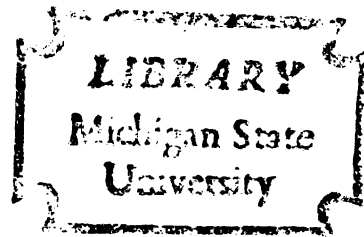


DIMENSIONS OF THE SELF AND
SITUATIONAL SELF-CONSCIOUSNESS
IN THE PERCEPTION OF OTHERS

Dissertation for the Degree of Ph. D.
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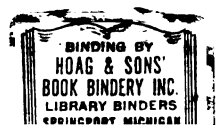
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ABSTRACT

DIMENSIONS OF THE SELF AND SITUATIONAL SELF-CONSCIOUSNESS IN THE PERCEPTION OF OTHERS

By

Robin Richard Vallacher

Because of its obvious relevance to the understanding and prediction of social behavior, social psychologists long have been interested in the processes whereby we come to know and evaluate others — that is, with person perception. This interest has stimulated considerable research, and a considerable body of literature addressed to a wide variety of issues has developed. Somewhat inexplicably, however, two central issues have received but scant attention. The first concerns the commonality between self- and other-perception. To what extent is a person's perception of himself relevant to an understanding of his perception of others? What is the nature of this commonality? The second issue involves the manner in which specifiable situational factors impinge on a person's construal of others. The dearth of research pertaining to this issue is particularly surprising, given the concern for situational determinants of behavior that is manifest in other areas of social psychology. The specific question addressed was how and to what degree situational self-consciousness — a condition common to interpersonal encounters and hence relevant to person perception — influences the manner in which we structure our perception of others.

Separate experiments were performed to examine the two issues. In both studies, subjects — college-aged females — completed several

self-concept scales and a measure of perceptual field independence. Then, at a later session subjects in both studies described each of several stimulus persons in terms of the same traits that had been employed earlier for self-description. Five of the stimulus persons, common to both studies, were female confederates of the experimenter posing as interviewees in a job interview setting. Each confederate interview was presented as a short segment on videotape. In addition to descriptions of these stimulus persons, the degree of perceived similarity with and attraction for each interviewee was assessed. In Experiment 1 only, descriptions and perceived similarity ratings were obtained for two additional stimulus persons: a "close friend" of the subject, and a "mutually disliked" other. Experiments 1 and 2 also differed in that the latter was designed to assess the influence of situational self-consciousness on person perception. In particular, one half of the subjects in Experiment 2 were informed that during the viewing of the videotaped segments they themselves would be observed by means of two videotape cameras mounted on the wall.

A structural orientation was adopted to derive the major self-concept and person perception variables. That is, rather than measuring specific elements of self- and person perception, such as dominance or social value, the manner in which specific elements of content are related was assessed. These variables reflected the theoretical and empirical approaches of Witkin (Witkin et al., 1954; Witkin et al., 1962) and of Scott (1963, 1969, 1974, in press). In addition, certain nonstructural variables were examined, namely, self-esteem, perceived similarity, and attraction.

The general hypothesis of Experiment 1 was that there is a

structural commonality in self- and person perception. More specifically, indices of differentiation, evaluative centrality, and certainty in self-perception were expected to be associated with conceptually similar indices of person perception. Correlational analyses provided partial support for the hypothesized commonality. The pattern of results suggested that (1) a differentiated view of oneself is associated with interpersonal discrimination (articulation); (2) evaluative centrality in self-perception is associated with global descriptions (low dimensionality) and evaluative centrality in person perception; and (3) certainty in self-perception is associated with certainty in the perception of unacquainted others and with low articulation. Results suggested that, contrary to prediction, self-concept certainty appears to be associated with a relatively undifferentiated cognitive structure. Although unexpected, this conclusion is interpretable from a perspective that emphasizes the "multiple-selves" nature of self-conception. That is, to the extent that differentiated individuals view themselves from a variety of perspectives, corresponding perhaps to various roles, it follows that they should be somewhat uncertain of a "core" or situationally transcendent self-concept.

The major hypothesis of Experiment 2 was that subjects in the self-conscious condition would demonstrate a less differentiated cognitive structure regarding the stimulus persons than would subjects in a control condition. Specifically, because of heightened arousal and/or a divided focus in information processing, self-conscious subjects were expected to demonstrate relatively low dimensionality and articulation in their descriptions of interviewees. The results demonstrated, however, that only articulation was significantly affected by the manipulation of self-consciousness. It was concluded that dimensionality, which refers

to the discrimination among construct descriptive terms, is less sensitive to situational forces than is articulation, which is a more "process" determined measure of differentiation. A secondary hypothesis in Experiment 2 was that the effects of situational self-consciousness, while hypothesized to hold for all individuals generally, would nonetheless be more manifest for uncertain than for certain self-concept subjects because of the former's greater predisposition toward self-consciousness. This hypothesis received marginal support.

The implications of the obtained results for an understanding of person perception in the initial stages of the acquaintance process were discussed.

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During the preparation of this dissertation, I was fortunate to receive competent advice, as well as moral encouragement, from several people. It is unlikely, in fact, that this research would have been attempted at all, had it not been for the thoughtful criticism and sincere encouragement I received for some rather vague, yet persistent ideas concerning identity and interpersonal behavior. In particular, much needed encouragement to explore these ideas was provided by Dr. Joel Aronoff. Dr. Lawrence A. Messe', meanwhile, was helpful in phrasing these ideas in a fashion that was amenable to rigorous methodological exploration.

At later stages, when fine points of the theoretical development and details of the procedure were being worked out, constructive criticism was provided by all members of my dissertation committee. In addition to Dr. Messe' — the committee chairman — and Dr. Aronoff, the committee consisted of Dr. James L. Phillips and Dr. William D. Crano. My discussions with Dr. Phillips and Dr. Crano were of particular relevance to the development of my operational approach to cognitive structure. In addition, clarification of several important ideas was fostered through my interactions with Daniel M. Wegner, a fellow graduate student who was coming to grips with related issues for his own dissertation. Finally, in addition to providing a unique perspective on the present research, Dr. Gary E. Stollak was warm, empathic, and genuine enough to sit in at the oral defense of the dissertation in place of

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I. INTRODUCTION

Most people, psychologists and laymen alike, would agree that the way we perceive and relate to others is intimately associated with the way we perceive ourselves. Reflection and everyday observation provide considerable evidence to reinforce the plausibility of some sort of relationship between self- and other-perception. It seems clear, for example, that the perception of others as threatening is associated with low "self-esteem," and that attention to the interpersonal warmth of others is associated with sensitivity to similar aspects of oneself. It is somewhat surprising, then, and even more disheartening, to discover that the nature and extent of this commonality in self-perception and person perception has received relatively little attention from social psychologists. Rather, research into the nature of person perception (cf. Hastorf, Schneider, & Polefka, 1970; Tagiuri, 1969; Warr & Knapper, 1968) has proceeded, for the most part, independently of research into the self-concept (cf. Gergen, 1971; Wylie, 1961, 1968). The present research represents an attempt to bridge the gap, so to speak, between self- and person perception.

In addition to a benign neglect of self-concept factors in the perception of others, the person perception literature is deficient in its attention to possible situational factors, and, perhaps more importantly, to the possible significance of perceiver-situational interactions. A viewpoint in social psychology that has achieved considerable ascendance in recent years is that behavior may be best understood as an interaction between the person and the situation (see, e.g., Hunt, 1967). There is no reason to believe that person perception is exempt from this general law, since even perception of impersonal objects is influenced by the context of the perceiver (Gregory, 1966). While extensive

conceptual and empirical consideration has been given to the situational context surrounding the stimulus person (i.e., the perceived) in studies of person perception, virtually no attention has been devoted to the situational context surrounding the perceiver. This "imbalance" in the person perception literature is perhaps understandable when one considers the methodological difficulties inherent in any attempt to abstract features of real-world situations and to manipulate them adequately in a laboratory setting. But a concern for methodological purity per se is inexcusable when one considers the sacrifice in theoretical relevance that is seemingly contingent on such a concern. Despite the fact that person perception occurs, invariably, in specifiable contexts — most often, interpersonal situations — we know virtually nothing about how situational forces impact on an individual's perception of others.

Thus, in addition to a concern with self-concept factors in person perception, the present research examines the role of a pervasive situational factor in the perception of others. More specifically, in Experiment 1 several self-concept factors, reflecting primarily a "structural" orientation, were examined in relation to certain structural components of the perception of both unacquainted and acquainted others. The research reported as Experiment 2 is an examination of the role situationally induced self-consciousness plays in structuring our perceptions of unacquainted others.

Self-concept and person perception

Theory and research concerning the self-concept are disappointing at best. Little in the way of enlightenment regarding the self — its development, its role in perceptual and behavioral functioning, or its significance as an individual difference variable — has been

achieved since the seminal contributions of the early symbolic interaction theorists (cf. Cooley, 1902; Mead, 1934). To be sure, considerable attention has been devoted to the self-concept (Gergen, 1970; Wylie, 1961, 1968), but the accumulating literature is characterized by conflict in theory and inconsistency in empirical findings. For example, self-esteem, the most popular self-concept dimension, has been discussed conceptually in terms of a generalized self-acceptance (Rogers, 1951), perceived competence (White, 1960), the resolution of identity crises (Erikson, 1950), self-consistency (Lecky, 1945), and inferiority-superiority (Adler, 1956). Moreover, empirical investigations of the behavioral correlates of self-esteem have yielded equivocal and often inconsistent results. Some studies, for example, have demonstrated a monotonic relationship between self-esteem and conformity (Cohen, 1959), while other investigations have demonstrated a non-monotonic relationship (e.g., Cox & Bauer, 1964; Gergen & Bauer, 1966). Similarly, while many theorists and researchers have concluded that high self-esteem is associated with mental health (e.g., Maslow, 1954; Rogers, 1951; Rosenberg, 1965; Turner & Vanderlippe, 1958), there is evidence that individuals with very high scores on measures of self-esteem are highly defensive and rigid (e.g., Bramel, 1962; Cohen, 1959; Pepitone, 1968).

Structural commonality in self- and other-perception

While the lack of coherence in the self-concept literature is typically attributed to operational confoundings and other methodological inadequacies (see Wylie, 1968), it well may be that the underlying problem reflects something more basic than these shortcomings. If the self can be thought of as an object of cognition — granted, a very "special" object — then theory and research in cognition become

relevant to an understanding of the self. In recent years, social psychological research concerned with cognitive functioning has shifted from an emphasis on the content and evaluative properties of cognition to a greater emphasis on structural properties, such as differentiation and integration, which describe the manner in which specific elements of content are related. However, self theories for the most part have not examined structural aspects of the self, emphasizing instead almost exclusively the evaluative component of the self (i.e., self-esteem, self-regard, self-acceptance) and specific dimensions of self-perception (e.g., social value, dominance, and competence).

Structural aspects of perception and cognition are, of course, more general across diverse domains than are specific dimensions of content. It is unlikely, for example, that an individual would describe his best friend and Great Britain in terms of the same attributes. It does seem conceivable, however, that an individual would demonstrate comparable degrees of, say, differentiation in his descriptions of these two entities. Attention to the structural components of cognition and perception, moreover, might well reveal an individual's basic orientation to the world: the patterning of perception, the manner in which elements of experience are interrelated — this is the very essence of phenomenological considerations. It is well established, in fact, that individuals do reliably differ from one another in various structural properties of cognition (Kagan & Kogan, 1970). An examination of the structural properties of self- and person perception, therefore, may demonstrate an underlying commonality with regard to these two domains. Structural considerations have been applied to person perception, generating a fairly extensive and coherent body of research (e.g., Bieri, 1955; Crockett, 1965; Rosenberg & Sedlack, 1972; Schrauger, 1967; Signell,

1966; Todd & Rappoport, 1964).

Several arguments may be advanced in support of a structural commonality in self- and person perception. First of all, the very nature of self- and person perception argues for such a commonality. There is consensus among virtually all self-concept theorists that an individual develops a conception of himself through interpersonal processes. One of the most important of these processes is social comparison (Festinger, 1954; see Gergen, 1971). That is, as an individual interacts with and observes another person, he develops attitudes not only toward the other person but, through comparison with other, attitudes toward himself as well. There is a common experiential basis, in other words, for self- and other perception. Since self-perception and person perception reflect common experiences, and since individual differences in structural properties of cognition regarding a class of stimulus objects are, in large measure, a function of experience with those objects (Bieri, 1971; Kagan & Kogan, 1970; Scott, 1963), it follows that there should be a structural commonality in the perception of self and others.

Secondly, it may be that structural properties of cognition regarding a class of stimulus objects reflect the degree of emotional or affective involvement with those objects. A certain degree of detachment or lack of emotional involvement seems requisite for clear and differentiated perceptual-cognitive functioning. Conversely, strong affective or emotional concern regarding a stimulus object may prevent one from attaining the degree of detachment necessary to view the stimulus from more than one perspective. In this regard, it is interesting to note that structural properties associated with cognitive differentiation are inversely related to the salience of the evaluative or "good-bad" factor in the perception of others (Crockett, 1965;

Schrauger, 1967; Scott, 1969). To the extent, then, that an individual can be characterized by a general affective or emotional orientation toward himself and others (see, e.g., Rogers, 1951), there should be a structural correspondence in his perception of self and others.

Finally, it seems likely that individual differences in structural properties of cognition, particularly in structural complexity or differentiation, are related to differences in analytic capacity. That is, analytic capacity — the ability to perceive a whole in terms of its component parts — clearly provides the potential for perceiving self and others in a dissecting, multidimensional manner. There is some empirical support, in fact, that individual differences in analytic capacity are manifest in person perception. In particular, Langley (1971) found that analytic capacity, as indicated by scores on the Concealed Figures Test (Thurstone, 1944), was associated with dimensionality in the descriptions of acquainted others who fit certain roles (see Bieri, 1955). If analytic capacity is manifested in one's self-perception as well, then a structural similarity in self- and person perception is highly plausible.

Of course, it could be argued that since "self" and "others" reflect highly related domains — that is, they both refer to people — then there should be a strong correspondence in specific dimensions of content, as well as in structural properties, with regard to perception in these two domains. No doubt this is the case, as suggested by the example cited earlier in which a person who perceives "warmth" in others is likely to be sensitive to his own "warmth." However, given the pervasive and often distorting role of ego-defense mechanisms in self-perception, the degree of similarity in specific judgments along dimensions of self- and other-perception is likely to be quite attenuated. A person

who characteristically employs projection as a defense, for example, may see others as hostile and selfish in contrast to his self-perceived kindness and altruism. In short, while similar dimensions may be utilized in self- and person perception — e.g., hostility-kindness, selfishness-altruism — a comparison of specific dimensional judgments in a description of oneself and of another person would not be expected to demonstrate a high degree of correspondence.

A significant correspondence with regard to the evaluative component in self- and person perception likewise seems reasonable. That is, the perception of one's own positive (or negative) qualities may reflect a general perceptual sensitivity to positive (negative) qualities and thus should be evident in the perception of others as well. An alternative interpretation of the same correspondence in self- and person evaluation relies on notions of threat and defensiveness. For example, a person with low self-esteem, threatened by another person's apparent "superiority," may emphasize negative qualities in his perception of this person, thereby reducing the "superiority" and hence the threat. At any rate, considerable evidence exists to suggest the generality of a positive relationship between "self- and other-acceptance" (e.g., Crandall & Bellugi, 1954; Fey, 1954; Worchel, 1957; Zuckerman, Baer, & Monashkin, 1956), and this evidence is certainly consistent with an interpretation based on a commonality in self- and person perception.

