

---

Inhibition	Scenario	
	Comedian	Laryngitis
Inhibition	6.41 b	7.44 a
No Inhibition	7.22 b	6.59 b

Means with different subscripts differ at  
alpha less than .05 by Duncans.

Table EE

Means for Stimulus Attribution Confidence as a Function of Motivation and Scenario (Consensus Study)

Motivation	Scenario	
	Comedian	Laryngitis
High	8.28 ab	7.51 b
Low	7.63 b	8.84 a

Means with different subscripts differ at alpha less than .05 by Duncans.

Table FF

Means for Stimulus Attribution Confidence as a Function of Inhibition, Motivation and Scenario (Distinctiveness Study)

Motivation	Inhibition Scenario	
	Comedian	Laryngitis
High	7.8 bc	8.31 ac
Low	8.00 ac	8.13 ac

Motivation	No Inhibition Scenario	
	Comedian	Laryngitis
High	8.56 ac	7.50 b
Low	7.88 ac	9.19 a

Means with different subscripts differ at alpha less than .05 by Duncans.

Appendix D

Table A

Pearson Correlation Coefficients for  
the Three Inhibition Manipulation  
Items (Consensus Study)

---

Inhibition Item	Inhibition Item		
	1	2	3
1	1.00	0.57	0.52
2	0.57	1.00	0.46
3	0.52	0.46	1.00

The correlations are all significant at  
the .001 level.

Table B

Pearson Correlation Coefficients for  
the Three Inhibition Manipulation  
Items (Distinctiveness Study)

---

Inhibition Item	Inhibition Item		
	1	2	3
1	1.00	0.61	0.69
2	0.61	1.00	0.56
3	0.69	0.56	1.00

The correlations are all significant at  
the .001 level.



Table C

## Inhibition Manipulation (Consensus Study)

Source	df	MS	F	p
A(Consensus)	1	0.63	0.02	ns
B(Inhibiton)	1	4038.75	123.31	<.001
AB	1	18.78	0.57	ns
C(Motivation)	1	9.56	0.29	ns
AC	1	48.78	1.49	ns
BC	1	122.09	3.73	ns
ABC	1	73.47	2.24	ns
D(Scenario)	1	244.75	7.47	<.007
AD	1	0.03	0.001	ns
BD	1	159.78	4.88	<.03
ABD	1	4.84	0.15	ns
CD	1	73.53	2.25	ns
ACD	1	67.53	2.06	ns
BCD	1	17.22	0.53	ns
ABCD	1	0.13	0.004	ns
Error	112	32.75		

Table D

## Inhibition Manipulation(Distinc Study)

Source	df	MS	F	p
A(Distinct)	1	60.50	2.14	ns
B(Inhibiton)	1	4728.78	167.14	<.001
AB	1	12.50	0.44	ns
C(Motivation)	1	52.53	1.86	ns
AC	1	8.00	0.28	ns
BC	1	1.53	0.05	ns
ABC	1	21.13	0.75	ns
D(Scenario)	1	75.03	2.65	ns
AD	1	10.13	0.36	ns
BD	1	26.28	0.93	ns
ABD	1	55.13	1.95	ns
CD	1	9.03	0.32	ns
ACD	1	0.50	0.02	ns
BCD	1	0.03	0.001	ns
ABCD	1	15.13	0.53	ns
Error	112	28.29		

Table E

Means for Inhibition Manipulation as a  
Function of Inhibition(Consensus Study)

---

Inhibition	
High	Low
27.23	16.00

Table F

Means for Inhibition Manipulation as a  
Function of Scenario(Consensus Study)

---

Scenario	
Comedian	Laryngitis
23.00	20.23

Table G

Means for Inhibition Manipulation as a  
Function of Inhibition and Scenario  
(Consensus Study)

	Scenario	
	Comedian	Laryngitis
Inhibition	27.50 a	26.97 a
No Inhibition	18.50 b	13.50 c

Means with different subscripts differ at  
alpha less than .05 by Duncans.

