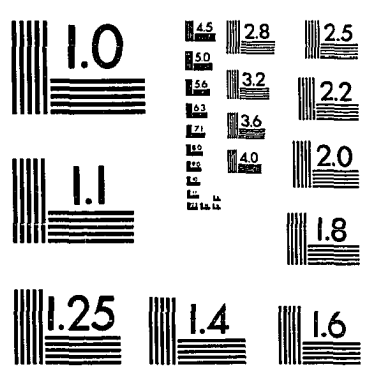


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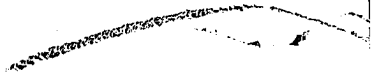
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**AUDITOR'S PERCEPTION OF MANAGEMENT: ITS DETERMINANTS AND
CONSEQUENCES**

Arizona State University

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**AUDITORS' PERCEPTION OF MANAGEMENT:
ITS DETERMINANTS AND CONSEQUENCES**

by

Bernard Wong-On-Wing

**A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy**

ARIZONA STATE UNIVERSITY

May 1986

AUDITORS' PERCEPTION OF MANAGEMENT:
ITS DETERMINANTS AND CONSEQUENCES

by

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ABSTRACT

An experiment was conducted to examine the determinants and consequences of auditors' perception of management. Based on a theory of attribution, three hypotheses were formulated: (1) subjects are most likely to make a dispositional inference about management when a transaction is perceived to be undesirable and made under conditions of high choice; (2) subjects are more likely to make a dispositional inference about the management of a new client than that of a continuing one; and (3) dispositional inferences about management will affect subjects' subsequent audit judgments.

Subjects were senior auditors of an international public accounting firm. They were first asked to read a scenario describing a transaction that occurred during the audit period of a given client. Subsequently, subjects were requested to make (1) an attribution about the cause of the described transaction, and (2) two judgments concerning an accounting disclosure issue. The two audit judgments consisted of indicating the importance of disclosure of a given item, and specifying a materiality threshold.

Results of the data analysis revealed the following. Consistent with the first hypothesis, subjects' inferences were most dispositional when the transaction was perceived to be undesirable and made under conditions of high choice. Contrary to the second hypothesis, subjects' dispositional inferences about management did not differ significantly between the continuing client and the new client conditions. Finally, with respect to the third hypothesis, materiality threshold was found to be significantly correlated with causal inferences. Specifically, lower materiality thresholds were associated with more dispositional inferences about management. However, the importance of disclosure was not found to be significantly correlated with causal inferences.

DEDICATION

I dedicate this dissertation to my father and mother.

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CHAPTER I

INTRODUCTION

Purpose of the Study

An implicit and yet integral part of the independent auditor's task involves the assessment of management's dispositions (attitudes, traits, etc.). The auditor's perception of management's dispositions is important since it presumably influences subsequent audit judgments. For example, the scope of the independent auditor's examination would be affected by circumstances that raise questions concerning the integrity of management [AICPA 1984, AU 327.06].

The assessment of management's dispositions is particularly important in light of the independent auditor's responsibility for detecting fraud. Lea [1981] notes that while the public accounting profession's present standards reflect most of the recommendations of the Commission on Auditors' Responsibilities [CAR 1978],

several issues such as the effectiveness of auditing procedures in detecting fraud remain to be addressed (p. 56). Others (e.g., Albrecht and Romney [1980]), suggest the examination of managers' and executives' characteristics as one means for enhancing the likelihood of detecting fraud. Given the lack of a "criminal type" profile, they specifically propose the study of the following personal characteristic red flags (p. 13):

- (1) A person with low moral character (possessing deceptive or dishonest tendencies, for example).
- (2) A person who rationalizes his contradictory behavior.
- (3) A person without a strong code of personal ethics.
- (4) A person who is a "wheeler dealer" (someone who has a desire for power, influence, or social status).
- (5) A person who lacks stability (employment history, etc.).
- (6) A person with a strong desire to beat the system.
- (7) A person with a criminal or questionable background.
- (8) A person with poor credit rating and financial status.

Other dispositions of management are similarly important in affecting auditors' judgments and decisions. For example, an auditor's perception of management's attitude toward internal control is likely to influence the

nature, timing and extent of audit procedures. Kaplan and Reckers [1984] found that the control consciousness of an organization significantly impacted the preliminary evaluations of internal accounting control effectiveness by audit seniors.

The major purpose of this study was to examine auditors' perception of management's dispositions using the theory of correspondent inferences [Jones and Davis, 1965] as a framework. Specifically, the following two issues were addressed:

- (1) What factors influence auditors' perceptions (impressions) of management?
- (2) How do auditors' perceptions of management affect audit decisions and judgments?

Scope of the Study

This study was restricted to only one type of audit judgment. Auditors' materiality judgment was selected for investigation since it has been and continues to be a controversial issue among academicians and practitioners (see Chapter II). This study examined:

- (1) factors that affect auditors' perception of management, and
- (2) whether auditors' materiality judgments were influenced by their perception of management.

No attempt was made to manipulate auditors' perception of any specific disposition of management such as integrity.

Rather, auditors' impression of management was examined in terms of their causal inferences following a transaction made by management (see discussion in Chapter III).

Significance of the Study

This study was an attempt to contribute to the research literature in auditing. Felix and Kinney [1982] have noted the need for studies on the auditor's opinion formulation process (see Chapter II). On a general level, the present study is hoped to add to the currently limited knowledge about auditors' judgments.

In addition, this study employed a validated theory as a framework for predicting auditors' judgments. The findings of the current research suggest that the model can be utilized for investigating other issues relating to auditor judgments. Implications for future research are discussed in Chapter VI.

On a more specific level, this study provides some insights into auditors' materiality judgment. In their review of empirical research on materiality, Holstrum and Messier [1982] note two major implications resulting from the lack of a generalized standard or set of standards for materiality: (1) guidance and support for individual materiality judgments must come from other (non-authoritative) sources such as empirical research on materiality judgments of users, producers, and auditors of

financial accounting information; and (2) public accounting firms that are concerned about significant discrepancies among materiality judgments of their individual auditors cannot rely upon authoritative guidelines either to reduce such differences or to provide support for individual judgments in particular circumstances when questions arise as to their appropriateness (p. 49). The authors therefore call for more empirical research on materiality and discuss several implications for future studies. In particular, given the diversity of events that have been used to examine materiality judgments, they suggest the classification of those events into categories (e.g., risk) so as to enable a test of the importance of financial and nonfinancial variables (p. 60). In other words, the qualitative characteristics of events must also be examined as they influence materiality judgments. This study provides insights into the effect of selected qualitative factors on such judgments.

Organization of the Study

This study is organized as follows. Chapter II consists of a review of the literature which is divided into two parts. The first section examines research in the area of audit judgment and emphasizes the need for more descriptive approaches to such investigations. The second part reviews literature on materiality judgments and notes

the need for studying the effect of qualitative factors on such judgments.

Chapter III presents the theory of correspondent inferences [Jones and Davis, 1965] and discusses its relevance to this study. Hypotheses are then developed as they pertain to auditors' judgments.

Chapter IV examines the research design and method used in this investigation. The results of the study are then reported in Chapter V.

A summary of the study and its implications are presented in Chapter VI. Limitations of the study are discussed and suggestions are made for future research.

CHAPTER II

LITERATURE REVIEW

This section is divided into two parts. The first part reviews relevant literature related to research on auditors' judgment. It emphasizes the lack of and need for such research, and examines recent developments in that area. The second part reviews pertinent literature on materiality. It provides the basis for the present study.

Research on Auditors' Judgment

The need for research on auditors' judgment is perhaps made most explicit by Felix and Kinney [1982]. The authors first develop a framework for classifying such research along two dimensions. Specifically, research on the auditor's opinion formulation process is grouped according to (1) the audit stage (i.e., orientation, forming priors and planning; systems evaluation and testing; substantive testing; or evidence aggregation and opinion formulation), and (2) the stage of knowledge or theory development (i.e.,

state descriptions; model/theory development; or hypothesis tests). An examination of the classification reveals that research on auditors' judgment is limited. In particular, Felix and Kinney note that studies involving specific hypothesis testing are virtually nonexistent in all of the audit stages. This is apparently due to a lack of appropriate models and theories. The authors also note that little research has been done on the formulation of prior probability assessments at the start of the audit. Furthermore, knowledge is limited with respect to how auditors process objective information obtained from compliance and substantive tests, and integrate it with other information, or how it should be done (pp. 267-268). Hence, the major conclusion is that a significant amount of potentially important research has not been conducted.

Joyce and Libby [1982] similarly review research on auditors' judgment. Studies of audit decision making are classified according to one of three paradigms: (1) the policy-capturing paradigm, (2) the probabilistic judgment paradigm, and (3) the predecisional behavior paradigm. The purpose of policy-capturing research (e.g., Ashton [1974]), is to build mathematical models of auditors' judgment policies. Probabilistic judgment research (e.g., Joyce and Biddle [1981a and 1981b]), is concerned with the extent to which auditors' revisions of subjective beliefs

are consistent with normative principles of decision making. The focus is on the auditors' use of heuristics and biases. Predecisional behavior research (e.g., Biggs and Mock [1983]), attempts to provide insights into audit judgment processes by examining auditors' behavior at various stages prior to the final judgment, (see Libby [1981] for a more detailed discussion of the three paradigms). After an evaluation of the strengths and weaknesses of the methodologies used within each paradigm, the authors discuss the implications for audit practice, and suggestions for future research. Consistent with Felix and Kinney [1982], Joyce and Libby [1982] conclude that, "there is no shortage of auditor judgment problems to explore" (p. 118). Specific areas suggested for future research include learning, decision framing and training as they relate to audit judgment.

In addition to identifying audit areas where research is lacking and needed, it is important to examine and evaluate the approaches used to conduct such research. Early studies on auditors' judgment have in general been primarily descriptive. For example, Ashton [1974] used the lens paradigm to model auditors' evaluation of internal control. Specifically, auditor-subjects were asked to assess the strength of 32 hypothetical payroll internal control cases, each containing six pre-answered internal

control questions. They subsequently rated the importance of each question to their judgments. Further, in order to examine the consistency of judgment over time, the entire experiment was repeated between six and thirteen weeks after the first administration. The results indicated a fairly high level of consistency both across subjects (consensus) and over time (stability).

Ashton's [1974] study has since then been replicated and extended (e.g., Ashton and Brown [1980], and Joyce [1976]). The major objective of those and other similar studies has been to demonstrate the degree of consistency across auditors, over time and/or across tasks. While consistency is a desirable characteristic of professional judgment, Dopuch [1982] notes that more important is the identification of a "criterion variable" that can be used to assess the accuracy of auditors' judgments. In other words, there is a need for developing normative theories and models that will allow the quality of auditors' decisions and judgments to be evaluated [Dopuch, 1984].