Again, however, it is with regard to structural aspects that the greatest correspondence in self- and person perception should be evident. While the mainstream of self-concept theory and research has not reflected a concern with structural variables, two prominent research programs, reflecting independent conceptual approaches and domains of interest, have yielded much that is relevant to an understanding of

a structural commonality in self- and person perception. One of these — that of H.A. Witkin and his associates (Witkin, Lewis, Hertzman, Machover, Meissner, & Wapner, 1954; Witkin, Dyk, Faterson, Good-enough & Karp, 1962) — has explored the commonality between perceptual differentiation and self-differentiation. The other relevant series of investigations, conducted by W.A. Scott (Scott, 1963, 1969, 1974, in press) has painstakingly developed and validated measures to reflect "the structure of natural cognitions" and has examined the degree to which the relationships among these properties are general across various "domains," such as self, others, and nations.

The Witkin approach: "Psychological differentiation"

Witkin et al. (1954) defined a dimension of personal functioning based on individual consistencies in analytic capacity across several perceptual tasks. At one end of this dimension — the field dependent mode of perceiving — perception is strongly dominated by the overall organization of the field, and parts of the field are experienced as "fused." At the opposite extreme — the field independent mode of perceiving — parts of the field are experienced as discrete from organized background. Perception on the part of the field dependent person is global; perception on the part of the field independent person is articulated and is said to reflect "internal frames of reference."

Such differences in perceptual functioning are hypothesized by Witkin et al. (1962) to reflect differences in the extent of "psychological differentiation." Field dependent individuals are described as having failed during development to internalize a stable set of standards with which to view themselves. Thus, they lack a well-developed sense of their own identity and separateness from others, and rely on external sources for self-definition. In contrast, field independent

individuals are described as having an awareness of needs, feelings, and attributes which they recognize as their own, and which they identify as distinct from those of others.

In a phenomenological sense, "distinctiveness from others" may be defined as the propensity to perceive minimal correspondence between one's own attitudes, expectancies, and behaviors, and those of others. Although the tendency to assume similarity or dissimilarity to others has been identified as a relatively stable individual characteristic (Cronbach, 1955), it has received little attention as an indicator of self-other differentiation. Wegner and Vallacher (1974), however, employed two separate measures of assumed similarity and found that this construct did in fact relate to field independence in a manner congruent with Witkin's hypothesis. The two measures of assumed similarity employed in the Wegner and Vallacher study were: (1) the correspondence between a subject's responses on a personality test and his predicted responses on the same test for each of two other people, who were described briefly in separate paragraphs; and (2) the proportion of a subject's acquaintances that he deemed "similar to himself." Field independence — as measured by the Embedded Figures Test (Witkin et al., 1954), the Concealed Figures Test (Thurstone, 1944), and the Block Design subscale of the Wechsler Adult Intelligence Scale — correlated negatively with both of these measures.

These results, then, provide strong support for Witkin's psychological differentiation hypothesis. Further, these findings suggest the relevance of field independence to the study of person perception, since the tendency to assume similarity to others directly implies a commonality in self- and person perception with regard to content and evaluative dimensions. Moreover, this tendency relates to other aspects

of person perception — most notably, to predictive accuracy (Cronbach, 1955, 1958) and to cognitive complexity (Bieri, 1955).

In addition to his perceived distinctiveness from others, the field independent person is hypothesized by Witkin to have a highly articulated self-concept. That is, while the field dependent person perceives himself in an unarticulated global fashion, analogous to his perception of spatial phenomena, the field independent person is more likely to perceive himself in terms of various independent dimensions. Support for such a relationship between field independence and self-articulation is provided in a study by Vallacher (1974). Specifically, Vallacher found that field independent subjects, as indicated by their scores on the Concealed Figures Test, described themselves in a more differentiated manner on scales tapping an evaluative component of the self-concept than did field dependent subjects.

Self-differentiation, then, is a structural aspect of the self-concept that reflects individual differences in perceptual differentiation. Moreover, this construct parallels a structural aspect of cognition — cognitive differentiation — that has been studied in the context of person perception. In cognitive complexity research, differentiation refers to two conceptually independent variables (Bieri, 1966).

Dimensionality refers to the number and/or independence of dimensions which an individual employs in evaluating or defining an object of cognition — typically, other people known to the individual. For example, the attributes of intelligence and competence might be essentially synonymous (highly correlated across stimulus persons) for one perceiver, but represent two distinct dimensions for another. The second aspect of differentiation, most often referred to as articulation, is the mean number of distinctions among stimuli — again, typically other people —

that a perceiver makes on a given dimension. One person, for example, may describe his acquaintances as either "smart" or "dumb," while another person may distribute the same people into several distinct categories along a "smart-dumb" dimension. If in fact there is a structural commonality in self- and person perception, then it seems plausible that self-differentiation — cognitive differentiation in self-perception — should be associated with differentiation in the perception of others, that is, with dimensionality and articulation.

Witkin's differentiation hypothesis rather directly implies another aspect of the self-concept that seems to have consequences for the manner in which we structure our perceptions of others. According to Witkin et al. (1962), the field independent person is strongly aware of his defining characteristics — he is certain of "what he is like." The field dependent person, in contrast, is said to be less certain of his self-concept. Vallacher (1974; see also Wegner & Vallacher, 1974) examined the relative self-concept certainty of field independent and field dependent subjects and provided only equivocal support for the relationship hypothesized by Witkin. That is, while field independence related in the predicted manner to self-certainty for males, a significant relationship between field independence and self-certainty was not obtained for females.

Although self-concept certainty does not relate to field independence in a manner entirely predicted by the differentiation hypothesis, there is evidence to suggest that nonetheless it is an important aspect of the self. Bronson (1959), in a study of late adolescents, found that certainty of self-conception was positively correlated with temporal stability of self-rating. Brownfain (1952) similarly concluded that there is a positive relationship between stability and certainty of the

self-concept. Moreover, in pilot research for the present study, self-certainty correlated in a significant manner with two separate measures of self-esteem — an attitudinal measure (Rosenberg, 1965) and a measure based on the discrepancy between the real and ideal self-concept.

In addition to its relation to other aspects of the self, self-certainty has demonstrable predictive validity. Organ (1973), for example, found that subjects who were uncertain of their self-concept scored as more external on Rotter's (1966) I-E scale than did subjects who were certain of their self-concept. Organ interpreted these results within the framework of self-perception theory (Bem, 1967). More specifically, Organ argued that the less clear a person is regarding his self-concept, the less his behavior will unambiguously reflect his own goals, values, and personality traits. An uncertain person, therefore, is more likely than a certain person to attribute his behavior to strong external forces or chance. Maracek and Mettee (1972) found that individuals with low self-esteem react differently to success experiences depending upon how certain they are of their negative feelings about themselves. Individuals certain of their low self-esteem were made uncomfortable by feedback indicating self-produced success on a task and they failed to improve their performance on subsequent trials. Individuals uncertain of their low self-esteem, however, showed significant improvement following feedback indicating self-produced success. Relative to the certain-low esteem subjects, in other words, the uncertain-low esteem subjects had weaker consistency concerns.

To what extent is self-concept certainty, which appears to be a meaningful component of the self, relevant to an understanding of person perception? First of all, on the basis of the hypothesized commonality in self- and person perception, it seems likely that a

person who is uncertain in his own self-perception may be similarly uncertain in his perceptions of others. A lack of confidence in one's perceptions of others, moreover, would seem to be associated with relatively "global" or undifferentiated perceptions of others. As indicated earlier (p. 10), undifferentiated person perception may be manifested in two conceptually independent ways: (1) a high degree of correspondence between dimensions of judgment (low dimensionality); and (2) a relative lack of discrimination between stimulus people along judgmental dimensions (low articulation).

In addition to considerations of commonality per se, self-concept certainty would seem to be of relevance to an understanding of person perception for reasons of a more "psychological" nature. That is, the degree to which a person is uncertain of his self-image may well be reflected in his concern over how others perceive and evaluate him and this concern may affect his perceptions of them. A highly uncertain individual is likely to be highly concerned with the reactions he elicits from others since such reactions tell him whether he is warm or cold, aggressive or timid, etc. Person perception for such an individual seems likely to reflect a "halo effect" since others are seen mainly as frustrators or gratifiers of an egocentric "need" (i.e., certainty of self-concept). Uncertain individuals, in other words, "use" others for purposes of self-definition and self-evaluation, and thus may be described as "self-conscious" rather than "other-conscious."

In contrast, a person with a relatively certain self-concept seems likely to be much more "other-conscious." That is, since the certain person has less "need" to focus on himself during his social encounters, he can safely turn his perceptual focus to others. Rather than simply "using" others as reflecting tools for self-definition, the

certain person should have more varied constructs in his perceptions of others than should the uncertain person. It does not necessarily follow, however, that the certain self-concept person should be more accepting of others than should the uncertain person. In fact, it seems likely that a highly certain person would be more defensive in his person perception than would a highly uncertain person, since such an individual is sensitive to perceived inadequacies in himself. Assuming a need for positive self-regard (Rogers, 1951), the certain individual would seem likely to project his perceived inadequacies onto Other to defend against the possibility of appearing inferior to Other on these sensitive dimensions. While this perceptual tendency would obviously interfere with balanced person perception, it differs from the "halo effect" that characterizes the uncertain individual's person perception, since the certain person should attend to specific traits.

Certainty of self-concept, then, should be related to differentiation in person perception. Individuals who are relatively certain of their self-concept should be both more dimensional and more articulated in their perceptions of others than should individuals characterized by self-concept uncertainty.

Summary of Witkin approach

Overall, the theory of psychological differentiation outlined by Witkin et al. (1962) is highly relevant to the present research, since it rather directly implies certain dimensions of the self that seem to be of import to an understanding of individual differences in various components of person perception. In particular, field independence — the perceptual indicator of psychological differentiation — has been shown to be negatively related to the tendency to assume similarity to others, and thus may be considered a measure of self-other

differentiation. Self-differentiation and self-concept certainty are also implied by the differentiation hypothesis, and along with field independence should be related to dimensionality and articulation in the perception of others. Self-concept certainty, in addition, should be related to certainty in person perception.

The Scott approach: The "structure of natural cognitions"

In contrast to the work of Witkin, which has suggested the potential significance of certain structural aspects of the self, the research conducted by Scott (1963, 1969, 1974, in press) has been directed to the identification of the basic structural components of cognition that are general across a variety of domains, including the self. Moreover, while Witkin's contribution has been mainly theoretical in nature, the emphasis in Scott's research has been on the systematic development of several operational definitions for each structural concept, thereby meeting criteria of convergent validity.

Noting that prior definitions of structural properties had been proposed independently of a structural model specifying their interrelationships, Scott (1969) outlined a simple conceptual model which serves as a point of reference for several structural properties. According to this model, phenomenal objects are represented as points in "multidimensional cognitive space." The multidimensional space consists of attributes, which are somewhat analogous to "personal constructs" in Kelly's (1955) theory of personality. That is, attributes, like personal constructs, are employed in the construal of people, objects, and events. An attribute, represented in the model as a line in the multidimensional space, is divided into segments corresponding to characteristics (categories of the attribute) that the person recognizes. These segments may approach the size of points for attributes

that are finely graded or, more commonly, they may represent coarser categories of the attribute. The point in multidimensional space that defines a phenomenal object is the intersection of normal projections from the segments of several attributes corresponding to characteristics assigned to the object.

Phenomenal objects are distinguishable to the extent that they include different combinations of characteristics. Differentiation among objects depends both on dimensionality of the cognitive space and on articulation of the various attributes within it (cf. Bieri, 1966). In congruence with the meaning given earlier (p. 10), dimensionality refers to the independence of attributes, that is, the extent to which they order phenomenal objects in different ways. Similarly, Scott's definition of articulation parallels the meaning given to this term earlier (p. 10), namely, the number of reliable distinctions among objects that a person makes on an attribute.

The property of centrality refers to the importance of an attribute for defining objects within a cognitive space. The more central an attribute, the more objects that are thought of in terms of that attribute. Two attribute constellations in particular are hypothesized by Scott to be highly central, primarily because they are said to arise early in conceptual development. The affective attribute represents liking or disliking for an object, and it is closely related to evaluative attributes, which describe an object in terms of "good" and "bad," or "pleasant" and "unpleasant." Since there is evidence that differentiation refers not so much to the use of many independent attributes, per se, as to the decreased importance attached to evaluative attributes (Olshan, 1970; Schrauger, 1967), evaluative centrality is a highly relevant structural variable.

Scott (1969, 1974) also defines several "varieties" of cognitive integration, which describe the manner in which phenomenal objects are related. Although these "integration" properties are quite interesting, they will not be considered in the context of the present research for two reasons. First of all, with the possible exception of image comparability, each of these properties directly implies low dimensionality, mathematically as well as conceptually. Affective-evaluative consistency, for example, is represented in Scott's model as a close correspondence between the affective attribute and all evaluative attributes conceived by the person. Because attributes that are highly correlated with liking will tend to be correlated with each other, a state of high affective-evaluative consistency implies low dimensionality. Similarly, affective balance (cf. Heider, 1958) describes a mode of "integration" in which objects are differentiated on the basis of only one attribute — the affective attribute. Centralization, another mode of "integration," consists in treating some small number of attributes as central. In terms of this mode, maximum "integration" is also minimum dimensionality since all phenomenal objects in a given domain are defined only by their position on a single common attribute.

Scott (1969, 1974) has demonstrated that his integration measures are, indeed, negatively correlated with dimensionality. Yet, it is not at all clear conceptually why highly differentiated people cannot at the same time be "integrated." Certainly, integration is an important construct in its own right and is not just simply a lack of differentiation. Highly effective decision makers, for example, are both highly differentiated and "integratively complex" (cf. Schroder, Driver, & Streufert, 1967). Scott's "integration" properties, then, are inadequate at best, and the nature of this inadequacy might indicate to some

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observers a major weakness in his dimensional model of cognitive structure.

Scott's integration properties are not considered in the present research for a second, perhaps more fundamental, reason. Most theories in personality and social psychology are explicitly or implicitly predicated on the assumption that people attempt to make sense out of their phenomenal worlds — to understand, predict, and control the facets of their experience. "Mental illness," in fact, is often defined in terms of an inability to integrate the elements of one's experience into a coherent and meaningful whole. Conversely, "normal" individuals are said to be more or less integrated in their interpretation of their experience. If integration indeed does not discriminate well between individuals within a "normal" population, then its importance as an individual difference variable is attenuated.

In addition to this basic "need" for integration, psychologists have pointed out a tendency towards greater differentiation with development generally (see, e.g., Werner, 1957) and with experience regarding particular domains (see, e.g., Bieri, 1971). Differentiation, however, is not typically viewed as a defining element of mental health, per se, and everyday observation points to the wide range of individual differences on this variable. It may be that individual differences in differentiation directly reflect not only development and experience, but the "security" of a person's integration. In other words, an individual will differentiate as far as he can without threatening his integration. Clinical data attest to the plausibility of this relationship. An emotionally insecure person, for example, tends to be compulsive in his behaviors and obsessive in his thoughts. By narrowing the range of his cognitions and actions — that is, by engaging in relatively undifferentiated thought

and behavior — such a person can maintain his integration.