Table H

Means for Inhibition Manipulation as a  
Function of Inhibition  
(Distinctiveness Study)

	Inhibition	
	Present	Absent
	27.31	15.16

Table I

Pearson Correlation Coefficients for  
Consensus Manipulation Items  
(Consensus Study)

---

Consensus Item	Consensus First	Item Second
First	1.00	0.85
Second	0.85	1.00

The correlations are all significant at  
the .001 level.

Table J

Pearson Correlation Coefficients for  
Consensus Manipulation Items  
(Distinctiveness Study)

---

Consensus Item	Consensus First	Item Second
First	1.00	0.71
Second	0.71	1.00

The correlations are all significant at  
the .001 level.

Table K

## Consensus Manipulation (Consensus Study)

Source	df	MS	F	p
A (Consensus)	1	5967.78	541.54	<.001
B (Inhibitor)	1	13.78	1.25	ns
AB	1	0.28	0.03	ns
C (Motivation)	1	30.03	2.73	ns
AC	1	16.53	1.50	ns
BC	1	16.53	1.50	ns
ABC	1	0.78	0.07	ns
D (Scenario)	1	3.13	0.28	ns
AD	1	45.13	4.10	<.05
BD	1	0.13	0.01	ns
ABD	1	3.13	0.28	ns
CD	1	40.50	3.68	ns
ACD	1	8.00	0.73	ns
BCD	1	0.50	0.05	ns
ABCD	1	32.00	2.90	ns
Error	112	11.02		

Table L

## Consensus Check (Distinctiveness Study)

Source	df	MS	F	p
A (Distinct)	1	9.03	0.65	ns
B (Inhibitor)	1	13.78	0.99	ns
AB	1	3.78	0.27	ns
C (Motivation)	1	1.53	0.11	ns
AC	1	19.53	1.41	ns
BC	1	87.78	6.32	<.01
ABC	1	75.03	5.40	<.02
D (Scenario)	1	913.78	65.80	<.001
AD	1	3.78	0.27	ns
BD	1	1.53	8.37	<.005
ABD	1	1.53	0.81	ns
CD	1	22.03	1.64	ns
ACD	1	2.03	0.18	ns
BCD	1	0.50	2.16	ns
ABCD	1	0.03	0.002	ns
Error	112	13.02		

Table M

Means for Consensus Manipulation as a  
Function of Consensus  
(Consensus Study)

---

	Consensus	
	High	Low
	17.72	4.06

Table N

Means for Consensus Manipulation as a  
Function of Consensus and Scenario  
(Consensus Study)

---

	Scenario	
	Comedian	Laryngitis
Consensus High	17.28 a	18.16 a
Low	4.81 b	3.31 b

Means with different subscripts differ at  
alpha less than .05 by Duncans.

Table O

Means for Consensus Manipulation as a  
Function of Inhibition and Motivation  
(Distinctiveness Study)

---

	Motivation	
	High	Low
Inhibition	8.94 ac	7.50 bc
No Inhibition	6.63 b	8.50 bc

Means with different subscripts differ at  
alpha less than .05 by Duncans.

Table P

Means for Consensus Manipulation as a  
Function of Scenario  
(Distinctiveness Study)

---

	Scenario	
	Comedian	Laryngitis
	10.56	5.22

Table Q

The Means for Consensus Manipulation as a Function of Distinctiveness, Inhibition, and Motivation,  
(Distinctiveness Study)

	High Distinctiveness Motivation	
	High	Low
Inhibition	10.19 bc	6.44 a
No Inhibition	6.69 ac	9.31 ac

	Low Distinctiveness Motivation	
	High	Low
Inhibition	7.69 ac	8.56 ac
No Inhibition	6.56 a	7.69 ac

Means with different subscripts differ at alpha less than .05 by Duncans.

