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The perception of plot and conspiracy.

Larry M. Starr

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UMI
THE PERCEPTION OF PLOT AND CONSPIRACY

by

Larry M. Starr

M.S. Villanova University, 1973

A Dissertation
Submitted to the Faculty of Graduate Studies
through the Department of Psychology
in Partial Fulfillment of the
Requirements for the Degree
of Doctor of Philosophy at the
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Windsor, Ontario, Canada

1980

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ABSTRACT

A theoretical analysis of the factors involved in perceiving a plot or conspiracy is presented. Three categories consisting of sociohistorical, social psychological, and personality processes were provided as contextual bases for understanding the various issues leading one to perceive secret agreements and ulterior intent. Two studies were conducted in order to demonstrate how several of the proposed factors produced these perceptions. Study 1 involved the relationship between negative affect and vulnerability, operationalized as threat to personal safety. Results indicated a significant relationship between conspiracy and plot perceptions and affect but a mixed relationship for vulnerability. Reactance was suggested as a contaminating factor within the vulnerability induction. Study 2 investigated the relationship between several standardized personality measures and conspiracy rhetoric on perceptions. While the rhetoric did not produce significant indices of plot perception, a statistical relationship was exhibited for Machiavellianism, Authoritarianism, locus of control, trust, and conspiracy/plot references.
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CHAPTER 1
INTRODUCTION

The purpose of this dissertation is to present a theoretical framework for the study of the perception of plot and conspiracy. This is not to be confused with an analysis of conspiratorial behavior per se, for although this topic is briefly discussed, the present focus is on the psychological and behavioral antecedents leading one to believe in the existence of covert, planned action among one or more others. Three areas will be examined in this analysis. First, different categories will be presented which define and limit the behavioral and perceptual contexts of plot and conspiracy perceptions. For each category, an illustration of plot and/or conspiracy perception will then be identified. Second, experimental manipulation of a limited number of variables which may predispose plot perception will be carried out within a laboratory ecology. Third, theoretical issues which underlie the perception of plot and conspiracy will be suggested.

The etymological roots of the word conspiracy can be traced to the Latin verb *conspirare* meaning to "breath together". Since the imagery of this simple physical act loosely suggests a sharing of space or a relationship among the breathers, the derived core meaning of conspirare has come to mean to agree or to plot together (Partridge, 1966). For example, according to Webster's Dictionary
(1971), a conspiracy is "a secret agreement or plan among confederating individuals to do an illegal or harmful act or to use such means to commit a legal act". Similarly, the Oxford Dictionary (1964) defines conspiracy as "a combination of persons for an evil or harmful purpose" and "an agreement between two or more to do something criminal, illegal or reprehensible". This focus on malevolent ends and/or means and manifest agreement is based on the historical and legal assumption that there is danger to society in collective action of this kind. Originating from the Common Law dogma of Medieval England, the crime of conspiracy centered on consummated acts which produced harmful results (Arens, 1954). At present, conspiracy in the United States is a crime encompassing either consummated or attempted action.

One characteristic implicit in the above definitions concerns the number of people participating in a conspiracy. As stated, at least two individuals and a perception of shared communication and intent between them is required. However, this distinction in the number of participants may often be difficult to make. For example, a single actor may conspire on the basis of a plan agreed upon by non-present co-conspirators. It may appear to an onlooker, however, that only one person is involved in the malevolence. The more general term, therefore, describing a secret, usually evil act or plan, is plot. Thus Webster's Dictionary (1971) defines plot as "the forming of a scheme of mischief against another or the making
of secret plans for, as to plot someone's destruction". Therefore, a plot represents a generally malevolent secret act or intention, carried out by one or more persons, whereas a conspiracy is limited to the equivalent behaviors by at least two or more plotters. However, specifying in advance whether one or more persons are involved in collusion is of minor importance. Since the present analysis considers plot and conspiracy merely a difference in the number of actors, the essential nature of the perception is felt to be unaffected by this factor. Thus, plot and conspiracy may be interchangeable terms within the body of this paper, as the appropriate context warrants it.

Human history seems laced with perceived or actual conspiracies and plots. Indeed, almost any historical event of great magnitude (a political death, a shortage of some important commodity, a period of political or economic instability, etc.) seems to call forth the need to ascribe its occurrence to some secret agreement formulated by one or more individuals. Perceptions of this kind seem to lead to desperate and often illegal attempts to counteract, imprison, track or in some way immobilize persons behind closed doors who may threaten society. The historical examples of "witch hunting" in the McCarthy era and the internal political espionage of the Watergate cover-up come to mind.

The meaning and scope of perceptions of conspiracy and plot encompasses at least three interrelated categories of analysis: the
sociohistorical context, which encompasses international conditions, social and economic crises and the dynamics of power; social psychological processes, which include group dynamics and social perception; and personality processes, which involve the predispositions of individuals as they interact with situational characteristics. Since each category is merely a means of examining plot and conspiracy perception from a particular point of view, no one category may fully explain the nature of this topic. Rather, it is necessary to view the relationship between all the categories in order to have a sufficient and comprehensive explanation.

The Sociohistorical Context

The historical roots of conspiracy perception as a social or political phenomenon in the United States can be traced to colonial days (the Salem witch trials). In a number of major instances, charges of secret conspiracies overrunning internal defenses and overwhelming resistance efforts have produced significant changes in opinion and policy (Smith, 1976). Smith's list of conspiracies include: The Bavarian Illuminate, during the presidential tenure of John Adams; the original Mafia, recognized in 1890; the "Red Scare" Bolsheviks, following World War I; the McCarthy Era Red "Witch Hunt"; and the current "domesticated" Mafia, which re-emerged in the 1960's. To this, the Watergate scandal of the early 1970's may be added.

In each case, the perception that an organized, secret, often
alien force was ready to or already had infiltrated society could be traced to a number of conditions (Smith, 1976). First, the social and cultural milieu was dominated by competition, economic setbacks and a feeling of anxiety over the possibility that forces beyond the physical borders might exercise influence over the direction or course of social change occurring at that time. Second, a spokesman or moral watchman stepped into view, in order to point out to the public that their values were at stake, due to the presence of these forces. Third, there existed some set of "facts" or information, which could be used as evidence for the existence of a conspiracy or for examples of concrete changes resulting from a conspiracy.

Smith (1976) cites the Red Scare of 1919-1920 as being exemplary of how these conditions influenced American society. The climate was ripe with anxiety and uncertainty at this time, especially because of the economic inflation and unemployment left by the War. Questions about immigration, mixed with extreme pride in Americanism, set up a xenophobic contrast to the bolshevism across the sea. The event which triggered the conspiracy perception was the news report that 36 bombs had been mailed to various business and political leaders across the country. While only one bomb actually reached its destination, causing minimal damage, the intention or purpose of the act was sufficient to create immense public outcry. Police and Justice Department officials immediately attributed the action
to a Bolshevik plot, and as a result of this, mobs, which formed in cities across the country, attacked radical meetings and parades. The resulting riots between the public mobs and the members of radical interest groups served as proof to the public of the strength and force used by these conspirators.

Under the leadership of Attorney General A. Mitchell Palmer, public opinion swayed against Bolshevik organizations in the country, and this was followed by nationally co-ordinated raids by federal agents and local police. Thousands of people, supposedly dangerous alien radicals, were rounded up and made ready for deportation. Indeed, it was the round-up itself which added more proof to the conspiracy threat, while simultaneously breaking it up physically. But the affair soon ended. Six months after the raids, the Red Scare became completely discredited.

A similar example of social conspiracy perception in the early 1970's was the "Watergate" scandal. During this era, the nation was at war with itself. While invasion from the outside was less of a source of anxiety, there was severe internal dissension about national commitment to Viet Nam, and there existed a number of growing economic problems. It seemed appropriate to blame many of these national problems on persons lacking in commitment or on those who tacitly or explicitly were in collusion with "enemies". And so it was that organs of the government were used to track, incriminate and, in some cases, immobilize "enemies of the people". Spurred on
by the significant moral voice of the news media, and the subsequent confirmation of various secret and illegal activities by high government sources, various instances of covert political revenge and dirty tricks were finally uncovered. Apparently, plots suspected to exist outside the government had led to actual conspiracies from within the White House.

Based on an analysis of social conditions present in the historical accounts of conspiracies, the following variables would seem to facilitate conspiracy perception by the general populace. First, an atmosphere of intense competition appears to be necessary. This characteristic may be co-existent with general feelings of economic insecurity, as well. A perceived loss of control, vulnerability or disadvantage is often salient, leading to a perception of coalition opportunities among others or "alien" groups. Thus, social, territorial or ideological strangeness or distinctiveness in others may intensify feelings (of vulnerability or disadvantage) and may allow for the perception of secret plots by those forming or about to form coalitions.

Generally, however, vulnerability appears to be a key factor for plot or conspiracy perception at the societal level. This leads to a "vigilant" attitude and to the tendency to perceive secret plans, even when there may not be any. The detection of disloyalty becomes of paramount importance. Persons may reach high political office by trading on the fear of the populace that their security
is in danger. The populace may feel insecure if its confidence is shaken by a drop in economic viability or by political set-backs. Any "deviate" person or group available will serve as a focus for attempts to cope with an insecure national mood.

Social Psychological Processes

The social psychological category focuses on the social perception of the individual and on interpersonal processes (e.g., group membership, norms and opinions) as they enforce or encourage perceptions of plot or conspiratorial beliefs. Earlier work by Starr (1976) and Bean and Starr (1978) has suggested a number of variables which may develop and maintain attributions of conspiracy and plot. Of those discussed, two will be reviewed here: the need to explain events or locate causality for behaviors which affect us and the relationship of previous deceptive experiences.

The need to explain. When we observe an event or a person's behavior, we look beyond the pure physical action and move phenomenologically to explain why the event occurred or the person acted in a particular manner. We do this because identifying or understanding the causes of social events allow for stability, predictability and, more importantly, a sense of meaning in our social environment. The process of describing how an individual makes causal choices, as well as how the consequences of one's belief about causality, influences one's subsequent behavior or perception, has
been investigated under the general rubric of "Attribution Theory". Inasmuch as understanding conspiracy perception necessitates understanding the process of causal inference or attribution, this theory is considered to be relevant to the present analysis.

There are several variations and statements of Attribution Theory. The most seminal contribution is Fritz Heider's (1958) analysis contained in his book, *The Psychology of Interpersonal Relations*. Designating this a "common-sense" psychology, Heider presents a description of the process leading one to "... know that another person is trying to do something, intends to do something, has the ability to do something, etc," (p. 79). Relying on a number of well defined operations, the individual selects what he or she believes to be the true causal factor for an outcome from among sources internal or external to himself or herself or another. Since any outcome is seen to be a function of the relative strength of one or another of these forces, the process of inferring meaning from an outcome begins by assessing the contribution of personal internal, as opposed to environmental external factors. Internal forces are first partitioned into factors of ability ("can") and effort ("try"), and a judgement is made as to whether these components more heavily contributed to the outcome than external forces, such as task difficulty or luck. These two sets of forces are not equal, however, at least in terms of status. External forces are considered to affect an outcome only accidentally, since the environment is
"impersonal". Only when a person thinks in animistic terms (Piaget, 1952) would attributions of personal causality be tied to the variety of environmentally initiated acts. However, for those particular events attributed to personal causality, it is the nature of such inferences that reduces the choice of causal alternatives to one; namely, a person with a particular intention and who has control over behavior and events. Furthermore, personal causality is characterized by two components; first, equifinality, which refers to a convergence of variable means leading to an invariant end, and second, local causality, which refers to the control and persistence by an individual whose intent or plan co-ordinates the means to reach the outcome.

From the discussion of the antecedents involved in the attribution process, it is possible to note some of the factors and contingencies which may be used to discern whether or not an event is conspiratorial. Since perceiving a conspiracy, by definition, assumes that the causal forces are located external to oneself and internal to some other agents, the circumstances and characteristics predisposing such causal choices, or eliminating alternatives to them, must be identified. The implications of this arrangement must not be understated. While previous research has identified and investigated several factors which bias or influence attributions of causality toward sources either personally internal or impersonally external to an individual, the present conception deals with attribu-
tions toward forces which are both external to an actor (or victim) and internal to others. In fact, it is meeting both of these specific circumstances that leads one to perceive one's own behavior or outcomes are controlled by others. Therefore, evidence or cues which lead one to attribute covert intentionality or personal causality in another, especially when overt action or verbal statements are otherwise presented by the other, often may be the basis for inferring that a conspiracy is present. For example, an organized group which makes overt statements about intentions and then follows this through with action does not lead to any difficulties about inferring underlying or covert motives of the group. However, when inferred underlying intentions do not correspond to overt verbal statements, then more reliance is placed on intent as inferred by the perceiver than that which is overtly posited by the agents. Most importantly, once an attribution of malevolent conspiracy is made, perceivers: (1) work back from the effects of actions of their enemies and assume the intentions were malevolent and (2) ascribe unrelated negative events to covert actions of the enemy.

One rare example of conspiracy attribution in the social psychological literature and which illustrates the attribution process is found in Heider (1958). In his discussion of affective significance and meaning, Heider notes how the process of rationalization can sometimes lead to perceptions of conspiracy. While in "normal" attributions the affective significance (whether benefit
or harm is associated with an outcome) usually follows one's attribution, the reverse is characteristic of the process of rationalization. For example, in attributing personal responsibility for an outcome, a normal attribution might focus on the environmental coercion while the affective component, perceived in a secondary role, would be seen as a result of this force. Rationalization, on the other hand, employs a reverse order and may lead to an entirely different meaning. For example, if an individual with high self-esteem unknowingly acts negatively toward several other people, and they, in turn, reciprocate with negative behavior, the individual may rationalize by attributing to them internal, intentional planning, and he or she may perceive that the others are conspiring to harm him or her. As Heider (1958) notes:

For example, if one person, A, antagonizes several persons one after the other and there arises difficulties between him and them, then an onlooker observing only the difficulties, will attribute them to A as the constant factor in the situation. However, A himself may be reluctant to put the reason for his negative behavior into his own person; that would undermine his self-esteem. So, in order to explain the common attitude, he may come to the conviction that there is a conspiracy among the others, or that one person has contaminated all of them by spreading untrue stories about him. (p. 151)
Aside from this single instance of how attributions may lead to plot or conspiracy perception, there is a paucity of other discussion of this topic in the social attribution literature.