Within a dimensional model, then, integration is a property which may be assumed rather than precisely measured, at least within a "normal" population. Integration could be assessed in a global fashion, however, through measures that are independent of the underlying model of cognitive structure. For example, an individual's degree of adjustment regarding the particular phenomenal object or objects under consideration could be obtained. In this light, it is interesting that personal "maladjustment" is associated with high articulation in the domain of self, and with high ambivalence and low evaluative centrality — two properties associated with high dimensionality — in the domains of self and acquaintances (Scott, 1969, in press). This suggests that perhaps maladjusted individuals are "too differentiated," that is, differentiated to such an extent that their integration regarding self and acquaintances is threatened.

A global index of integration could also be obtained by measuring the degree of confidence or certainty associated with an individual's cognitions regarding a particular phenomenal object. It seems plausible, for example, that the extent to which an individual has an integrated perception of another person should be reflected in the certainty with which he can describe the person. In addition to obvious intuitive appeal, a "certainty" approach to integration receives support from pilot research, in which it was found that certainty of self-concept is strongly associated ($p < .01$) with self-esteem, a variable which may be said to reflect "self-integration." Because "certainty" can be assessed more readily and less equivocally than can "maladjustment," the former seems the preferable mode of assessing integration.

A consistent finding in Scott's research is a significant degree of generality across various "domains" in the relationships between

structural properties. According to Scott (1969, p. 262), a cognitive domain "consists of phenomenal objects which the person treats as functionally equivalent and the attributes by which he comprehends those objects." Scott has singled out for research purposes five such domains: nations, celebrities, acquaintances, family, and self. Within each of these domains, certain relationships between the various structural properties are typically observed. For example, as pointed out earlier, dimensionality is negatively correlated with the "integrative" principles of affective balance and affective-evaluative consistency. Articulation, on the other hand, is positively correlated with affective balance but uncorrelated with affective-evaluative consistency. And, despite the fact that they both reflect important components of cognitive differentiation, dimensionality and articulation tend to be uncorrelated. There is evidence, moreover, that the cross-domain generality in the relationships observed among structural properties is not attributable simply to response factors or other sources of common method variance. For one thing, each structural property has been assessed with several "tests" which differ considerably from one another. Each of these tests has also been "scored" in different ways to obtain different structural properties. The results of this "multi-method multi-trait" approach (Campbell & Fiske, 1959) have demonstrated the convergent validity of these properties.

Further, despite the cross-domain generality in inter-property relationships, there is some domain specificity in the relationships observed between certain structural properties and various criteria. Scott (1962) found a significant correlation between information about nations and dimensionality of that domain. Seferi (1968) reported analogous results for the domain of acquaintances: intimately known

persons formed a subdomain with higher dimensionality than did casually known persons. Finally, as indicated earlier, psychological maladjustment — as evidenced by self-report, friends' judgments, and exposure to psychiatric treatment — was found to be associated with low evaluative centrality, low affective-evaluative consistency, and ambivalence in the domains of self, acquaintances, and family; maladjustment was associated with articulation only in the domain of self (Scott, 1969). Moreover, these results recently have been replicated among college students in three cultures — the U.S., Australia, and Japan (Scott, in press).

Summary of Scott approach

Scott's research represents an ambitious attempt to specify in a comprehensive, yet integrated manner the basic components of cognitive structure. In particular, his simple dimensional model has proven quite useful for defining, and specifying the interrelationships between basic components of cognitive differentiation that are general across a variety of "domains." At the same time, however, the dimensional model appears to be inadequate for purposes of assessing cognitive integration, since integration indices derived from this model directly imply low dimensionality. Of course, integration may be assessed with "certainty" ratings regarding judgments of phenomenal objects, but such an approach to integration is obviously independent of Scott's conceptual model. Overall, Scott is to be commended, for in his research he has demonstrated greater concern for establishing the convergent validity and external validity of basic structural properties than has any other researcher in this area. On the basis of his efforts towards validation, it may be concluded that structural properties represent significant individual difference variables that are general across a wide variety of phenomenal objects and that relate in a meaningful way to certain criteria.

The evidence cited by Scott, however, provides at best only indirect support for the hypothesized commonality in self- and person perception. There is no direct evidence, by Scott or anyone else, concerning the degree of commonality for a given property across various domains. We do not know, in other words, whether individuals who score "high", relative to others, on a particular property in one domain tend also to score "high" on the same property in another domain. The research reported as Experiment 1 examines this general issue with respect to two domains: self and others. In particular, the focus of Experiment 1 is on how certain self-concept variables relate to conceptually similar properties underlying the perception of acquainted and unacquainted stimulus persons.

Situational self-consciousness and person perception

Our perception of others most often occurs when we are engaged in social interaction with them. Despite the obvious interpersonal nature of person perception, a perusal of the literature might lead one to suspect that person perception takes place in a social vacuum. The paradigms commonly employed are sensitive at best to only static aspects of the perceiver-perceived relationship (e.g., prior acquaintance, status differences, attitude similarity), and fail to explore dynamic factors that may affect perception in "real-world" situations. Admittedly, dynamic situational variables are difficult to bring under sufficient experimental control to warrant unequivocal conclusions regarding their impact in everyday situations. In a dyadic interaction, for example, person perception is affected in subtle and often complex ways by the pattern of verbal and nonverbal behaviors that occur (Argyle, 1969). It is possible, nonetheless, to distill basic components of interpersonal settings, and to examine the effects of these components in a controlled

situation.

Of course, interpersonal settings may be discussed in terms of a large number of potentially meaningful variables. Perhaps the most basic feature of such settings, however, is that we are simultaneously the subject and the object of perception. We are, in other words, the "observed" as well as the "observer" in the majority of settings in which person perception typically occurs. Again, however, it is not at all clear from an examination of the literature how, and to what degree, our perception of others is affected by an awareness that we are, at the same time, an object of perception. Experiment 2 represents an attempt to explore this issue.

"Arousal" interpretation

Just as we observe others in order to form an impression of them, we are aware that others are, in a like manner, scrutinizing our verbal and nonverbal behaviors in an attempt to understand, predict, and evaluate us. An awareness of being observed, then, is likely to activate a person's self-system and predispose him to a concern with the reactions and evaluations of others towards himself (Argyle, 1969, p. 378). In varying degrees, this concern is likely to produce within the individual an arousal state. Arousal, in turn, can either be facilitative or detrimental to behavior efficiency, depending upon its intensity. In particular, several lines of research in psychology have converged on the notion that the relationship between arousal and performance may be described in terms of an inverted-U function, according to which maximum behavior efficiency occurs at an "optimal" — neither very high nor very low — level of arousal (e.g., Berlyne, 1960; Hebb, 1955; Hunt, 1963).

Although empirical evidence is lacking, it seems reasonable to extend the generality of the inverted-U function to the process of person

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perception. That is, there is quite likely an optimal level of attention from others that facilitates "balanced" (highly differentiated, yet well-integrated) person perception. "Too little" attention from another person or persons may leave us insufficiently motivated (unaroused) to construe a person in a differentiated manner. "Too much" attention from others, on the other hand, may produce anxiety (high arousal), which can interfere with a person's cognitive processes to the point where the person has to "anti-differentiate" in order to maintain an integrated person impression. In addition to the degree of observational intensity per se on the part of others, the nature of the relationship between oneself and the observing other is likely to influence what one considers to be an optimal level of observation. We typically are not troubled by, and in fact seek out, the attention of familiar and well-liked others. On the other hand, even a low level of focused attention from strangers tends to make us uncomfortably self-conscious. Hence, being observed by unknown others is likely to interfere with clear and differentiated person perception.

There are no doubt individual differences in what is perceived to be an optimal level of attention from others. Some individuals appear to be painfully self-conscious in even the most casual of settings, while others are quite comfortable with being the center of attention at public gatherings. Argyle and Williams (1969) found consistent individual differences in the extent to which people felt they were being observed, as opposed to being observers, in a variety of situations. Although no correlation was found between this variable and neuroticism, it did correlate significantly, for males only, with Maslow's insecurity scale ($r = .35$) and with dominance ($r = -.32$). Self-consciousness is also related to low self-esteem, at least among adolescents (Rosenberg, 1965).

Individual differences in self-consciousness may also reflect

individual differences in self-concept certainty. As noted earlier (p. 13), individuals who are uncertain of their self-concept should demonstrate greater concern than should certain self-concept individuals regarding how other people perceive them. Uncertain individuals, in other words, are predisposed towards greater arousal as a function of being observed than are certain individuals, and therefore should experience anxiety (intense arousal) at lower levels of observational intensity. It follows, then, that the person perception of an uncertain self-concept person should "suffer" more — that is, it should be less differentiated — in a situation involving the observation of oneself by others than should the person perception of a certain person.

"Equilibrium" interpretation

In recent years, there has been a shift in social psychology from motivational/drive paradigms to paradigms reflecting information processing concepts. Dissonance phenomena, for example, have been reinterpreted in terms of self-perception theory (Bem, 1967). Similarly, terms such as "attribution," "integrative complexity," and "cognitive style" have become prominent in the lexicon of social psychology at the expense of such terms as "tension reduction," "unconscious motivation," and "need." While the notion of "arousal" — clearly, a motivational/drive concept — has been central to the discussion concerning the effects of situational self-consciousness on person perception, it is possible to reach the same conclusions with reference only to concepts emanating from an information processing paradigm.

Two assumptions are central to this interpretation. First of all, it must be assumed that a person's total awareness is relatively constant across situations, that is, the number of behaviors, cues, and thoughts which a person can consciously entertain at any one time is

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somewhat fixed. The second assumption is that a person's total awareness in situations relevant to person perception can be subdivided into self-awareness and other-awareness. It follows from these assumptions that there is an "equilibrium" in self- and other-consciousness, so that an increase in one is necessarily accompanied by a decrease in the other. This hypothesized equilibrium is analogous to the perception that is fostered by one-way mirrors. That is, depending on one's visual focus, a person can either see a reflection of himself or see through the mirror into the other room. The person cannot, however, clearly see his reflection and into the other room at the same time. Similarly, in interpersonal situations a person cannot focus on his own performance and still maintain differentiated and integrated perception of others.

Under conditions conducive to self-consciousness, therefore, a person's perceptual focus will be directed towards himself and, consequently, there will be little attention to the variety of cues and behaviors manifested by others. Hence, situational self-consciousness should be associated with relatively low dimensionality since various sources of information about a stimulus person are not attended to. Similarly, there should be interference with the ability to make discriminations between people along a given dimension — that is, an interference with articulation — since subtle cues which aid in such discrimination are not efficiently processed. It seems plausible, as well, that an integrated perception of a stimulus person should be difficult to obtain when one is in a state of self-consciousness. Such a lack of integration, in turn, may be reflected in relative uncertainty regarding one's perception of a stimulus person.

Like the "arousal" interpretation, the "equilibrium" interpretation predicts that the effect of situational self-consciousness on person

perception may be moderated somewhat by individual differences in self-concept certainty. Earlier (p. 13), it was maintained that if an individual is uncertain of his self-concept he is predisposed towards self-consciousness in interpersonal settings. Certain self-concept persons, meanwhile, were described (pp. 13-14) as more likely to manifest other-consciousness in the same settings. Thus, given the same level of observational intensity from others, it seems reasonable to expect that, relative to certain self-concept persons, uncertain persons should demonstrate less differentiated and integrated perception of others.

Summary

Whether discussed in terms of "arousal" or in terms of an "equilibrium" in self- versus other-consciousness, the general effect of situational self-consciousness on person perception is to "simplify" the person's cognitive structure regarding others. That is, under the scrutiny of others, particularly unfamiliar others, individuals are likely to manifest less differentiated — less dimensional and less articulated — person perception. Although evaluative centrality is considered by Scott (1969) and others (Olshan, 1970; Schrauger, 1967) to be a conceptual as well as an empirical correlate of differentiation, it is not clear from either the "arousal" or the "equilibrium" interpretation how this variable might be affected by situational self-consciousness. Certainty in one's perception of others, posited earlier as an index of integration, should be lower when one is experiencing self-consciousness than when one is not being observed by others. Finally, the effects of situational self-consciousness should be greater for individuals who are uncertain of their self-concept than for those who are somewhat more assured of how they appear to others.

II. EXPERIMENT I

Overview

Experiment I was undertaken to test the general hypothesis that there is a structural commonality in the perception of oneself and the perception of acquainted and unacquainted others. Several self-concept factors, reflecting primarily the influence of Witkin et al. (1962) and of Scott (1969), were derived and, along with a general measure of self-esteem (Rosenberg, 1965), were administered to female college students. Although not a structural variable, self-esteem was included because of its intuitive importance for an understanding of person perception.

At a second session two weeks later, the subjects watched several "candid" job interviews on videotape. Each interviewee was actually one of several female confederates of the experimenter. Following each interview segment, the subjects described the interviewee in terms of the same characteristics which had been employed for self-description at the first session. Subjects also indicated their degree of perceived similarity and liking for the interviewee. Finally, the subjects described a "close friend" and someone they "disliked" in terms of the same characteristics used to describe themselves and the interviewees, and they indicated their degree of perceived similarity with the "friend" and with the "disliked" person. Certainty judgments on all trait judgments also were obtained.

Hypotheses

The self variables reflecting differentiation were expected to demonstrate positive relationships with the person variables reflecting differentiation. In particular: field independence and self-differentiation were hypothesized to demonstrate positive correlations with dimensionality and articulation in person perception, and negative correlations with

evaluative centrality in person perception; evaluative centrality in self-perception was hypothesized to correlate negatively with dimensionality and articulation, and positively with evaluative centrality in person perception.

Self-concept certainty was expected to correlate positively with certainty in person perception, positively with dimensionality and articulation, and negatively with evaluative centrality in person perception. Field independence was expected to be negatively correlated with the perceived similarity measures.

Across subjects, the factor structure in self-perception was expected to be similar to the factor structure for each of the stimulus persons (interviewees, "friend," and "disliked" person).

In line with the self-acceptance-other-acceptance hypothesis (Rogers, 1951), positive relationships were expected between self-esteem and liking for each of the interviewees. Self-esteem was also expected to be positively correlated with perceived similarity to "friend," and negatively correlated with perceived similarity to "disliked" person (Heider, 1958).

Method

Subjects

The use of college students, usually considered a necessary evil in psychological research, was considered ideal for purposes of the present research, since the college experience is generally considered to involve a period of insecurity, identity crises, etc. Thus, self-concept factors were expected to be salient in this age group, and individual differences along various self-dimensions were expected to be highly manifest in the perception of others.

Initially, 173 females from introductory psychology classes at Michigan State University were recruited in exchange for course credits. The study was presented as an "opportunity to learn about yourself" by taking

some newly developed psychological tests. On a random basis, 110 of these subjects were contacted by telephone to solicit their participation in a second session involving person perception. They were offered their choice of either more course credits or \$2.00 in cash for their further participation. While 92 of these subjects agreed to participate, 83 of them actually returned for the second session. Approximately two-thirds of the returning subjects opted for the course credits rather than the money. Incomplete data on four of the subjects at the second session reduced the final sample to 79.

Session 1 procedure and instrumentation

Subjects were tested in groups of 20 to 30 persons at the first session. Four tests were administered. On the first test (Self-image), developed by the author, the respondent indicated along 7-point scales how well each of 20 trait adjectives described herself. The end-points for the 7-point scales were labeled "very" and "not at all." The second test (Self-certainty), also developed by the author, measured the respondent's certainty regarding her self-perception on the same 20 traits that were presented in the first test. 7-point scales were provided for the certainty judgments (1 = very certain; 7 = very uncertain). Although both tests consisted of the same traits, the traits were presented in a different random order on each test to control for artifactual response influences from one test to the other.