Joyce and Biddle [1981a, and 1981b] conducted two series of experiments to assess whether auditors formulate judgments according to normative principles. The first set of studies [Joyce and Biddle, 1981a] tested for the existence of the anchoring and adjustment heuristic (see Tversky and Kahneman [1974]) in auditing-related inference

tasks. The results showed that although auditors do not always act in accordance with normative principles, it is unlikely that the observed behavior can be attributed entirely to the use of such a heuristic. Moreover, the authors found that anchoring and adjustment could account for subjects' responses only for tasks with which they were relatively unfamiliar.

The second series of experiments [Joyce and Biddle, 1981b] tested for the use of the representativeness heuristic (see Tversky and Kahneman [1974]) by auditors. The examination was limited to two of the biases associated with the heuristic: (1) neglect of base rates, and (2) insensitivity to reliability and predictability. The results indicated that while auditors appear to be aware of the relevance of base rate information and the appropriate direction of its impact, the magnitude of the observed effect on their judgment was insufficient according to normative principles. Further, auditors made source reliability discriminations, and judgments consistent with normative principles only in the within-subjects design. Individuals in the between-subjects design apparently ignored the source reliability. Joyce and Biddle conclude that if the findings of their experiments can be generalized to auditors' judgments on actual audit engagements, corrective action should be taken to improve

the quality of such judgments.

However, Dopuch [1982] cautions researchers on the use of normative rules such as those used by Joyce and Biddle [1981a, and 1981b]. Specifically, he notes that following normative principles does not necessarily ensure optimal judgments. Instead, information processing using heuristics and other simplified decision rules may be more appropriate given the dynamic nature of the auditing environment. Therefore, one should first determine whether the normative rules apply to the particular setting before trying to train individuals to use those rules (pp. 190-191).

Waller and Jiambalvo [1984] similarly examine the use of normative models in human information processing research in accounting (HIPA). Benefits and costs of using such models in HIPA are discussed. The authors note that no overall conclusion can be drawn with respect to the utilization of normative models, and thus, recommend multimethod approaches for conducting research in HIPA (p. 215).

Rather than adopting a normative approach, others have emphasized the importance of descriptive models to provide insights into auditors' judgment processes. For example, Gibbins [1984] uses notions from cognitive psychology and findings from interviews with public accountants to develop a number of propositions about the process of professional

judgment in public accounting. These postulates are formulated with respect to the major components of general learning models (i.e., the judge's experience, the stimulus event, the stimulus environment, the judgment process, and the response action), and emphasize the interaction between the judge's (public accountant's) psychological processes and the particular task environment experienced by the judge. A test of the set of propositions is hoped to lead to the development of a "natural science" theory of professional judgment in public accounting.

Similarly, Waller and Felix [1984] suggest a descriptive and cognitive model of the auditor's opinion formulation process with a view to guide future empirical research. Two major concepts underlie the proposed framework. First, audit evidence is presumed to reduce two aspects of the auditor's uncertainty:

- (1) a "first-order" uncertainty about whether the client's financial statements contain a material error, and
- (2) a "second-order" uncertainty about whether a set of audit evidence provides adequate support for a conclusion about the "first-order" uncertainty (p. 27).

Second, the auditor's knowledge structures in memory are related to current audit evidence in at least two ways:

- (1) the auditor's knowledge structures control the search for and assimilation of current audit evidence, and

- (2) the auditor's knowledge structures in a sense are current audit evidence (p. 27).

Based on the foregoing, Waller and Felix propose a descriptive model of the auditor's search for and assimilation of current audit evidence. The focus is on the auditor's schematic information processing (i.e., the interaction of two types of knowledge structures, template-schemata and procedural-schemata). Implications for future research are then discussed with respect to four major stages of the opinion formulation process: (1) deciding to perform the audit; (2) gaining an understanding of the client and its environment; (3) planning and execution of audit activities; and (4) forming an opinion.

In summary, the following conclusions can be drawn from the preceding review of the literature. First, current knowledge about the auditor's opinion formulation process is limited. Felix and Kinney [1982], and Joyce and Libby [1982] have pointed out specific areas where research on auditors' judgment is lacking and needed. Second, while normative models are essential for evaluating the accuracy (or "quality") of audit judgments, descriptive frameworks are equally important in providing a better understanding of auditors' decision making processes. The framework and study presented in this paper are an attempt to contribute to the currently limited knowledge about auditors' judgment, and are primarily descriptive.

Materiality

The hypotheses developed in the next section were tested in the context of a specific audit decision. The materiality judgment was examined. The following provided the basis for the present research.

The Concept

Materiality judgments pervade the financial accounting and reporting process.

It influences decisions regarding the collection, classification, measurement, and summarization of data concerning the results of an enterprise's economic activities. It also bears on decisions concerning the presentation of that data and the related disclosures in financial statements, [FASB 1975, p. 3].

Materiality has significance to both accounting and auditing. According to Holstrum and Messier [1982],

The accounting concept of materiality is related to the minimum amount of omission or misstatement that would influence the judgment of a reasonable user of financial information. The concept of materiality is important in auditing because it is a major determinant of the scope of the audit (and the extent of audit tests) and is inherent in the auditor's standard opinion (p. 46).

However, as Leslie [1984] notes, this is not to imply that there are two materialities. Rather, the "amount" is the same while the context of the uses may differ (Chapter 2, p. 2). The present study examined an accounting materiality issue.

Materiality Guidelines

Both qualitative and quantitative factors must presumably be considered in making materiality judgments. For example, "materiality judgments are made in light of surrounding circumstances and necessarily involve both quantitative and qualitative considerations" [AICPA 1984, AU 312]. Presently, the authoritative literature provides little guidance for determining materiality. The Financial Accounting Standards Board (FASB) has concluded that based on the representations made to the Board in response to the Discussion Memorandum, Criteria for Determining Materiality [FASB 1975]:

The predominant view is that materiality judgments can properly be made only by those who have all the facts. The Board's present position is that no general standards of materiality could be formulated to take into account all the considerations that enter into an experienced human judgment [FASB 1980, AC 1220.131].

Nevertheless, the authoritative accounting literature does contain specific quantitative materiality guidelines for certain financial disclosures. For example, Accounting Principles Board (APB) Opinion No. 15 states that if the reduction in earnings per share (EPS) is less than 3 percent in the aggregate, the disclosure of fully diluted EPS is not required. Similarly, Statement of Financial Accounting Standards (SFAS) No. 14 states that a segment of a business becomes reportable if its revenue equals or

exceeds 10 percent of the combined revenues. Other quantitative guidelines, though not prescribed by the authoritative literature, are commonly used in the accounting profession. These include 5% to 10% of income before tax, 1/2% of assets, 1% of equity, and 1/2% of revenue (e.g., Leslie [1984], Chapter 4).

As noted earlier, in addition to quantitative factors, qualitative variables must also be considered. The Discussion Memorandum, Criteria for Determining Materiality, identified several nonquantitative factors that presumably affect materiality judgments. These include environmental factors, enterprise related factors, accounting policies, uncertainty, and circumstances surrounding a matter and its characteristics [FASB 1975, Chapter IV]. However, the authoritative literature does not prescribe any specific qualitative guidelines for determining materiality.

Empirical Research

Numerous studies have been conducted to examine materiality judgments. Holstrum and Messier [1982] provide a review and integration of research on materiality. The authors classify the empirical research along two dimensions: (1) the general type of research method employed (archival, survey questionnaire, or judgment-capturing experiment) and (2) the type of group being

investigated (users, auditors, or comparative studies of users, auditors, and preparers).

Two major conclusions following the integration of the research findings are of particular interest to the present study. First, Holstrum and Messier observe that empirical investigations (e.g., Firth [1979], and Moriarity and Barron [1976]) that have tested the relative importance of various factors in materiality judgment found that the most important factor was the percentage effect on income. They add, "A distant second in importance was the 'effect on earnings trend,'" (p. 58). In light of such findings, the present study used "percentage of income" as a measure of materiality threshold. Second, with respect to comparative studies, the authors state that the results are somewhat mixed with respect to the conservatism of auditors relative to users of financial statements. In other words, auditors are not always consistently more or less conservative than financial statement users. The framework used in this study provides a means of investigating such inconsistencies in judgment between users and auditors. This is discussed in Chapter VI.

Little research has been conducted to examine the effect of qualitative factors on materiality judgments. Recently, Krogstad, Ettenson and Shanteau [1984] studied the impact of nonfinancial cues on the perceived

materiality of a proposed adjusting entry. Subjects were audit partners and seniors, and auditing students. Five nonfinancial cues were examined and each was varied across two levels as follows:

- (1) a diversified firm in an expanding industry vs. a nondiversified firm in a declining industry;
- (2) a closely held private corporation with creditors being the primary users of financial statements vs. a publicly held corporation with stockholders being the primary users of the financial statements;
- (3) a management which is completely cooperative and open in all dealings with the audit firm vs. a management which is less than completely cooperative and open in all dealings with the audit firm;
- (4) a management that follows conservative accounting policies vs. a management that follows unconservative accounting policies;
- (5) the presence of strong internal control procedures vs. the presence of inadequate internal control procedures.

In addition, three financial cues including "effect on net income" were studied. The results indicated that while the practitioners (audit partners and seniors) focused on "effect on net income," they also used the nonfinancial information to fine-tune their judgments. Partners were observed to rely more than seniors on cues relating to "primary users," "accounting policies," and "internal control." Seniors, on the other hand, focused more on the "industry trend" cue. Finally, students relied more than

the practitioners on the nonfinancial information.

The present research similarly provides insights into the effect of selected qualitative factors on materiality judgments. In particular, this study demonstrates that the use of commonly utilized quantitative guidelines is influenced by qualitative factors relating to the management of the audit client.

CHAPTER III

THEORETICAL FRAMEWORK AND HYPOTHESES

This section presents the theory of correspondent inferences proposed by Jones and Davis [1965], and discusses its relevance to the investigation of the independent auditor's assessment of management's disposition. Hypotheses are then developed with respect to both the determinants of auditors' perception of management's attributes, and its impact on subsequent audit decisions.

The Theory of Correspondent Inferences

The theory of correspondent inferences [Jones and Davis, 1965] is concerned with individuals' attempts to make inferences about the dispositions of others from observing their behavior. "Correspondence", which is the main concept of the theory, refers to the clarity or directness of the relation between the inferred disposition and the observed behavior. Correspondence is said to be

high if an observer perceives that a given action can be due to only one disposition. Conversely, if the action can be attributed to several factors or dispositions, correspondence is low [West and Wicklund, 1980, p. 117]. This study examined independent auditors' correspondent (dispositional) inferences about management from observing its behavior.