Deceptive experiences. Persons whose experiences include being watched or watching others or who have experienced betrayal or deception may seem to show a tendency for perceiving plots or conspiracies. Partial confirmation for this was revealed in an earlier study by Starr (Note 1). Subjects who either did or did not have previous experience in a "deceptive" psychology experiment were administered a Student Attitude Survey. This three-part questionnaire consisted of a variety of short answer, yes-no, and interval scale items dealing, in part, with the respondent's attitudes and opinions toward psychology experiments, psychology experimenters and being deceived. The aim of the study was to answer two related questions. First, can a deceptive psychology experiment be perceived in terms of a plot by its participants? Second, what kinds of perceptual or attitudinal characteristics distinguish participants from non-participants (of previous deceptive experiences) in their perceptions of plots?

Analysis of the data (see Appendix A) revealed a number of initial differences between participants and non-participants. For example, participants of previous deceptive experiments rated experimenters as lower in status and in honesty and rated themselves as more upset by deception. Furthermore, when asked: "During a
psychology experiment, how much do you feel task difficulty contributes to your performance?", participants of previous experiments which utilized deception rated task difficulty as contributing less to their performance than non-participants.

In order to determine whether participants perceived psychology experiments as a plot, principal components analysis was performed, and the resulting orthogonal factors extracted from the responses on the questionnaire were examined. Overall, participants and non-participants appeared to perceive psychology experiments in a similar fashion except that the order of importance of the categories used was disparate. That is, the first concern of participants was the degree to which deception was being carried out against them. Subjects were upset, suspicious, resentful and questioned the experimenter's right to employ deception at all. Non-participants, however, were primarily concerned with issues of personal ability and effort on the task required of them. Reacting emotionally to deception, apparently, was less important than doing a good job in the experiment.

Conclusions from this study must be drawn cautiously. Previous experience with deceptive psychology experiments may influence perceptions of the setting of future experiments. Whether experiences in one situation can condition an individual to be on the look-out for manipulators or deceptive "evidence" or not remains to be further investigated. It is possible, however, that individuals exposed to
collusion, suspicion or deception may adopt the rhetoric of plots or conspiracies as if these were the most appropriate models for events.

To summarize, the social psychological category focuses on general mechanisms or processes which may be used to perceive conspiracies or plots. Such perceptions may be influenced by variations in previous experience, alone or in social interactions and by the use of the causal inference process. However, while such a formulation assumes all individuals use the same naive logic to determine causality, this may not be the case. Therefore, individual differences also need to be considered as an important factor in a full theory of plot and conspiracy perception.

**Personality Processes**

The personality category looks at how the unique predispositions of individuals lead to perceptions of ulterior motives, plots or conspiracies. Two related issues will be presented. First, relevant personality dimensions or variables will be discussed; second, the relationship between clinical paranoia and the veridical perception of a secret plot will be examined.

**Personality dimensions.** There are a number of standardized personality dimensions, as measured by self-report questionnaire, which appear to be applicable to the perception of plots and conspiracies. Three of the more relevant of these indicate the degree to which an individual displays variations in locus of control.
Machiavellianism and authoritarianism.

Extensive research surrounds Rotter's (1966) Internal-External (I-E) locus of control scale (Lefcourt, 1966, 1972) indicating the considerable interest generated by this conceptualization of the attribution process. Although Rotter's ideas appear to be more influenced by learning theory than by person perception research (Collins, 1974), from a person perception perspective, the I-E scale seems to measure an implicit personality in that it reflects a bias regarding the causes of good and bad events affecting the respondent. As stated by Rotter (1966), the effects of reinforcement on antecedent behavior depend in part on whether the person perceives the reinforcement as contingent on his or her own behavior or unrelated to it. Those individuals exhibiting stable expectancy patterns, characterized by a utilization of previous experiences as the basis for future outcomes, are designated Internal (I); whereas, those individuals exhibiting variant expectancy patterns, characterized by relative neglect of previous experience as the basis for future outcomes are designated External (E).

Following Rotter's original theoretical statements, several investigators have gone beyond the initial conception of control of reinforcement and have suggested multi-dimensional interpretations. For example, Mirels (1970) using Rotter's standard I-E scale, reported an internal factor pertaining to control in political institutions ("systems control") as well as control in one's personal
life. Reid and Ware (1973, 1974), however, found that the perception of impulses, drives and emotions were not adequately accounted for by either a personal or systems control factor. This led these researchers to propose that there are many independent areas with respect to locus of control. Collins (1974) also reported several independent factors within the I-E scale. While a common theme of control of reinforcements runs through the I-E scale, four distinct sub-themes were found (through factor analysis) to be superimposed on the common theme. These were: belief in a difficult world, belief in a just world, belief in a predictable world and belief in a politically responsive world. Scoring in an external direction, therefore, may result because the respondent believes the world is difficult, unjust, unpredictable or politically unresponsive.

Another investigator examining the multi-dimensionality of external sources of control and whose work bears a close relationship to the present analysis is Hanna Levenson. By adding new items and then using factor analysis, Levenson (1972) identified a single factor of "internality" and two factors of externality designated "control by chance" and "control by powerful others". Using these three factors, Levenson has been able to differentially predict specific attitudes and behavior. For example, "control by chance" alone significantly predicted political involvement (Levenson, 1974) such that strong believers were less likely to participate in social
action. Furthermore, among prison inmates, a strong belief in "control by powerful others" was characteristic of individuals who experienced repeated solitary confinement, whereas "internality" and "control by chance" beliefs showed no significant effects. The result of Levenson's research appears to be the demonstration that independent belief states are able to co-exist in an individual, and under certain situations, one or another of them takes priority influencing behavior.

The relevance of Levenson's research in the present analysis clearly lies in the belief state of "control by powerful others" since this relates to the belief that others are combining to influence one in some manner. Elucidating the situations where an interaction between orientations of control (as measured by Levenson's scale) and environmental forces lead to perceptions of conspiracy and plot is an issue only beginning to be researched.

Another personality correlate with much intuitive appeal and some weak, yet statistically significant positive association with Rotter's (1966) factor of external control (Miller & Minton, 1969) is that of machiavellianism (Christie, Note 2). Developed to determine the characteristics of manipulators in political settings, this construct is conceived of as a disposition toward lack of affect in interpersonal relationships, lack of concern for conventional morality and an orientation towards suspicion, cynicism and manipulativeness. As with others paper-and-pencil-measured constructs,
the degree to which individuals possess this orientation is determined by their score on a machiavellianism scale (Christie, Note 3), the most recent version of which is called Mach V.

Research with the Mach Scale has testified to its validity as an index of social manipulation. For example, Geis, Christie, and Nelson (Note 4) reported that High Machs (individuals scoring high in Machiavellianism on the scale) exhibited more creative deception and manipulativeness than Low Machs, in a psychology experiment. In addition, Exline, Thibaut, Brannon, and Gumpert (1961) found that while High and Low Machs cheated equally on a task after induction, the High Machs displayed significantly longer eye contact while maintaining their innocence.

Of particular relevance to conspiracy and plot perception, however, is the evidence indicating that High Machs perceive control by others and react against such behavior when directed at them personally. For example, Christie and Geis (1970) noted that High Machs are not distracted by emotional issues in interpersonal relations but are concerned instead with manipulating events or people for their own gain.

A particularly potent combination of personality factors which may produce rampant conspiracy and plot perception is the combination of trends toward both authoritarianism and machiavellianism in one person. Authoritarianism (Adorno, Frenkel-Brunswick, Levinson, & Sanford, 1950) is the term used to describe a constellation of traits
or tendencies that occur together in some persons. A person who is highly authoritarian is rigidly conventional, often highly prejudiced, repressive with regard to impulses and emotions, anti-democratic and ethnocentric and tends to use denial and projection as psychological defenses. Both Hitler and Stalin in the early part of this century seemed to show both high levels of authoritarianism and high levels of machiavellianism. Each man believed in conspiracies that were monumental in scope and monumentally false. Both men were responsible for the scapegoated deaths of millions. Hitler, whether feigned or real in his beliefs, was aggressively prejudiced and ethnocentric. He was highly controlled and concerned with "purity" and patriarchal obedience. This authoritarianism was paired with a machiavellian morality of lies, expediency, betrayal and intimidation (Langer, MacKendrick, Geanakoplos, Hexter, & Pipes, 1968). While somewhat less ethnocentric, Stalin showed a similar pattern (Solzhenitsyn, 1973).

Recently, a personality of somewhat lesser charisma, Richard Nixon, appeared to behave in ways characteristic of both high machiavellianism and high authoritarianism. In public, he showed an intense concern for conventionality, democratic ideas and the public good. In private, he spoke of and believed in secret plots which had to be ferreted out by his own private investigative body. He was controlled in private by the politics of expediency and the belief that the ends justify the means. He found it difficult to
form close relationships, a trait characteristic of authoritarians, and he tended to feel that others were out to get him ("you won't have Dick Nixon to kick around anymore"), an attitude born of extreme suspicion and mistrust of others (McLendon, 1979). He showed an amazing ignorance of how his own behavior produced antagonism in others and a painfully small amount of self-insight. Both of these qualities are characteristic of authoritarianism. When such qualities are paired with the ability to rationalize one's own manipulative political strategies, the "palace paranoia" of such an era as Watergate follows.

The relationship between clinical and social paranoia. Conspiracy and plot perception also bear a structural relationship to the symptomatology of paranoid reactions. While it is not the purpose of this paper to delve into the numerous theories which attempt to explain why individuals manifest paranoid reactions (e.g., Freud, 1928; Zamansky, 1958), it is important to cite some examples of how certain individuals may be pathologically predisposed to believe a secret plot is occurring and to compare these responses with the responses of persons having "non-pathological" perceptions.

Concerning perceiving conspiracies and plots, therefore, the attribution that events are not as they seem or have ulterior motives may be veridical or non-veridical, and often the distinction between these is basic both to one's conception of reality and perception of other phenomena in the world. With respect to non-
veridical perceptions, it is relevant to cite Chaplin's (1968) definition of "paranoid". This individual is characterized by behaviors and attitudes reflecting a persistent and strongly defended belief that he or she is being persecuted by other persons or by environmental forces. It appears, then, that such forms of pathology make a structural connection with perception of plots and conspiracies, with the point along the veridical - non-veridical continuum being of crucial import.

One of the classic arguments concerning non-veridical perception and the development of delusions of persecution is that of the paranoid pseudo-community, as espoused by Cameron (1943; 1959). According to this formulation, some persons are unable to accurately perceive or effectively test social reality because of impaired socialization skills. Under conditions of anxiety or frustration, moreover, such individuals seek refuge in fantasy and daydreaming. While this type of cognitive functioning is not distinctive in structure from that of non-paranoids, the difference lies in the fact that such withdrawal is likely to lead to a deep primitive regression, characterized by an effective loss of contact with social reality. Furthermore, in an effort to regain this lost relationship with the "real world", a reintegration of personality is attempted but invariably fails, due to defective repressive defenses.

Paranoids are also characterized by strong tendencies toward
self-reference. This egocentric orientation manifests itself in the scrutinization of the environment for clues or signs to explain away the frightening sense of isolation from social reality. This process of increased vigilance, however, is again not characteristic only of this circumscribed psychosis. Walking alone in a dark strange place at night (e.g., a forest or cemetery) often leads "normal" individuals to be more alert and may spur beliefs that one is being personally threatened by harmless things. However, while most individuals may explain their own attitudes and behavior by attributing them to various imaginary sources, the paranoid is not able to deal with reality as easily. Also driven to make hypotheses as to the causality for his or her fears and vigilance, the paranoid cannot test social reality and, instead, reconstructs his or her perception and beliefs into a coherent yet distorted delusional system. The final stage of this complex problem-solving is the establishment of a pseudo-community, a perceptual and cognitive reorganization of the surroundings into a conspiracy which is wholly self-directed. The agents in this community may be real or imaginary and may consequently correspond to actual groups in society such as secret police, political activists or dope gangs.

The connection between conspiracy perception and belief in a paranoid pseudo-community is perhaps only one degree of participation. There do seem to be several other ways paranoids differ from conspiracy and plot perceivers. The latter tend to need more
group support for their beliefs, tend to show less extreme self reference ("they're after me") and tend to work more closely with others.

In many instances, however, the distinction between the two is not easily made and, in fact, may be easily confused. For example, while conducting therapy with schizophrenics, Artiss and Bullard (1966) noticed that some of the individuals acted as if they had "secrets". Although initially categorizing this as "further delusional material", whose lack of disclosures signified "resistance in the classical Freudian sense", it was later discovered that these individuals really possessed secrets which, if disclosed, would have led to injurious consequences for themselves and/or others. While this was certainly an interesting source of paranoid behavior among schizophrenic patients, the authors soon began to record similar behavior among some of the hospital staff. In some cases, pairs of certain caseworkers appeared, at times, to be unable to work together because they perceived their partners to be disloyal to the group goal, intentionally malevolent and interfering with their ability to work efficiently. Under closer scrutiny, it was revealed that these individuals, like the paranoid schizophrenics, had some unverbalized, privately-held secret or expectation which they believed would effect negative consequences if disclosed. The basis of these secrets was their concern for some kind of prestige element (or the symbol for it), such as power,
esteem or admiration. In order to explain how the harboring of such a secret would lead to an attribution or perception of malevolent intent, Artiss and Bullard (1966) proposed a six-stage developmental theory. The essence of this theory is that persons who have a secret desire or need for admiration, for example, and who experience a sudden drop in outcomes, such that others demonstrate they have no such admiration to give them, attempt to reconcile the inconsistency. To avoid the discomfort of realizing that personal beliefs and the negative behavior of others are not congruent, they perceive the others as malevolent plotters, wishing their downfall. Thus, the belief that others admire one (based on a secret desire to be admired) changes to the belief that others are "out to get me" when the individual realizes his or her desires are inconsistent with reality.

Social scientists have yet to fully examine the idea that there may be a phenomenon called "social paranoia" where the delusional system of one individual is shared by many. It is certain to include an obsession with loyalty, secrecy and purity of attitude. Such a social belief system would also impute malevolent intent to external groups or persons inside the community that resemble the "enemy". It would pave the way for direct action against the undesirables who are seen as a threat to security. It is possible that the only difference between a "paranoid" person and a number of persons who share a delusion (of malevolence
directed against them) is simply that in the latter case, the paranoia is socially acceptable and is shared by many (folie a monde).

