The purpose of this paper is to present a social psychological explanation of the self-confrontation process. A model of self-confrontation based on attribution theory is introduced. The use of video tape playback as a tool for self-confrontation is discussed, and implications for research are outlined. (MPJ)
ATTRIBUTION THEORY AND VIDEO PLAYBACK:
A SOCIAL PSYCHOLOGICAL VIEW

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If the technological hardware had been available in ancient Athens, Socrates, who advanced the maxim "Know Thyself", would certainly have prescribed the use of audio and video playback as a shortcut. Or at least so it seems in light of the overwhelming endorsement of self-confrontation procedures by a growing group of contemporary psychologists. Audio and video playback has been billed not only as a shortcut to knowing oneself, but also as a cure for everything from the pains of learning to be a teacher, a therapist, or a gymnast to the anguish of schizophrenia (see Danet, 1968; Holzman, 1969; Baker, 1970; and Fuller and Manning, 1972 for reviews of the self-confrontation literature). Yet the rapidly growing literature on self-confrontation gives scant attention to the conceptualization of what exactly are the processes involved. As one reviewer has put it, there has been an "Explosion without explanation..." (Fuller & Manning, 1972).

The purpose of this paper is to present a social psychological explanation of the self-confrontation process. A model of self-confrontation based on attribution theory will be introduced followed by a discussion of some of its implications. Special attention will be given to crucial areas where more research is required before a truly comprehensive understanding of self confrontation can be achieved.

**Self Confrontation as an Attribution Problem**

Perhaps the most important and pervasive form of ordering and classifying
they are under the control of persons or caused by properties of the environment. To demonstrate that an event is "person-caused" one must rule out "situation-caused" factors; and to validate an attribution to the environment one must apply criteria to rule out person-based causes.

The attribution of causality is something more than phenomenal experience or pure perception. Heider makes this distinction in terms of phenomenal and causal descriptions:

By phenomenal description is meant the nature of the contact between the person and his environment as directly experienced by the person. By causal description is meant the analysis of the underlying conditions that give rise to perceptual experience. There is no a priori reason why the causal description should be the same as the phenomenal description, though, of course, the former should adequately account for the latter (Heider, 1958, p. 22).

In articulating the steps involved in causal description Heider elaborated on Brunswick's (1952) notion of the "perceptual arc". The perceptual arc is a model used to explain the relationship between two end points -- the object, i.e., the entity toward which perception is directed; and the percept, i.e., the way the object appears to the person. The object (distal stimulus) does not impinge directly upon the sense organs but is conveyed through and by a medium to the perceiver. For example, sound which is mediated by sound-wave patterns, excites the person's auditory receptors. Since the sound-waves, like the distal stimulus, are outside of the person. These "distal mediators" impinge on the perceiver's sense organs and become the "proximal stimulus". Within the organism the proximal stimulus is transmitted via nerve pathways (proximal mediators) to the brain where the perceptual arc terminates in the "proximal object" or percept.
distal stimulus and the percept. Is the percept a veridical representation of the object (i.e., did the object "cause" the percept) or has there been some distortion due to distal or proximal mediation? Information about distal and proximal mediation is more or less available to the person depending upon the nature of the object in question and the situation. For example, in reading, the meaning of what is read (percept) does not appear without our being aware of the words and sentences (distal mediation). On the other hand, when hearing our own voice, we are not aware of the role of bone conduction as a distal mediator. The same potential variation exists for our awareness of proximal mediation. There are times when we recognize that hopes and expectations operate as "sets" and affect what we perceive at other times, these variables presumably go unrecognized.

In person perception the distal stimulus in question is the personality (i.e., needs and intentions) of the other person. The mediation of this "object" is accomplished primarily by the other's overt behavior, although data are also gained from other sources such as comments from a third person. All of this is to say that the percept of the other is not directly observed, it is read, with possible bias and error, from proximal stimulus patterns.

To make this clearer we draw upon Philip Holzman's (1969) use of Heider's perceptual arc model to explain the processes of audio self-confrontation. He suggests that when listening to one's recorded voice the distal stimulus is "one's own personality, including a hierarchy of intentions and motives" (Holzman, 1969, p. 205). The distal mediator is one's own voice. Although one's voice is a familiar stimulus, the individual learns to ignore it automatically and concentrate on the intention of his communication. However, in listening to one's recorded voice, the ratio of bone to air conduction is altered; our
recordered voice is indeed different from hearing it as we speak. Since one hears a voice with which he is unaccustomed it is assured that the voice becomes "deautomatized" and proximal stimuli are transformed into information about the voice and the person. The voice-as-percept enables the listener to attend to loudness, pitch, rate, intonations, and hesitations, to evaluate it in terms of previous experience with voices, and make judgments about the intentional dispositions of the speaker.