Throughout the remainder of this paper, no attempt was made to distinguish among the different dispositions of management. In addition to integrity, other attributes of management must be considered in light of its responsibility as defined by the professional standards:

Management has the responsibility for adopting sound accounting policies, for maintaining an adequate and effective system of accounts, for the safeguarding of assets, and for devising a system of internal control that will, among other things, help assure the production of proper financial statements, [AICPA 1984, AU 110.02].

Thus, for example, management's attitude toward control is also an essential determinant of its ability to fulfill its stewardship function. Rather than examining specific characteristics, this study focused on the general disposition of management which was assessed against its stated responsibility. In particular, independent auditors' ability to distinguish between events resulting from management's disposition and those due to other factors was examined. The study of specific dispositional

inferences appears to be a logical subject for future research.

Desirability and Choice

In order to infer dispositions from actions, two preconditions must be met. The perceiver must believe that (1) the actor was aware that his actions would have the observed effects, and (2) the actor had the ability to bring about the observed effects [Jones and Davis, 1965, pp. 220-221]. In the auditing context, both prerequisites appear to be satisfied. Specifically, the auditor may reasonably assume that management, by virtue of its responsibility, (1) is aware of the consequences of its actions (or decisions), and (2) has the capacity to take such actions. Once the two preconditions are met, the observer will consider the desirability of the behavior, as well as the actor's degree of choice in performing the behavior in order to make an inference.

Desirability refers to the observer's perception of the likelihood that the average person would perform the same behavior under similar circumstances [West and Wicklund, 1980, p. 118]. For example, a transaction made by management will be perceived by the independent auditor to be desirable if he believes that others would engage in the transaction under the same circumstances. Desirable actions are uninformative and do not allow the observer to

make a dispositional inference about the actor. Conversely, behaviors that are undesirable (or unusual) are more likely to lead the perceiver to make an inference about the disposition of the actor.

Jones and McGillis [1976] explain desirability in terms of deviation from expectancies. A behavior is desirable to the extent that it fits the perceiver's prior expectations about the actor. They further distinguish between category-based expectancies and target-based expectancies (pp. 393-394).

Category-based expectancies derive from the perceiver's knowledge that the target person is a member of a particular class, category or reference group. If an actor is a member of a given category, one would expect to observe behavior that is consistent with the modal behavior of the category. Actions that depart from the modal behavior expectancies will be perceived as undesirable.

Target-based expectancies derive from prior information about the specific individual actor. These expectations can be inferred from previous observations of the consistency of the actor's behavior over time and modality. As in the case of category-based expectancies, behavior which deviates from target-based expectancies will be perceived as undesirable.

In the present context, the independent auditor's

expectancies about management are defined by the professional auditing standards in terms of its (management's) responsibilities (e.g., AICPA [1984], AU 110.02). Such category-based expectancies therefore, provide a basis for determining the desirability of management's actions. Accordingly, one may postulate that an observer is more likely to make a dispositional inference about management when it engages in a transaction that is inconsistent with its responsibilities (e.g., a transaction that is not in the best interest of the company's stockholders).

The independent auditor may similarly have target-based expectancies against which to assess the desirability of a given action by management. These expectations may derive from previous observations of management's behavior in similar situations. Jones and McGillis [1976] note, however, that there appears to be no systematic differences between the effect of deviating from category-based versus target-based expectancies (p. 398).

A second factor which determines the likelihood that an observer will make a dispositional inference about an actor is the perceived degree of choice in performing the behavior. The more behavioral freedom an actor is perceived to have in engaging in an action, the more confident the observer will be that the action reflects an

underlying disposition. On the other hand, if the behavior is perceived to have been performed in the presence of environmental pressures, it will be unclear whether the behavior was caused by situational or dispositional factors [West and Wicklund, 1980, p. 119].

In summary, according to the theory of correspondent inferences, an observer is most likely to infer that a given action reflects an underlying disposition of the actor when the latter is perceived to have acted freely and when the behavior is inconsistent with the perceiver's prior expectations concerning the particular actor. Further, if the perceived desirability is high, and/or the perceived degree of choice is low, correspondence will be trivial and/or ambiguous [Jones and Davis, 1965, p. 229]. These predictions have been tested and supported in social psychology (see for example, Jones and Harris [1967], and Jones, Worchel, Goethals and Grumet [1971]).

Based on the foregoing, the first hypothesis is stated as follows:

H1: Subjects are most likely to make a dispositional inference about management when a transaction is perceived to be undesirable and made under conditions of high choice.

Knowledge About the Target

In examining the impact of perceived choice and desirability on the observer's likelihood of making a

dispositional inference, one must consider the extent of the observer's knowledge about the actor. Jones and McGillis [1976] note that, "If a perceiver has firm prior knowledge about the target person and the latter behaves in a highly unexpected way, the perceiver may attribute his behavior to the situation rather than change his conception of the person. If expectations about the situation are firmer than those about the actor, there should be a change in person attribution," (p. 400). Such a boundary condition appears to be relevant for investigating the auditor-client association issue (note 1). Specifically, differences in audit judgments between a new client and an established client may be attributed to the auditor's differential knowledge about the two clients assuming that causal inferences influence subsequent judgments (see consequences of dispositional inferences). The independent auditor presumably has firm knowledge about the management of an established client whereas he has relatively little knowledge about the management of a new client. Furthermore, the auditor's perception of management must be at least reasonably favorable otherwise he would withdraw from the engagement. Accordingly, the second hypothesis is:

H2: Subjects are more likely to make a dispositional inference about the management of a new client than that of a continuing one.

Consequences of Dispositional Inferences

The hypotheses developed thus far have dealt with only the determinants of auditors' perception of management's dispositions. The following section discusses the consequences of making dispositional inferences about management.

Research in attribution theory has in general provided relatively weak support for the link between attributions and consequences (see for example, Mitchell [1982], and Kelley and Michela [1980]). In the auditing context, however, it is recognized that the independent auditor must consider the dispositions of management during the course of the examination. For example, "... the auditor should be aware of the importance of management's integrity to the effective operation of internal control procedures and should consider whether there are circumstances that might predispose management to misstate financial statements," [AICPA, 1984, AU 327.09]. Thus, a causal inference made by the independent auditor should influence subsequent audit judgments to the extent that it is dispositional. Of major concern is the identification of undesirable management attributes.

Dispositional inferences about management may influence the auditor's judgments and decisions in several ways. For example, as mentioned earlier, the scope of the auditor's

examination would be affected by circumstances that raise questions concerning the integrity of management [AICPA, 1984, AU 327.06]. The perception of an undesirable management attribute should presumably lead one to expect a greater likelihood of material errors or irregularities. The audit procedures would therefore be modified accordingly.

Inferences about management's dispositions may also influence other types of decisions such as those relating to disclosure issues. For example, the independent auditor may judge it more important to disclose an undesirable transaction according to generally accepted accounting principles if that transaction is attributed to a management disposition than if it is perceived to have been caused by situational factors that are beyond management's control.

The foregoing examples illustrate how inferences about management's dispositions may affect audit decisions. Since the consequences of making a dispositional inference depend on the nature of the decision involved, the third hypothesis is stated as follows:

H3: Dispositional inferences about management will affect subjects' subsequent audit judgments (decisions).

Instigation of Attribution Processes

A major assumption underlying research in attribution theory is that individuals spontaneously and naturally engage in attribution processes. This claim has been challenged in recent years. Enzle and Schopflocher [1978] conducted a study to determine the effect of answering attribution questions on attribution processes. Subjects received help from a confederate who either was or was not situationally facilitated. Half of the subjects were then asked to make dispositional inferences about the confederate. All subjects subsequently rated the confederate's attractiveness. The results were found to be consistent with the discounting principle [Kelley, 1971] only for subjects who had been asked the attribution questions. The authors therefore claim that asking attribution questions may instigate attribution processes that would otherwise not occur.

More recently, Wong and Weiner [1981] conducted five experiments using a self-probe methodology to examine whether individuals engage in spontaneous attributional activities. The approach consisted of requesting subjects to report any questions they would ask themselves following a given outcome. Based on the predominance of causal questions (i.e., "why" questions), the authors conclude that individuals do engage in spontaneous attribution

processes. Further, their results indicate that attributional search is most likely when the outcome of an event is negative or unexpected. This latter finding is consistent with that of a study done by Pyszczynski and Greenberg [1981]. Using yet another approach (a variation of the information-search technique, Carroll and Payne [1976]), these authors found that individuals were more likely to engage in attributional search when a given observed behavior deviated from expectancies than when it conformed to expectancies.

Thus, while the professional auditing standards do not explicitly require independent auditors to infer the dispositions of management according to the principles of correspondent inference theory, it seems reasonable to assume that the observation of an unexpected event or transaction will instigate the attribution process. Such an assumption must nevertheless be tested since the lack of evidence to support it may have major implications. In particular, if auditors do not spontaneously engage in attributional processes at least following the examination of an unexpected transaction, the impact of instigating the process on their subsequent judgments should be assessed. For example, eliciting attributional search may lead to higher consensus among auditors. Clearly, such a finding would have important implications for auditing practice and

research.

The study described in the following chapter was designed so as to allow the above-mentioned assumption to be tested. The approach was similar to that used by Enzle and Schopflocher [1978]. Specifically, half of the subjects were asked to answer the attribution questions before making audit decisions. The other half responded to the same questions in the reverse order.

CHAPTER IV

RESEARCH METHOD

This study examined the determinants of subjects' perception of management's dispositions and its impact on their subsequent judgment regarding a specific accounting disclosure issue. The three factors (choice, desirability and knowledge about target) were each manipulated at two levels: choice vs. no choice, desirable vs. undesirable, and high vs. low knowledge about target (i.e., continuing vs. new client). These factors were completely crossed into a $2 \times 2 \times 2$ factorial design (see Table 1).

Subjects were randomly selected to each receive one case description reflecting one of the eight combinations of the three primary independent variables. They were then asked to (1) make an inference about the cause (dispositional vs. situational) of the transaction, and (2) make decisions relating to the given disclosure issue. The hypotheses developed in the previous chapter were

	NEW FIRM		CONTINUING FIRM	
	CHOICE	NO CHOICE	CHOICE	NO CHOICE
DESIRABLE				
UNDESIRABLE				

Table 1: Research Design

subsequently tested using analysis of variance (ANOVA) and correlational analysis.