The personality category may be the most relevant and fruitful avenue to follow. Individuals with certain cognitive styles, either as a generalized response tendency or due to more permanent cognitive or perceptual impairment, may be more likely to perceive veridical and non-veridical covert plans, secrets or distortions.

**Experimental Implications**

Examination of the three categories of analysis reveals a number of variables which may be relevant to perceiving plot and conspiracy. While any of these variables may not be sufficient to produce a full perception, the presence of at least one and the compounding effect of several adds to the probability of such. This is due primarily to the interdependency of the categories. For example, perceived vulnerability due to economic or ideological strangeness or to inequality in competitive arenas may predispose one to be on the lookout for "enemies" who threaten or maintain one's vulnerability from outside sources. Indeed, such beliefs might be magnified if individuals possessed a personality orientation or tendency towards perceiving manipulative characteristics in others. Similarly, one's suspicion that a plot exists could be initially evoked by a recent experience with deception and could be augmented and intensified by a sudden unexpected drop in outcomes or self-esteem.
Since perceptions and beliefs are tied to present and past experiences, future expectations and general predispositions, the following hypotheses are suggested. Each describes general conditions for plot and/or conspiracy perception and each may be tested empirically.

**Hypothesis 1:** More perceptions of plot and/or conspiracy will be evidenced when conditions lead one to feel vulnerable and when one experiences negative affect than when these conditions are not present.

Since perceived vulnerability may lead to a mistrust of the motives of others and a general increase in vigilence, this psychological state is considered to be important. Furthermore, since negative, as opposed to positive affect, is more likely to lead to a search for external causality, the presence of this state should be influential, as well.

**Hypothesis 2:** More perceptions of plot and/or conspiracy will be evidenced by individuals whose personality style stresses manipulation and/or external control, especially when sensitized with the suggestion that outside controlling forces may be operating.

Since most adults have had some involvement with secret plans, deceptions, manipulation of outcomes for others, and other characteristics of a conspiratorial ecology, verbally sensitizing individuals
to the presence of such events is expected to lead to perceptions of
plot and conspiracy more readily. Furthermore, possessing a tendency
or personality predisposition to maintain belief states encompassing
control by outside forces is expected to magnify such perceptions.

The variables within each of these hypotheses are based on the
inductive analysis of plot and conspiracy perception presented earlier.
Since there is no previous experimental or theoretical work in this
area of psychology, one purpose of this dissertation was to determine
the kinds of variables which could be used to elicit perceptions of
plot in the laboratory. Thus, Study 1 investigates Hypothesis 1,
and Study 2 investigates Hypothesis 2. In both studies little effort
has been devoted to precise theoretical formulations or methodological
sophistication, rather, each is designed to loosely investigate
whether the selected variables induce perceptions of plot under
minimal conditions of control.
CHAPTER II

METHOD

Each of the two studies to be reported investigates an hypothesis constructed from the variables which seem to be operating within the three contextual categories describing the perception of plot and conspiracy. Study 1 concerned the induction of perceptions through temporary changes in emotional state. Threat to personal safety, the proposed operationalization of vulnerability, and variations in affect were selected as variables for manipulation since both are relevant preconditions for believing a plot exists. Study 2 focused on the relationship between personality predispositions and conspiracy rhetoric. Since descriptive language reflecting potential covert activities may sensitize one to potential conspiracies, especially when one's personality easily accepts the presence of powerful controlling forces, these factors were investigated.

Study 1 Overview

This research examined whether individuals who believed themselves to be threatened as to their personal safety and who experienced negative affect would exhibit behaviors characteristic of plot perception such as mistrust, suspicion, and belief in ulterior intent, as measured by responses to a questionnaire. Groups of college undergraduates participated in a 20-minute attitude survey.
in which they completed a five-page booklet consisting of open-ended and interval scale items (see Appendix B). As an introduction to the survey, a cover letter preceded the questionnaire. This contained the affect manipulation and was of three different but balanced forms: positive information, negative information and neutral information. After reading this material but before subjects answered the items, the threat manipulation was carried out. This consisted of the experimenter sniffing the air and asking if anyone "smelled smoke". He then left the room, ostensibly to check for the presence of fire. After returning 30 seconds later, subjects continued to answer the attitude survey. At the conclusion of the study, all subjects were debriefed about the inductions and expected conclusions of the study.

Subjects and Procedures

The subjects (Ss) were 56 male and female undergraduate students from Villanova University. All students participated as part of their course requirements in Introductory Psychology.

Ss arrived at the experimental room in the Psychology Department and were seated around a large table. Approximately nine Ss were run at a time. Each S was provided with a five-page questionnaire booklet (see Appendix B), introduced with a "Dear Respondent" cover letter. This letter supposedly summarized the data gathered on "social attitudes of students from here and elsewhere". Six
statements were then presented, each on a different but relevant issue of concern to students. In the positive affect condition, Ss read a summary of apparently recent student attitudes that stressed a positive, control-oriented feeling. Students seemed to be optimistic about such issues as the job market, the potential for cleaning up the environment, the stability of family life and the criminal-justice system. In the negative affect condition, Ss read a summary of apparently recent student attitudes stressing negative feelings and lack of control: the job market appeared poor, leading to questions about the need for a college education; pollution of the environment was quite heavy and the many industries in the area surrounding Villanova University produced high cancer rates; the divorce rate was felt to be increasing, and family relations were unstable. These and other issues presented a picture of concern and pessimism. In the neutral condition, Ss read a summary of student attitudes on general topics such as television shows, dancing and pets. There was no affective direction to these attitudes; merely statements of interest were presented.

The threat induction was staged by the experimenter after the subjects had finished reading the cover letter and had turned to the questionnaire section. In the no smoke condition, the experimenter looked around the room, then walked out, leaving the door open. He then returned 30 seconds later and resumed his chair at the front of the room. In the smoke condition, the experimenter looked around,
sniffed the air a few times, then asked out loud in a moderate, inquisitive, slightly concerned tone of voice, "Does anyone smell smoke?" He then left the room, leaving the door open, ostensibly to "check". After 30 seconds, the experimenter returned, shrugged his shoulders as if to show he was puzzled and resumed his position at the front of the room.

In summary, Study 1 consisted of a 2 x 3 fixed-effects factorial design. Approximately nine Ss were randomly assigned to each of the two conditions of Threat (smoke vs no smoke) and three conditions of Affect (positive, negative, or neutral).

Materials

The dependent measures were gathered through nine open-ended and 20 interval scale questionnaire items. The open-ended items had been pilot tested in previous studies (see Bean & Starr, 1979) and were found to be easy to code into discreet categories. Each of the items concerned an issue of general interest in the areas of economics, consumer affairs and politics. Each item was presented in question form and required S to respond with an opinion in the space provided. The purpose of the questions was to see if the variations in threat and affect influenced Ss to respond with degrees of suspicion or other indices of conspiratorial perceptions. For example, when asked, "Why are military contracts awarded repeatedly to some companies and not others?", it would be more likely to have Ss in
the positive affect condition respond that "companies bid lower" or "those companies have a good record" or "those companies do a better job". Ss in the negative affect or threat condition, however, were expected to state such reasons as "the companies had 'connections' or knew someone high up" or "there is some shady work going on", responses reflecting perceptions of secret motives and/or plots.

In order to analyze the data from the open-ended questions, the responses were coded into categories and then summed across all nine items. Seven categories were selected for analysis, representing descriptive aspects of plot and conspiracy perceptions. The categories were: (1) the number of references to person causality, (2) the degree of benevolence of the person references, (3) the degree of malevolence of the person references, (4) an overall perception of person causality, (5) the number of references to collusion, plot or conspiracy as causes of events, (6) the degree of malevolence of the collusion, plot and conspiracy references, (7) an overall perception of collusion, plot or conspiracy.

Categories 2 and 3 were created by rating responses on a 5-point scale consisting of high malevolence (-2), low malevolence (-1), neutral (0), low benevolence (+1) and high benevolence (+2). Examples of coded responses include reference to "discrimination" (-1), "power (0), "good grades" or "high ability" (+2). Category 6 was also coded on a 5-point scale with the following range: high suspicion (-2), low suspicion (-1), neutral (0), low trust (+1) and
high trust (+2). Examples of references in this category included "knowing someone" or "secret contacts" (-1), "fixed prices" or "conspiracy" (-2).

The measures of overall perceptions of person causality and collusion, plot or conspiracy were based on product combinations of the other categories. Category 4 was the product of the number and degree of person references. Category 7 was the product of the number and degree of malevolence of collusion, plot and conspiracy references.

The 20 interval scale items were all 7-point, disagree-agree statements. Several of the items (1, 3 - 13) were used as manipulation checks to determine if the information in the cover letter had been perceived veridically and had influenced attitudes either positively or negatively, and some of the items (2 and 14) were merely filler items, with no specific content value. The items of main interest (15 - 20), embedded within the others, however, concerned issues of potential external control and manipulation. Such statements as "the American Congress is more controlled by private interests than by public opinion" and "prices for many consumer goods are often agreed upon privately or tacitly by the major producers" were expected to yield variations in agreement-disagreement, depending on experimental conditions.
Debriefing

At the conclusion of the study, when all the items on the questionnaire were completed, each S was provided with a debriefing form. This explained the true nature of the study, the purpose and some of the expectations. Students were encouraged to ask questions about the experiment and were offered an opportunity to obtain a summary of the study’s results when available. Students were also asked not to discuss any aspect of the experiment with their friends until all data were collected (approximately three weeks).

Study 2 Overview

This research examined the relationship between personality style, as measured by standardized inventories, and conspiratorial rhetoric, that is, language possessing demand characteristics (Orne, 1962) suggesting the possibility of ulterior motives, on perceptions. Subjects (Ss) were administered a questionnaire booklet containing five personality scales and nine open-ended items of general social and economic interest to college students (see Appendix C). In order to balance the effects of the personality scales on the open-ended items, half the Ss completed the scales at the beginning of the questionnaire booklet (before condition), and half completed them at the end of the booklet (after condition.) Variations in the rhetoric of conspiracy were controlled by three different introduc-
tions to the open-ended items. In the high demand condition, Ss were instructed to "focus on what is really going on"; in the low demand condition, Ss were instructed to "focus on what you believe the answers are"; in the neutral condition, no instructions were presented.

Subjects and Procedures

The Ss were 71 male and female undergraduate college students from Villanova University. All students participated as part of their course requirements in Introductory Psychology.

Ss, run in groups of approximately 14, were administered a "Study of Social Attitudes" questionnaire booklet (see Appendix C) once each arrived at the experimental room in the Psychology Department. This booklet contained an initial page of general demographic data such as age, family structure, etc. Following this, in the before condition, a random ordering of five personality scales were presented. These were Levenson's Locus of Control scale, the Mach scale, the Authoritarian scale, Rotter's Trust scale, and the Crown-Marlowe Social Desirability Scale. Following these scales were the nine open-ended items, preceded by the high demand, low demand or neutral condition of introduction. Subjects in the after condition received the identical contents, but the order of the inventories and open-ended items was reversed.
Materials

The five personality scales were selected because each possessed face validity as a measure of some aspect of plot or conspiracy perception. The Locus of Control scale (Levenson, 1972) measured three factors of control of reinforcement: internal control (I), control by chance (C) and, of greatest interest to the present analysis, control by powerful others (P). Descriptive statistics on this 24-item, Likert format scale indicated that Ss generally score higher (possible range on each subscale, 0-48) on the I measure, a finding consistent with Rotter's (1966) I-E scale. Differences between the C and P subscales were significant only for males, however. Correlations among the subscales indicated a positive relation between P and C ($r = .59, p < .01$) and a negative relation between P and I and C and I ($r = -.14, -.17, ns$).

The Machiavellian (Mach) scale (Christie & Geis, 1970) was designed to identify individuals who possessed a Machiavellian personality style. High scores on this 20-item, forced-choice inventory (Mach V) meant that more cynicism, suspicion of others, lack of affect and increased manipulativeness were characteristics of the respondent. Reliability measures (test-retest) reported by the authors indicated generally higher scores for males ($r = .67$) than females ($r = .65$). Comparisons with other personality measures revealed a positive correlation with external measures of locus of control (Miller & Minton, 1969; Minton, 1967), general measures of suspicion (Buss and Durkee, Note 5) and a low negative correlation.
(r = -.17) with authoritarianism (Christie & Geis, 1970).

The purpose of the authoritarian (F) scale (Adorno et al, 1950) was to identify individuals who were authoritarian. Persons scoring high on this 29-item Likert format scale are highly conventional, rigid and tend to use denial and projection more frequently than persons scoring low. The F scale, since its original formulation more than 25 years ago, has probably been administered to more college students than any other paper and pencil measure. The present version (of Form 45) reports high internal consistency and high test-retest reliability (r = .90).

Rotter's (1967) Interpersonal Trust (T) scale measures a general expectation that the verbal statements of others can be relied upon. Since trusting others seems to be contrary to believing that others are engaging in secret agreements or have ulterior motives, this scale was included to determine the level of a trust predisposition among respondents. High scores on this 40-item Likert format scale indicated a relatively high degree of trust was exhibited; low scores reflected that the respondent was not as trusting. Split-half reliability, as a measure of internal consistency, is reasonably high (r = .76) as is the reported test-retest reliability (r = .68). In terms of validity, Rotter (1967) also reports good construct and discriminant validity as measured against observed behavior in groups.

The Social Desirability Scale (SDS) created by Crowne and
Marlowe (1960) was included in order to measure the degree to which Ss responded in a socially desirable, culturally appropriate and acceptable manner. A high score on this 33-item true-false inventory reflected that a respondent was providing answers in a socially desirable manner, and that these were not necessarily his or her true opinions or beliefs. This scale was used, therefore, as an internal check on the validity of the other personality measures.

Reliability statistics of this scale, as supplied by its authors, indicate good internal consistency (r = .88) and test-retest values (r = .89). Correlations with other variables indicated a positive relationship with the MMPI Lie scale (r = .54, p < .01), but no significant relationship with the MMPI Paranoia scale or the Mach V scale.