Table R

Means for Consensus Manipulation as a Function of Inhibition and Scenario  
(Distinctiveness Study)

	Scenario	
	Comedian	Laryngitis
Inhibition	9.94 a	6.50 b
No Inhibition	11.19 a	3.94 c

Means with different subscripts differ at alpha less than .05 by Duncans.



Table S

Pearson Correlation Coefficients for  
the Distinctiveness Manipulation  
Items. (Consensus Study)

---

Distinctive Item	Distinctive Item	
	First	Second
First	1.00	0.81
Second	0.81	1.00

The correlations are all significant at  
the .001 level.

Table T

Pearson Correlation Coefficients for  
the Distinctiveness Manipulation  
Items. (Distinctiveness Study)

---

Distinctive Item	Distinctive Item	
	First	Second
First	1.00	0.86
Second	0.86	1.00

The correlations are all significant at  
the .001 level.

Table U

## Distinctiveness Check(Consensus Study)

Source	df	MS	F	p
A(Consensus)	1	8.00	0.79	ns
B(Inhibitor)	1	87.78	8.63	<.004
AB	1	11.28	1.11	ns
C(Motivation)	1	45.13	4.43	<.04
AC	1	0.50	0.05	ns
BC	1	3.78	0.37	ns
ABC	1	5.28	0.52	ns
D(Scenario)	1	16.53	1.62	ns
AD	1	42.78	4.20	<.04
BD	1	24.50	2.41	ns
ABD	1	36.13	3.55	ns
CD	1	0.78	0.08	ns
ACD	1	0.03	0.003	ns
BCD	1	25.50	2.41	ns
ABCD	1	1.13	0.11	ns
Error	112	10.18		

Table V

## Distinctiveness Check(Distinct Study)

Source	df	MS	F	p
A(Distinct)	1	5356.13	600.79	<.001
B(Inhibitor)	1	18.00	2.02	ns
AB	1	22.78	2.56	ns
C(Motivation)	1	8.00	0.90	ns
AC	1	1.53	0.17	ns
BC	1	7.03	0.79	ns
ABC	1	28.13	3.16	ns
D(Scenario)	1	171.13	19.20	<.001
AD	1	3.78	0.42	ns
BD	1	13.78	1.55	ns
ABD	1	45.13	15.06	<.03
CD	1	7.03	0.79	ns
ACD	1	0.50	0.06	ns
BCD	1	8.00	0.90	ns
ABCD	1	0.03	0.004	ns
Error	112	8.92		

Table W

Means for Distinctiveness Manipulation  
as a Function of Inhibition  
(Consensus Study)

---

	Inhibition	
	Present	Absent
	11.95	13.61

Table X

Means for Distinctiveness Manipulation  
as a Function of Motivation  
(Consensus Study)

---

	Motivation	
	Present	Absent
	13.38	12.19

Table Y

Means for Distinctiveness Manipulation  
as a Function of Consensus and  
Scenario (Consensus Study)

---

	Scenario	
	Comedian	Laryngitis
Consensus High	12.81 ab	13.25 a
Low	13.47 a	11.59 b

Means with different subscripts differ at  
alpha less than .05 by Duncans.

Table Z

Means for Distinctiveness Manipulation  
as a Function of Distinctiveness  
(Distinctiveness Study)

Distinctiveness	
High	Low
5.89	18.83

Table Aa

Means for Distinctiveness Manipulation  
as a Function of Scenario  
(Distinctiveness Study)

Scenario	
Comedian	Laryngitis
11.20	13.52

Table Bb

The Means for Distinctiveness Manipulation  
Check as a Function of Distinctiveness,  
Inhibition and Scenario  
(Distinctiveness Study)

	High Distinctiveness Scenario	
	Comedian	Laryngitis
Inhibition	5.44 ef	7.94 d
No Inhibition	4.38 f	5.81 def

	Low Distinctiveness Scenario	
	Comedian	Laryngitis
Inhibition	18.38 bc	19.19 ab
No Inhibition	16.63 c	21.13 a

Means with different subscripts differ at  
alpha less than .05 by Duncans.