Subjects

A total of 117 auditors from a large international public accounting firm participated in the experiment. The questionnaires were administered on two separate dates during two of the firm's advanced in-charge audit seminars. There is no reason to believe that there was communication about the experiment between the two groups since subjects were not aware of their involvement in the study until immediately before the administration of the questionnaires.

Only 110 responses were usable. 7 questionnaires were discarded due to incomplete answers. Table 2 presents demographic data relating to the remaining subjects. In

order to verify subjects' familiarity with the experimental task, they were asked to indicate on a 7-point scale the extent to which it was common for them to make materiality judgments when conducting an audit. The scale was labeled from "1" (common) to "7" (uncommon). 101 subjects (91%) indicated at least a "4" showing that they were reasonably familiar with materiality judgments. Moreover, on the role-playing scale labeled from "1" (easy) to "7" (difficult), 84 subjects (76%) indicated at least a "4". Only 1 subject marked that it was difficult to role-play.

Research Instrument

The research instrument (see Appendix A) consisted of seven parts: (1) general instructions; (2) background information about the company and its financial statements; (3) a transaction (event) that occurred during the period under audit; (4) the causal inference questions; (5) the audit decisions; (6) manipulation checks; and (7) a questionnaire requesting demographic information about the subjects.

The general instructions asked the subjects to assume the role of in-charge independent auditors who were to examine an accounting disclosure issue resulting from a transaction that occurred during the audit period of an audit client. In addition, subjects were instructed as to

	FREQUENCY	PERCENTAGE
GENDER		
Female	44	40%
Male	66	60%
	<u>110</u>	<u>100%</u>
AGE		
Less than 25	21	18%
25 to 30	81	75%
More than 30	8	7%
	<u>110</u>	<u>100%</u>
AREA OF SPECIALIZATION		
Audit	107	97%
Private Business Advisory Services	3	3%
	<u>110</u>	<u>100%</u>
RANK		
Supervising Senior Manager	107	97%
	3	3%
	<u>110</u>	<u>100%</u>
HIGHEST ACADEMIC DEGREE		
Bachelor's	96	87%
Master's	14	13%
	<u>110</u>	<u>100%</u>
WORK EXPERIENCE		
Less than 3 years	12	8%
3 to 6 years	97	91%
More than 6 years	1	1%
	<u>110</u>	<u>100%</u>

Table 2: Demographic Data

the manner in which to proceed with the remainder of the research instrument.

The second part consisted of background information about a hypothetical firm. Subjects were informed specifically that the audit client was a SEC firm. Further, they were asked to assume that the client was either a continuing or a new one. Thus, this section enabled control over the level of knowledge about the target (high vs. low). The information provided in this section also included the prior year's audited and the current year's unaudited financial statements (balance sheet and income statement only). These reflected a general deterioration of the firm's financial position. This information was identical in all cases.

The next part described a specific event that occurred during the audit period. While the same transaction (the withdrawal of a product resulting in the sale of machinery and equipment) was presented to all subjects, each description reflected one of four combinations of the choice and desirability factor levels.

Part four of the research instrument consisted of two questions aimed at determining the type of causal inference (dispositional vs. situational) made by the subjects. Specifically, they were asked to indicate the extent to which the described transaction resulted from (1)

situational factors, and (2) management's dispositions. This section of the instrument and part five were alternated in order to determine whether the act of measuring causal perceptions instigates the attribution process (see discussion in the previous chapter).

The fifth part of the instrument briefly described the nature of the accounting disclosure issue involved. Subjects were then asked to make two decisions for the purpose of determining whether the disclosure of a given item should be made in accordance with generally accepted accounting principles.

Part six consisted of a check of the desirability and choice manipulations. Subjects were asked to indicate on separate 7-point scales the extent to which the described transaction was (1) made under conditions of choice or not choice, and (2) desirable or undesirable based on the criteria of consistency, consensus and normativeness.

The last part of the instrument inquired demographic information about the subjects. Such data included the subjects' age, gender, educational background, and work experience (see Table 2). This enabled a reasonable check of the homogeneity of the experimental groups.

Independent Variables

Three independent variables were studied in this experiment: choice; desirability; and knowledge about the

target. Each was manipulated at two levels (high vs. low). As noted earlier, knowledge about the target was controlled by informing subjects that the audit client was continuing or new.

Both the choice and desirability factors were manipulated in the description of the transaction. The high-choice cases specifically stated that management "voluntarily chose" to engage in the given transaction, whereas the low (or no)-choice cases indicated that the transaction resulted from external factors (e.g., government authority).

The desirability factor was manipulated by allowing subjects to compare the given transaction to both category-based and target-based expectancies. Category-based expectancies were created by indicating: (1) the behavior of management of "other firms in this (same) industry" in similar situations (consensus), and (2) that the behavior was "justifiable and in the best interest of the companies" (normativeness). With respect to target-based expectancies, the cases provided information about management's behavior "In similar cases in the past" (consistency). The transaction described subsequently either conformed to (i.e., desirable) or deviated from (i.e., undesirable) the expectancies. The effectiveness of the manipulations were checked (see part six of the

instrument). Appendix A presents four case descriptions each reflecting one of the four possible combinations of desirability and choice. All cases were thoroughly pretested in a pilot study using audit seniors of a large international public accounting firm other than the one used for the actual experiment.

Dependent Variables

The first dependent variable measured the extent to which the cause inferred by the subjects was dispositional. To this end, subjects were asked to indicate on two separate 7-point scales the degree to which the observed event (i.e., transaction) was due to (1) situational factors, and (2) management's dispositions. The scales ranged from "not at all" (1) to "to a great extent" (7). The measure of net dispositional inference was computed as the difference between the two scores and was used to test the first two hypotheses.

Two dependent variables were measured in order to test the third hypothesis. Of primary interest in this study was the examination of the effect of qualitative factors (e.g., causal inference type) on materiality judgments. It was not the intent of this research to identify new or currently used quantitative materiality guidelines nor to question their appropriateness. Instead, the present study utilized dependent measures based on commonly used

guidelines in an attempt to investigate the effect of selected qualitative factors on materiality judgments.

Two approaches were used to measure materiality judgments. Under the first approach, the dollar amount of the given item (gain) was provided to the subjects. Further, they were informed that the given amount of the gain was approximately (1) 7.5% of income before taxes, (2) 1.0% of total revenues, and (3) 1.5% of total assets. These percentages are within the range of commonly used quantitative guidelines for determining materiality (see for example, Gafford and Carmichael [1984], p. 112). Subjects were subsequently asked to indicate the importance of disclosing the given item according to generally accepted accounting principles. A 7-point scale was used to that end.

The second approach consisted of asking subjects to indicate the amount of the given item (i.e., gain) that they considered material for the purpose of deciding whether disclosure should be made according to generally accepted accounting principles. Rather than requesting for the specific dollar value, subjects were asked to express the materiality threshold as a percentage of income before taxes (note 2). Given the widely used rule of thumb (i.e., 5-10% of income before taxes) for determining materiality (see for example, Leslie [1984], chapter 4;

Gafford and Carmichael [1984], p. 112), subjects were explicitly requested to indicate a specific percentage rather than a range.

CHAPTER V

DATA ANALYSIS

This chapter presents the results of the data analysis. It is divided into three major sections: preliminary analyses, main analyses, and supplemental analyses.

Preliminary Analyses

The following analyses were performed prior to the testing of the main hypotheses.

Randomization Check

In order to verify the effectiveness of the randomization process, the demographic data were compared across experimental groups. The variables examined were age, gender, area of specialization, rank, audit experience, highest academic degree, commonness of making materiality judgments, ability to role-play, and time required to complete the questionnaire. Age, commonness of making materiality judgments, and academic degree were found to differ across groups. However, a

subsequent covariate analysis (see below) indicated that none of those factors were significant in explaining variations in the dependent variables.

Covariate Analysis

An analysis of covariance was performed with all variables other than the independent variables as covariates. These were age, gender, area of specialization, rank, amount of audit experience, highest academic degree, commonness of making materiality judgments, ability to role-play, and time to complete the questionnaire. The purpose was to identify factors that could contribute to variations in the dependent measures. Only the ability to role-play was found to be a significant covariate on subjects' perceived importance of disclosing the gain item according to GAAP, ($F(1,85)=4.01, p<0.0483$). None of the factors were significant covariates on the other two dependent variables (net dispositional score and materiality threshold).

Batch Differences

Since the data were collected in two batches on separate dates, an analysis was performed to detect any differences between batches (dates). Gender, amount of experience, and role-playing ability were found to differ between batches. However, as noted in the covariate analysis, except for the ability to role-play, none of

these were significant covariates on any of the dependent variables.

Order Effect

Subjects responded to the questionnaire in one of two orders: causal inference followed by materiality judgments or vice versa. No order effect was obtained with the dependent variable net dispositional score. Table 3 shows however, that order interacted significantly with the independent variables on the response variables materiality threshold and importance of disclosure. Therefore, each order was examined separately to determine the effect of the independent variables on these two dependent measures. This is discussed further in the Supplemental Analyses section.

INTERACTION *	DF	F	P-VALUE
MATERIALITY			
CL x D x O	1, 94	10.85	0.0014
CH x D x O	1, 94	4.07	0.0464
IMPORTANCE			
CL x D x O	1, 94	5.02	0.0275
CH x D x O	1, 94	4.40	0.0386

Table 3: Order Interactions

* CL: Client CH: Choice
D : Desirability O : Order

Manipulation Checks

In order to verify the effectiveness of the manipulation of the choice and desirability factors, subjects were asked four questions after making the audit judgments. First, they were asked to indicate the extent to which they felt that management had a choice in engaging in the given transaction. The responses were scored on a 7-point scale labeled from "1" (not at all) to "7" (to a great extent). A one-way ANOVA indicated that the choice manipulation was successful (see Table 4). The mean scores for the choice and no choice conditions were 4.4827 and 3.4615 respectively.

MANIPULATION	DF	F	P-VALUE
CHOICE	1, 108	7.66	0.0066
DESIRABILITY			
Consistency	1, 108	46.64	0.0000
Consensus	1, 108	39.22	0.0000
Normativeness	1, 108	16.14	0.0001

Table 4: Manipulation Checks

The desirability factor was operationalized in three ways. Specifically, subjects were provided information that indicated whether or not management's behavior (transaction) was (1) consistent with its behavior in the past (consistency), (2) consistent with the behavior of

management of other firms (consensus), and (3) in the best interest of the company's stockholders (normativeness). Accordingly, the effectiveness of each operationalization was checked by asking subjects to indicate the extent to which management's behavior reflected consistency, consensus and normativeness using the above criteria. Three separate 7-point scales were used to that end and each was labeled from "1" (not at all) to "7" (to a great extent). Table 4 shows that all three manipulations of desirability were successful. The mean scores for each level of the desirability factor are given in Table 5.