The nine open-ended items, preceded with one of the three levels of demand characteristics or conspiracy rhetoric, were essentially the same as those used in Study 1. Items such as "What factors cause the price for oil to rise?" were intended to measure the degree to which Ss responded either with language reflecting beliefs in general economic principles or with suspicion, secrecy, plot or conspiracy perceptions.

Within Study 2, three categories were selected to code the open-ended items. This was done in order to focus on more specific measures of causal loci. Since attributions are generally a function of personal or environmental forces, plus the hypothesized
conspiratorial/plot attribution, these three sources were examined. Therefore, the categories analyzed were: (1) the number of references to person causality, (2) the number of references to environmental causality, (3) the number of references to collusion, plot or conspiracy causality.

Debriefing

After the questionnaire, all Ss were provided with a debriefing form which explained the true nature of the study and described the independent variables. Students were encouraged to ask questions about the experiment and were offered an opportunity to obtain a summary of the study's results when available. Students were also asked not to discuss the study with their friends for at least three weeks.
CHAPTER III

RESULTS

Statistical analyses for each study are reported separately. The interpretation and discussion of the results, however, will be combined in the next chapter.

Study 1

Coder reliability.

A check on the reliability of the coding, based on the product-moment correlation between the categories selected by two independent coders, (see Appendix D) yielded substantial agreement ($r = .93, p < .01$).

Open-ended items analysis.

A $2 \times 3$ (Threat x Affect) multivariate analysis of variance examined the subjects' responses to the nine open-ended items (see Table 1). A Threat main effect ($F_{\text{mult}} (7, 44) = 2.527, p < .028$) indicated a difference between the smoke and no smoke conditions.

Table 1: Threat x Affect Multivariate Analysis of Variance on Open-ended Items

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>$F$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threat (A)</td>
<td>7, 44</td>
<td>2.527</td>
<td>.028</td>
</tr>
<tr>
<td>Affect (B)</td>
<td>14, 88</td>
<td>1.342</td>
<td>.200</td>
</tr>
<tr>
<td>A x B</td>
<td>14, 88</td>
<td>1.044</td>
<td>.419</td>
</tr>
</tbody>
</table>
Examination of the univariate and means (Tables 2 and 3) revealed effects opposite to those expected such that a greater degree of benevolence of person references (P\text{ ben}) was exhibited in the smoke as compared to the no smoke condition (F (1, 50) = 9.407, p < .003).

Table 2: Univariate Effects of Threat Induction (Smoke vs. No Smoke)

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>P ben</td>
<td>2, 50</td>
<td>290.517</td>
<td>9.407</td>
<td>.003</td>
</tr>
<tr>
<td>G-P score</td>
<td>2, 50</td>
<td>2561.985</td>
<td>4.524</td>
<td>.038</td>
</tr>
</tbody>
</table>

Note. P\text{ ben} = degree of person-caused references; G-P score = product of the number of and degree of malevolence of conspiracy, collusion or plot references.

Furthermore, when collusion, conspiracy and plot (G-P) references were indicated, the overall perception (G-P score) was less (F (1, 50) = 4.524, p < .038) in the smoke as opposed to the no smoke condition.

Although the Affect induction did not yield a significant multivariate effect, a number of significant univariate effects were revealed, (see Table 4 for summary and Table 5 for means). Compared to the positive and neutral "social attitudes" which introduced the questionnaire,
Table 3
Means of Univariate in Analysis of Threat Induction

<table>
<thead>
<tr>
<th>Threat</th>
<th>Affect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive</td>
</tr>
<tr>
<td><strong>P ben</strong> a</td>
<td></td>
</tr>
<tr>
<td>Smoke</td>
<td>11.80</td>
</tr>
<tr>
<td>No Smoke</td>
<td>6.00</td>
</tr>
<tr>
<td><strong>C-P score</strong> b</td>
<td></td>
</tr>
<tr>
<td>Smoke</td>
<td>85.83</td>
</tr>
<tr>
<td>No Smoke</td>
<td>78.58</td>
</tr>
</tbody>
</table>

a High score = more benevolence

b Low score = more malevolence and conspiracy, collusion and plot
the negative statements, as expected, tended to elicit a greater overall degree \((G-P \text{ mal})\) of perception of malevolence \((F (2, 50)=3.290, p < .045)\) and the highest \(G-P\) score \((F (2, 50)=3.419, p < .041)\).

Table 4: Univariate Effects of Affect Induction (Positive, Negative and Neutral)

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>G-P mal</td>
<td>2, 50</td>
<td>26.452</td>
<td>3.290</td>
<td>.045</td>
</tr>
<tr>
<td>G-P score</td>
<td>2, 50</td>
<td>1936.371</td>
<td>3.419</td>
<td>.041</td>
</tr>
</tbody>
</table>

Note. \(P\) score = product of the number and degree of malevolence of person references; \(G-P\) mal = degree of malevolence of conspiracy, collusion and plot references; \(G-P\) score = product of the number and degree of malevolence of conspiracy, collusion and plot references.

Within the interaction term, neither the multivariate nor any of the univariate effects reached significance \((F \text{ mult (14, 88)}< 1, \text{ ns}; \text{ univariate } F_s (2, 50) < 1.1, \text{ ns})\).
Table 5
Means of Univariates of Affect Induction

<table>
<thead>
<tr>
<th>Threat</th>
<th>Affect</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive</td>
<td>Negative</td>
<td>Neutral</td>
<td></td>
</tr>
<tr>
<td>G-P mal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoke</td>
<td>6.30</td>
<td>5.12</td>
<td>7.14</td>
<td></td>
</tr>
<tr>
<td>No Smoke</td>
<td>6.17</td>
<td>3.40</td>
<td>5.00</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12.47</td>
<td>8.52</td>
<td>12.14</td>
<td></td>
</tr>
<tr>
<td>G-P score</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoke</td>
<td>85.80</td>
<td>75.62</td>
<td>92.40</td>
<td></td>
</tr>
<tr>
<td>No Smoke</td>
<td>78.58</td>
<td>58.07</td>
<td>75.80</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>164.38</td>
<td>133.69</td>
<td>178.20</td>
<td></td>
</tr>
</tbody>
</table>

Note. Low scores indicate more perceptions of malevolence, conspiracy, collusion and plot.
Interval items analysis.

A 2 x 3 (Threat x Affect) multivariate analysis of variance examined the subjects' responses to the 20 seven-point disagree-agree items presented after the open-ended questions (see Table 6).

Table 6: Threat x Affect Multivariate Analysis of Variance on Interval Items

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threat (A)</td>
<td>20, 31</td>
<td>1.507</td>
<td>.149</td>
</tr>
<tr>
<td>Affect (B)</td>
<td>40, 62</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>A X B</td>
<td>40, 62</td>
<td>1.601</td>
<td>.047</td>
</tr>
</tbody>
</table>

While the Threat main effect reached only marginal significance, a significant interaction was demonstrated ($F_{mult} (40, 62) = 1.601, p < .047$). Examination of the univariates within this multivariate interaction yielded only two significant and three marginally significant effects (see Table 7 for summary and Table 8 for means).

As indicated earlier, the interval scale items were of three types: manipulation check items, filler items, and conspiracy/plot items. Examination and interpretation of individual effects, con-

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Table 7
Univariate Effects Within the Significant Threat x Affect Multivariate Interaction

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1</td>
<td>2, 50</td>
<td>5.272</td>
<td>3.481</td>
<td>.038</td>
</tr>
<tr>
<td>Item 5</td>
<td>2, 50</td>
<td>8.519</td>
<td>3.234</td>
<td>.048</td>
</tr>
<tr>
<td>Item 7</td>
<td>2, 50</td>
<td>2.487</td>
<td>1.905</td>
<td>.159</td>
</tr>
<tr>
<td>Item 8</td>
<td>2, 50</td>
<td>4.071</td>
<td>2.037</td>
<td>.141</td>
</tr>
<tr>
<td>Item 13</td>
<td>2, 50</td>
<td>6.161</td>
<td>2.034</td>
<td>.142</td>
</tr>
</tbody>
</table>

See Appendix C for Item descriptions
Table 8
Means Within Threat x Affect Univariate Interaction Effects

<table>
<thead>
<tr>
<th>Threat</th>
<th>Affect</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive</td>
<td>Negative</td>
<td>Neutral</td>
</tr>
<tr>
<td>Item 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoke</td>
<td>5.167</td>
<td>6.375</td>
<td>5.714</td>
</tr>
<tr>
<td>No Smoke</td>
<td>5.667</td>
<td>4.923</td>
<td>6.000</td>
</tr>
<tr>
<td>Item 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoke</td>
<td>3.000</td>
<td>3.625</td>
<td>4.571</td>
</tr>
<tr>
<td>No Smoke</td>
<td>4.417</td>
<td>3.769</td>
<td>3.100</td>
</tr>
<tr>
<td>Item 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoke</td>
<td>5.500</td>
<td>6.250</td>
<td>6.714</td>
</tr>
<tr>
<td>No Smoke</td>
<td>6.250</td>
<td>6.154</td>
<td>5.900</td>
</tr>
<tr>
<td>Item 8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoke</td>
<td>5.667</td>
<td>5.750</td>
<td>4.714</td>
</tr>
<tr>
<td>No Smoke</td>
<td>5.300</td>
<td>5.923</td>
<td>6.300</td>
</tr>
<tr>
<td>Item 13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoke</td>
<td>2.667</td>
<td>3.250</td>
<td>3.714</td>
</tr>
<tr>
<td>No Smoke</td>
<td>4.417</td>
<td>3.769</td>
<td>3.000</td>
</tr>
</tbody>
</table>

Note. Scores range from 1 = Disagree to 7 = Agree.
sequently, must be viewed within their appropriate contexts. For example, positive affect, as induced through the six positive statements introducing the questionnaire, attempted to promote and encourage positive responses on those key "manipulation check" items. Similarly, the negative affect induction was expected to produce negative responses on those same key items. Examination of the univariates, however, indicated limited confirmation of this assumption. Of the 12 manipulation check items, only two reached significance and both were ambiguous. When asked whether a "college education is worth the price" (item 1), subjects receiving the negative induction (and expected to disagree with the item) expressed more agreement when in the smoke condition ($F(2, 50) = 3.481, p < .038$). Also inconsistent with expectations were responses to item 5: "Many countries will bring their population size under control." Since the positive induction stressed agreement to this statement, the significant disagreement displayed in the positive x smoke condition ($F(2, 50) = 3.234, p < .048$) was puzzling.

Within the marginally significant multivariate threat effect, only one univariate analysis was of note. When asked whether the overpopulation problem was seen as "dangerous" (item 4), subjects agreed more when in the smoke as opposed to no smoke conditions ($F(1, 50) = 5.264, p < .026$).

The Affect manipulation revealed no significant effects at any level ($F(40, 62) < 1, \text{ ns}$).
**Discriminant function analysis.**

Due to a lack of clarity surrounding the effects of the Threat and Affect inductions, discriminant analysis was applied to the data. The purpose was to examine whether a distinct pattern of responses corresponding to the levels of each independent variable could be distinguished. The analysis of the Affect manipulation, using all the questionnaire responses (Table 9) revealed an overall predictability of 82.14 per cent. Although a large number of subjects could be identified on the basis of their responses, separation into clearly positive, negative and neutral groups was not statistically significant for either of the two functions derived. This unexpected finding reflects a weakness in the Affect manipulation, especially between positive and negative levels, since it prohibits

<table>
<thead>
<tr>
<th>Affect</th>
<th>N</th>
<th>Predicted Group (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Positive</td>
</tr>
<tr>
<td>Positive</td>
<td>18</td>
<td>83.3</td>
</tr>
<tr>
<td>Negative</td>
<td>21</td>
<td>14.3</td>
</tr>
<tr>
<td>Neutral</td>
<td>17</td>
<td>5.9</td>
</tr>
</tbody>
</table>

**Note.** Overall predictability for all groups = 82.14%.
a concise understanding of their effects on behavior.

Discriminant analysis of the Threat induction yielded a better but only marginally significant function (\(X^2 = 34.331, df = 27, p < .157\)). As presented in Table 10, the overall predictability of the subjects into smoke or no smoke groups on the basis of responses to the questionnaire was 91.07 per cent. This high level reflects the strength of the induction and allows for a better understanding of the effects of the manipulation.

**Study 2**

**Order effects.**

One-way analysis of variance to determine whether the order of presentation of the materials (personality scales before vs. after open-ended items) contributed to variance yielded no significant differences (\(F < 1, \text{ ns}\)). This factor was therefore considered to

<table>
<thead>
<tr>
<th>Threat</th>
<th>N</th>
<th>Predicted Group (%)</th>
<th>Smoke</th>
<th>No Smoke</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoke</td>
<td>21</td>
<td>95.5</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td>No Smoke</td>
<td>35</td>
<td>8.6</td>
<td>91.4</td>
<td></td>
</tr>
</tbody>
</table>

Note. Overall predictability for both groups = 91.07%. 

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be of minor import, and the data were combined for all other analyses.

**Coding.**

The responses to each of the open-ended questions were coded into categories and then summed across all nine items. Only three categories were included for analysis in this study in order to focus on more specific measures of causal loci. Since attributions are generally a function of personal or environmental forces, yet the present conceptualization allows for a third, conspiratorial force, these three sources were examined. Thus, the categories included (1) the number of references to persons as causes (P); (2) the number of references to environmental forces as causes (E); (3) the number of references to conspiracy, collusion or plot as causes (C-P). Analysis of coder reliability (see Appendix D) again indicated a high degree of category agreement ($r = .96, p < .01$).

**Personality scale scores.**

Each of the five personality scales was scored according to its standardized key. All scores were then intercorrelated to determine statistical relationships (Table II). As expected (Levenson, 1972) both the powerful others (P) and chance (C) subscales of the Locus of Control scale were positively correlated ($r = .52, p < .01$),

Insert Table II about here

1972) both the powerful others (P) and chance (C) subscales of the
Table 11
Correlation Matrix of Personality Scale Scores

<table>
<thead>
<tr>
<th></th>
<th>I</th>
<th>P</th>
<th>C</th>
<th>M</th>
<th>F</th>
<th>SD</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td></td>
<td>0.078</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>-0.034</td>
<td></td>
<td>0.525**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>-0.071</td>
<td>0.240*</td>
<td></td>
<td>0.096</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>-0.019</td>
<td>-0.340**</td>
<td>-0.321**</td>
<td></td>
<td>-0.051</td>
<td></td>
<td>1.000</td>
</tr>
<tr>
<td>SD</td>
<td>0.140</td>
<td>-0.175</td>
<td>-0.215</td>
<td>-0.185</td>
<td>0.042</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>-0.076</td>
<td>-0.338**</td>
<td>-0.286*</td>
<td>-0.158</td>
<td>0.246*</td>
<td>0.184</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Note. N = 71; I = belief in internal control, P = belief in control by powerful others, C = belief in control by chance, M = machiavellianism score, F = authoritarianism score, SD = social desirability score, T = trust score.