The initial items for both tests were 30 adjectives, taken from Gough's (1955) Adjective Check List, which were considered to represent a wide variety of personality dimensions. Pretesting with 90 college students (70 females and 20 males) yielded 20 adjectives that had both adequate discrimination between subjects and moderate to high test-retest reliability over a two-week period for both tests. The resultant tests, composed of

the 20 traits, yielded total Self-image and Self-certainty scores that had test-retest reliabilities over a two-week period of .78 and .69, respectively ($N = 90$). However, while the Self-certainty test had high internal consistency (Cronbach's alpha = .83, $N = 281$), the Self-image test was shown to consist of three prominent factors: intellectual good-bad, social good-bad, and activity-potency. The first two of these correspond closely to factors typically identified in studies of implicit personality theory (Rosenberg & Sedlack, 1972), while the third is one of the factors most often identified in semantic differential research (Osgood, Suci, & Tannenbaum, 1957).

Subjects also took an established test of self-esteem (Rosenberg, 1965), which consists of 10 statements, half of which are keyed positively and half negatively, to which the respondent strongly agrees, agrees, disagrees, or strongly disagrees. Five additional items from Crowne and Marlowe's (1964) Social Desirability Scale were embedded among the 10 self-esteem items. The response format of these items was changed to match the format of the self-esteem items. Also embedded among the self-esteem items were two items tapping, respectively, the respondent's clarity of self-concept and her confidence in how she is perceived by others.

Finally, subjects were administered the Concealed Figure Test (CFT), developed by Thurstone (1944). On this test, the respondent was required to determine whether or not a simple geometric form was embedded in each of 4 complex geometric forms. The CFT consists of 49 such items, and respondents were allowed 10 minutes to complete as many of these items as they could. The score calculated for each subject was the one recommended by Thurstone: the total number right minus the total number incorrect responses. The CFT has been shown to correlate highly with both the Embedded Figures Test and the Rod and Frame Test (Arbuthnot, 1972; Wegner & Vallacher, 1974; Witkin

et al., 1962). The Spearman-Brown odd-even reliability of the CFT on a sample of 63 college students was .86 (Wegner & Vallacher, 1974).

Anonymity in test responses was assured by coding tests according to student identification number. Extensive personalized feedback was promised at the first session and was made available several weeks later.

Self-concept variables

Self-other differentiation. This is simply the respondent's score on the CFT.

Self-differentiation (competence). This variable represents the standard deviation of a subject's responses across the items that loaded on the intellectual good-bad factor of the Self-image test. The particular items were clear-thinking, incompetent (reflected for scoring purposes), mature, and intelligent. Crano & Bettinghaus (1970) developed a measure of cognitive complexity somewhat similar to this, and found within-agreement on their measure across 23 attitude objects, other than the self, to be significant at $p < .0001$.

Self-differentiation (social value). A subject's score on this variable represents the standard deviation of her responses to items that loaded on the social good-bad factor of the Self-image test. The items were timid, awkward, rigid, tense, and aloof.

Self-differentiation (activity). A subject's score on this variable represents the standard deviation of her responses to items that loaded on the activity-potency factor. The items were active, independent, excitable, sociable, dominant, and extroverted.

Evaluative centrality. There is evidence that extreme responses on rating scales, such as the semantic differential, are evaluative rather than merely descriptive in nature (Peabody, 1967). Thus, the evaluative

centrality of a subject's self-concept was measured by computing the sum of deviations from the scale midpoint (4) of the 20 trait dimensions, and dividing this sum by the maximum sum possible ($3 \times 20 = 60$). This measure is operationally similar to one of the measures of evaluative centrality employed by Scott (1969).

Self-certainty. This variable represents the average certainty rating across the 20 scales on the Self-certainty test. A subject's score on this variable is reflected so that high values indicate high certainty.

Self-esteem. A subject's score on this variable is the average value given to the 10 self-esteem items, all scored in a positive direction, on the Rosenberg self-esteem test.

Session 2 procedure and instrumentation

Approximately two weeks later, 83 subjects returned for a second session dealing with "impression formation," and were tested in groups of 10 to 15 persons. Subjects were seated in a semi-circle, facing a 21" black and white Ampex television console that was connected to an Ampex videotape recorder. To the extent possible, all subjects had a direct and unobstructed view of the television console, although distance from the console varied from 7 to 16 feet.

Each subject received an "Impression Formation" booklet (Appendix A), and was instructed to read the following paragraph on the front page:

"We are interested in how individuals form an impression of another person after only a brief observation of him or her. You are about to view some short video-taped segments (each about 5 minutes) of different persons being interviewed for a job. In each segment, the interviewee was not aware that she was being taped until after the interview. As you view each taped segment, assume that you are the person conducting the interview and that you are trying to form impressions about the person being interviewed. Following each taped segment you will complete a short questionnaire concerning your impressions of the interviewee."

The experimenter — a male in his mid-20's — explained that the subjects would be observing each of 5 college age females who were being videotaped without their prior awareness while interviewing for a job as a counselor at a summer camp, located in upper New York state, for inner city children. Subjects were told that "since the interviewee's behavior is spontaneous and candid, you should be able to gain some impression of her by attending closely to not only 'what' she says, but 'how' she says it." It was explained that following each interview segment, subjects would describe the interviewee by completing the appropriate "impression scale" in their booklet.

The experimenter then presented the first interview segment, which was identical in format to the other 4 interview segments. Both the interviewer — a college age male — and the interviewee were confederates of the experimenter. During the interview, the interviewer and the interviewee sat in wooden arm chairs facing each other from a distance of approximately 4 feet. The positioning of the camera — behind and slightly above the interviewer — allowed the subjects to observe the interviewee from a vantage point that closely approximated that of the interviewer. The interviewer was not visible at any time during the segment; instead, the camera was fixed on the head and body of the interviewee to allow observation of her expressive movements (arms and hands) as well as her facial gestures. The background was simply an off-white wall, with no pictures, plants, or other effects.

The interviewer initially asked several background questions, such as "how long have you been in school?", "what's your background in counseling?", etc. Later questions were somewhat more "challenging" and required some thought on the part of the interviewee. For example, she was asked, "how would you handle problem cases that might arise?",

and "do you feel you can relate to children of different ethnic and racial backgrounds?" Although the interviewee was familiar with the questions ahead of time, she was not given any explicit instructions on how to respond to them. Rather, she was instructed to answer all questions in the manner with which she felt most comfortable. As a result, there is some variance between the 5 segments in both the style and content of interviewee responses. The interview segment was approximately 5 minutes in length.

Upon completion of the first interview segment, subjects completed "impression scale 1." This scale, and the other four "impression scales," required the subject to indicate how well each of 20 trait adjectives described the interviewee. 7-point Likert-type rating scales, whose end-points were "very" and "not at all," were provided for the judgments. The traits were the same traits that had been employed for purposes of self-description at Session 1, but presented in a different random order. In addition, two attitudinal items were presented following the 20 traits: (1) "Do you feel that this person is generally similar to yourself in personality?"; and (2) "Generally speaking, do you feel that you would like this person?" 7-point response scales were provided for both of these items. When all subjects had completed "impression scale 1," they were asked to go back over the scale and indicate with a check-mark those trait judgments of which they felt "fairly certain." If, on the other hand, they did not feel "fairly certain" about a particular trait judgment, they were instructed not to place a check-mark next to it.

Following the "certainty" ratings, the experimenter presented the second interview segment and, upon completion of this segment, subjects completed "impression scale 2" and, again, checked those trait

judgments of which they felt "fairly certain." This procedure was followed for the remaining three segments as well. Each group received one of two random orders of videotape presentation.

After trait judgments and certainty ratings had been obtained on all 5 interviewees, subjects were instructed to complete two additional "impression scales." Subjects read the following instructions for "impression scale 6":

"Think of someone of the same sex with whom you are 'close friends;' that is, someone you know well that you like and who likes you. Then indicate on a scale of one to seven how well each of each of the following adjectives describes this person."

The format of "impression scale 6" was identical to that of scales 1-5, except that "liking" was not assessed. Trait judgments and certainty ratings on those judgments were obtained on this scale.

Finally, subjects completed "impression scale 7", which tapped their perceptions of someone they disliked. Specifically, the following instructions were given at the top of "impression scale 7":

"Think of someone of the same sex with whom you have a 'negative relationship;' that is, someone you know well that you dislike and who appears to dislike you. Then indicate on a scale of one to seven how well each of the following adjectives describes this person."

The format of "impression scale 7" was identical to that of "impression scale 6," and subjects were instructed to complete this scale in the same manner as the sixth scale.

Following completion of the last scale, subjects were verbally questioned regarding their suspicions concerning any deceptions or "hidden purposes." None of the subjects suspected that the interviews were other than candid, and no suspicions were voiced concerning the expressed intent of the study. Subjects were then debriefed, reimbursed with course credits or \$2.00, and excused.

Person perception variables

Dimensionality. This measure, developed by Scott (1969), refers to the number of dimensions-worth of space utilized by the traits with which a subject comprehended the 7 stimulus persons. It reflects, for each subject, the average intercorrelation of the 20 traits across the 7 stimulus persons. Specifically, dimensionality ($\underline{D}$) is defined by Scott as

$$\underline{D} = \frac{m^2}{m + 2 \sum r^2},$$

where m is the number of traits with positive reliability, and $\sum r^2$ is the sum of inter-trait correlations. Since there were 20 traits employed in the present research, and these were selected in part on the basis of high test-retest reliability, Scott's formula reduces to

$$\underline{D} = \frac{200}{10 + \sum r^2}.$$

$\underline{D}$ may range between 1 (minimum dimensionality) and 20 (maximum dimensionality).

Articulation. To assess a subject's discrimination of stimulus persons along trait dimensions, the $\underline{H}$ statistic, a measure derived from information theory (Attneave, 1959; Garner, 1962), was calculated for each of the 20 trait dimensions. If the proportion of the seven stimulus persons in the i th interval of the 7 interval categories on a given dimension is p_i , then

$$\underline{H} = -\sum_{i=1}^7 p_i \log_2 p_i$$

$\underline{H}$ is the number of "bits" of information contained in the distribution of stimulus persons on the trait dimension. It reflects the "levelness" of

the distribution, and can be thought of as a measure of variance which is independent of the central tendency of the distribution (Coombs, Dawes, & Tversky, 1970). In the present research, minimum articulation ($H = 0$) would occur if a subject assigned the same dimensional category value to all 7 stimulus persons; maximum articulation ($H = 2.82$) would occur if each stimulus person were assigned a different dimensional value. Since the impression scales were expected to be factorially complex, a summary H measure was to be computed for each factor. That is, the H values for the items that loaded on a given factor were to be averaged to yield a summary H value for that factor.

Evaluative centrality. Evaluative centrality in person perception was measured in the same way that evaluative centrality in self-concept was assessed. That is, a score on this variable for a subject was obtained by first computing the sum of deviations from the scale midpoint (4) of the 20 trait dimensions used to describe a given stimulus person, and dividing this sum by the maximum sum possible ($3 \times 20 = 60$). The mean of these scores over the 7 stimulus persons was taken as a measure of the subject's evaluative centrality. As noted earlier, this measure is patterned after a measure of evaluative centrality employed by Scott (1969).

Descriptive certainty (interviewees). This measure reflects the average certainty with which the subject described an interviewee. The number of traits that were checked as "fairly certain" on impression scales 1-5 was summed and divided by the number of interviewees (5).

Descriptive certainty (friend). This variable is a measure of the certainty with which the subject described a close friend on the 20 trait dimensions. It is simply the number of traits on the "impression scale 6" that were checked as "fairly certain."

Descriptive certainty (enemy). This variable is the number of traits on "impression scale 7" — the scale tapping perceptions of a mutually disliked person — that are checked as "fairly certain."

Perceived similarity (interviewees). This variable represents the degree to which the subject assumed similarity in personality with an interviewee. It was computed as the mean response value on the similarity item on impression scales 1-5. High values indicate high perceived similarity.

Perceived similarity (friend). This measure is simply the response value to the similarity item on "impression scale 6." High values indicate high perceived similarity.

Perceived similarity (enemy). The variable is the response value to the similarity item on "impression scale 7." High values indicate high perceived similarity.

Attraction. This variable reflects the degree to which the subject felt a potential liking for an interviewee. It was computed as the mean response on the liking item on impression scales 1-5.

Results

Factor structure of self- and person perception

The factor structure of the Self-image test and of each of the impression scales was determined by means of principal components factor analyses, rotated to a varimax solution. In support of the hypothesized commonality, the resultant factor structures for the 8 tests were highly similar. In particular, each test demonstrated 3 factors with eignvalues greater than 1.00 that corresponded to those identified in pilot research employing the Self-image test (see p. 31): intellectual good-bad, social good-bad, and activity-potency. The items that loaded on each of the 3 common factors for each test are presented in Appendix B.

While 3 factors were generally common to all 8 tests, each test actually consisted of a somewhat more complex factor structure. The "enemy" impression scale and each of the interviewee impression scales, for example, had 4 factors with an eigenvalue greater than 1.00. However, the 4th factor was, for the most part, unique to each scale. The Self-image test, meanwhile, actually had 7 factors with an eigenvalue greater than 1.00, and the "close friend" impression scale had 6 such factors. This supports the results of a study by Seferi (1968), which demonstrated that a sub-domain consisting of well-known others had greater dimensionality than a sub-domain consisting of less well-known others. Similarly, Koltuv (1962) found that individuals perceive stronger inter-trait relationships when describing unknown others than when describing known others.

The factor analysis of the Self-image test provided cross-validation for the factor analysis of the Self-image test performed on the pilot sample (N = 281). Not only were the same general factors identified, but the items that loaded on these factors are identical to those that loaded on these factors for the pilot sample. Thus, for purposes of analyses, the following factors (and their associated items) were defined for the Self-image test: Competence (clear-thinking, incompetent, mature, intelligent); Social value (aloof, tense, rigid, timid, awkward); and Activity (active, independent, excitable, sociable, dominant, extroverted).

There is some variance in the item content of the factors identified for each of the 7 impression scales. However, the degree of commonality is sufficient to justify the definition of 3 "person perception" factors for purposes of analyses. The 3 factors (and their associated items) are as follows: Competence (clear-thinking, indecisive, competent, independent, mature, intelligent); Activity (active, humorous, excitable, sociable, extroverted); and Social value (timid, awkward, rigid, tense, dominant). The

internal consistency (Cronbach's alpha) of each of these factors for each of the 7 stimulus persons was uniformly high (mean alpha = .86, S.D. = .09).

Relationships among self-concept variables

An initial correlational analysis was performed on the self-concept variables to examine the extent to which these variables tapped common underlying dimensions and to locate those variables that might be redundant in their relation to the person perception variables. As indicated in Table 1, the self-concept variables are relatively independent: only 8 of the 21 correlations attained statistical significance. The relationships that did obtain, however, are worthy of comment.

First of all, self-other differentiation (field independence as measured by the CFT) correlated in a significant manner ($p < .05$) with self-differentiation on the competence factor, and demonstrated a marginally significant correlation with self-differentiation on the activity factor ($p < .10$). The correlation between self-other differentiation and self-differentiation on the social value factor was nonsignificant, but in predicted direction. Field independent individuals, then, appear to have a somewhat more differentiated self-concept than do field dependent individuals. This finding provides cross-validation for a similar finding obtained by Vallacher (1974) regarding field independence and self-concept differentiation. It is interesting to note that self-other differentiation did not correlate significantly with self-certainty. Although this finding appears contradictory to Witkin's "sense of separate identity" hypothesis, it confirms an earlier finding and is readily interpretable in terms of sex-role socialization factors (see Wegner & Vallacher, 1974).