An ingenious experiment conducted by Holzman, Berger, and Rousey (1967) illustrates the appropriateness of the perceptual arc model for explaining audio self-confrontation. Bilingual subjects, when confronted with recordings of their own voices in their native and later-learned language, reacted to the native-speaking (Spanish) recordings with greater perceived discrepancy, affect, speech disturbances, and defensive negation than to the recordings of their English-speaking voices. In one's native language, aspects of the self mirrored in the voice-as-percept and conveyed in the nonlexical qualities of speech are more forcibly brought to awareness. When one learns a second language later in life, however, one learns the vocabulary, grammar, and syntax while the paralanguage often remains highly derivative and imitative. Thus the nonlexical qualities of one's second language "reflect poorly the expressive, evocative, and appeal intention of the speaker" (Holzman, et al., 1967, p. 428).

In videotape playback (VTP) not only are nonlexical qualities of voice manifest, but one also sees a wide range of subtle kinesic cues and mannerisms that mediate information about the distal stimulus (the person or "personality" in question). What audio playback is for the voice-as-percept, VTP is for the person-as-percept. More specifically, VTP changes the role of the subject from that of actor, where consciousness is preoccupied with intention -- to that of observer, where consciousness is preoccupied
with inferring and attributing intention.

The parallel between VTP and actor and observer perspectives is the basis for a theoretical linkage with recent work on actor-observer differences. Jones and Nisbett (1971) have described a series of investigations which all point to the conclusion that, "There is a pervasive tendency for actors to attribute their actions to situational requirements, whereas observers tend to attribute the same actions to stable personal dispositions (p. 2)." Jones and Nisbett do not deny that actors and observers have access to different information. They speak, rather, of the "different aspects of the available information (that) are salient for actors and observers" (p. 7) and then concern themselves with the way this differential salience affects the course and outcome of the attribution process. For the actor, the situation is of greater prominence; for the observer, the behavior itself is fundamental. They maintain that for the observer, environment is stable and contextual and the behavior (action) is figural and dynamic. Here Jones and Nisbett are following Heider's (1958) observation that behavior "tends to engulf the field". Of particular relevance to their argument is their speculation that the actor is more sensitive to environmental cues that evoke and shape his behavior because his "receptors are poorly located for recording the nuances of his own behavior" (p. 7).

We have reasoned above that when a person observes an actor, the object of concern (the distal stimulus) is the "personality", i.e., the intentions, motivations or "meaning" which that actor communicates. However, an observer never has direct access to such elusive stimuli; he must infer them from observable phenomena. Often times, overt behavior is all the observer has to go on to make attributions about the actor. Thus behavior tends to "engulf the field" because of its utility. Put simply, behavior yields more information about the actor than do situational subtleties.
Jones' and Nisbett's speculation about poorly located receptors is insensitive to the fact that an actor does not need to make attributions about his own intentions or dispositions -- he already has this information. The actor's seeming indifference to his own behavior is therefore functional; he simply doesn't need to draw inferences from his own behavior. This places the actor in a position to be more sensitive to the environmental presses which affect his behavior.

The metamorphosis from actor to observer produced by VTP causes the subject to confront himself as perceptor. Behavior, so neglected when spontaneous, then mediates information about this peculiarly intimate stranger. The subjects' perspective is altered from that of a social behaviorist (where he saw himself as responding to situations) to that of a trait theorist (as he makes attributions about his motives and dispositions).

Implications of the Attribution Model of Self Confrontation

1.) Number of Confrontation Sessions. If VTP causes a person to conceptualize his behavior more in terms of personal dispositions than situational demands, the experience should increase his belief in personal control and increase his motivation for altering those aspects of his behavior which he formerly deemed undesirable and fixed. Ronchi and Ripple (1972) have argued that if this effect is present, it should be limited to a small number of playback sessions. Consistency over time is the integral foundation of personal attributions (Kelley, 1967; McArthur, 1972). The more consistent a person is, the more likely an observer will believe that the person's behavior is internally caused. With behavior change over VTP sessions the consistency criterion is violated and the observed change signifies external control (Ronchi & Ripple, 1972, p. 9). The threat of quickly losing the initial effect of VTP is seen as realistic when one considers
the nature of almost all self-confrontation-procedures. The subject, client or student teacher is given VTP by an experimenter, therapist, or supervising teacher under the explicit expectation that a portion of the former's behavior is to be modified. The entire procedure can be easily construed as an influence and possibly as a manipulation attempt.