* p < .05
** p < .01

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since both are measures of external control. However, only G negatively correlated with the internal (I) subscale ($r = -0.034$, ns), leaving a puzzling positive correlation between belief in powerful others and belief in internal locus of control ($r = +0.078$, ns). The P subscale also significantly correlated with high Mach (M) scores ($r = 0.240$, $p < 0.05$), low authoritarian (F) scores ($r = -0.340$, $p < 0.01$), a surprising relationship, and low Trust (T) scores ($r = -0.338$, $p < 0.01$). The G subscale also correlated significantly with low F scores ($r = -0.321$, $p < 0.01$) and low T scores ($r = -0.286$, $p < 0.05$). A positive correlation between T and F scores was also revealed ($r = 0.246$, $p < 0.05$). There was no correlation between scores on the Social Desirability scale and any other scale presented.

Multivariate analysis of variance.

A one-way multivariate analysis of variance examined the subjects' responses on the open-ended items and their personality scores based on the three levels of demand characteristics (high, low, neutral), which introduced the questionnaire. Although this did not yield significance ($F_{\text{mult}} (20, 118) < 1$, ns), the univariate analyses (Table 12) reveals some effects. The only variance of note, as indicated by the difference in the means (Table 13), concerns the higher number of references to environmental causes.
Table 12
Univariates of One-way Multivariate Analysis of Variance on Demand Characteristics (High, Low, Neutral)

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>P references</td>
<td>2, 68</td>
<td>11.487</td>
<td>2.065</td>
<td>.135</td>
</tr>
<tr>
<td>E references</td>
<td>2, 68</td>
<td>11.203</td>
<td>3.987</td>
<td>.023</td>
</tr>
<tr>
<td>G-P references</td>
<td>&lt; 1</td>
<td>&lt; 1</td>
<td>&lt; 1</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>&lt; 1</td>
<td>&lt; 1</td>
<td>&lt; 1</td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>2, 68</td>
<td>79.678</td>
<td>1.313</td>
<td>.276</td>
</tr>
<tr>
<td>C</td>
<td>&lt; 1</td>
<td>&lt; 1</td>
<td>&lt; 1</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>&lt; 1</td>
<td>&lt; 1</td>
<td>&lt; 1</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>&lt; 1</td>
<td>&lt; 1</td>
<td>&lt; 1</td>
<td></td>
</tr>
<tr>
<td>SD</td>
<td>&lt; 1</td>
<td>&lt; 1</td>
<td>&lt; 1</td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>&lt; 1</td>
<td>&lt; 1</td>
<td>&lt; 1</td>
<td></td>
</tr>
</tbody>
</table>

Note: I = belief in internal control, P = belief in control by powerful others, G = belief in control by chance, M = machiavellianism score, F = authoritarianism score, SD = social desirability score, T = trust score.

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\( F (2, 68) = 3.987, p < .023 \) by subjects in the high demand characteristics condition. There were no significant differences in the number of conspiracy, collusion or plot references \( F (2, 68) < 1, \text{ ns} \).

Table 13: Means of Univariate Analysis of Variance

<table>
<thead>
<tr>
<th>Demand Characteristic</th>
<th>( E^a )</th>
<th>( P^b )</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>4.64</td>
<td>8.32</td>
</tr>
<tr>
<td>Low</td>
<td>3.72</td>
<td>8.56</td>
</tr>
<tr>
<td>Neutral</td>
<td>3.29</td>
<td>9.67</td>
</tr>
</tbody>
</table>

Note: High scores indicate more causal references.

\( ^aE = \text{Number of references to environmental sources.} \)

\( ^bP = \text{Number of references to person causality.} \)

Stepwise multiple regression.

Stepwise multiple regression (SMR) was performed in order to determine predictive relationships between the personality scales and the coded responses on the open-ended items. Since the primary measure was the frequency of conspiracy, collusion and plot references (C-P), this variable was used as criterion. Table 14 presents the

Insert Table 14 about here
Table 14
Stepwise Multiple Regression of Personality Scores on Number of Conspiracy, Collusion and Plot References

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>$S^2$</th>
<th>Beta</th>
<th>Mult. R</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1, 62</td>
<td>21.226</td>
<td>7.487**</td>
<td>.108</td>
<td>.324</td>
<td>.328</td>
</tr>
<tr>
<td>M</td>
<td>2, 61</td>
<td>16.159</td>
<td>5.986**</td>
<td>.164</td>
<td>.250</td>
<td>.405</td>
</tr>
<tr>
<td>T</td>
<td>3, 60</td>
<td>12.877</td>
<td>4.897**</td>
<td>.196</td>
<td>-.224</td>
<td>.443</td>
</tr>
<tr>
<td>SD</td>
<td>4, 59</td>
<td>10.498</td>
<td>3.996**</td>
<td>.213</td>
<td>.136</td>
<td>.462</td>
</tr>
<tr>
<td>P</td>
<td>5, 58</td>
<td>8.636</td>
<td>3.256*</td>
<td>.219</td>
<td>-.091</td>
<td>.468</td>
</tr>
<tr>
<td>F</td>
<td>6, 57</td>
<td>7.210</td>
<td>2.673*</td>
<td>.220</td>
<td>.022</td>
<td>.469</td>
</tr>
</tbody>
</table>

Note: Effects are listed in the order in which they were extracted from the regression analysis. C = chance, M = machiavellianism, T = trust, SD = social desirability, P = belief in powerful others, F = authoritarianism.

* $p < .05$

** $p < .01$
summary of this statistical procedure. As indicated, all of the personality scores except the internal (I) subscale of the Locus of Control significantly predicted C-P. The order of predictors for C-P was as follows: Belief in Chance, Mach, Trust, Social Desirability, Belief in Powerful Others and Authoritarianism. Although all effects reached a level of significance exceeding \( p < .05 \), the cumulative variance accounted for by all predictors was low \( (\hat{R}^2 = 22 \text{ per cent}) \).

Since it is possible that the Social Desirability scale, the fourth predictor in the regression equation, influenced or contaminated the results, SMR was once again performed without the SD score, and then partial correlation analysis was used to examine the role of this variable. As revealed in the SMR summary table (Table 15),

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|c|}
\hline
Predictor & Belief in Chance & Mach & Trust & Social Desirability \\
\hline
\hline
\end{tabular}
\end{table}

the predictors were extracted in the same order as the original regression equation, although the variance accounted for was somewhat lower this time \( (\hat{R}^2 = 20 \text{ per cent}) \). Furthermore, the partial correlation confirmed the limited effects that the Social Desirability scale (and thus the social desirability construct) had on responses in this study (see Table 16).
Table 15
Stepwise Multiple Regression of Personality Scores
Without Social Desirability Scale Score

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>$\beta^2$</th>
<th>Beta</th>
<th>Mult.R</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1, 62</td>
<td>21.226</td>
<td>7.487**</td>
<td>.108</td>
<td>.301</td>
<td>.328</td>
</tr>
<tr>
<td>M</td>
<td>2, 61</td>
<td>16.159</td>
<td>5.986**</td>
<td>.164</td>
<td>.230</td>
<td>.405</td>
</tr>
<tr>
<td>T</td>
<td>3, 60</td>
<td>12.877</td>
<td>4.879**</td>
<td>.196</td>
<td>-.208</td>
<td>.443</td>
</tr>
<tr>
<td>P</td>
<td>4, 59</td>
<td>9.970</td>
<td>3.744**</td>
<td>.202</td>
<td>-.095</td>
<td>.450</td>
</tr>
<tr>
<td>F</td>
<td>5, 58</td>
<td>7.983</td>
<td>2.947*</td>
<td>.203</td>
<td>.014</td>
<td>.450</td>
</tr>
</tbody>
</table>

Note: N = 71, C = chance, M = machiavellianism, T = trust, P = powerful others, F = authoritarianism.

* $p < .05$

** $p < .01$
Table 16: Correlation of G-P and Personality Scale Scores
With SD and With SD Partialled Out

<table>
<thead>
<tr>
<th>C-P</th>
<th>I</th>
<th>F</th>
<th>G</th>
<th>M</th>
<th>F</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>With SD</td>
<td>-.010</td>
<td>.184</td>
<td>.328</td>
<td>.286</td>
<td>-.114</td>
<td>-.295</td>
</tr>
<tr>
<td>Without SD</td>
<td>-.010</td>
<td>.186</td>
<td>.335</td>
<td>.276</td>
<td>-.114</td>
<td>-.297</td>
</tr>
</tbody>
</table>

In an effort to both increase the variance accounted for by the predictors and to more closely examine the relationship of the personality scale scores on the dependent measure, SMR was performed only on those subjects scoring above the median on each of the personality scales. The results for the high Mach regression analysis clearly were positive (Table 17). The variance accounted for jumped from 20 to 32 per cent. Furthermore, while all the previous personality scores remained significant predictors of G-P, the internal subscale of Locus of Control also entered the equation as a variable of influence.

Using subjects above the median of the F scores also increased the variance accounted for, although the amount only changed from 20 to 23 per cent. Furthermore, while all the personality scores entered the regression equation (Table 18), G and M were the only
### Table 17
Stepwise Multiple Regression of Personality Scale Scores on G-P Using Only High Mach Subjects

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>$S^2$</th>
<th>Beta</th>
<th>Mult.R</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>1, 36</td>
<td>14.020</td>
<td>4.844</td>
<td>.119</td>
<td>.350</td>
<td>.344</td>
</tr>
<tr>
<td>G</td>
<td>2, 35</td>
<td>12.270</td>
<td>4.585</td>
<td>.208</td>
<td>.305</td>
<td>.456</td>
</tr>
<tr>
<td>T</td>
<td>3, 34</td>
<td>9.880</td>
<td>3.793</td>
<td>.251</td>
<td>-.334</td>
<td>.500</td>
</tr>
<tr>
<td>P</td>
<td>4, 33</td>
<td>9.273</td>
<td>3.773</td>
<td>.314</td>
<td>-.277</td>
<td>.560</td>
</tr>
<tr>
<td>I</td>
<td>5, 32</td>
<td>7.528</td>
<td>2.990</td>
<td>.318</td>
<td>-.072</td>
<td>.564</td>
</tr>
<tr>
<td>F</td>
<td>6, 31</td>
<td>6.307</td>
<td>2.433</td>
<td>.320</td>
<td>.046</td>
<td>.566</td>
</tr>
</tbody>
</table>

**Note:** All $F$ values are significant at $p < .05$. M = machiavellianism, G = chance, T = trust, P = powerful others, I = internal control, F = authoritarianism.
Table 18
Stepwise Multiple Regression Using Only High F Scale Subjects

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>$s^2$</th>
<th>Beta</th>
<th>Mult. R</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
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<td>12.213</td>
<td>4.899*</td>
<td>.126</td>
<td>.397</td>
<td>.355</td>
</tr>
<tr>
<td>M</td>
<td>2, 33</td>
<td>8.178</td>
<td>3.348*</td>
<td>.169</td>
<td>.212</td>
<td>.411</td>
</tr>
<tr>
<td>T</td>
<td>3, 32</td>
<td>6.408</td>
<td>2.637</td>
<td>.198</td>
<td>-.245</td>
<td>.445</td>
</tr>
<tr>
<td>P</td>
<td>4, 31</td>
<td>5.238</td>
<td>2.136</td>
<td>.216</td>
<td>-.143</td>
<td>.466</td>
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<tr>
<td>F</td>
<td>5, 30</td>
<td>4.454</td>
<td>1.789</td>
<td>.230</td>
<td>.123</td>
<td>.479</td>
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<td>3.747</td>
<td>1.459</td>
<td>.230</td>
<td>.049</td>
<td>.482</td>
</tr>
</tbody>
</table>

Note: C = chance, M = machiavellianism, T = trust, P = powerful others, F = authoritarianism, I = internal control.

* $p < .05$
significant predictors. SMR, using a median split on each of the other personality scale scores, failed to raise the variance accounted for beyond the 20 per cent level (see Appendix E).

Although the variable of importance in this study was *G-P*, the number of references to conspiracy, collusion and plot, the significant univariate analysis of the number of environmental references (*E*) pointed to the possibility that this factor also related to the personality scores. Therefore, SMR using *E* as criterion and the personality scores as predictors was carried out. The results (Table 19) contraindicated such a relationship, due to low variance (10 per cent) and the presence of only two significant predictors: *P* and *M*.

---

Insert Table 19 about here
Table 19
Stepwise Multiple Regression of Personality Scale Scores on $E^a$

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>$F$</th>
<th>$S^2$</th>
<th>Beta</th>
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<tbody>
<tr>
<td>P</td>
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<td>16.159</td>
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<td>.301</td>
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<tr>
<td>T</td>
<td>3, 66</td>
<td>6.320</td>
<td>2.330</td>
<td>.096</td>
<td>-.067</td>
<td>.310</td>
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<td>.316</td>
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</tbody>
</table>

Note: P = belief in powerful others, M = machiavellianism, T = trust, F = authoritarianism, I = internal control.

* $P < .05$

$a$ $E$ represents the number of references to environmental sources.
CHAPTER IV
DISCUSSION

The results of the present studies provide only slight support for the two hypotheses under investigation. Specifically in Study 1, variations of threat and affect produced only minor changes in the quantity and quality of perceptions of conspiracy and plot. Most likely, it was the methodological weakness which accounted for the lack of prediction. In Study 2, the frequency of references to conspiracy and plot was found to relate to several personality measures which stressed manipulation and/or external control. However, the subtle induction using the conspiratorial rhetoric influenced only the number of references to environmental causes.