	DESIRABLE	UNDESIRABLE
CONSISTENCY	5.6875	3.9814
CONSENSUS	5.6517	4.0185
NORMATIVENESS	6.0267	5.0555

Table 5: Mean Scores on Desirability Manipulations

Main Analyses

This section presents the results of the tests of the main hypotheses of this study.

Hypothesis 1

The first hypothesis postulated that there would be an interaction effect between the choice and desirability factors. Specifically,

H1: Subjects are most likely to make a dispositional inference about management when a transaction is perceived to be undesirable and made under conditions of high choice.

The net dispositional attribution score was computed as the difference between the dispositional and situational inference scores. As noted earlier, no order effect was obtained on this dependent variable. The orders were therefore combined and a 2x2x2 (client x choice x desirability) ANOVA was conducted with the net dispositional score as the dependent variable.

The results presented in Table 6 indicate a significant choice x desirability interaction effect. Figure 1 shows graphical representations of the interaction. The cell

SOURCE	SUM OF SQUARES	DF	F	P-VALUE
CLIENT (CL)	11.7465	1	1.76	0.1882
CHOICE (CH)	39.1961	1	5.86	0.0173
DESIRABILITY (D)	00.0520	1	0.01	0.9299
CL x CH	02.8015	1	0.42	0.5191
CL x D	01.5362	1	0.23	0.6329
CH x D	38.7690	1	5.79	0.0179
CL x CH x D	00.3367	1	0.05	0.8230
ERROR	682.6694	102		

Table 6: ANOVA on Net Dispositional Score

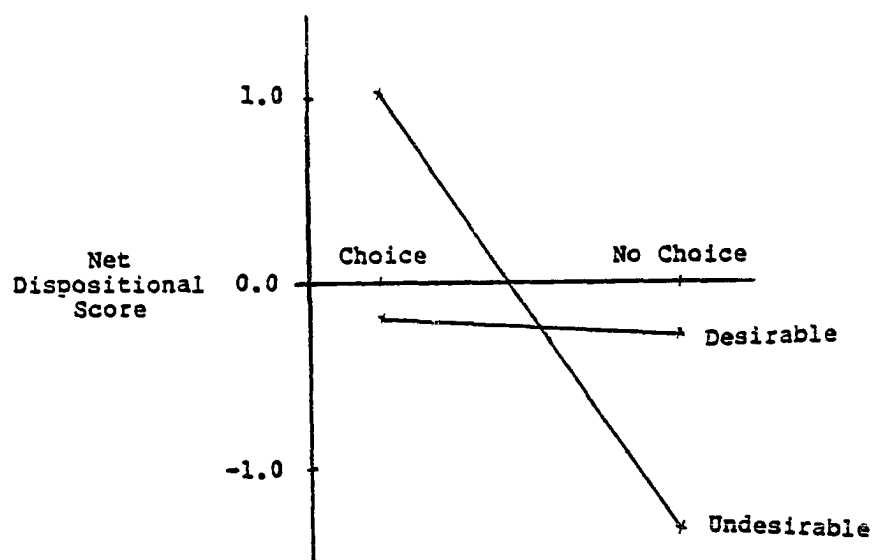
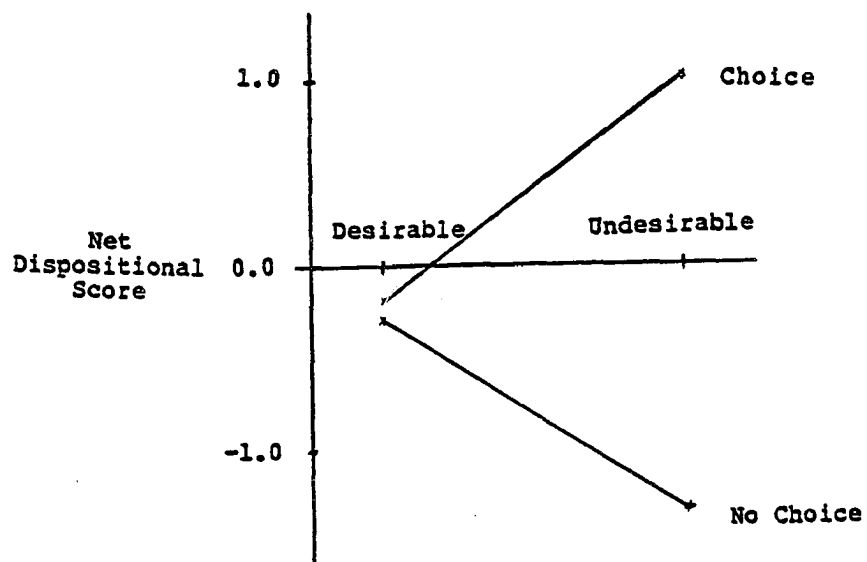


Figure 1: Choice x Desirability Interaction on the Net Dispositional Score

means are given in Table 7. The higher the score, the more dispositional the inference is. Results of the test of

	CHOICE	NO CHOICE
DESIRABLE	-0.1897 n=29	-0.2778 n=29
UNDESIRABLE	1.034 n=27	-1.340 n=25

Table 7: Cell Means for Choice x Desirability Interaction on Net Dispositional Score

multiple comparisons among the means are shown in Figure 2. Scheffe's procedure was used. It is appropriate for evaluating all a posteriori contrasts among means when the overall F statistic is significant. In addition, it allows control over the experimentwise error rate and can be used with unequal cell sizes [Kirk 1982, p.121]. While the net dispositional score was highest under the choice/undesirable condition as predicted, it was not significantly different from the net dispositional scores for the choice/desirable and no choice/desirable conditions.

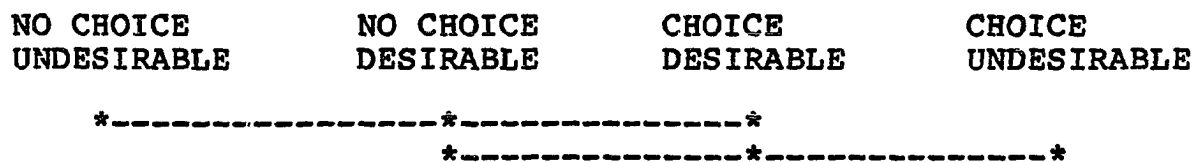


Figure 2: Test of Multiple Comparisons Among Means (level of significance = 0.05)

An additional test was performed to compare the mean (1.034) for the choice/undesirable condition and the average (-0.574) of the means for the other three conditions. Using Scheffe's procedure, the difference was found to be significant at a 0.05 level.

Hypothesis 2

The second hypothesis predicted a client main effect on the net dispositional score. Specifically,

H2: Subjects are more likely to make a dispositional inference about the management of a new client than that of a continuing one.

Table 6 indicates that the client main effect was not statistically significant. An examination of the cell means reveals that as predicted, the dispositional score for the new client condition (0.1574) was higher than that for the continuing one (-0.4464). In other words, subjects made more dispositional inferences about the new client than about the continuing one. However, the difference was not statistically significant. The magnitude of the difference was assessed by computing the effect size [Cohen 1969, pp. 18-25]. This was determined to be 0.2264 (i.e., a small effect size). Assuming a 0.05 level of significance and a power of 0.80, a sample size of 121 would be required to detect a difference of this magnitude.

Hypothesis 3

The third hypothesis pertained to the relationship between dispositional inference and subsequent judgment. Specifically,

H3: Dispositional inferences about management will affect subjects' subsequent audit judgments.

Correlational analysis has been used to test the link between causal attribution and subsequent behavior in both accounting and nonaccounting contexts (e.g., Kaplan & Reckers [1985] and Mitchell & Wood [1980]). Pearson's statistic was determined to be inappropriate since the distribution of both materiality and importance did not satisfy the normality assumption (see Figures 3 & 4).