In the Ronchi and Ripple (1972) investigation, small groups of elementary school children were given VTP over four occasions. Measures of the amount and quality of task-relevant participation showed that the performance of children who were given direct playback increased sharply after the initial playback but declined after the second playback session. Children who were given vicarious playback, i.e., they saw other groups at work on the same problem, showed more modest gains than the direct playback group, but continued to gain (with a negatively accelerated performance curve) as would be predicted from reinforcement theory. This lead to the conclusion that the attribution model is supported for direct playback but not for vicarious playback. Self-attribution dynamics are not so dramatically involved when children simply learn vicariously from the videotapes of other children.

2.) Intention. If the viewer attributes the change to his own intention to change ("I saw what was wrong and did something about it"), the behavior change following VTP might not seem inconsistent. With the introduction of the element of intention, the prediction that the effectiveness of VTP will be restricted to a few sessions does not necessarily hold. However, even peripheral awareness of the procedure as an attempt by an outside agent to modify behavior may preclude an interpretation of personal intention. Recent work has provided insight into the way that external attempts to control behavior serve to undermine what might be called "intrinsic" motivation to perform the
behavior in question (Lepper, Greene & Nisbett, 1971; Deci, 1971; 1972). These investigations follow the paradigm of a.) rewarding subjects to engage in behaviors of high intrinsic interest -- behaviors which would have been performed without reinforcement, and demonstrate that when rewards are terminated, b.) the incidence of the target behaviors drops well below the pre-reward level.

To interpret these findings, attribution theory holds that one's behavior will be perceived to have been elicited by an intrinsic reaction to the stimulus if there are no reasons to believe that it has been elicited by a reinforcement extrinsic to the stimulus. As Kelley (1971) phrases it, "the role of a given cause in producing a given effect is discounted if other plausible causes are present" (p. 8). Or, in the case at hand, one discounts the intrinsic gratification of performing a given act if its performance was contingent upon the reinforcement exigencies of the playback situation. One has to go to torturous lengths to draw the applied principle from this work if he is narrowly committed to reinforcement theory. From the standpoint of the interplay between attribution theory and intention, however, the matter is simple: a behavior is perceived as being valuable if the individual sees himself as performing it for no additional -- perhaps "ulterior" -- motive.

The implication of the above analysis for VTP can now be made more explicit. Even where the subject has the intention of altering his behavior he may still attribute the change, at least in part, to the demands of the VTP procedure. Not only would this tend to discount his attribution of the causal significance of his intentions, but it could undermine the value he places on the behavior itself since its evocation was under external control. If such an explanation was entertained by a subject, any behavior change brought about by VTP would have little permanence after VTP was terminated. As in
all cases where behavior is under external control the behavior ceases with the conditions which evoke and maintain it.

VTP has been used in situations which span a subject intentions and various degrees of commitment to change. Most student teachers probably intend and are highly committed to improving their teaching skills. On the other hand, it is unlikely that the elementary school children in the Ronchi and Ripple (1972) study actually internalized the need to change their task-relevant participation. When subjects are highly committed to change it may be possible to introduce the VTP technique so it is not perceived so much as source of external control but as a tool for the subject's own use in reaching his goals. Such an orientation would require that the subject be given considerable control over the use of VTP as Stoller (1968) has advocated.

3. The role of the experimenter. Self confrontation without some kind of cueing or focusing typically has not been found to significantly alter behavior (cf. Baker, 1970; Fuller & Manning, 1972). Researchers have explained this need for focusing in terms of information; i.e., it gives the subject explicit knowledge about the nature of the discrepancy between his behavior and his ideal (Stoller, 1968; Staines, 1969). It might also serve to inhibit the use of defensive mechanisms (Kagan, 1970). However, the issue to be raised here pertains to exactly what is the crucial agent in focusing -- the feedback or cueing itself, or the presence of another person.

In his pioneering work on self confrontation, Nielsen (1964) wrote with great cogency on the role of the experimenter:

The presence of the experimenter in the self-confrontation interview no doubt made the subjects respond more intensely than they might have done had they been alone with the self-image, just as the presence of another person, inviting us to look at ourselves in the mirror, would not only induce a set to be aware of the self but also strengthen emotional responses to the self. The
perceiver is dealing not only with his own image, and responding to that, but also reacting to the presence of the other person and to expectations of what this other person may be thinking (p. 35).