Overall, within Study 1, neither the Affect nor Threat inductions produced reliable measures of conspiracy or plot perceptions as had been predicted. While the Threat induction did produce some variability in the responses of the subjects, the open-ended and several of the interval items seemed to indicate a reversal effect whereby responses were opposite to those expected. One possible reason may be that the subjects were experiencing a reactance (Brehm, 1966) to the induction and/or the experimenter. According to Brehm’s (1966) theory, reactance is a motivational state with a specific direction, namely to regain whatever behavior was threatened or eliminated. Since the presence of smoke (and potentially, fire)
was a threat to the subjects' personal safety by the experimenter, the responses on the questionnaire may have reflected a reactance to re-establish personal control. Or, due to the naivity of the design and the lack of intensity or believability of the threat induction itself, subjects may have reacted against the experimenter. This possibility seems tenable in light of the significant effects within the open-ended items. Of the nine categories of responses examined in the threat analysis, all of the statistical effects revealed reactance as opposed to manipulation effects. For example, while the smoke condition was expected to create an atmosphere of anxiety and loss of control leading to a greater likelihood of conspiracy and plot perceptions, actually more attributions of benevolence and less attributions of plot were revealed. Furthermore, the significant interaction effects within the interval items also seemed to reverse the direction of the "manipulation check" items. Of the five items displaying significant effects (out of 20 items provided), three revealed reactance, one followed predictions, and one was mixed. For example, subjects told that most students believed a college education should be questioned for its value (negative affect condition) responded in the smoke condition with agreement when asked whether a "college education was worth the price". Also, when told that the overpopulation problem was finally being controlled and that slow and "zero" population had been attained by several countries (positive affect condition), subjects responded in the smoke condition with
disagreement to the statement that "many countries will bring their population size under control". The smoke induction, therefore, produced results reflecting a reversal of expected responses. Subjects generally seemed to react to the Threat induction by attempting to regain control.

Whether a sensitizing effect by either the meaning of the smoke induction or some characteristic of the experimenter may have led to reactance will require further research. However, one means of avoiding such a possibility again in the face of threat might be to confine the danger to economic, as opposed to personal, loss. One way to arrange this might be through the use of some sort of game paradigm. For example, subjects could be provided with monetary rewards for success on some task. If this gain were to be directly threatened or if subjects were to feel they might lose a part or all of their winnings, it is possible that less reactance would be evidenced. In the presence of potential economic loss, alternative response styles may reflect increased vigilance and mistrust of motives of powerful others rather than concern with re-establishing non-threatened personal states.

Reactance might also have been less of a factor had earlier pretesting revealed the methodological weaknesses. Since the manipulation effectiveness index within the interval items revealed no substantial reliability of the induction, it is not surprising that reactance was the main result of this manipulation.
The effects of the Affect induction were only somewhat clearer when analyzed without interaction with Threat. Among the open-ended items only, the influence of the "social attitudes" was as predicted, such that the negative statements produced more malevolent and external attributions of responsibility. Notations such as "knowing someone in high places", "secret contacts", "fixed prices" and "conspiracy among the Arabs" were made when subjects read the negative statements, whereas such attributions were noted much less with the positive or neutral statements. Within the interval items, this effect was almost entirely absent, however. Only one item ("it is possible that crime in the U.S. is out of control") revealed responses in line with predictions (agreement with the item) in the negative affect cell, and this was of marginal significance. This lack of effect within the interval items was also mirrored by the poor statistical separation noted in the discriminant analysis. While the positive, negative and neutral affect generated by the introductory statements may have carried over to the open-ended items which were answered immediately, apparently the strength of the induction was not sufficient to influence subjects throughout the remainder of the questionnaire. It is likely, therefore, that future research manipulating this variable will have to use a more intense measure such as success vs. failure on a prior task or sudden good vs. bad "luck" in some event.
Overall, the notions that lowered (negative) affect and vulnerability (operationalized as threat to personal safety) are likely to lead to perceptions of plot and conspiracy has not been shown to contain much empirical accuracy. Since negative affect as a social psychological force has been shown to lead to a search for external sources of causality in general (Weiner, Frieze, Kukla, Reed, Rest & Rosenbaum, 1971), it seemed reasonable to determine whether this search might include powerful persons or groups, as well. Apparently, this may be true, although the responses in the present study, as measured by open-ended questions on general topics produced very limited validity. With respect to the influence of personal threat, as induced by the smoke manipulation, a similar search for malevolent external sources of control was even less evident, although a general increase in the frequency of attributions was noted. Clearly, more methodologically concise research will be required in order to provide a more reliable understanding of these variables.

In Study 2, the significant correlation between machiavellianism and the belief in control by powerful others confirms an earlier relationship with Rotter's (1966) factor of external control noted by Miller and Minton (1969). Intuitively, it seemed likely that machiavellianism would relate more to a belief in control by powerful others than to a belief in control by chance. Since these states are factorially different and should not be considered as one (Levenson, 1972), it was understandable that only the powerful others belief
correlated significantly in this study.

A significant negative correlation was also revealed between the belief in control by powerful others and both authoritarianism and trust. Since authoritarianism has been characterized as a state whereby one's attitudes and opinions can be influenced by even the statements of authority (Brown, 1965), a relationship with belief in control by powerful others would have been expected. This odd, negative relationship of authoritarianism with belief in powerful others as well as the previously noted positive relationship with belief in powerful others and the internal subscale may indicate some problem with the scale, such as a tendency toward spurious correlations. However, the negative relationship with the Trust (T) scale, reflecting a tendency away from internal control, does reinforce evidence of the expected direction of the measure. Since both T and F correlated with Mach, a positive correlation was expected and noted between them, as well.

Regression analysis provided support for the hypothesized relationship between personality orientation and perception of plot and conspiracy. Machiavellianism, degree of trust and locus of control repeatedly predicted the frequency of conspiracy and plot references. Furthermore, by restricting analysis to only subjects with high Mach scores (above the median), the predictability and the variance accounted for increased. The order of the predictors extracted in the stepwise regression was as follows: Mach, belief in control by
chance, level of trust, belief in control by powerful others, belief in internal control and authoritarianism. Each of these variables was significant at the $p < .05$ level and therefore played a role in explaining the variance. Although the variance increased significantly by using only high Mach subjects (from 20 to 32 per cent), a large proportion is obviously still unexplained error variance.

Regression using the number of environmental references (as causes) as criterion provided some significant predictors and some convergent validity. Both a belief in powerful others and Mach-avellianism significantly predicted ($p < .05$) the frequency of environmental references. Moreover, since these personality scales relate to an additional category of cause (even with a low variance accounted for), more trust may be placed in the relationship between personality and conspiracy/plot references.

As stated earlier, the basic factors manipulated were not expected to produce a full perception of conspiracy or plot but were designed to exhibit a compounding effect. Since each induction was only a minimal condition for the development of beliefs, using extreme measures of the factors or adding several factors together was expected to increase the probability of responses containing perceptions of conspiracy and plot. This was more clearly demonstrated in Study 2. By analyzing responses made by subjects who scored above the median on the Mach scale, a stronger relationship between personality and the conspiracy/plot measure was revealed.
The compounding effect among the other factors, however, was not revealed by either study. Combining personality measures with conspiracy rhetoric or negative affect with threat demonstrated no increase in perceptions of plot. This failure seems most accountable through a failure to adequately induce each factor strongly enough. Individual examination of the factors revealed some tendency to promote conspiracy/plot beliefs in the subjects, except for the extremely weak measure of conspiracy rhetoric. This variable seems to require a more direct experience, such as the overhearing of secret plans or reading about ongoing or potential plots, in order for effects to be generated.

The two studies were also designed to reflect the relationship among two of the three categories of analysis. Both social psychological and personality processes were conceived as contributory to an understanding of the dynamics of conspiracy and plot perceptions. Although a significant interaction among the factors in each study was not demonstrated, it is apparent that both situational and individual characteristics play a role in perceiving ulterior intent and secret plans.

A recent study by Starr (1976) provided some support for the effects of situational characteristics. By manipulating secrecy and personal outcomes in a laboratory setting, a measure of plot perception was investigated. In a two-by-three fixed-effects design, secrecy was induced by presenting or not presenting (Intrusion vs.
Control) a "secret message" to one of a group of volunteer subjects participating in a psychology experiment. Personal outcomes were manipulated by varying the feedback provided to the subjects concerning their ability to perform an ambiguous task. Feedback was either positive (high self-esteem), negative (low self-esteem) or neutral (control). In reality, all feedback was bogus and controlled by the experimenter.

Groups of three or four subjects, ostensibly participating in an auditory perception study, tried to match one musical tone with one of four similar tones which followed it. Ten different trials, with feedback after each, allowed a score from 1 to 10. High self-esteem was induced with feedback indicating 7 out of 10 correct matches. Low self-esteem reflected successful matches on only two trials.

The Intrusion manipulation (induced for half the subjects) was carried out after the seventh trial. For no apparent reason, the experimenter stopped the tones, walked over to one subject performing well on the task (only one subject ever performed well on the task) and passed a note written on a piece of paper. The subject read the note, nodded affirmatively, and the experimenter returned to carry on the study. (The message read: Are the tones loud enough for you to hear?, which always produced an affirmative response.) Following the tenth trial, all subjects completed a questionnaire concerning their attitudes and perceptions of the task and the
The results offered some support for the perception of plot following a drop in outcomes. As expected, comparatively low outcomes (low self-esteem) produced more external attributions for performance. The task was rated as more difficult, and subjects believed that there were a number of "undisclosed" aspects of the experiment.

Variations in responding also resulted from the secrecy (Intrusion) manipulation. Subjects witnessing the passing of the "secret message" produced more attributions of task difficulty, more perceptions of "undisclosed" aspects in the experiment and more perceptions of dishonesty in the experimenter. In addition, a significant interaction indicated that the perception of experimenter dishonesty was highest when subjects were low in self-esteem and saw the suspicious intrusion. Thus, with only a minimal test of these factors, a relationship between pessimism, lowered outcomes, secrecy and perception of dishonesty, external control and lack of disclosure (all characteristics of plots) had been evidenced.

It was suggested earlier in this paper that the cognitive processes involved in conspiracy and/or plot perception can be examined within an attribution theory framework. Since perceiving plots and conspiracies necessitates localizing the causality for events externally to oneself and internally to one or more others, a four-stage process is now suggested. Each stage in this attribution...
model works interdependently and logically and, as such, is similar to the model proposed by Shaver (1975) to describe how personal disposition may be attributed to one person who shoots another.

The first stage of perceiving plot or conspiracy is characterized by an attribution of causality to sources external to oneself. This means that the perceiver feels his or her own behavioral outcomes are more a function of external forces than personal internal forces. The second stage, however, requires a change in the focal point of attention of the perceiver. Having placed the source of causality in forces external to oneself, the perceiver must decide where in the environment to locate it. Thus, other persons are seen as causal. A further attribution is made to determine whether the external agents responsible for the perceiver's behavior or outcomes acted primarily because of impersonal external forces (coercion) or because of personal internal forces (intention). When a perceiver combines an attribution characterized by covert personal or internal forces with the initial inference of external causality, the results lead to the cognition that a plot exists (if devised by one person) or a conspiracy exists (if devised by two or more persons).

Up to this point, direction or quality of influence by the external agent or agents has not been stipulated. However, the fourth stage of the attribution process now makes such a decision necessary. Having perceived that secret plans have been inten-
tionally formulated by one or more agents, the question of whether these behaviors are benign, malevolent or benevolent must be de­
cided. While conspiracies and plots are typically conceived as malevolent events, the possibility of the benevolent conspiracy has yet to be discussed. A secret, surprise party or co-ordinated covert plans designed to benefit another are examples of plots not limited to purely evil forces or events.

Reviewing the earlier quote from Heider (see page 12), the four-stage attribution process may be easily demonstrated. The negative affect undermining one's self-esteem would produce an initial attribution of external causality. Next, the event would be seen as caused by other persons. Furthermore, the consistency and equifinality among the others' interaction would lead to an attribution of internal causality (intentionality) among them. Finally, they would be perceived as malevolent since the perceived intention was to produce a negative effect. Thus, the total perception of one's outcomes and of the behavior of the others would be that of a conspiracy.

The next step in this research would be a clearer example of how the proposed factors produce perceptions of conspiracy and plot. Studies manipulating more concise measures of conspiracy rhetoric and vulnerability, as well as further measures of negative affect and personality predispositions, could lead to such results. More direct dependent measures might also be conceived. One example
might be to induce subjects to act conspiratorially, such as with a defensive coalition, because they believe they must pre-empt a plot against themselves. Such a study could be carried out within the framework of bargaining strategies over scarce resources. Other studies could examine alternate aspects of the tripartite analysis such as the sociohistorical level. In field settings, subjects might be able to experience perceptions of plot or conspiracy if simulated historical or political events are carried out. One other possible source of engendering beliefs and attitudes characteristic of this level of analysis could result from studies conducted in locations where large groups of people are always available and in interaction. Prisons, hospitals, college dormitories and social clubs all allow for variations in the control and measurement of the three co-present variables: state of anxiety, presence of moral spokesman and "proof" of outside control. Such a large scale investigation, while requiring considerable effort and planning, might reveal perceptions of conspiracy and plot at its most elementary stages and could trace the development of this belief state in a more concise manner than artificially induced laboratory settings.
CHAPTER V
CONCLUSIONS

The purpose of this dissertation was to present an analysis of the perception of conspiracy and plot. More specifically, it was designed to provide a theoretical framework for experimental research on the topic. From the variables derived from an inductive analysis, two studies were completed. Study 1 failed to adequately show that perceptions of plot and conspiracy could be induced and manipulated on the basis of variations in affect and, potentially, threat. Reactance was suggested as an intervening force. Study 2 revealed that the frequency of references to conspiracy and plot could be predicted in subjects with certain specific personality predispositions. Standardized measures of machiavellianism, locus of control, trust and authoritarianism all related to perceptions of conspiracy and plot. Perhaps the most interesting and important implications of this analysis, however, concern the fact that conspiracy and plot perceptions can be studied in non-pathological subjects. Issues such as Watergate, the oil crisis, Defense Department contracts, etc., each seem to many people to be tied to some kind of conspiracy by government leaders, foreign countries or "big" businesses. Such beliefs usually do not represent paranoia since the belief is shared by so many people and because logical, rational arguments provide support for such conclusions. Rather,
belief that one's personal outcomes may be influenced by powerful others manipulating events behind the scenes can be a veridical alternative perception when appropriate conditions warrant such. Determining those conditions, consequently, is a role of interest and responsibility of social psychologists. Since the present analysis has provided a working framework, it is hoped that more research will continue into this topic.
APPENDIX A

PILOT DATA FROM STARR (NOTE 1)
Summary of Sex by Experience ANOVAS

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<th>Upset-Calm (other situations)</th>
<th>Safe-Unsafe</th>
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<td>B</td>
<td>A x B</td>
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Note: A = Sex (male vs. female); B = Experience (participant vs. non-participant)

*<p=value .10
**<p=value .05
***<p=value .01
### Summary of Sex by Deception ANOVAS

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<td>Ss</td>
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</tr>
<tr>
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<td><strong>Task Difficulty</strong></td>
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<td>13.025</td>
<td>28.924</td>
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<td>&lt;1</td>
<td>6.369**</td>
<td>5.348**</td>
<td>3.959*</td>
<td></td>
</tr>
</tbody>
</table>

Note: A = Sex (male vs. female); B = Deception (deception vs. no deception)

*P < .10
**P < .05
***P < .01

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APPENDIX B

STUDY 1 QUESTIONNAIRE
Dear Respondent:

Before getting into our questionnaire for you today we would like to summarize some of the data we have gathered on social attitudes of students from samples here and elsewhere. Following this, you will be able to give your feelings on a number of similar issues.