Somewhat surprisingly, the self-differentiation variables did not demonstrate strong intercorrelations. The only correlation that reached significance was between self-differentiation on competence and

TABLE 1

INTERCORRELATIONS OF SELF-CONCEPT VARIABLES

Variable	1	2	3	4	5	6	7
1. Self-other differentiation —							
2. Competence differentiation .210* —							
3. Social value differentiation .133 .081 —							
4. Activity differentiation .179 .259*** .157 —							
5. Evaluative centrality .085 -.035 .264*** .115 —							
6. Self-concept certainty .060 .012 .041 .020 .460**** —							
7. Self-esteem -.057 -.182* -.247** -.278*** .168 .270* —							

* $p < .05$ ** $p < .025$ *** $p < .01$ **** $p < .001$

self-differentiation on activity ($p < .01$); differentiation of the social value factor was independent of differentiation of both the competence and activity factors. A subject who had a differentiated view of his own social value, in other words, did not necessarily have a differentiated view of his competence or activity. This is encouraging for it renders somewhat implausible the interpretation that individual differences in self-differentiation simply reflect differences in response style on rating scales.

Self-differentiation on social value demonstrated a highly significant correlation ($p < .01$) with evaluative centrality. In this case, however, confounding could conceivably account, in part, for such a relationship. Specifically, extreme responses on the Self-image rating scales contribute directly to high evaluative centrality and, if the ratings are also ambivalent — that is, some are positive and some negative — extreme responses would contribute to high differentiation as well. The confounding interpretation is attenuated, though, by the lack of significant correlations between evaluative centrality and the other two self-differentiation factors. Nonetheless, any interpretation of the significant centrality-differentiation correlation that is based on consideration of the underlying constructs must be tentative in nature, contingent on replication with unconfounded measures.

The differentiation measures demonstrated significant negative relationships with self-esteem, and in this instance the findings are not attributable to measurement confounding since different instruments were employed to assess differentiation and self-esteem. Thus, subjects with low self-esteem tended to describe themselves in a differentiated manner on scales tapping activity ($p < .01$), social value ($p < .025$), and to a lesser extent, competence ($p < .05$). This is reminiscent of Scott's

(1969) finding that individuals who had a highly differentiated self tended to be somewhat maladjusted psychologically. As suggested earlier (pp. 18-19), it may be that maladjusted or low self-esteem individuals have a self-concept that is "too differentiated," that is, their self-concept integration is threatened.

Table 1 further reveals that evaluative centrality is strongly associated with self-concept certainty ($p < .001$). This finding argues for the validity of the self-certainty construct since extremeness of rating has been shown to be highly correlated with confidence of rating (Green, 1954). Moreover, given the significant positive correlation between self-certainty and self-esteem ($p < .05$) — a finding which replicates that of pilot research — it appears that while highly certain people tend to be highly evaluative in their self-appraisal, the nature of this evaluation tends to be positive rather than negative.

In sum, the obtained correlations appear to represent meaningful relationships between the self-concept factors. At the same time, the magnitude of these correlations are not large enough to indicate redundancy in their relationships with the person perception variables.

Relationships among person perception variables

The relationships among the 12 person perception variables were assessed by correlational analyses. Only 21 out of a possible 132 correlations attained statistical significance (see Table 2), indicating that these measures tapped relatively independent aspects of person perception.

It is interesting that although the articulation measures on the three factors were highly intercorrelated ($p < .001$ in each case), they demonstrated somewhat divergent patterns of correlations with the other variables. Competence articulation, for example, was negatively correlated

TABLE 2
INTERCORRELATIONS OF PERSON PERCEPTION VARIABLES

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Competence articulation	—										
2. Activity articulation	.387***	—									
3. Social value articulation	.336***	.332***	—								
4. Dimensionality	.169	-.045	.062	—							
5. Evaluative centrality	-.182*	-.014	.010	-.240**	—						
6. Similarity-interviewee	-.178	-.169	-.077	.032	.235**	—					
7. Similarity-"close friend"	-.109	.100	.068	-.224**	.150	.193*	—				
8. Similarity-"enemy"	-.089	-.111	-.052	-.089	-.047	-.171	-.370***	—			
9. Certainty-interviewee	-.084	.050	-.207*	-.148	.365***	.025	-.058	.060	—		

Table 2 (cont'd.)

Variable	1	2	3	4	5	6	7	8	9	10	11	12
10. Certainty- "close friend"	-.301***	.045	-.327***	-.064	.357***	-.013	.025	.081	.493***	---		
11. Certainty- "enemy"	-.109	.049	-.155	-.031	.353***	-.071	-.021	.042	.540***	.623***	---	
12. Attraction	-.196*	-.136	.005	.111	.443***	.372***	.139	.010	-.030	-.009	-.072	---

* $p < .05$ ** $p < .025$ *** $p < .001$

with evaluative centrality ($p < .05$), thereby supporting the conclusion that low evaluative centrality reflects high differentiation. Activity articulation and social value articulation, however, had essentially no correlation with evaluative centrality.

Activity articulation, on the other hand, was at variance with both competence articulation and social value articulation in that the latter correlated negatively ($p < .001$) with certainty in "close friend" description. It may be that high certainty in the perception of others reflects, in part, a lack of differentiation. Tripodi and Bieri (1966) have demonstrated that the relationship between "cognitive complexity" (actually, a measure that primarily reflects dimensionality) and certainty in impression formation is moderated by the "complexity" of the stimulus person. In particular, high complex judges in their study were less certain in their judgments of consistent information about others, but they were more certain than low complex judges in making judgments of others on the basis of conflicting or contradictory stimulus information. Their results are compatible with the present findings regarding articulation and certainty if it can be assumed that a "close friend" provides information that is more consistent than is the information provided by an unacquainted or disliked other. This assumption seems reasonable, but certainly not self-evident; it could be argued, in fact, that the better we know someone the greater sensitivity we have to occasional inconsistencies in their behavior and to underlying conflicts in their personality.

It is somewhat surprising that none of the articulation measures correlated significantly with dimensionality, since past research (e.g., Scott, 1969) has consistently demonstrated such a relationship. Perhaps the inclusion of strangers as stimulus objects — a factor unique to this

study — is in part responsible. That is, it may be that a highly dimensional cognitive structure regarding others facilitates discrimination among familiar others, but is irrelevant to discrimination among persons encountered for the first time.

Dimensionality correlated negatively with evaluative centrality ($p < .025$), again giving credence to the differentiation interpretation of low evaluative centrality. Dimensionality was also negatively associated with perceived similarity to "close friend," a finding that provides indirect support for Witkin's hypothesis that differentiated individuals have a strong "sense of separate identity" (Witkin et al., 1962).

In addition to its correlations with competence articulation and dimensionality, evaluative centrality demonstrated significant positive relationships with the three certainty measures (interviewee, "close friend," and "enemy"; $p < .001$ in each case). The most parsimonious interpretation of this finding is that extreme responses are confident responses (Green, 1954). However, given that two of the articulation measures (competence and social value) demonstrated significant negative correlations ($p < .001$) with one of the certainty measures ("close friend"), it may be, as suggested above, that high certainty in person perception reflects in part a relative lack of differentiation. There was also a positive correlation ($p < .025$) between evaluative centrality and similarity to the interviewee; the interpretation and significance of this finding is not immediately obvious.

Perceived similarity to the interviewee was strongly associated ($p < .001$) with attraction to the interviewee, a finding which replicates the results of considerable research in interpersonal attraction (Byrne, 1969). Similarity to "close friend" was negatively correlated with similarity to "enemy" ($p < .001$); this finding is readily interpretable in

terms of balance theory (Heider, 1958). Finally, the certainty measures (interviewee, "close friend," and "enemy") were strongly intercorrelated ($p < .001$ in each case). This suggests that certainty, or the lack thereof, reflects a perceptual-cognitive orientation that is general across various categories of stimulus objects.

Relationships between self-concept and person perception variables

Correlational analyses were employed to determine the relationship between the 7 self-concept and 12 person perception variables. The pattern of results that emerges from these analyses provides partial support for the hypotheses. In particular, of the 39 hypothesized relationships 9 received statistically significant support (see Table 3).

Self-other differentiation was expected to be positively related to articulation in person perception; such a relationship did obtain for articulation of the social value factor ($p < .001$), but not for articulation of the competence and activity factors. Field independent subjects, in other words, showed greater discrimination among stimulus persons than did field dependent subjects on social value traits, but not on traits reflecting competence or activity. A positive relationship was expected between self-other differentiation and dimensionality, but was not obtained. The hypothesized negative relationship between self-other differentiation and evaluative centrality did obtain ($p < .05$), however. Thus, field independent subjects did not demonstrate a more dimensional cognitive structure than field dependent subjects, but the former were less evaluative in their descriptions of the stimulus persons.

Although not predicted, it is interesting that self-other differentiation was negatively correlated with certainty in both "close friend" description ($p < .01$) and in "enemy" description ($p < .05$). It was suggested earlier (p. 47) that high certainty in person perception,

TABLE 3

CORRELATIONS BETWEEN SELF-CONCEPT VARIABLES AND
PERSON PERCEPTION VARIABLES

Person perception variables	Self-concept variables						
	Self- other differ.	Differ. (comp.)	Differ. (social)	Differ. (activ.)	Eval. cent.	Self- cert.	Self es- teen
Articulation (competence)	.114	.213*	-.163	-.027	-.177	-.202*	-.006
Articulation (activity)	.084	.337	.067	.058	.140	.081	.109
Articulation (social val.)	.285***	.182*	.138	.071	.101	.001	.112
Dimension- ality	.064	.153	-.011	-.086	-.339****	-.143	-.099
Evaluative centrality	-.180*	-.005	.102	-.020	.385****	.157	.159
Similarity (interview)	-.096	.046	-.046	.049	.121	-.053	.005
Similarity ("close fr.")	-.071	-.135	.088	-.035	.234**	.133	.212*
Similarity ("enemy")	.138	-.084	.103	-.020	.013	.010	-.080
Certainty (interview)	-.165	.007	-.093	-.054	.089	.242**	.127
Certainty ("close fr.")	-.283***	.002	.098	-.041	-.089	-.009	-.100
Certainty ("enemy")	-.211*	-.030	.121	-.031	-.038	-.130	.021
Attraction	-.133	.027	.110	.016	.228	.010	-.052

* $p < .05$
 ** $p < .025$
 *** $p < .01$
 **** $p < .001$

particularly the perception of "close friend," may reflect low differentiation since certainty was negatively associated with two of the person-articulation measures and positively associated with evaluative centrality. The present finding that field independent subjects demonstrate less certainty than field dependent subjects in the perception of a liked and disliked other adds credence to this inference. Theoretical elaboration as well as further empirical support are, of course, essential to establishing the plausibility of this inference.

Positive relationships were expected between differentiation of the self-concept factors and articulation in person perception. As demonstrated in Table 3, self-concept differentiation of the competence factor did relate in a significant fashion to person articulation on the competence factor ($p < .05$), the activity factor ($p < .01$), and the social value factor ($p < .05$). Subjects who described themselves in a differentiated manner on traits reflecting competence, in other words, demonstrated greater discrimination among stimulus persons on all 3 person factors than did subjects with a less differentiated view of their own competence. However, significant relationships between articulation in person perception and self-differentiation of either the activity or the social factors were not obtained. In fact, the latter two measures were not significantly related to any of the person perception variables.

As predicted, evaluative centrality in self-perception correlated negatively with dimensionality ($p < .001$) and positively with evaluative centrality ($p < .001$) in person perception. That is, subjects who described themselves in a highly evaluative manner tended to describe the stimulus persons in a less dimensional and more evaluative fashion than did subjects who were less evaluative in their self-description. Contrary to prediction, however, the relationship between self-evaluative centrality

and articulation in person perception did not reach statistical significance. While the importance of the evaluative factor has been discussed in the context of cognitive differentiation generally (Olshan, 1970; Schrauger, 1967), the present findings, considered in conjunction with the negative relationship demonstrated between dimensionality and evaluative centrality in person perception (see Table 2), strongly suggest that evaluative centrality reflects primarily the dimensionality of an individual's cognitive structure rather than the degree to which stimuli are discriminated along a given dimension.

It was hypothesized that individual differences in descriptive certainty reflect a perceptual-cognitive orientation that is common to various stimulus domains. The significant intercorrelations between the variables tapping certainty in person perception (see Table 2) provided support for this hypothesis, although the extent to which these relationships are artifactual because of common method variance is unclear. Less equivocal and more general support for the "certainty as perceptual style" hypothesis is provided by the positive relationship ($p < .025$), shown in Table 3, between self-concept certainty and certainty in descriptions of the interviewees. This relationship demonstrates a commonality in certainty regarding self- and other-perception; further, since self-certainty and person perception certainty were assessed at different times and with different instruments, a method variance interpretation of the obtained relationship is untenable. It is not clear, however, why self-concept certainty was not significantly associated with certainty in descriptions of either "close friend" or "enemy." Perhaps the fact that these descriptions, unlike those of the interviewees, were necessarily based on memory is a relevant consideration. Future research might do well to examine in an explicit manner the degree to which descriptions of others

based on recall differ from those based on more immediate perceptual information. The present research is only suggestive of possible divergencies since only two, highly "special" others were described from memory.

Table 4 demonstrates a negative relationship ($p < .05$) between self-concept certainty and competence articulation in person perception. This finding, although contrary to prediction, lends further empirical support to the earlier suggestion that descriptive certainty is inversely related to cognitive differentiation. Again, however, theoretical consideration is required before one can legitimately equate a post hoc inference with a psychological explanation; an attempt in this regard is deferred until the general discussion of the results of Experiments 1 and 2.

Finally, as predicted, self-esteem was positively correlated with perceived similarity to "close friend." Such a relationship, while intuitively plausible and certainly congruent with balance theory (Heider, 1958), apparently has not been previously investigated. This inattention to the possible moderating role of self-esteem may account for the weak and inconsistent relationship typically observed between personality similarity and interpersonal attraction (see, e.g., Berscheid & Walster, 1969). The complementary relationship — that is, a negative correlation between self-esteem and perceived similarity to "enemy" — was not demonstrated, however.

Summary

The pattern of results that emerges from Experiment 1 provides encouraging, but hardly unequivocal, support for a structural commonality in self- and other-perception. While the relationships that attained statistical significance were, with the exception of those involving "certainty," congruent with the hypothesized commonality, these relationships were

relatively few in number. Self-other differentiation, for example, correlated in the predicted fashion with one measure of articulation, and with evaluative centrality in person perception, but did not correlate with dimensionality or with the perceived similarity measures, as was expected. Differentiation of the competence factor in self-conception correlated as expected with person perception articulation; differentiation of the other two self-concept factors, however, did not correlate with articulation. None of the self-differentiation measures correlated with dimensionality or with evaluative centrality in person perception. In fact, the only self-concept factor that did demonstrate a significant correlation with dimensionality was evaluative centrality; as predicted, this relationship was negative. As predicted, evaluative centrality in self-conception was strongly associated with evaluative centrality in person perception.

Individual differences in descriptive certainty proved to be somewhat consistent across various domains, thereby supporting the hypothesis that certainty reflects a general perceptual-cognitive orientation. However, the structural concomitants of certainty were not as expected; in fact, high certainty appeared to be associated with relatively undifferentiated perception, particularly of others. This inference is based on the following set of results, garnered from Tables 1, 2, and 3: (1) self-concept certainty and evaluative centrality in self-conception were positively correlated; (2) certainty in person perception (interviewees, "close friend," "enemy") and evaluative centrality in person perception were positively correlated; (3) certainty in person perception (interviewees, "close friend") and articulation in person perception (competence and social value factors) were negatively correlated; and (4) self-concept certainty and articulation in person perception (competence factor) were negatively

correlated.