Are subjects indeed reacting to "expectations of what the other person may be thinking" as Nielson suggested?

Archer et al., (1972) conducted a pilot study in which subjects who viewed playback in the presence of another person showed more decrease in cardiac activity and more of an increase in eccrine sweat rate than subjects who stopped the tape at various instructions. While this does not demonstrate that the mere presence of another person rather than focusing is the crucial variable, it does point out that the presence of another is an important element in producing arousal. But why should this be so?

A possible explanation is provided by Milton Rosenberg (1965; 1969) who proposed that the typical human subject or psychotherapeutic client attributes to the psychologist (despite occasional efforts to persuade him otherwise) special abilities to evaluate his mental health, adjustment and maturity. This creates in the subject a general level of arousal or "evaluation apprehension" which motivates the subject to win a positive evaluation, or at least provide no grounds for a negative one. A more general interpretation of the importance of another in playback comes from a more radically social psychological interpretation of attribution theory (Tedeschi, Schlenka and Bonoma, 1971). Impression management theory, as this formulation is called, states that "It is not the actor's own perceptions that matters so much as the actor's beliefs about the impression that an observer gains" (Tedeschi, et al., 1971, p. 690). In other words, behavior is determined by one's expectation of how the other will interpret it. By managing the impressions which others have of him the actor, in turn, can be more successful in influencing others.
While it still remains to be determined whether focusing itself or the mere presence of another (or both) is the crucial element for effective playback, both evaluation apprehension and impression management explanations suggest that any behavior change produced by VIP might well disappear when the experimenter or therapist is not present. Or will the perceived expectations of the experimenter be taken over by a "generalized other" and therefore insure some permanence to any modification of behavior? Are there times when the perceived expectations of the experimenter or therapist are not a factor? One of the major goals of psychotherapy as conceived by Carl Rogers (1951) is to give the client unconditional acceptance so that he can discontinue impression management and become more authentic. Perhaps when such a relationship does exist between client and therapist or supervisor and student teacher the perceived expectations of the other no longer affect the self-confrontation experience. There is little doubt that the "social" aspect of self-confrontation represents a Pandora's box of questions which have yet to be answered.

4.) Content. As one looks at the literature on VIP it becomes apparent that the typical procedure is to replay the videotape almost immediately and in its entirety. However, the attribution analysis of VIP suggests that the replay of an entire interview might not be the most efficient use of the technique. We have thus far emphasized the effect that the role reversal produced by VIP has for enhancing belief in personal control. However, putting the individual in a position where he will make attributions about himself has potential for behavior change beyond the specific question of motivation. When a person can be made to apply new labels to himself his behavior often changes accordingly. This becomes particularly apparent with regard to psychotherapy where the goal is often to furnish the client with new ways of viewing himself
With this in mind it would be possible for a therapist to collect a large pool of client behavior on videotape. From this pool the therapist could select a smaller sample which would tend to elicit new attributions about self from the client. For example, if a client saw himself as psychologically "weak" the therapist could show him recordings from previous sessions where the client exhibited assertive and independent behavior. The suggestion of providing new information to clients via recordings devices was made by Kenneth Gergen in 1969, and yet, to this author's knowledge, there are no reported instances in the literature where such a procedure has been employed.

A somewhat different but related issue involves the use of VTP to produce greater differentiation among subjects' attributions about self. People often tend to overgeneralize the inferences they draw about themselves. For example, a teacher who conceives of her natural teaching style as "authoritarian" might be shown that much of what she labels as such is really quite democratic. This same procedure can be used in psychotherapy to reduce the population of experiences for which negative associations exist. Although the systematic selection of content has not received attention in the literature to date, such procedures would be relatively easy to implement and it seems unlikely that the dimensions of content can be excluded from a comprehensive theory of self confrontation.

5. Subject Variables. Fuller & Manning (1972) suggest that body image and physical appearance affect the VTP experience. The person who is most likely to benefit from VTP, they speculate, is similar to the client who is most likely to benefit from psychotherapy, i.e., a YAVIS: young, attractive, verbal, intelligent, and successful. The importance of physical appearance for video self confrontation is quite amenable to
the attribution model. Physical appearance is a very salient aspect of the person-as-percept and should have an important effect on the kinds of attributions the person makes about himself. Old, disfigured or handicapped people may never be able to go beyond "appearances" and the experience could be more damaging the helpful.