1. There is more pessimism today among students regarding their control over getting a job they want or for which they are trained. This has led some students to question the economic value of their college education.

2. College students are expressing concern over their environment. Recent data indicate that cancer rates are high in the U.S., particularly in urban areas such as Philadelphia. This may be due to pollution in our water and air.

3. Students are also concerned with a dangerous population problem world-wide that seems out of control. Nearly 60% of our sample advocated a national population policy which will probably never be put into effect.

4. Students seem concerned over the present state of family relationships here in the U.S. The divorce rate continues to increase. A high percent of our students said they might co-habit rather than marry until they were sure of the stability of the relationship. Relationships seem hard to predict in this area.

5. Students voiced concern over the growing gap between rich and poor in the U.S. The data show that blacks and whites are farther apart in income level, job levels and percent of joblessness than they were 10 years ago. The consequences of inequality in these areas might be dangerous to our economic stability and invite a change to a more controlled economy.

6. Students are concerned about the growing crime rate. They are questioning whether the police can do anything about crime. The court system needs drastic changes which are slow in coming.

The overall picture of the student concerns in our sample and samples taken at other schools is one of concern over the availability of good jobs, good environments to live in, the value of expensive education, and the stability of traditional institutions such as marriage.

Thank you,

The Researchers
Dear Respondent:

Before getting into our questionnaire for you today we would like to summarize some of the data which has been gathered on social attitudes of students from samples here and elsewhere. Following this you will be able to give your feelings on a number of issues.

1. Despite some problems in the area of jobs, students show a deep confidence in the economic system. They feel that the U.S. will move toward greater economic stability and growth in the years ahead. They are determined to find good jobs.

2. Students favor a concerted effort to clean up the environment. This they feel can be accomplished in our own lifetime, much of the technology is already available.

3. Students are concerned about population problems but feel that slow and even "zero" growth rates can be attained. A surprising number of countries already have achieved this. The U.S. is getting closer.

4. Students are concerned over the present state of family relationships in the U.S. However, the data indicate that, because present day students marry later and are more educated, their marriages will probably be more stable. They benefit also from new skills in and knowledge about relationships.

5. Students are concerned about joblessness among minority groups, teenagers, etc. However, they feel that job incentive income policies and a national effort will put many people back to work. They feel that the job problem can be brought under control and will probably curtail other problems such as crime.

6. Students show a concern about crime. They advocate a greater community responsibility and involvement in combating crime and stress the importance of better schools and job training. Many students have chosen careers in the area of rehabilitation and criminal justice. New lawyers will reform the justice system to make it more effective.

The overall picture of student attitudes in our sample and samples taken at other schools is one of concern about jobs, the environment, crime, etc. but is also a picture of determination to deal with these problems. Students are optimistic that the needs of society can be met in the years ahead.

Thank you,

The Researchers
Dear Respondent:

Before getting into our questionnaire for you today we would like to review and summarize some of the data gathered on the opinions of students from samples here and elsewhere. Following this you will be able to give your feelings on a number of issues.

1. In the area of television shows, students show a strong interest in educational programs. The most watched shows and those described as most interesting and informative generally were from the Public Broadcasting Service (PBS). Commercial television shows were seen as less interesting and informative.

2. The trend to reduce the size of automobiles was seen as a good idea. Smaller cars were seen as more visually appealing and as easier to maneuver in traffic. Five passenger models were more preferable than six passenger models.

3. Dancing at clubs or private parties was highly rated. Students enjoy the involvement with their friends and they like the new styles of music being played. Dancing routines with a partner were seen as more enjoyable than individual or "dancing at a distance" routines.

4. Students indicated a strong liking for pets. Dogs were rated as most desirable, followed by cats. Having a pet showed that students wished to exhibit responsibility. Most students preferred "mixed" breeds over "chow" animals, yet most felt that obedience training for dogs was highly important.

5. In the area of oral hygiene, students preferred electric toothbrushes to hand-held types. Electric models were seen as more efficient, easier to manipulate in the mouth and as less cumbersome. In addition, the electric models provided a steady rhythm of brushing. This was felt to be important to good oral hygiene.

6. Students are concerned about live musical concerts. The use of torture-simulation and self-mutilation by "punk rock" groups was viewed with mixed emotions. Most students feel this is only a passing phase in music, but will not last.

The overall picture of student attitudes in our sample and samples taken at other schools is one of interest in a wide variety of subjects. Students are well-read and often feel they understand their environment. Most students found themselves interested in the issues discussed on the survey.

Thank you,

The Researchers
The following items describe issues of general interest. Please read each question carefully and then respond in a manner which reflects your belief or feelings. Give one or more reasons for each. We are not looking for specific answers. There are no right or wrong answers. Focus on what you believe the answers are.

1. What factor(s) cause(s) the price for oil to rise?

2. Some persons reach high political office and corporate positions. How does this occur?

3. Why are prices approximately equal on store shelves?

4. Why are some pieces of legislation that Americans want not passed by Congress?
Why do so few women reach executive positions in the very large U.S. Corporations?

What caused the death of John Kennedy?

What determines which persons are admitted to medical school?

Why are military contracts awarded repeatedly to some companies and not others?

John Jones is a capable worker with a good record in a company here in the U.S. He applies for a promotion to a job higher in the company. Someone in the same office gets the job. What are the probable reasons this occurred?
Student Social Survey

Please indicate whether you agree or disagree with the following statements by circling a number from 1 to 7.

1. A college education is worth the price.
   Disagree 1 2 3 4 5 6 7 Agree

2. Marijuana should be legalized and controlled.
   Disagree 1 2 3 4 5 6 7 Agree

3. Good jobs are scarcer now than a few years ago.
   Disagree 1 2 3 4 5 6 7 Agree

4. The population problem in the world is a very dangerous one.
   Disagree 1 2 3 4 5 6 7 Agree

5. Many countries will bring their population size under control.
   Disagree 1 2 3 4 5 6 7 Agree

6. It is probably better to co-habitate with someone awhile before marriage.
   Disagree 1 2 3 4 5 6 7 Agree

7. Cleaning up the environment should be a higher priority than it is now.
   Disagree 1 2 3 4 5 6 7 Agree

8. I feel confident I will find the job I prefer the most.
   Disagree 1 2 3 4 5 6 7 Agree

9. The gap between rich and poor here in the U.S. has become more dangerous.
   Disagree 1 2 3 4 5 6 7 Agree

10. In the years ahead divorce will decrease in the college population.
    Disagree 1 2 3 4 5 6 7 Agree

11. It is possible that the crime situation in the U.S. is out of control.
    Disagree 1 2 3 4 5 6 7 Agree

12. We will be able to control the environmental pollution problem in the years ahead.
    Disagree 1 2 3 4 5 6 7 Agree

13. Most of us can predict and control what happens to our romantic relationships.
    Disagree 1 2 3 4 5 6 7 Agree
14. We will be able to provide jobs for all of our workers in the years ahead.
   Disagree 1 2 3 4 5 6 7 Agree

15. The American Congress is more controlled by private interests than by public opinion.
   Disagree 1 2 3 4 5 6 7 Agree

16. Admissions to medical school are based solely on merit.
   Disagree 1 2 3 4 5 6 7 Agree

17. Oil companies consult with each other on how to drive oil prices up and control the supply.
   Disagree 1 2 3 4 5 6 7 Agree

18. We have yet to learn the full truth about the FBI, the CIA and some recent historical assassinations.
   Disagree 1 2 3 4 5 6 7 Agree

19. Prices for many consumer goods are often agreed upon privately or tacitly by the major producers.
   Disagree 1 2 3 4 5 6 7 Agree

20. The highest corporate positions are controlled by a small number of powerful persons.
   Disagree 1 2 3 4 5 6 7 Agree
APPENDIX C

STUDY 2 QUESTIONNAIRE
STUDY ON SOCIAL ATTITUDES

The following study looks at a number of social attitude areas and is fun to do. We appreciate your help with this study. Even though some of the instructions say to answer on a separate answer sheet, you may write directly on each questionnaire! Please answer all questions since missing data sometimes confuses the computer and all of your data will be set aside. All of your answers are anonymous. However, we do need some sociological data on you. Please furnish the data below as it would be of great help to us.

Student number _______________ (for credit purposes only)
Male or Female _______________
Major _______________________
Religion (Active 1 2 3 4 5 6 7 8 9 Inactive)
Father's occupation _______________________
Mother's occupation _______________________
Your age _______________________
Family position ____________ of ____________ (Example: First of three)

YOU MAY WRITE DIRECTLY ON THE SHEETS. PLEASE ANSWER ALL QUESTIONS EVEN IF UNSURE. PLEASE DO ALL SCALES EVEN THOUGH IT MAY TAKE A WHILE.
The following items describe issues of general interest. Please read each question carefully and then respond in a manner which reflects your beliefs or feelings. Give one or more reasons for each.

Try to focus on what is really going on in these areas.

1. What factor(s) cause(s) the price for oil to rise?

2. Some persons reach high political office and corporate positions. How does this occur?

3. Why are prices approximately equal on store shelves?

4. Why are some pieces of legislation that Americans want not passed by Congress?
3. Why do so few women reach executive positions in the very large U.S. corporations?

6. What caused the death of John Kennedy?

7. What determines which persons are admitted to medical school?

8. Why are military contracts awarded repeatedly to some companies and not others?

9. John Jones is a capable worker with a good record in a company here in the U.S. He applies for a promotion to a job higher in the company. Someone in the same office gets the job. What are the probable reasons this occurred?
The following items describe issues of general interest. Please read each question carefully and then respond in a manner which reflects your belief or feelings. Give one or more reasons for each.

We are not looking for specific answers. There are no right or wrong answers. Focus on what you believe the answers are.

1. What factor(s) cause(s) the price for oil to rise?

2. Some persons reach high political office and corporate positions. How does this occur?

3. Why are prices approximately equal on store shelves?

4. Why are some pieces of legislation that Americans want not passed by Congress?
Why do so few women reach executive positions in the very large U.S. Corporations?

What caused the death of John Kennedy?

What determines which persons are admitted to medical school?

Why are military contracts awarded repeatedly to some companies and not others?

John Jones is a capable worker with a good record in a company here in the U.S. He applies for a promotion to a job higher in the company. Someone in the same office gets the job. What are the probable reasons this occurred?
The following items describe issues of general interest. Please read each question carefully and then respond in a manner which reflects your belief or feelings. Give one or more reasons for each.

1. What factor(s) cause(s) the price for oil to rise?

2. Some persons reach high political office and corporate positions. How does this occur?

4. Why are prices approximately equal or close shelfs?

4. Why are some pieces of legislation that Americans want not passed by Congress?
5. Why do so few women reach executive positions in the very large U.S. corporations?

6. What caused the death of John Kennedy?

7. What determines which persons are admitted to medical school?

8. Why are military contracts awarded repeatedly to some companies and not others?

9. John Jones is a capable worker with a good record in a company here in the U.S. He applies for a promotion to a job higher in the company. Someone in the same office gets the job. What are the probable reasons this occurred?
ATTITUDE SCALE M

Rank order the three statements next to each number. 1- the statement I most agree with, 2 - the statement I agree with next, 3- the statement I least agree with.

1. A. It takes more imagination to be a successful criminal than a successful business man.
   B. The phrase, "the road to hell is paved with good intentions" contains a lot of truth.
   C. Most men forget more easily the death of their father than the loss of their property.

2. A: Men are more concerned with the car they drive than with the clothes their wives wear.
   B. It is very important that imagination and creativity in children be cultivated.
   C. People suffering from incurable diseases should have the choice of being put painlessly to death.

3. A. Never tell anyone the real reason you did something unless it is useful to do so.
   B. The well-being of the individual is the goal that should be worked for before anything else.
   C. Since most people don't know what they want, it is only reasonable for ambitious people to talk them into doing things.

4. A. People are getting so lazy and self-indulgent that it is bad for our country.
   B. The best way to handle people is to tell them what they want to hear.
   C. It would be a good thing if people were kinder to others less fortunate than themselves.

5. A. Most people are basically good and kind.
   B. The best criteria for a wife or husband is compatibility--other characteristics are nice but not essential
   C. Only after a man has gotten what he wants from life should he concern himself with the injustices in the world.

6. A. Most people who get ahead in the world lead clean, moral lives.
   B. Any man worth his salt shouldn't be blamed for putting his career above his family.

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C. People would be better off if they were concerned less with how to do things and more with what to do.

A. A good teacher is one who points out unanswered questions rather than gives explicit answers.

B. When you ask someone to do something, it is best to give the real reasons for wanting it rather than giving reasons which might carry more weight.

C. A person's job is the best single guide as to the sort of person he is.

A. The construction of such monumental works as the Egyptian pyramids was worth the enslavement of the workers who built them.

B. Once a way of handling problems has been worked out it is best to stick to it.

C. One should take action only when sure it is morally right.

A. The world would be a much better place to live in if people would let the future take care of itself and concern themselves only with enjoying the present.