Although the results of Experiment 1 are hardly definitive, they do suggest the significance of structural aspects of the self-concept to an understanding of how we structure our perceptions of others. While prior research has focused almost exclusively on self-esteem, the present research demonstrated this variable to be virtually unrelated to person perception. In contrast, the structural self-concept variables demonstrated several significant relationships with person perception, suggestive of an underlying commonality in perception and cognition in these domains.

III. EXPERIMENT 2

Overview

Experiment 1 was predicated on the assumption that individuals reliably differ in their phenomenal construction of interpersonal reality. Though clearly not incompatible with this proposition, the focus of Experiment 2 was on how and to what extent a situational factor — self-consciousness — exerts an influence on the structure of person perception that is more or less common to all individuals.

Female undergraduates, identified as either high or low in self-concept certainty, viewed videotaped segments of "candid" job interviews under one of two conditions: a control condition and a condition conducive to self-consciousness. The design, in short, was a 2×2 factorial, with 2 levels of self-concept certainty and 2 levels of situational self-consciousness. Following each segment, subjects described the interviewee on various dimensions and indicated their degree of perceived similarity and attraction for the interviewee. Several measures were derived from these data, most of which reflected a structural orientation.

Hypotheses

The primary expectation was that subjects in the self-conscious condition would manifest less differentiated person perception than would subjects in the control condition. Specifically, self-conscious subjects were expected to demonstrate a less dimensional representation of the interviewees (Hypothesis 1), and to be less articulated along dimensions of judgment (Hypothesis 2) than were subjects in the control condition. Evaluative centrality, too, is considered an index of differentiation, but it is not clear how this variable would be affected by self-consciousness. Finally, certainty in descriptions of the interviewee was expected to be lower for self-conscious subjects than for control subjects (Hypothesis 3).

While self-consciousness was hypothesized to affect person perception for all subjects in the manner described above, these effects were expected to be stronger for subjects with low self-concept certainty than for those with high self-concept certainty. Thus, within the self-conscious condition, uncertain self-concept subjects were expected to demonstrate lower dimensionality (Hypothesis 4), lower articulation (Hypothesis 5), and lower certainty (Hypothesis 6) in their descriptions of the interviewees than were subjects with a certain self-concept.

Method

Subjects

The method of procurement of subjects for Experiment 2 was similar to that employed for Experiment 1. 64 females from undergraduate psychology classes were recruited for a two-part study in exchange for several course credits or fewer course credits plus \$2.00. Unlike Experiment 1, however, compensation for participation was contingent upon completion of both parts of the study, thus ensuring complete data on all subjects.

Session 1 procedure and instrumentation

Like Session 1 of Experiment 1, Session 1 of Experiment 2 was described as an opportunity to "learn about yourself by taking some newly developed psychological tests." Subjects were tested in groups which varied in size from 10 to 19. Subjects completed the same test to measure self-concept certainty that had been employed in Experiment 1. Although not directly relevant to the focus of Experiment 2, the Rosenberg self-esteem test was also administered since the results of Experiment 1 demonstrated a significant correlation between certainty and self-esteem. That is, in order to provide a clear interpretation of any results that are seemingly attributable to self-concept certainty it is necessary to consider and control for the relationship between certainty and self-esteem.

Although the results of Experiment 1 did not demonstrate a significant relationship between self-concept certainty and CFT field independence, the CFT was administered to subjects as a precaution since previous research (Vallacher, 1974) has demonstrated that such a relationship exists, at least for males.

Self-concept variables

The following variables were derived in the same manner as the corresponding variables in Experiment 1 (see pp. 32-33): Self-certainty, Self-esteem, and Self-other differentiation.

Session 2 procedure and instrumentation

On the basis of Session 1 scores, subjects were designated as either "certain" or "uncertain" of their self-concept. Specifically, a median split on self-concept certainty scores yielded 32 "certain" and 32 "uncertain" subjects. Subjects in each of these two categories were then randomly assigned to either a "control" condition or to a "self-conscious" condition. This assignment actually produced cells with unequal N's: 17 "certain" and 17 "uncertain" subjects in the self-conscious condition; 15 "certain" and 15 "uncertain" subjects in the control condition.

Control condition. The procedure employed in the control condition replicated, for the most part, the procedure employed in Session 2 of Experiment 1. The room in which the session took place was different, however, in that two videotape cameras were present. These two cameras, permanent fixtures of the room, were located on opposite sides of the room, approximately 7 feet above the floor. The positioning of the TV monitor and chairs was such that the cameras appeared to be more or less trained on the subjects. However, it was pointed out to the subjects that the cameras would not be operated at any time during the session. Experiment 2 also differed from Experiment 1 in that subjects in the present study were asked

only to describe the interviewees; descriptions of a "close friend" and "enemy" were not obtained. Aside from these differences, the procedure and instrumentation employed in this condition was identical to that employed in Experiment 1 (see pp. 33-36).

Self-conscious condition. Subjects in the self-conscious condition were exposed to the same general procedure as were subjects in the control condition, namely, viewing the 5 stimulus persons and indicating their impressions of, perceived similarity with, and attraction for each one. The same room was also employed in both conditions. The control and self-conscious conditions differed, however, in that subjects in the latter condition were informed that they themselves would be observed and videotaped while they viewed each of the stimulus persons. In particular, following the description of the procedure to be employed for viewing and describing the stimulus persons, the subjects were told:

By the way, you may have noticed the cameras in this room. As part of another, unrelated, study in "body language," you will be videotaped while you observe each of the stimulus persons....(The concept of body language was then explained in some detail)....The purpose of this study is to examine how people behave nonverbally while they are observing others. These cameras will focus on each of you individually in order to record your various gestures, facial expressions, etc. One of several trained undergraduates will view these tapes and code your body language into various categories, such as apparent attention, relaxation, interest, and responsiveness to the stimulus person....

Subjects were told that upon completion of the session they would have an opportunity to view the tape on which they were recorded. It was made clear, furthermore, that if they were unhappy with any portion of their appearance on the tape, that portion would be edited out of the tape. No videotapes were in fact made, although a confederate of the experimenter operated the cameras from an adjoining control room. At the beginning of each taped segment, the camera first scanned the group of

subjects for approximately one minute, and then independently zoomed in on individuals for periods ranging from 5 to 15 seconds. Thus, during each 5-minute interview segment each subject in an average group of 13 persons was focused on by one or other of the cameras approximately 4 times. Aside from this manipulation, the procedure and instrumentation employed in the self-conscious condition was identical to that employed in the control condition.

Person perception variables

The following variables were derived in the same manner as the corresponding variables in Experiment 1 (see pp. 37-39): Dimensionality, Articulation (separate values for each of the 3 person perception factors), Evaluative centrality, Descriptive certainty (interviewees), Perceived similarity (interviewees), and Attraction. Of course, modifications in the calculation of dimensionality, articulation, and evaluative centrality were necessitated by the use of 5 rather than 7 stimulus persons.

Results

Preliminary analyses

Several preliminary analyses were undertaken to check for possible confounding or other systematic sources of variance that might interfere with an unambiguous interpretation of tests of the experimental hypotheses. Since there is evidence that the self-concept variables employed in the present research are intercorrelated, it was necessary to determine whether or not the experimental conditions differed not only with respect to mean scores on self-concept certainty but with respect to mean scores on the other self-concept variables as well. Toward this end, t-tests were employed to test the significance of the difference between each possible pair of cell means on each of the self concept variables.

Results demonstrated, none too surprisingly, that for both the

self-conscious and the control conditions mean self-concept certainty was significantly higher in the "certain" cells than in the corresponding "uncertain" cells (self-conscious condition: $t = 7.43$, $p < .0001$; control condition: $t = 6.34$, $p < .0001$). Significant differences in mean self-concept certainty were not obtained between any other cell pairs ($t < 1$ in all cases). Similar analyses for self-esteem and for self-other differentiation did not reveal any statistically significant differences between any pair of cell means.

In addition to an examination of mean self-concept differences between cells, analyses were undertaken with respect to the person perception measures before tests of the experimental hypotheses were performed. As in Experiment 1, an articulation measure was calculated for each major factor from the Impression scales. Unfortunately, the size of the sample examined in Experiment 2 ($N = 64$) was too small to warrant factor analyses of the Impression scales. Given the stability in factor structure that was demonstrated across the 7 stimulus persons in Experiment 1, however, it seemed reasonable to define the same 3 factors in the present study and compute the respective articulation values on that basis. As a check on the appropriateness of this procedure, the internal consistency (Cronbach's alpha) of each of these factors for each stimulus person was calculated. The resultant alphas were uniformly high (mean alpha = .81, S.D. = .11), and thus provide support for the assumed factor structure underlying the Impression scales.

Finally, intercorrelations were calculated for the 8 person perception measures. The results generally provide cross-validated support for the corresponding analysis performed in Experiment 1 (compare Tables 2 and 4). There are, however, a few exceptions to the generally similar pattern of intercorrelations among person perception variables in

Experiments 1 and 2. For example, in the present study two of the articulation measures (competence and social value) demonstrated positive correlations with dimensionality. The results, while consistent with the hypothesis of Experiment 1, nevertheless were not obtained in Experiment 1. Also, in the present research evaluative centrality was not significantly related to dimensionality or to any of the articulation measures; such relationships were obtained in Experiment 1. Finally, the relationship between evaluative centrality and certainty was nonsignificant in the present study but highly significant (positive) in Experiment 1.

These exceptions to the otherwise consistent pattern of interrelationships demonstrated across the two studies may be attributable to a difference in stimulus persons employed in the two studies. That is, the discrepant relationships involved those variables (articulation, dimensionality, and evaluative centrality) which were calculated from descriptions of both interviewees and known others ("close friend" and "enemy") in Experiment 1, but only from interviewee descriptions in Experiment 2. If this interpretation is indeed valid, it argues for a certain degree of subdomain specificity with regard to the relationships between components of cognitive structure.¹

Tests of hypotheses

To determine the effects of situational self-consciousness and self-concept certainty on person perception, a multivariate analysis of variance (MANOVA) was employed with 8 dependent measures. Basically, MANOVA takes into account the common variance associated with multiple dependent

¹Of course, the validity of this interpretation in no way reflects, necessarily, on the issue of cross-domain generality of structural properties, which was the question of interest in Experiment 1.

TABLE 4

INTERCORRELATIONS OF PERSON PERCEPTION VARIABLES
(N = 64)

Variable	1	2	3	4	5	6	7	8
1. Competence articulation	—							
2. Activity articulation	.445***	—						
3. Social value articulation	.404***	.490***	—					
4. Dimensionality	.321**	.147	.300*	—				
5. Evaluative centrality	-.014	-.014	.089	-.050	—			
6. Similarity	-.093	.032	-.027	-.024	.304*	—		
7. Certainty	-.071	-.010	-.146	.041	.108	-.108	—	
8. Attraction	-.302*	-.179	-.164	.046	.473***	.473***	-.093	—

*p < .01

**p < .005

***p < .001

measures in the calculation of F -ratios for each measure. Thus, although several of the dependent measures were significantly intercorrelated, this potential for confounding is not manifest in the results revealed by MANOVA. Nevertheless, a conservative interpretation of a MANOVA analysis requires that the significance level associated with each resultant univariate F -ratio be multiplied by the number of dependent measures (in this case, 8). For example, if a univariate F -ratio were statistically significant at $p < .05$, the "corrected" significance level would be $p < .4$ (i.e., $.05 \times 8$) — a far cry from accepted levels of statistical significance.

The major hypothesis was that, generally speaking, situational

self-consciousness would "anti-differentiate" a perceiver's cognitive structure. Specifically, in comparison with subjects in the control condition, subjects in the situational self-conscious condition were expected to demonstrate less dimensionality and less articulation in the perception of the 5 stimulus persons. The multivariate test of equality of the mean vectors as a function of situational self-consciousness demonstrated statistical significance ($F = 3.5424$, $df = 8/53$, $p < .0024$). In Table 5 are presented the univariate F -ratios for the effects of situational self-consciousness on the 8 dependent variables.

TABLE 5

SUMMARY OF MULTIVARIATE ANALYSIS OF VARIANCE FOR
SITUATIONAL SELF-CONSCIOUSNESS AND PERSON PERCEPTION

Variable	Hypothesis mean square	Univariate F	Level of significance
Competence articulation	.3282	5.1062	$p < .0275$; $p < .22^*$
Activity articulation	.9267	22.7134	$p < .0001$; $p < .0008^*$
Social value articulation	.2289	4.5568	$p < .0369$; $p < .2952^*$
Dimensionality	.4108	.4796	ns
Evaluative centrality	.0201	1.6837	ns
Certainty	8.0652	.4509	ns
Similarity	.0039	.0049	ns
Attraction	.8561	1.4914	ns

* "corrected" level of significance

The results presented in Table 5 demonstrate that the three articulation measures were significantly affected by the manipulation of

self-consciousness. However, when the level of significance revealed for each variable is "corrected" (i.e., multiplied by 8), only the univariate F -ratio for articulation of the activity factor remains significant. An inspection of the means for this variable as a function of self-concept certainty and situational self-consciousness (see Table 6) reveals that the hypothesis regarding this variable was supported: mean articulation was lower in the self-conscious condition than it was in the control condition.

Although the univariate F -ratios for the other two articulation measures did not attain "corrected" levels of significance, an inspection of the means within conditions for these variables (see Tables 7 and 8) likewise provides support for the hypotheses, namely, lower mean articulation in the self-conscious than in the control condition. In comparison with subjects in the control condition, then, subjects in the self-conscious condition demonstrated significantly less discrimination among stimulus persons on items tapping an activity dimension and somewhat less discrimination on items tapping competence and social value.

TABLE 6

MEANS AND STANDARD DEVIATIONS ON ACTIVITY ARTICULATION
AS A FUNCTION OF SITUATIONAL SELF-CONSCIOUSNESS AND
SELF-CONCEPT CERTAINTY

Condition		Self-concept certainty		$\bar{x}$
		"Certain"	"Uncertain"	
Situational self-consciousness	$\bar{x}$	1.433	1.378	1.405
	S.D.	.151	.184	
Control	$\bar{x}$	1.676	1.617	1.646
	S.D.	.262	.204	
	$\bar{x}$	1.547	1.490	

TABLE 7

MEANS AND STANDARD DEVIATIONS ON COMPETENCE ARTICULATION
AS A FUNCTION OF SITUATIONAL SELF-CONSCIOUSNESS AND
SELF-CONCEPT CERTAINTY

Condition		Self-concept certainty		$\bar{x}$
		"Certain"	"Uncertain"	
Situational self-consciousness	$\bar{x}$	1.380	1.283	1.332
	S.D.	.164	.259	
Control	$\bar{x}$	1.464	1.486	1.475
	S.D.	.255	.321	
$\bar{x}$		1.420	1.378	

TABLE 8

MEANS AND STANDARD DEVIATIONS ON SOCIAL VALUE ARTICULATION
AS A FUNCTION OF SITUATIONAL SELF-CONSCIOUSNESS AND
SELF-CONCEPT CERTAINTY

Condition		Self-concept certainty		$\bar{x}$
		"Certain"	"Uncertain"	
Situational self-consciousness	$\bar{x}$	1.515	1.355	1.435
	S.D.	.142	.200	
Control	$\bar{x}$	1.595	1.515	1.555
	S.D.	.289	.252	
$\bar{x}$		1.552	1.430	

In contrast to the support obtained for the hypotheses regarding articulation, the univariate F -ratio for dimensionality as a function of situational self-consciousness failed to reach statistical significance (see Table 5). Thus, although subjects in the self-conscious condition showed less discrimination among stimulus persons than did control subjects, subjects in both conditions were equally likely to make independent (or dependent) judgments between dimensions. The significance of this discrepancy in support of the respective hypotheses concerning articulation and dimensionality is deferred until the General Discussion.