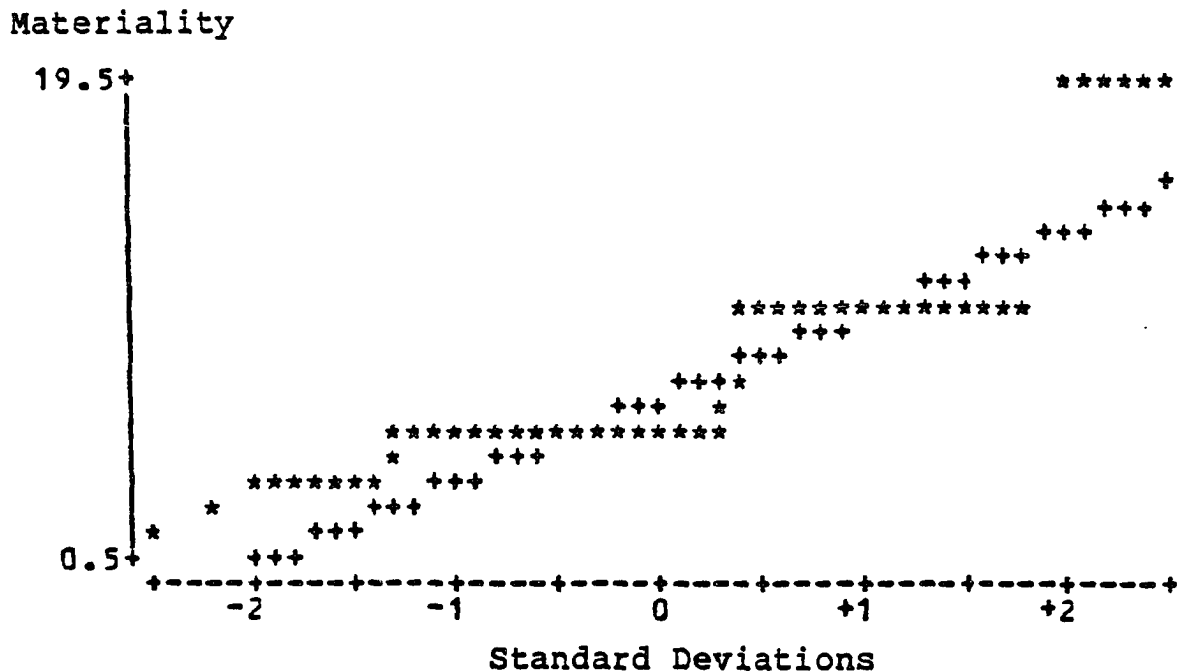


Figure 3: Normal Probability Plot for Materiality Threshold

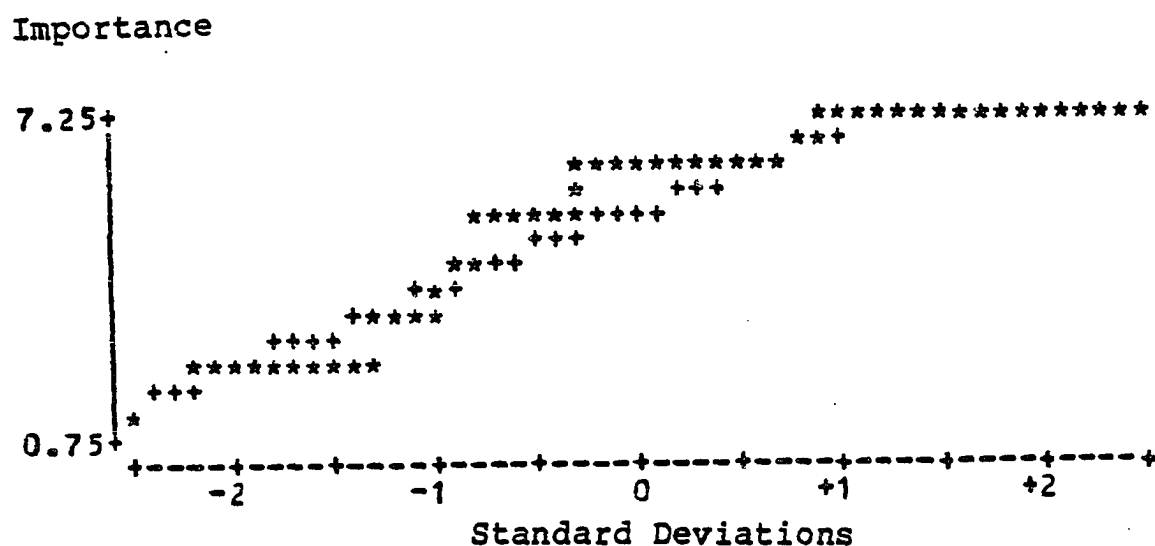


Figure 4: Normal Probability Plot for Importance of Disclosure

Table 8 shows the results of the correlational analysis between the net dispositional score and materiality threshold, and the net dispositional score and importance of disclosure. Using the Kendall Tau B approach which is adjusted for ties, net dispositional score was found to be significantly and negatively correlated with materiality threshold, but not with importance of disclosure. The same results were obtained using Spearman's method.

Table 9 shows the correlation coefficient within each cell using the Kendall Tau B procedure. As expected, the correlation within the choice/undesirable case was highest.

However, using a method proposed by Fisher (see McNemar [1969]), the correlation for that case did not differ significantly from the average correlation of the other three conditions.

	IMPORTANCE	MATERIALITY
KENDALL TAU B CORRELATION		
Coefficient	-0.0055	-0.1697
p-value	0.9397	0.0286
SPEARMAN CORRELATION		
Coefficient	-0.0130	-0.1987
p-value	0.8927	0.0374

Table 8: Correlation Between Net Dispositional Score and Materiality Judgments

	CHOICE	NO CHOICE
DESIRABLE	0.0032 (0.9835)	-0.0817 (0.6171)
UNDESIRABLE	-0.2307 (0.1369)	-0.1723 (0.3060)

Table 9: Within Cell Correlations Between Net Dispositional Score and Materiality (p-values are between parentheses)

Supplemental Analyses

The following additional analyses were performed to examine: (1) the mediating role of causal inferences on the

effect of the primary independent variables on auditors' judgments, and (2) the significant effects on materiality threshold and importance of disclosure judgments for each order.

Mediation Analysis

The framework used in this study assumed that the effect of the primary independent variables (client, choice, and desirability) on auditors' judgments would be mediated by their (auditors') causal inferences about management. In order to assess this mediation effect, a variant of path analysis which compares two multiple regression analyses was conducted (Pasahow [1980] and Batson [1975]). In the first one, the net dispositional score was entered on step 1. Then, all of the independent variables were entered as a group on step 2. In the second analysis, all independent variables were entered on step 1, and the attribution measure was entered on step 2. Thus, the mediating role of auditors' causal inference on their judgments could be examined by comparing the mean square of each predictor term across the two analyses. Mediation can be inferred if there is a significant reduction in the mean square values as a result of entering the net dispositional score first in the regression model.

The results of the multiple regression analyses on materiality threshold are shown in Appendix B. No analysis

was performed on the importance of disclosure given that its correlation with the net dispositional score was not significant. Since an order effect (see Preliminary Analyses section) was obtained on materiality threshold, the multiple regression analyses were performed for each order separately. As can be seen, for either order, there was no significant reduction in the mean square value of the predictor variables as a result of entering the net dispositional score on step 1 in the regression model. Similar results were obtained using a logarithmic transformation on the dependent variable. Hence, causal inferences did not significantly mediate the effect of the independent variables on auditors' judgments.

Analysis of Significant Effects Within Order

As noted earlier in the Preliminary Analyses Section, the order of the questions (causal inferences and audit judgments) interacted significantly with the independent variables. Appendix C shows separate ANOVA's on materiality threshold and separate ANCOVA's on importance for each order. The covariate was the ability to role-play. The significant main effects and results of simple main effect tests for the interactions are reported below.

Order 1. Table 10 shows the significant effects on materiality and importance for subjects who answered the causal inference questions prior to making the audit

judgments. The coefficient of determination (r-square) for the linear models for materiality threshold and importance of disclosure were 0.2498 and 0.1327 respectively.

SOURCE	DF	F	P-VALUE
MATERIALITY			
CH	1, 49	5.49	0.0233
CL x D	1, 49	8.72	0.0048
IMPORTANCE			
CL x CH	1, 48	3.73	0.0593

Table 10: Significant Effects for Order 1

The cell means for the choice main effect are given in Table 11. The mean materiality threshold was lower for the choice than the no choice condition.

	CHOICE	NO CHOICE
MATERIALITY THRESHOLD	6.242	7.769

Table 11: Cell Means for Choice Main Effect on Materiality

Table 12 shows the cell means for the client x desirability interaction on materiality. Tests of the simple main effects indicated the following. For the continuing client condition, there was no significant difference in mean materiality between desirability factor levels, ($F(1, 49) = 1.14, p = 0.2911$). However, for the

new client condition, the mean materiality threshold for the undesirable level was significantly lower than for the desirable level, ($F(1, 49) = 9.37, p = .0037$). Further, for the undesirable level, materiality threshold did not differ significantly between client type, ($F(1, 49) = 1.27, p = 0.2652$). On the other hand, for the desirable level, the mean materiality was significantly lower for the continuing client than for the new client, ($F(1, 49) = 9.30, p = 0.0037$).

	CONTINUING CLIENT	NEW CLIENT
DESIRABLE	6.031	9.000
UNDESIRABLE	7.071	5.929

Table 12: Cell Means for Client x Desirability Interaction on Materiality

Table 13 shows the cell means for the client x choice interaction on importance of disclosure. An analysis of the simple main effects indicates that for the continuing client the importance of disclosure was significantly less under the no choice than under the choice condition ($F(1, 48) = 3.88, p=0.0547$). However, for the new client case, the importance of disclosure was not significantly different between the two levels of choice factor ($F(1, 48) = 0.66, p=0.4210$). Furthermore, for the choice condition,

the importance of disclosure was significantly higher for the continuing client than for the new one ($F(1, 48) = 4.43, p = 0.0405$). No significant difference was found between client type under the no choice condition ($F(1, 48) = 0.48, p = 0.4934$).

	CONTINUING CLIENT	NEW CLIENT
CHOICE	5.812	4.733
NO CHOICE	4.714	5.250

Table 13: Cell Means for Client x Choice Interaction on Importance

Order 2. Table 14 shows the significant effects on materiality and importance for subjects who made the audit judgments before answering the causal inference questions. The interaction effects on materiality were only marginally significant. The r-square values for the linear models for materiality threshold and importance of disclosure were 0.2309 and 0.3358 respectively.

The cell means for the client x desirability interaction are given in Table 15. The materiality threshold for the continuing client case was found to be significantly lower in the undesirable than in the desirable condition ($F(1, 45) = 7.28, p = 0.0098$). No significant difference was found between desirability levels

SOURCE	DF	F	P-VALUE
MATERIALITY			
CL x D	1, 45	3.29	0.0765
CH x D	1, 45	3.64	0.0629
IMPORTANCE			
CL x D	1, 44	8.51	0.0055
CH x D	1, 44	5.98	0.0185

Table 14: Significant Effects for Order 2

for the new client case ($F(1, 45) = 0.03, p = 0.8719$). In addition, when the transaction was perceived to be desirable, the mean materiality threshold was significantly lower for the new client than for the continuing one ($F(1, 45) = 3.71, p = 0.0603$). No significant difference was found between client type for the undesirable transaction ($F(1, 45) = 0.42, p = 0.5196$).

	CONTINUING CLIENT	NEW CLIENT
DESIRABLE	8.962	6.429
UNDESIRABLE	5.269	6.077

Table 15: Cell Means for Client x Desirability Interaction on Materiality

Table 16 shows the cell means for the choice x desirability interaction on materiality. The mean materiality threshold was significantly lower for the

undesirable transaction than for the desirable transaction under the choice condition ($F(1, 45) = 7.95, p = 0.0071$). However, there was no significant difference between desirability levels under the no choice condition ($F(1, 45) = 0.01, p = 0.9265$). Furthermore, for the desirable transaction there was no difference in materiality threshold between the choice factor levels ($F(1, 45) = 0.47, p = 0.4972$). For the undesirable case, the mean materiality was significantly lower for the choice than for the no choice condition ($F(1, 45) = 4.00, p = 0.0515$).

	CHOICE	NO CHOICE
DESIRABLE	8.077	7.250
UNDESIRABLE	4.429	7.125

Table 16: Cell Means for Choice x Desirability Interaction on Materiality

The cell means for the client x desirability interaction on importance of disclosure are given in Table 17. For the desirable case, the importance of disclosure was significantly higher for the new client than for the continuing one ($F(1, 44) = 13.71, p = 0.0006$). No significant difference was found between client type for the undesirable transaction ($F(1, 44) = 0.22, p = 0.6410$). For the continuing client, the importance of disclosure was significantly higher for the undesirable case than for the

desirable case ($F(1, 44) = 9.78, p = 0.0031$). However, there was no significant difference between desirability levels for the new client condition ($F(1, 44) = 0.98, p = 0.3276$).