B. It is wise to flatter important people.

C. Once a decision has been made it is best to keep changing it as new circumstances arise.

A. It is a good policy to act as if you are doing the things you do because you have no other choice.

B. The biggest difference between most criminals and other people is that criminals are stupid enough to get caught.

C. Even the most hardened and vicious criminal has a spark of decency somewhere within him.

A. All in all, it is better to be humble and honest than to be important and dishonest.

B. A man who is able and willing to work hard has a good chance of succeeding in whatever he wants to do.

C. If a thing does not help us in our daily lives, it isn't very important.

A. A person shouldn't be punished for breaking a law that he thinks is unreasonable.

B. Too many criminals are not punished for their crimes.

C. There is no excuse for lying to someone else.
13. A. Generally speaking, men won't work hard unless they are forced to do so.

B. Every person is entitled to a second chance, even after he commits a serious mistake.

C. People who can't make up their minds are not worth bothering about.

14. A. A man's first responsibility is to his wife, not his mother.

B. Most men are brave.

C. It's best to pick friends that are intellectually stimulating rather than ones it is comfortable to be around.

15. A. There are very few people in the world worth concerning oneself about.

B. It is hard to get ahead without cutting corners here and there.

C. A capable person motivated for his own gain is more useful to society than a well-meaning but ineffective one.

16. A. It is best to give others the impression that you can change your mind easily.

B. It is a good working policy to keep on good terms with everyone.

C. Honesty is the best policy in all cases.

17. A. It is possible to be good in all respects.

B. To help oneself is good; to help others even better.

C. War and threats of war are unchangeable facts of human life.

18. A. Barnum was probably right when he said that there's at least one sucker born every minute.

B. Life is pretty dull unless one deliberately stirs up some excitement.

C. Most people would be better off if they control their emotions.

19. A. Sensitivity to the feelings of others is worth more than poise in social situations.

B. The ideal society is one where everybody knows his place and accepts it.

C. It is safest to assume that all people have a vicious streak and it will come out when they are given a chance.
20. A. People who talk about abstract problems usually don't know what they are talking about.

B. Anyone who completely trusts anyone else is asking for trouble.

C. It is essential for the functioning of a democracy that everyone vote.
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For each response on the Mach scale, add (or subtract) one point as noted on the key. For example on item 1, if "C" was ranked first, add one point; if "B" or "A" were ranked first, add zero.
Attitude and Opinion Form

The following is a series of attitude statements. Each represents a commonly held opinion and there are no right or wrong answers. You will probably disagree with some items and agree with others. We are interested in the extent to which you agree or disagree with such matters of opinion.

Read each statement carefully. Then indicate the extent to which you agree or disagree by circling the number in front of each statement. The numbers and their meaning are indicated below:

- If you agree strongly - circle +3
- If you agree somewhat - circle +2
- If you agree slightly - circle +1
- If you disagree slightly - circle -1
- If you disagree somewhat - circle -2
- If you disagree strongly - circle -3

First impressions are usually best in such matters. Read each statement, decide if you agree or disagree and the strength of your opinion and then circle the appropriate number in front of the statement. Give your opinion on every statement.

If you find that the numbers to be used in answering do not adequately indicate your own opinion use the one which is closest to the way you feel.
1. Whether or not I got to be a leader depends mostly on my ability.

2. To a great extent my life is controlled by accidental happenings.

3. I feel like what happens in my life is mostly determined by powerful people.

4. Whether or not I get into a car accident depends mostly on how good a driver I am.

5. When I make plans, I am almost certain to make them work.

6. Often there is no chance of protecting my personal interest from bad luck happenings.

7. When I get what I want, it's usually because I'm lucky.

8. Although I might have good ability, I will not be given leadership responsibility without appealing to those in positions of power.

9. How many friends I have depends on how nice a person I am.

10. I have often found that what is going to happen will happen.

11. My life is chiefly controlled by powerful others.

12. Whether or not I get into a car accident is mostly a matter of luck.

13. People like myself have very little chance of protecting our personal interests when they conflict with those of strong pressure groups.

14. It's not always wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune.

15. Getting what I want requires pleasing those people above me.

16. Whether or not I get to be a leader depends on whether I'm lucky enough to be in the right place at the right time.

17. If important people were to decide they didn't like me, I probably wouldn't make many friends.

18. I can pretty much determine what will happen in my life.

19. I am usually able to protect my personal interests.

20. Whether or not I get into a car accident depends mostly on the other driver.

21. When I get what I want, it's usually because I worked hard for it.

22. In order to have my plans work, I make sure that they fit in with the desires of people who have power over me.

23. My life is determined by my own actions.

24. It's chiefly a matter of fate whether or not I have a friend.
Score Key

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Add the raw score from each subscale item noted above and then add 24 to the total. All subscale final scores range from 0 to 48.

For example on subscale I, if item 1 was -3, item 4 was +1, item 5 was +2, item 9 was -3, etc., the cumulative total to this point would be (-3, +1, +2, -3 = -3) -3.
ATTITUDE SCALE C

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it pertains to you personally.

1. Before voting I thoroughly investigate the qualifications of all the candidates.
2. I never hesitate to go out of my way to help someone in trouble.
3. It is sometimes hard for me to go on with my work if I am not encouraged.
4. I have never intensely disliked anyone.
5. On occasion I have had doubts about my ability to succeed in life.
6. I sometimes feel resentful when I don't get my way.
7. I am always careful about my manner of dress.
8. My table manners at home are as good as when I eat out in a restaurant.
9. If I could get into a movie without paying and be sure I was not seen I would probably do it.
10. On a few occasions, I have given up doing something because I thought too little of my ability.
11. I like to gossip at times.
12. There have been times when I felt like rebelling against people in authority even though I knew they were right.
13. No matter who I'm talking to, I'm always a good listener.
14. I can remember "playing sick" to get out of something.
15. There have been occasions when I took advantage of someone.
16. I'm always willing to admit it when I make a mistake.
17. I always try to practice what I preach.
18. I don't find it particularly difficult to get along with loudmouthed, obnoxious people.
19. I sometimes try to get even rather than forgive and forget.
20. When I don't know something I don't at all mind admitting it.
21. I am always courteous, even to people who are disagreeable.
22. At times I have really insisted on having things my own way.
23. There have been occasions when I felt like smashing things.
24. I would never think of letting someone else be punished for my wrong-doings.
25. I never resent being asked to return a favor.
26. I have never been irked when people expressed ideas very different from my own.
27. I never make a long trip without checking the safety of my car.
28. There have been times when I was quite jealous of the good fortune of others.
29. I have almost never felt the urge to tell someone off.
30. I am sometimes irritated by people who ask favors of me.
31. I have never felt that I was punished without cause.
32. I sometimes think when people have a misfortune they only got what they deserved.
33. I have never deliberately said something that hurt someone's feelings.
Score Key

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14. F  31. T
15. F  32. F
16. T  33. T
17. T

For each item add one point for each "correct" response according to the key.
ATTITUDE SURVEY T

This is a questionnaire to determine the attitudes and beliefs of different people on a variety of statements. Please answer the statements by giving as true a picture of your own beliefs as possible. Be sure to read each item carefully and show your beliefs by marking the appropriate number sheet.

1. Strongly agree
2. Mildly agree
3. Agree & disagree equally
4. Mildly disagree
5. Strongly disagree

Please do not write on the questionnaire.

1. Most people would rather live in a climate that is mild all year around than in one in which winters are cold.

2. Hypocrisy is on the increase in our society.

3. In dealing with strangers one is better off to be cautious until provided evidence that they are trustworthy.

4. This country has a dark future unless we can attract better people into politics.

5. Fear of social disgrace or punishment rather than conscience prevents most people from breaking the law.

6. Parents usually can be relied upon to keep their promises.

7. The advice of elders is often poor because the older person doesn't recognize how times have changed.

8. Using the Honor System of not having a teacher present during exams would probably result in increased cheating.

9. The United Nations will never be an effective force in keeping world peace.

10. Parents and teachers are likely to say what they believe themselves and not just what they think is good for the child to hear.

11. Most people can be counted on to do what they say they will do.

12. As evidenced by recent books and movies morality seems on the downgrade in this country.

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13. The judiciary is a place where we can all get unbiased treatment.

14. It is safe to believe that in spite of what people say, most people are primarily interested in their own welfare.

15. The future seems very promising.

16. Most people would be horrified if they knew how much news the public hears and sees is distorted.

17. Seeking advice from several people is more likely to confuse than it is to help one.

18. Most elected public officials are really sincere in their campaign promises.

19. There is no simple way of deciding who is telling the truth.

20. This country has progressed to the point where we can reduce the amount of competitiveness encouraged by schools and parents.

21. Even though we have reports in newspapers, radio and television it is hard to get objective accounts of public events.

22. It is more important that people achieve happiness than that they achieve greatness.

23. Most experts can be relied upon to tell the truth about the limits of their knowledge.

24. Most parents can be relied upon to carry out their threats of punishment.

25. One should not attack the political beliefs of other people.

26. In these competitive times one has to be alert or someone is likely to take advantage of you.

27. Children need to be given more guidance by teachers and parents than they now typically get.

28. Most rumors usually have a strong element of truth.

29. Many major national sport contests are fixed one way or another.

30. A good leader molds the opinions of the group he is leading rather than merely following the wishes of the majority.

31. Most idealists are sincere and usually practice what they preach.

32. Most salesmen are honest in describing their products.
33. Education in this country is not really preparing young men and women to deal with the problems of the future.

34. Most students would not cheat even if they were sure of getting away with it.

35. The hordes of students now going to college are going to college are going to find it more difficult to find good jobs when they graduate than did the college graduates of the past.

36. Most repairmen will not overcharge even if they think you are ignorant of their specialty.

37. A large share of accident claims filed against insurance companies are phony.

38. One should not attack the religious beliefs of other people.


40. If we really knew what was going on in international politics, the public would have more reason to be frightened than they now seem to be.
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For each item add or subtract ("Reverse" items) the value (1 through 5) noted on the scale. Omit responses which are "Filler" items.
ATTITUDE SCALE F

Please rate the following statements on the scale below:

Strongly agree 1 2 3 4 5 Strongly Disagree

1. Obedience and respect for authority are the most important virtues children should learn.
2. A person who has bad manners, habits, and breeding can hardly expect to get along with decent people.
3. If people would talk less and work more, everybody would be better off.
4. The business man and the manufacturer are much more important to society than the artist and the professor.
5. Science has its place, but there are many important things that can never possibly be understood by the human mind.
6. Every person should have complete faith in some supernatural power whose decisions he obeys without question.
7. Young people sometimes get rebellious ideas, but as they grow up they ought to get over them and settle down.
8. What this country needs most, more than laws and political programs, is a few courageous, tireless, devoted leaders in whom the people can put their faith.
9. No sane, normal, decent person could ever think of hurting a close friend or relative.
10. Nobody ever learned anything really important except through suffering.
11. What the youth needs most is strict discipline, rugges determination, and the will to work and fight for family and country.
12. An insult to our honor should always be punished.
13. Sex crimes, such as rape and attacks on children, deserve more than mere imprisonment; such criminals ought to be publicly whipped, or worse.
14. There is hardly anything lower than a person who does not feel a great love, gratitude, and respect for his parents.
15. Most of our social problems would be solved if we could somehow get rid of the immoral, crooked and feebleminded people.
16. Homosexuals are hardly better than criminals and ought to be severely punished.

17. When a person has a problem or worry, it is best for him not to think about it, but to keep busy with more cheerful things.

18. Nowadays more and more people are prying into matters that should remain personal and private.

19. Some people are born with an urge to jump from high places.

20. People can be divided into two distinct classes; the weak and the strong.

21. Some day it will probably be shown that astrology can explain a lot of things.

22. Wars and social troubles may someday be ended by an earthquake or flood that will destroy the whole world.

23. No weakness or difficulty can hold us back if we have enough will power.

24. It is best to use some strong authorities in high schools to keep order and prevent chaos.

25. Most people don't realize how much our lives are controlled by plots hatched in secret places.

26. Human nature being what it is, there will always be war and conflict.

27. Familiarity breeds contempt.

28. Nowadays when so many different kinds of people move around and mix together so much, a person has to protect himself especially carefully against catching an infection or disease from them.

29. The wild sex life of the old Greeks and Romans was tame compared to some of the goings-on in this country, even in places where people might least expect it.
APPENDIX D

CODING OF OPEN-ENDED RESPONSES

FROM STUDY 1 AND STUDY 2
<table>
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**Categories:**
- Number of person references
- Degree of benevolence of person reference
- Degree of motivation of person reference
- Degree of competency of person reference
- Degree of compatibility of person reference
- Vase height
- Vase width
- Vase length
- Vase depth
- Vase volume

**Note:** N for Study 1 = 56; n for coding sample = 31.
Table 1. The number of references in the environmental references, and the number of person references. N for study 1 = 71; n for coding sample = 14.

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Note: N for study 1 = 71; n for coding sample = 14.
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Using High Chance Subjects

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APPENDIX F

RAW DATA
# Study 1 Raw Data (Interval Items)

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## Study 2 Raw Data (Personality Scores)

**Schematic Design**

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NOTES


REFERENCES


Orne, M.T. On the social psychology of the psychology experiment:


Steiner, I. Reactions to adverse and favorable evaluations of oneself. *Journal of Personality*, 1968, 36, 553-564.


VITA AUCTORIS

Larry M. Starr was born September 19, 1948 in Toronto, Ontario, Canada. In June, 1967 he graduated from Northview Heights Collegiate, Toronto, Ontario and in September enrolled at the University of Western Ontario in London, Ontario. He graduated in 1970 and remained an extra year to do research in the psychophysics laboratory of the Psychology Department. In September, 1971, he entered the Master of Science program at Villanova University, Villanova, Pennsylvania and graduated with his degree in 1973. In September, 1973, he entered the Doctoral program in Psychology at the University of Windsor, Windsor, Ontario, and has been enrolled in that program until the present date. In September, 1976, he joined the Oxygen Therapy Institute of Oak Park, Michigan and took over as President of Stewart Oxygen Service in Ardmore, Pennsylvania.

Larry M. Starr is married to the former Elana Rose of Detroit, Michigan. They have one child, Daniela Rose, born October 25, 1979.