It was hypothesized that subjects in the self-conscious condition would demonstrate less certainty in their impressions of the interviewees than would subjects in the control condition. This prediction, however, was not supported. Despite their lower level of discrimination among stimulus persons, the situationally self-conscious subjects were as certain of their impressions as were control subjects. Considering the comments presented earlier (pp. 18-19) regarding the relationship between integration and differentiation, it may be that subjects in the self-conscious condition maintained integration — that is, certainty — at the price of lowered articulation. This conclusion, of course, is speculative at best since descriptive certainty was posited as only a rough index of integration and, unlike articulation, is independent of the underlying dimensional model to which the integration-differentiation argument was addressed.

No predictions were made regarding the effects of situational self-consciousness on the other variables (evaluative centrality, similarity, and attraction), and the MANOVA results pertaining to these variables failed to reach statistical significance.

The results of the MANOVA for the effects of self-concept certainty on the 8 dependent variables were consistent in their lack of statistical

significance. The multivariate test of equality of mean vectors was nonsignificant ($F < 1$), as were the univariate F -ratios for each dependent variable when evaluated in terms of "corrected" levels of significance. Similarly, there were no statistically significant effects attributable to the interaction between self-concept certainty and situational self-consciousness (multivariate $F = 1.6102$, $df = 8/53$, $p < .15$; "corrected" $p > .5$ for all univariate F -ratios). This is encouraging since no interactions were predicted.

Predictions were made, however, concerning differences between "certain" and "uncertain" subjects within the self-conscious condition. In particular, "uncertain" subjects were expected to be affected to a greater degree by the self-conscious manipulation than were "certain" subjects; the former, that is, were expected to be less articulated, less dimensional, and less certain in their impressions of the interviewees. To test these hypotheses, analyses of simple effects (Winer, 1962, p. 232) were performed within the situational self-conscious and the control conditions.²

The results of these analyses demonstrated one statistically significant result: within the self-conscious condition, mean articulation of the social value factor was higher for the "certain" subjects than for the "uncertain" subjects ($F = 4.067$, $p < .05$; see Table 8). Thus as predicted, the manipulation of self-consciousness had a greater impact on "uncertain" subjects than on "certain" subjects with respect to their discrimination of stimulus persons along items tapping a dimension of social value. Although this was the only statistically significant result obtained, it is

²Despite the fact that the interactions were nonsignificant, analyses of the simple effects were considered to be appropriate since these specific comparisons are suggested by the theoretical basis for the experiment (see Winer, 1962, p. 208).

nonetheless interesting to note that for the other articulation measures a visual comparison between the relevant cell means demonstrates differences that are in the predicted direction (see Tables 6 and 7). In contrast, however, analyses of the simple effects for both dimensionality and descriptive certainty revealed that there were essentially no differences between the "certain" and "uncertain" cells within the situational self-consciousness condition, as had been predicted, or within the control condition.

In sum, it appears that the manipulation of self-consciousness had detrimental effects, as predicted (Hypothesis 2), on subject's discrimination of stimulus persons, particularly discrimination along the activity dimension. This general effect, in turn, was more pronounced for "uncertain" than for "certain" subjects (Hypothesis 5), especially on items tapping the dimension of social value. At the same time, however, none of the hypotheses regarding dimensionality and descriptive certainty (Hypotheses 1, 3, 4, and 6) received support in the present research.

IV. GENERAL DISCUSSION

The questions which were addressed in Experiments 1 and 2 reflect the author's conviction that attention to the interplay of both situational and "personality" factors is requisite for a full appreciation of the determinants of human behavior. Taken together, the results of Experiments 1 and 2 provide encouraging support for this conviction. To wit, the results suggest that an individual's self-concept relates in a meaningful manner to his construal of others, and that, at the same time, this person construction process is significantly affected by a situational factor conducive to self-consciousness. The effect of this situational factor, in turn, is more or less pronounced depending on the degree of certainty associated with an individual's self-concept.

In a general sense, then, the results are encouraging. But what of the specific questions of interest that led to the present undertaking? It is apparent that only certain of the hypotheses were supported. What elaborations and/or modifications in the original arguments are necessitated by the obtained pattern of confirmed and unconfirmed hypotheses? Attention, too, must be given to certain issues raised by the present results and to the manner in which they might be approached.

First of all, it is clear that the degree of commonality demonstrated in self- and person perception (Experiment 1) was far short of the original expectation. The significant correlations were, for the most part, in the predicted direction, but these were relatively few in number. Numerous sources of variance could be identified, of course, to which the lack of overwhelming support for the hypotheses might be attributed. Some of these seem more fundamental than others, however.

To begin with, there may have been an inadequate conceptualization of "self-concept," resulting in a less than desirable operationalization of self-concept variables. That is, it was simply assumed that the

self-concept represents a "core" construct — an hypothetical entity that is situationally transcendent. Toward this end, subjects were expected to define themselves in a context-free manner with regard to various traits.³ While a certain degree of self-consistency no doubt accrues with development for most people (Lecky, 1945), a realistic perspective regarding self-conception should allow for fluctuation in the way we perceive ourselves as a function of context factors — aspects of the setting, the individuals with whom one is interacting, and perhaps most importantly, the role which one is enacting. The early symbolic interaction theorists (cf. Cooley, 1902; Mead, 1934), who undoubtedly have made the most substantial contributions to our understanding of self-development, strongly emphasized the importance of roles in self-conception. More recently, Gergen (1971) and others (e.g., Goffman, 1959; Turner, 1968) have pointed to the inevitable inconsistency in self-presentation — and hence in self-image — that is demanded by various interactions and, more generally, by various roles. Perhaps most individuals do develop an overall "core" self-conception, which conceivably reflects some sort of "average" of our situational self-images (Turner, 1968). However, the informational value of any average is inversely proportional to the variance. Thus, a core self-concept may yield an incomplete representation of a person if it is based on widely differing self-images.

Considering this probable shortcoming in the conceptualization of "self," the operationalizations of the various self-concept variables may have had meanings that were somewhat at variance with those that were intended. Self-concept certainty is a case in point. It was

³Of course, the situation in which this self-description occurred — a laboratory setting — no doubt provided some degree of context for self-definition.

concluded earlier (pp.54-55), on a purely empirical basis, that rather than being associated with cognitive differentiation, certainty may reflect instead a lack of differentiation. The results upon which this inference was based, however, may reflect the manner in which certainty was measured, namely, certainty with regard to a supposedly context-free self-conception. That is, to be certain of an overall self-conception that is defined in terms of specific traits is to be insensitive to the full range of qualities and behaviors that are exhibited in various roles. It is not surprising, then, that self-concept certainty in the present research appeared to reflect an undifferentiated cognitive structure.⁴ With this in mind, a better approach to self-insight — the meaning intended for the measure of self-concept certainty — might be to first ascertain the degree of certainty an individual associates with his self-image within various roles, and then to derive some average level of certainty based on the component values.

The "multiple selves" approach described above has been employed by Scott (1969, 1974, in press) who was described earlier (p. 21) as the most rigorous researcher in the area of cognitive structure. Rather than examining the self as a unified transcendent concept, Scott treats the self as simply another "domain," just as other people and nations are treated as domains. In particular, self-as-domain consists of the

⁴In a similar manner, the results from Experiment 1 demonstrated that certainty in descriptions of a "close friend" was negatively associated with articulation for two of the person perception factors. Since the better we know someone, the more likely we are to see them in various contexts, it follows that certainty regarding one's perception of "close friend" in terms of specific traits in a context-free setting is reflective of a relatively undifferentiated cognitive structure. On the other hand, "enemy" and, of course, the interviewees are less likely to be known in various contexts; hence, certainty in one's perception of these stimulus persons should not necessarily reflect a lack of differentiation. The results are consistent with this reasoning.

various roles in terms of which an individual can identify himself. Structural properties for the domain of self, therefore, reflect the degree to which an individual describes himself in a similar or dissimilar fashion for different roles. The present research demonstrated that for an individual there is some degree of commonality in a given structural property associated with self-as-concept and the perception of unacquainted others. Perhaps by approaching self as a domain, research would demonstrate a greater commonality in the perception of oneself and the perception of unacquainted others than did Experiment 1.

In addition to the conceptual issue regarding self, other issues of a more methodological nature may be of relevance to an understanding of the results concerning self- and person perception. Would different results have been obtained, for example, if subjects had been asked only to describe acquainted others or to form impressions of hypothetical others on the basis of written descriptions? At first glance, this seems an unimportant issue; descriptions obtained after an actual perceptual experience — that is, after viewing videotaped segments — are far more relevant to real-world person perception than are descriptions based on memory or on responses to hypothetical descriptions. It is only because the majority of past research is typified by the latter approach that the degree of congruence between results obtained by the respective approaches is of (academic) interest. Aside from Scott's research, which has already been discussed, research emanating from the "traditional" approach has been concerned with somewhat different questions than those of the present research, thus making comparisons between the results of the two approaches difficult. Nonetheless, differences might be expected.

First of all, videotaped segments allow for attention to nonverbal behaviors, which should affect the formation of impressions. There is

evidence, for example, that when the verbal communication of affect is contradicted by vocal intonation and/or by facial expressions the former is more likely to be discounted than are either of the latter (e.g., Bugenthal, 1974; Mehrabian & Wiener, 1967). In fact, the greater credibility typically attributed by individuals to the nonverbal aspects of communication as compared to the content of communication (see, e.g., Argyle, 1969) constitutes a worthy criticism of the "traditional" approach to person perception research. Secondly, the videotape approach allows for immediacy in the perception-to-inference link in the person perception process. In contrast, the "traditional" approach allows for greater cognitive mediation — including distortions produced by forgetting or selective recall — between perception and inference. The videotape approach is clearly more appropriate if the focus is on impression formation; the "traditional" approach, meanwhile, is appropriate if the focus is on cognitive structure, that is, on person cognition rather than on person perception. Still, it is not clear what the significance of these differences are for the results of the present research. Future research might compare the respective approaches to person perception to ascertain the degree of commonality in self- and person perception revealed by each.

Yet another point should be noted regarding the use in the present research of unacquainted others, presented on videotape. It seems to the author that an understanding of cognitive structure and of person perception, while important in and of themselves, should nonetheless be theoretically and empirically linked to other social psychological phenomena for which such a link seems intuitively plausible. The acquaintance process is such a phenomenon. Previous research, however, has not explored this issue. By exposing subjects to taped interactions involving previously unacquainted others, and obtaining impressions of these others,

the present research is relevant to an understanding of how impressions are structured at the initial stages of the acquaintance process. Experiment 2, in particular, is of import here since self-consciousness seems most likely to manifest its effects on person perception in our earliest encounters with others.⁵

Another methodological issue concerns the use of scales provided by the experimenter rather than allowing the subject to generate his own descriptive terms. Pragmatic considerations argue for the former; phenomenological considerations for the latter. Fortunately, there is research that bears on this issue. Tripodi and Bieri (1963) obtained two measures of cognitive complexity from subjects: one based on constructs which the subjects themselves had generated, and one based on ten constructs provided by the experimenter. In both cases, subjects used the constructs to describe several acquainted others who fit certain role categories, and cognitive complexity scores were computed from the resultant construct $\times$ stimulus person matrices. Essentially similar results were obtained by the two procedures, that is, subjects who scored as cognitively complex with one procedure were likely to appear similarly complex with the other procedure. Although Bieri's procedure for assessing cognitive complexity differs from the procedures employed in the present research, it seems safe to conclude that providing subjects with scales in Experiments 1 and 2 did not operate as a significant biasing factor in the obtained results.

A word is perhaps in order regarding the use of unipolar rather than bipolar scales in the present research. While bipolar scales have

⁵The discussion of these effects, revealed in Experiment 2, follows the present discussion of methodological issues.

typically been employed in person perception research, it was felt that unipolar scales better reflect a concern with phenomenology. Particularly when scales are provided for the individual, it is not clear what traits correspond to psychological as opposed to merely grammatical opposites for a given individual. "Aggressive-timid" may accurately reflect an important dimension for one perceiver, while for another perceiver the psychological opposite of "aggressive" may be "friendly." The use of bipolar scales provided by the experimenter, in other words, may change the meaning of a trait for an individual from that which he would "naturally" assign to it. At any rate, the use of unipolar scales was hardly responsible for the fact that more significant results were not obtained in Experiment 1.

In sum, it is not at all self-evident that the methodological issues discussed above were significant contributing factors to the pattern of results in Experiment 1 which demonstrate relatively few self- and person perception relationships. The use of unacquainted stimulus persons, presented on videotape, may have played a part, although research is needed to confirm or disconfirm this. Instead, the major determinant seems to have been the somewhat inadequate conceptualization and operationalization, respectively, of self-concept and the self-concept variables. Despite this apparent deficiency, however, significant relationships were demonstrated between self- and person perception. Thus, it is the author's conviction that a replication of Experiment 1 employing "corrected" self variables would yield a more substantial degree of commonality in self- and person perception.

Attention may now be focused more squarely on the results of Experiment 2. The major result of Experiment 2 was that subjects in the situational self-conscious condition were less articulated in their

perception of previously unacquainted others than were subjects in the control condition. What is the implication of this finding when taken in conjunction with the finding that dimensionality was not affected by the manipulation of self-consciousness? Why should one defining element of cognitive differentiation, but not the other, be affected by the observation of an unknown other? First of all, these findings reinforce the conclusion that, although dimensionality and articulation tend to be correlated across subjects, they are conceptually independent and therefore may vary independently of one another as a function of certain factors. Prior to Experiment 2, however, no study had ever demonstrated manipulatable factors that might make manifest the potential empirical independence of dimensionality and articulation.

But, again, why was only articulation affected by self-consciousness? To answer this question, it is necessary to consider the conceptual difference between dimensionality and articulation. Dimensionality refers to the independence of dimensions; dimensions are independent to the extent that they order stimulus objects in a different way. Articulation refers to the discrimination of stimulus objects along a dimension; a dimension is articulated to the extent that objects are assigned different values on that dimension. It seems reasonable to suggest that the relationship between concepts (traits, etc.) is a more enduring cognitive property than is the relationship between stimulus objects. We are fairly constantly aware of the difference between, say, intelligence and friendliness, but we are not always aware of the difference between Rollo and Irving with respect to intelligence (or friendliness). Articulation, then, seems to be a more "functional" measure of differentiation than does dimensionality since it refers to the discrimination among objects rather than to the discrimination among descriptive terms.

In a similar vein, Carr (1965) has argued that since dimensionality (Bieri's measure of cognitive complexity) ". . . involves an implicit assumption of functional independence [of dimensions] represented by construct descriptive terms, it is in a sense 'content' determined" (p. 134). Articulation, on the other hand, ". . . involves no such implicit assumption but, in fact, provides for a fairly precise operational definition of functional independence [of dimensions] and is therefore in a sense more 'process' determined" (p. 134).