The two psychological variables which have received the most attention in self confrontation are self concept and dogmatism (Baker, 1970; Fuller and Manning, 1972). It has been hypothesized that a low self concept reduces the probability of experiencing dissonance between present and ideal behavior (Aronson & Mettee, 1968; Winter, Griffith and Kolb, 1968). In terms of the attribution model this can be seen as something of a self-fulfilling prophecy; the increase in belief in personal control only serves to confirm the persons negative attributions about self. "See I really am stupid; I can't blame it on anyone else". The dogmatic subject can be thought of as one whose attributions are rigidly adhered to even in the face of conflicting evidence. However, the VTP experience may have great potential both for subjects with low self concepts and dogmatic attributional sets when techniques such as careful selection of playback content and training in differentiation of attributions are employed.

We have already noted that attributions can be affected by biases at the proximal end of the perceptual arc. One's expectations can operate as sets which affect how he construes experience. In this light, an individual difference variable which might very well affect the VTP experience is the generalized belief in internal vs. external control (Rotter, 1966). We have thus far treated belief in personal causality as a dependent variable -- a result of the role-reversal precipitated by self confrontation. It may well be, however, that the role reversal is more dramatic for individuals who have a generalized belief in external control and the VTP experience would have relatively more effect on these people.
Conclusion

Attribution theory appears to have great potential for explaining the processes and predicting the outcomes of self confrontation. The model concentrates on how playback techniques affect the process of causal description, i.e., attributions about the self, the world, and others. In discussing some of the more obvious implications of the model, it has become painfully apparent that more research is needed. Somewhat less obvious is the fact that the existing research lacks an integrating theme or focus which guides diversified interests toward some common goal. Put another way, the research lacks a paradigm. However, the outline for such a paradigm can be drawn from our discussion of the implications of the attribution model.

To begin with, there is little doubt that any attempt to explain the self-confrontation experience can be trivial at best. On the other hand, it may be equally trivial to say that each self-confrontation experience is unique. A true understanding of self confrontation must begin by considering the interaction between the subject (client, student teacher, etc.), the experimenter (therapist, supervising teacher, etc.), and the procedure. A procedure which produces a certain outcome for one class of subjects can not be expected to produce the same outcome for a different class of subjects. Likewise, results from laboratory experiments on self confrontation cannot be blindly applied to psychotherapy because of the inherent differences in the experimenter-subject and therapist-client relationships.

When one views self confrontation from this interactive perspective it follows that research should endeavor to specify the nature of that interaction. What is needed is a research paradigm that simultaneously addresses itself to subject, experimenter and procedural variables. Furthermore, these three components can be
viewed as an inverted triangle (see Fig. 1) where the optimal procedure is seen as contingent upon subject and experimenter variables and their interplay. By conceiving the procedure as the flexible element which is to be fitted to subject and experimenter characteristics, the population of people likely to benefit from self confrontation increases. For example, old, handicapped, and unattractive people may benefit from procedures which stress competencies and minimize "appearances."

Our discussion of the attributions model of self confrontation has uncovered several areas where research is sorely needed. In terms of subject variables we have considered physical appearance, self concept, dogmatism and generalized expectancies. We have spoken of the roles of the experimenter as it pertains to how he introduces the VTP experience (i.e., as an attempt to manipulate the subject or as an opportunity which the subject himself can use for change), and the effect of his own attributions about the subject. Procedurally we have discussed the possibilities for approaches such as subject control of playback, careful selection of playback material, and training in differentiation of attributions. The question of the optimal number of playback sessions as well as the optimal interval between sessions must also be studied. However, none of these factors should be treated as independent and the findings of our future research endeavors should be articulated in terms of the contingencies of the total configuration of the subjects, experimenters, and procedures in question.
REFERENCES


1 Daryl Bem (1972, p. 2) has recently pointed out that there are times when "internal cues are weak, ambiguous, or uninterpretable" and in such cases the individual is "functionally in the same position as an outside observer, and observer who must necessarily rely upon those some external cues to infer the individual's inner states".

2 The author wishes to thank Frances Fuller for her helpful comments in this area.

3 The use of "paradigm" here follows Kuhn (1962).
Fig. 1. Inverted-triangle model of self confrontation. Procedure is viewed as contingent on subject and experimenter characteristics.