	CONTINUING CLIENT	NEW CLIENT
DESIRABLE	4.423	6.107
UNDESIRABLE	5.846	5.731

Table 17: Cell Means for Client x Desirability Interaction on Importance

Table 18 shows the cell means for the choice x desirability interaction on importance. For the desirable transaction, the importance of disclosure was significantly higher for the no choice than for the choice condition ($F(1, 44) = 6.38, p = 0.0152$). No significant difference was found between the choice factor levels for the undesirable transaction ($F(1, 44) = 0.93, p = 0.03406$). Furthermore, within the choice condition, the importance of

	CHOICE	NO CHOICE
DESIRABLE	4.731	5.821
UNDESIRABLE	5.929	5.625

Table 18: Cell Means for Choice x Desirability Interaction on Importance

disclosure was significantly higher for the undesirable case than for the desirable case ($F(1, 44) = 8.15, p = 0.0065$). However, no significant difference was found between desirability levels for the no choice condition ($F(1, 44) = 0.42, p = 0.3406$).

CHAPTER VI

SUMMARY AND CONCLUSIONS

This chapter summarizes and discusses the results of the study. Implications for future research are then presented followed by the study's limitations.

Research Results and Discussion

This study examined factors influencing auditors' perceptions of management, and the effect of those perceptions on audit judgments. Based on the theory of correspondent inferences [Jones and Davis, 1965], three hypotheses were formulated: (1) subjects are most likely to make a dispositional inference about management when a transaction is perceived to be undesirable and made under conditions of high choice; (2) subjects are more likely to make a dispositional inference about the management of a new client than that of a continuing one; and (3) dispositional inferences about management will affect subjects' subsequent audit judgments.

Subjects were senior auditors of an international public accounting firm. They were first asked to read a scenario describing a transaction that occurred during the audit period of a given client. Subsequently, subjects were requested to make (1) an attribution about the cause of the described transaction, and (2) two judgments concerning an accounting disclosure issue. The two audit judgments consisted of indicating the importance of disclosure of a given item, and specifying a materiality threshold.

The results support the first hypothesis that auditors' inferences about the cause of a transaction would be most dispositional when the transaction is perceived to be undesirable and made by management under conditions of choice. This is consistent with studies by Jones and Harris [1967], and Jones, Worchel, Goethals and Grumet [1971].

Contrary to the second hypothesis, there was no significant difference in causal inferences between the continuing and new clients. It appears that dispositional inferences about management were made independent of length of affiliation with the client. Given the significant correlation between causal inference and materiality threshold (see third hypothesis), one may cautiously surmise that materiality judgments are not influenced by

length of affiliation with client. This is not consistent with the study by Bates, Ingram and Reckers [1982] (see note 1).

The third hypothesis predicted that dispositional inferences about management would affect audit judgments. This was supported only in the case of materiality threshold judgments. Lower materiality thresholds were found to be associated with more dispositional inferences about management. However, the importance of disclosure was not significantly correlated with causal inferences.

The purpose of alternating the order of the causal inference questions and the audit judgments (materiality and importance) was to determine whether auditors spontaneously engage in attributional processes. The significant interactions of "order" with the primary independent variables provide evidence that fails to invalidate the assumption that individuals engage in causal inference processes automatically.

Implications for Future Research

The results of this study have several implications for future research. First, the findings suggest that the theoretical framework used in this study can provide a basis for investigating other types of audit judgments and tasks. This study examined the effect of auditors' perceptions of management on materiality judgments. Future

studies should investigate how these impressions of management influence other audit decisions such as the evaluation of internal control, and the nature, timing and extent of audit procedures. In addition to providing insights into these judgments, the results of those examinations would enable one to establish the validity of the framework in the auditing context.

Another potential use of the model presented in this study is for conducting comparative studies. For example, the apparent gap that exists between the performance of auditors and the expectations of users of financial statements [CAR, 1978] can be investigated using such a framework. Arrington, Hillison and Williams [1983], and Arrington, Bailey and Hopwood [1985] examined differences in attributions of audit responsibility (failure) as a means to study the issue of expectations gap. The present attribution model can similarly be used to determine whether the expectations gap is a result of divergent causal inferences about management between financial statement users and auditors.

With respect to materiality judgments, the results of this study indicate that causal inferences about management are correlated with materiality threshold. Management's dispositions are but one of many qualitative (nonfinancial) factors that may affect materiality judgments. Future

studies should examine the importance of other nonfinancial variables on such judgments.

Limitations

A major limitation relates to the case approach used in this study. Subjects were provided with only a limited amount of information primarily intended for the manipulation of the independent variables. In the natural setting, other information would be available that may influence auditors' judgments. Thus, although the case approach provided an effective means of controlling the independent variables of interest, there is the inevitable risk that some other significant factors might have been omitted.

A further problem pertains to the study's limited external validity. While the hypotheses developed in this paper were not meant to be context or task specific, in this experiment they were tested with respect to a particular audit decision (materiality judgment), one type of transaction (sale of assets), and a specific audit client (a SEC firm with a deteriorating financial position). Moreover, subjects were mostly senior auditors of a single public accounting firm. Accordingly, any generalizations must be made with care.

NOTES

1. Bates, Ingram and Reckers [1982] recently investigated the issue of auditor-client affiliation. They found that auditors' independence in attitude may be reduced by lengthy affiliation with a client. Further, the results suggest that the rotation of employees (partners) within an audit firm may be as effective as rotating the audit firm in eliminating the reduction in independence caused by long-term auditor-client association. Their findings appear to be consistent with the claim made by Jones and McGillis [1976] assuming that audit judgments are influenced by dispositional inferences about management.
2. Holstrum and Messier [1982] note that, "All of the studies that tested the relative importance of various factors in the materiality judgment found that the most important factor was the percentage effect on income," (p. 58). Further, the commonly used guideline of 5-10% was hoped to provide subjects with a sufficiently wide range to exercise their judgment.

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APPENDIX A

RESEARCH INSTRUMENT

Sections of the research instrument are presented in the next pages in the following order:

1. Background information about CONTINUING CLIENT;
2. Background information about NEW CLIENT;
3. Transaction reflecting CHOICE and DESIRABLE levels;
4. Transaction reflecting CHOICE and UNDESIRABLE levels;
5. Transaction reflecting NO CHOICE and DESIRABLE levels;
6. Transaction reflecting NO CHOICE and UNDESIRABLE levels;
7. Materiality judgments;
8. Manipulation checks;
9. Demographic questionnaire.

Assume that you are the in-charge external auditor on the Apex Company, Inc. engagement for 1984. Further, assume that you have held this position for the last four years. During each of these years, the Company has been issued an unqualified auditors' report.

Apex Company, Inc. (currently a SEC client) was founded in San Francisco, California, in 1955. The Company manufactures household consumer products and markets them through grocery stores and other large retail outlets. Research and development work is done internally. The following are the Company's condensed Income Statement and Balance Sheet:

Income Statement
(in thousands)

Years ended December 31	1984 (unaudited)	1983 (audited)
Total Revenues	\$ 815,133	\$ 918,909
Costs and Expenses	<u>706,497</u>	<u>795,250</u>
Income before Taxes	108,636	123,659
Provision for Income Taxes	<u>56,016</u>	<u>60,132</u>
Net Income	<u>\$ 52,620</u>	<u>\$ 63,527</u>

Balance Sheet
(in thousands)

December 31	1984 (unaudited)	1983 (audited)
ASSETS		
Current Assets	\$ 232,113	\$ 290,046
Property, Plant and Equipment--Net	165,907	168,350
Other Assets	<u>143,615</u>	<u>144,388</u>
Total	<u>\$ 541,635</u>	<u>\$ 602,784</u>
LIABILITIES and SHAREHOLDERS' EQUITY		
Current Liabilities	\$ 138,345	\$ 172,712
Long-term Debt	97,402	75,607
Deferred Income Taxes	22,572	31,367
Shareholders' Equity	<u>283,316</u>	<u>323,098</u>
Total	<u>\$ 541,635</u>	<u>\$ 602,784</u>

Assume that you are the in-charge external auditor on the Apex Company, Inc. engagement for 1984. Apex has a policy of rotating their audit firm every five years. The previous firm having fulfilled its full term, during which the Company has been issued an unqualified auditors' report each year, your firm has been selected to perform the audit task for the next five years. Thus, Apex Company is a new client.

Apex Company, Inc. (currently a SEC client) was founded in San Francisco, California, in 1955. The Company manufactures household consumer products and markets them through grocery stores and other large retail outlets. Research and development work is done internally. The following are the Company's condensed Income Statement and Balance Sheet:

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Provision for Income Taxes	56,016	60,132
Net Income	<u>\$ 52,620</u>	<u>\$ 63,527</u>

Balance Sheet
(in thousands)

December 31	1984 (unaudited)	1983 (audited)
ASSETS		
Current Assets	\$ 232,113	\$ 290,046
Property, Plant and Equipment--Net	165,907	168,350
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Shareholders' Equity	<u>283,316</u>	<u>323,098</u>
Total	<u>\$ 541,635</u>	<u>\$ 602,784</u>

During the current year, the safety of one of Apex Company's products was questioned. Such an occurrence is not infrequent in this industry. Research done by the Company and other firms as of that time indicated that the product was most likely to be unsafe. In similar cases in the past, Apex and other firms in this industry have stopped manufacturing and marketing the product. These decisions have almost always proven to be justifiable and in the best interest of the companies.

Shortly after the product's safety was questioned, the management of Apex voluntarily chose to cease manufacturing the product, and withdrew it from the market. As a result of management's decision to remove the product from the market, machinery and equipment originally purchased for manufacturing the now abandoned product were rendered idle. These were sold for a gain.

To what extent do you feel that the withdrawal of the product which resulted in the sale transaction was due to situational (i.e., environmental) factors beyond management's control? Please circle one number only.

1-----2-----3-----4-----5-----6-----7

not at
all

to a great
extent

To what extent do you feel that the withdrawal of the product which resulted in the sale transaction was due to management's characteristics (i.e., attributes of management such as integrity, attitudes, traits, personality, etc.)? Please circle one number only.

1-----2-----3-----4-----5-----6-----7

not at
all

to a great
extent

During the current year, the safety of one of Apex Company's products was questioned. Such an occurrence is not infrequent in this industry. Research done by the Company and other firms as of that time indicated that the product was most likely to be safe. In similar cases in the past, Apex and other firms in this industry have continued manufacturing and marketing the product. These decisions have almost always proven to be justifiable and in the best interest of the companies.

Shortly after the product's safety was questioned, the management of Apex voluntarily chose to cease manufacturing the product, and withdrew it from the market. As a result of management's decision to remove the product from the market, machinery and equipment originally purchased for manufacturing the now abandoned product were rendered idle. These were sold for a gain.

To what extent do you feel that the withdrawal of the product which resulted in the sale transaction was due to situational (i.e., environmental) factors beyond management's control? Please circle one number only.

1-----2-----3-----4-----5-----6-----7

not at
all

to a great
extent

To what extent do you feel that the withdrawal of the product which resulted in the sale transaction was due to management's characteristics (i.e., attributes of management such as integrity, attitudes, traits, personality, etc.)? Please circle one number only.

1-----2-----3-----4-----5-----6-----7

not at
all

to a great
extent

During the current year, the safety of one of Apex Company's products was questioned. Such an occurrence is not infrequent in this industry. Research done by the Company and other firms as of that time indicated that the product was most likely to be unsafe. In similar cases in the past, Apex and other firms in this industry have stopped manufacturing and marketing the product. These decisions have almost always proven to be justifiable and in the best interest of the companies.

Before the management of Apex could make a decision regarding the possible withdrawal of the product, the Company and other competitor-firms were required by a government authority to remove the product from the market and stop its production. As a result of the required withdrawal of the product from the market, machinery and equipment originally purchased for manufacturing the now abandoned product were rendered idle. These were sold for a gain.

To what extent do you feel that the withdrawal of the product which resulted in the sale transaction was due to situational (i.e., environmental) factors beyond management's control? Please circle one number only.

1-----2-----3-----4-----5-----6-----7

not at
all

to a great
extent

To what extent do you feel that the withdrawal of the product which resulted in the sale transaction was due to management's characteristics (i.e., attributes of management such as integrity, attitudes, traits, personality, etc.)? Please circle one number only.

1-----2-----3-----4-----5-----6-----7

not at
all

to a great
extent

During the current year, the safety of one of Apex Company's products was questioned. Such an occurrence is not infrequent in this industry. Research done by the Company and other firms as of that time indicated that the product was most likely to be safe. In similar cases in the past, Apex and other firms in this industry have continued manufacturing and marketing the product. These decisions have almost always proven to be justifiable and in the best interest of the companies.

Before the management of Apex could make a decision regarding the possible withdrawal of the product, the Company and other competitor-firms were required by a government authority to remove the product from the market and stop its production. As a result of the required withdrawal of the product from the market, machinery and equipment originally purchased for manufacturing the now abandoned product were rendered idle. These were sold for a gain.

To what extent do you feel that the withdrawal of the product which resulted in the sale transaction was due to situational (i.e., environmental) factors beyond management's control? Please circle one number only.

1-----2-----3-----4-----5-----6-----7

not at
all

to a great
extent

To what extent do you feel that the withdrawal of the product which resulted in the sale transaction was due to management's characteristics (i.e., attributes of management such as integrity, attitudes, traits, personality, etc.)? Please circle one number only.

1-----2-----3-----4-----5-----6-----7

not at
all

to a great
extent

Management wishes to combine the resulting gain with other items in the income statement. Generally accepted accounting principles require such an unusual, but not infrequent item to be disclosed separately if it is determined to be material to financial statement users' decisions. According to the Financial Accounting Standards Board (FASB),

"The omission or misstatement of an item in a financial report is material if, in the light of surrounding circumstances, the magnitude of the item is such that it is probable that the judgment of a reasonable person relying upon the report would have been changed or influenced by the inclusion or correction of the item" (FASB, 1980).

Assume that the GAIN was \$ 8.1 million (before taxes). That amount represents approximately,

1.0% of TOTAL REVENUES,

1.5% of TOTAL ASSETS,

and 7.5% of INCOME BEFORE TAXES.

How important would it be to disclose the GAIN separately on the Income Statement (i.e., according to generally accepted accounting principles)? Please circle one number only.

1-----2-----3-----4-----5-----6-----7

not
important

very
important

What percentage of INCOME BEFORE TAXES would you consider material for the purpose of determining whether to disclose the GAIN separately on the Income Statement (i.e., according to generally accepted accounting principles)? Please indicate a specific percentage, not a range.

_____ % of INCOME BEFORE TAXES.

Given the circumstances described in the case, to what extent do you feel that management had a choice in stopping the manufacture of the product and withdrawing it from the market? Please circle one number only.

1-----2-----3-----4-----5-----6-----7

not at
all

to a great
extent

Given the circumstances described in the case, to what extent do you feel that the withdrawal of the product from the market is consistent with decisions made by the management of Apex Company in similar situations in the past? Please circle one number only.

1-----2-----3-----4-----5-----6-----7

not at
all

to a great
extent

Given the circumstances described in the case, to what extent do you feel that the withdrawal of the product from the market is consistent with decisions made by the management of other firms in the same industry in similar cases in the past? Please circle one number only.

1-----2-----3-----4-----5-----6-----7

not at
all

to a great
extent

Given the circumstances described in the case, to what extent do you feel that the withdrawal of the product from the market was in the best interest of Apex Company's stockholders? Please circle one number only.

1-----2-----3-----4-----5-----6-----7

not at
all

to a great
extent

Listed below are a number of general information questions used for the purpose of grouping study results. Read each item and respond as it pertains to you personally.

What is your age? _____ Gender? ___ female ___ male

What is your current area of specialization?

___ Audit ___ M.A.S. ___ Tax

___ Other, please specify _____

What is your rank? _____

How many years of Audit experience do you have? _____

What is your highest academic degree?

___ B.S./B.A. ___ M.S./M.B.A. ___ Ph.D./D.B.A.

___ Other, please specify _____

Is it common or uncommon for you to make materiality judgments when conducting an audit?

1-----2-----3-----4-----5-----6-----7
Common Uncommon

Is it common or uncommon for you to make decisions involving loss contingencies when conducting an audit?

1-----2-----3-----4-----5-----6-----7
Common Uncommon

Please rate your ability to role play using the following scale.

1-----2-----3-----4-----5-----6-----7
Easy Difficult

Approximately how long did it take you to complete this questionnaire?

_____ minutes

APPENDIX B

**MULTIPLE REGRESSION ANALYSES OF CAUSAL INFERENCES AS
MEDIATOR BETWEEN PRIMARY PREDICTORS AND AUDIT JUDGMENT**

ORDER OF ENTRY OF NET DISPOSITIONAL SCORE INTO REGRESSION EQUATION						
SOURCE	AFTER PRIMARY PREDICTORS			BEFORE PRIMARY PREDICTORS		
	DF	MS	F	DF	MS	F
CL	1	11.274	1.34	1	12.132	1.44
CH	1	33.865	4.01	1	30.497	3.61
D	1	12.483	1.48	1	11.908	1.41
CL x CH	1	0.571	0.07	1	0.527	0.06
CL x D	1	69.713	8.26	1	70.406	8.34
CH x D	1	5.402	0.64	1	8.005	0.95
CL x CH x D	1	3.118	0.37	1	3.568	0.42
NET	1	4.542	0.54	1	3.926	0.47

A. ORDER 1
DEPENDENT VARIABLE: MATERIALITY

ORDER OF ENTRY OF NET DISPOSITIONAL
SCORE INTO REGRESSION EQUATION

SOURCE	AFTER PRIMARY PREDICTORS			BEFORE PRIMARY PREDICTORS		
	DF	MS	F	DF	MS	F
CL	1	9.708	0.82	1	5.068	0.43
CH	1	13.019	1.10	1	5.386	0.46
D	1	49.726	4.22	1	52.102	4.42
CL x CH	1	0.011	0.00	1	0.664	0.06
CL x D	1	36.394	3.09	1	35.169	2.98
CH x D	1	43.389	3.68	1	38.274	3.25
CL x CH x D	1	6.445	0.55	1	6.788	0.58
NET	1	9.794	0.83	1	25.036	2.12

B. ORDER 2
DEPENDENT VARIABLE: MATERIALITY

APPENDIX C

ANOVA'S AND ANCOVA'S
FOR ORDER 1 AND ORDER 2

SOURCE	SUM OF SQUARES	DF	F	P-VALUE
CL	15.3900	1	1.84	0.1810
CH	45.8746	1	5.49	0.0233
D	18.5382	1	2.22	0.1428
CL x CH	1.3110	1	0.16	0.6938
CL x D	72.8693	1	8.72	0.0048
CH x D	5.8849	1	0.70	0.4055
CL x CH x D	3.1189	1	0.37	0.5441
ERROR	409.6056	49		

A. ANOVA FOR ORDER 1
ON MATERIALITY

SOURCE	SUM OF SQUARES	DF	F	P-VALUE
CL	2.2360	1	0.84	0.3635
CH	1.5272	1	0.57	0.4521
D	0.2845D-04	1	0.00	0.9974
CL x CH	9.9146	1	3.73	0.0593
CL x D	2.7350	1	1.03	0.3154
CH x D	2.9667	1	1.12	0.2959
CL x CH x D	6.3656	1	2.40	0.1282
COVARIATE	5.4956	1	2.07	0.1569
ERROR	127.5258	48		

B. ANCOVA FOR ORDER 1
ON IMPORTANCE
COVARIATE: ROLE-PLAYING ABILITY

SOURCE	SUM OF SQUARES	DF	F	P-VALUE
CL	9.2158	1	0.78	0.3804
CH	10.5743	1	0.90	0.3477
D	48.8573	1	4.16	0.0473
CL x CH	0.4062	1	0.03	0.8533
CL x D	38.5884	1	3.29	0.0765
CH x D	42.7200	1	3.64	0.0629
CL x CH x D	6.4454	1	0.55	0.4626
ERROR	528.3511	45		

C. ANOVA FOR ORDER 2
ON MATERIALITY

SOURCE	SUM OF SQUARES	DF	F	P-VALUE
CL	7.4723	1	5.01	0.0303
CH	1.6787	1	1.13	0.2946
D	3.5201	1	2.36	0.1317
CL x CH	0.6322	1	0.42	0.5184
CL x D	12.6956	1	8.51	0.0055
CH x D	8.9222	1	5.98	0.0185
CL x CH x D	3.5762	1	2.40	0.1287
COVARIATE	5.3740	1	3.60	0.0643
ERROR	65.6378	44		

D. ANCOVA FOR ORDER 2
ON IMPORTANCE
COVARIATE: ROLE-PLAYING ABILITY

BIOGRAPHICAL SKETCH

Bernard Wong-On-Wing was born in Port-Louis, Mauritius on December 16, 1955. He obtained his elementary education at Notre Dame de La Paix School and his secondary education at College du Saint Esprit. From 1976 to 1978, he attended Concordia University in Montreal where he earned a Bachelor's degree in Commerce. In 1979, he obtained a Master's degree in Business Administration from Idaho State University. From 1980 to 1981, he worked for Coopers and Lybrand in Mauritius. In August 1982, he entered the doctoral program at Arizona State University where he was a graduate teaching assistant until 1986.