What is being advanced, then, is that "functional" or "process" differentiation — that is, articulation — is more subject to fluctuation as a function of various factors than is "concept" differentiation — that is, dimensionality. Thus, in the present research, the articulation of stimulus persons by subjects was detrimentally affected by the manipulation of self-consciousness. If this finding is indeed generalizable to the real-world situation from which the experimental design was abstracted — simultaneously perceiving and being perceived by unacquainted others — it extends our knowledge not only of cognitive structure and its relation to person perception, but of the relation of these two areas to the acquaintance process as well.

More specifically, the results of Experiment 2 may be related to the initial stages of knowing and evaluating others in the following way. When two individuals encounter each other for the first time, they very quickly form impressions of one another (Hastorf et al., 1970). At the same time, each individual is also very much aware of his own presentation of self and the impression that this presentation has on other. Whether because of heightened arousal (anxiety) or because of a divided focus in

information processing,⁶ each person is likely to make "either-or" judgments of the other person with regard to judgmental dimensions.⁷ To take an example, Person A may see Person B, whom he has just encountered for the first time, as quite intelligent and quite friendly. Now suppose Person A encounters another person — Person C — for the first time. Again, he is likely to make "either-or" judgments. In this instance, however, Person C is seen as quite unintelligent and quite friendly. Yet another person — Person D — is seen as quite unintelligent and quite unfriendly. And so on for any number of persons encountered for the first time by Person A. In this example, Person A is making unarticulated judgments with respect to the dimensions of intelligence and friendliness, but the dimensions themselves are fairly independent — that is, they order Persons B, C, D, etc., in different ways.

Presumably, after repeated encounters with another person, we feel less self-conscious, particularly regarding our nonverbal behaviors, and therefore we can attend more fully — and/or with less anxiety — to the cues emitted by other which aid in person perception. In such circumstances, a person's impressions are less likely to be of an "either-or" nature, and thus his degree of articulation should be commensurate with his degree of dimensionality. Of course, this conclusion regarding change in the degree of articulation as a function of length of acquaintance is speculative since only unacquainted others were employed in Experiment 2.

Although the formal results of Experiment 2 in no way indicate

⁶The relative validity of the "arousal" and "equilibrium" interpretations regarding the effects of situational self-consciousness (see pp. 22-27) is discussed below (pp. 79-80).

⁷Although judgments are said to be "either-or" in nature, this does not necessarily imply that these judgments are extreme; in fact, the lack of significant results obtained for evaluative centrality in Experiment 2 indicates that they are not.

whether the "arousal" or the "equilibrium" interpretation better explains the effects of situational self-consciousness on articulation, informal data attest to the possible superiority of the "equilibrium" or divided focus interpretation. In the debriefing session, the majority of subjects indicated that although they did experience a heightened awareness of their nonverbal behavior, they felt very little anxiety during the session when they were being observed. Such feedback, of course, hardly constitutes definitive support and must be considered merely suggestive. Of some relevance here is the theory of "objective self-awareness" put forward by Duvall and Wicklund (1972). Duvall and Wicklund maintain that when a person directs his attention toward himself — that is, when he is objectively self-aware — he becomes aware of the discrepancies between the way he is and the way he would like to be. Since the degree of discrepancy between one's actual and ideal self is perhaps the most popular definition of self-esteem (Wylie, 1961), it follows that objective self-awareness is conducive to lowered self-esteem. Low self-esteem, in turn, is associated with anxiety (Gergen, 1971). This line of reasoning thus argues for the "arousal" (anxiety) interpretation as well as for the "equilibrium" (divided focus) interpretation of the effects of situational self-consciousness. While a resolution of this issue clearly awaits further research, on an intuitive basis both anxiety and divided focus seem important in accounting for the results reported in Experiment 2.

In addition to the general effect of situational self-consciousness, the results demonstrated that, as predicted, this effect was stronger for subjects classified as uncertain as opposed to certain of their self-concept. While congruent with the experimental hypothesis, this result nevertheless requires some discussion since the results of Experiment 1

led to a reinterpretation of the meaning of self-concept uncertainty (see p. 72). According to this reinterpretation, self-concept uncer- tainty rather than certainty is likely to reflect a differentiated cognitive structure. That is, a person who sees himself differently as a function of differing roles is hard pressed to come up with a general self-conception which he can describe with a high degree of certainty.

Upon examination, it can be seen that the validity of this conclusion in no way contradicts the hypothesis underlying the results concerning self-concept certainty obtained in Experiment 2. In fact, these two lines of reasoning are quite compatible. It follows that a person who views himself from many perspectives, and who is therefore uncertain of an overall "self-concept," is likely to be a self-reflective sort of person. Such a person, in other words, is more likely than a certain self-concept person to focus on himself as an object of perception, and it may be this tendency towards "objective self-awareness" (Duvall & Wicklund, 1972) that accounts for the person's sensitivity to various role-defined self-images. The assumption that a tendency towards self-reflection is more characteristic of uncertain than of certain self-concept individuals provided the basis of the hypotheses regarding self-concept certainty in Experiment 2. That is, given their assumed predisposition toward self-reflection, uncertain subjects were expected to demonstrate greater manifestation of this tendency when the situation was geared toward such a manifestation. This, of course, is what was demonstrated by the results of Experiment 2.

In the present undertaking, little attention was devoted to the validity of the underlying model of cognitive structure from which several of the measures were derived. Of course, the focus in the present research was not on cognitive structure per se; the structural

measures were seen primarily as dependent variables in person perception that might be sensitive to situational factors and to individual differences in self-concept variables. Nonetheless, the possibility exists that a "better" model might have generated better variables.

Perhaps the clearest alternative to a dimensional model such as Scott's would be a model stressing the role of hierarchic integration in ordering a person's cognitive space (e.g., Harvey, Hunt, & Schroder, 1961; Schroder et al., 1967). Though infrequently done, a hierarchic model could be employed in the study of person perception. In his theory of personal constructs, for example, Kelly (1955) argued that constructs are arranged in a hierarchical manner. Similarly, Rosenberg and Sedlack (1972) suggest that implicit theories of personality may be more hierarchical than dimensional in nature. They cite a study by Jones and Rosenberg (1971) in which cluster analysis — a procedure which reflects a hierarchical model — yielded more interpretable solutions, psychologically speaking, than did multidimensional scaling. Hierarchic models have considerable appeal, particularly with regard to the development of person perception. It seems reasonable that young children divide their interpersonal world into good and bad, and that with increasing maturity person perception comes to reflect concepts that are differentiated from each of these general evaluative clusters. Good, for example, becomes differentiated into separable clusters of concepts that can be broadly defined as social good and intellectual good, while a corresponding social-intellectual distinction takes place for bad (Rosenberg & Sedlack, 1972). Each of these clusters, in turn, might become further differentiated at a successive level in the individual's hierarchy.

Although the notion of hierarchic integration is appealing, models of hierarchic integration generate somewhat different variables

than those derived from a dimensional model and therefore are appropriate for different questions of interest. For example, integrative complexity — usually taken to be the "depth," so to speak, of an individual's hierarchy — is a variable that has no direct equivalent in a dimensional model. Articulation, on the other hand, is exclusively a dimensional variable, and one that was of considerable significance in the present research.

Finally, by way of conclusion, it seems to the author that the present study has demonstrable significance on two levels. First, the pattern of results obtained in the present research, particularly in Experiment 2, extend our knowledge of person perception with regard to the specific issues addressed. To wit, there does appear to be some degree of commonality in self- and other-perception, and, more significantly, an important aspect of the manner in which we structure our impressions of unfamiliar others appears to be influenced by the degree to which we feel situationally self-conscious. Second, and perhaps more importantly, the present study represented a much needed attempt to go beyond traditional approaches to person perception — to key on variables that are operative in everyday social interaction but neglected in past research, to employ a paradigm sensitive to such variables, and to take into account the interplay of situational and personal factors that are essential for a fuller appreciation of human behavior.

V. SUMMARY

In Experiment 1, partial support was found for a hypothesized commonality in self- and person perception. The statistically significant correlations that were obtained between the self-concept variables and the person perception variables were, for the most part, in the predicted direction, although these were relatively few in number. More specifically, the pattern of results suggest that (1) a differentiated view of oneself is associated with articulated perceptions of others; (2) a highly evaluative self-concept is associated with low dimensionality and evaluative centrality in person perception; and (3) certainty of self-concept is associated with low articulation in person perception and with certainty in the perception of unacquainted others.

Unexpectedly, the results of Experiment 1 suggest that self-concept certainty reflects a relatively undifferentiated cognitive structure. Although contrary to prediction, this interpretation of self-concept certainty follows from a "multiple selves" perspective. That is, in the present research certainty was assessed with regard to a context-free self-conception, and to the extent that differentiated individuals view themselves from differing perspectives, they should be somewhat uncertain of a supposedly transcendent or "core" self-concept. Future research was suggested to assess the structural commonality in self- and person perception that obtains when a "multiple selves" approach to self-conception is employed.

The results of Experiment 2 demonstrated that two defining elements of cognitive differentiation — dimensionality and articulation — were differentially affected by the manipulation of self-consciousness. In particular, the degree to which subjects made independent judgments between trait dimensions in their perception of unacquainted others did not

differ between the self-conscious and control condition; subjects were less articulated, however, in their person perception when they were being observed than when they were not being observed. This general effect was somewhat greater, moreover, for subjects who were uncertain as opposed to certain of their self-concept. The other components of person perception examined in Experiment 2 — evaluative centrality, descriptive certainty, perceived similarity, and attraction — were not affected by the manipulation of self-consciousness.

Two implications may be drawn from the results of Experiment 2. First of all, the effect on articulation that was observed for situational self-consciousness provides insight into the nature of person perception at initial stages in the acquaintance process. During our initial encounters with others we are as concerned with our "presentation of self" as we are with forming impressions of other. In varying degree, then, we are self-conscious and concerned with the impression we are having on other. The results of Experiment 2 suggest that in such a situation we have relatively unarticulated perceptions of others — that is, we don't discriminate well between others with regard to a given judgmental dimension. Further research is needed, however, to specify the actual mechanisms involved — the degree to which anxiety and/or a divided focus in information processing account for the phenomenon.

The second implication to be drawn from Experiment 2 concerns directions for future research in person perception. Past research in person perception, presumably because of a strong concern for methodological rigor, has all but ignored the situational forces that impinge on an individual to influence his construal of others. The research presented in Experiment 2 represented an attempt to redress this imbalance; the results suggest that this attempt was successful. Future research,

then, would do well to abstract representative features of settings relevant to person perception and examine the influence of these features on our construction of social reality.

APPENDICES

APPENDIX A

IMPRESSION FORMATION

We are interested in how individuals form an impression of another person after only a brief observation of him or her. You are about to view some short videotape segments (each about 5 minutes) of different persons being interviewed for a job. In each segment, the interviewee was not aware that she was being taped until after the interview. As you view each taped segment, assume that you are the person conducting the interview and that you are trying to form impressions about the person being interviewed. Following each taped segment you will complete a short questionnaire concerning your impressions of the interviewee.

IMPRESSION SCALE 1

Clear-thinking	very:__:__:__:__:__:__:__: not at all
Indecisive	very:__:__:__:__:__:__:__: not at all
Active	very:__:__:__:__:__:__:__: not at all
Timid	very:__:__:__:__:__:__:__: not at all
Competent	very:__:__:__:__:__:__:__: not at all
Awkward	very:__:__:__:__:__:__:__: not at all
Independent	very:__:__:__:__:__:__:__: not at all
Rigid	very:__:__:__:__:__:__:__: not at all
Humorous	very:__:__:__:__:__:__:__: not at all
Creative	very:__:__:__:__:__:__:__: not at all
Excitable	very:__:__:__:__:__:__:__: not at all
Masculine	very:__:__:__:__:__:__:__: not at all
Sociable	very:__:__:__:__:__:__:__: not at all
Mature	very:__:__:__:__:__:__:__: not at all
Intelligent	very:__:__:__:__:__:__:__: not at all
Tense	very:__:__:__:__:__:__:__: not at all
Feminine	very:__:__:__:__:__:__:__: not at all
Dominant	very:__:__:__:__:__:__:__: not at all
Aloof	very:__:__:__:__:__:__:__: not at all
Extraverted	very:__:__:__:__:__:__:__: not at all

Do you feel that this person is generally similar to yourself in personality?

Yes, very similar:__:__:__:__:__:__:__: No, not similar at all

Generally speaking do you feel that you would like this person?

Yes, definitely:__:__:__:__:__:__:__: No, definitely not

Please stop here

IMPRESSION SCALE 2

Clear-thinking	very:__:__:__:__:__:__:__: not at all
Indecisive	very:__:__:__:__:__:__:__: not at all
Active	very:__:__:__:__:__:__:__: not at all
Timid	very:__:__:__:__:__:__:__: not at all
Competent	very:__:__:__:__:__:__:__: not at all
Awkward	very:__:__:__:__:__:__:__: not at all
Independent	very:__:__:__:__:__:__:__: not at all
Rigid	very:__:__:__:__:__:__:__: not at all
Humorous	very:__:__:__:__:__:__:__: not at all
Creative	very:__:__:__:__:__:__:__: not at all
Excitable	very:__:__:__:__:__:__:__: not at all
Masculine	very:__:__:__:__:__:__:__: not at all
Sociable	very:__:__:__:__:__:__:__: not at all
Mature	very:__:__:__:__:__:__:__: not at all
Intelligent	very:__:__:__:__:__:__:__: not at all
Tense	very:__:__:__:__:__:__:__: not at all
Feminine	very:__:__:__:__:__:__:__: not at all
Dominant	very:__:__:__:__:__:__:__: not at all
Aloof	very:__:__:__:__:__:__:__: not at all
Extraverted	very:__:__:__:__:__:__:__: not at all

Do you feel that this person is generally similar to yourself in personality?

Yes, very similar:__:__:__:__:__:__:__: No, not similar at all

Generally speaking, do you feel that you would like this person?

Yes, definitely:__:__:__:__:__:__:__: No, definitely not

Please stop here

IMPRESSION SCALE 3

Clear-thinking	very:__:__:__:__:__:__:__: not at all
Indecisive	very:__:__:__:__:__:__:__: not at all
Active	very:__:__:__:__:__:__:__: not at all
Timid	very:__:__:__:__:__:__:__: not at all
Competent	very:__:__:__:__:__:__:__: not at all
Awkward	very:__:__:__:__:__:__:__: not at all
Independent	very:__:__:__:__:__:__:__: not at all
Rigid	very:__:__:__:__:__:__:__: not at all
Humorous	very:__:__:__:__:__:__:__: not at all
Creative	very:__:__:__:__:__:__:__: not at all
Excitable	very:__:__:__:__:__:__:__: not at all
Masculine	very:__:__:__:__:__:__:__: not at all
Sociable	very:__:__:__:__:__:__:__: not at all
Mature	very:__:__:__:__:__:__:__: not at all
Intelligent	very:__:__:__:__:__:__:__: not at all
Tense	very:__:__:__:__:__:__:__: not at all
Feminine	very:__:__:__:__:__:__:__: not at all
Dominant	very:__:__:__:__:__:__:__: not at all
Aloof	very:__:__:__:__:__:__:__: not at all
Extraverted	very:__:__:__:__:__:__:__: not at all

Do you feel that this person is generally similar to yourself in personality?

Yes, very similar:__:__:__:__:__:__:__: No, not similar at all

Generally speaking, do you feel that you would like this person?

Yes, definitely:__:__:__:__:__:__:__: No, definitely not

Please stop here

IMPRESSION SCALE 4

Clear-thinking	very:__:__:__:__:__:__:__: not at all
Indecisive	very:__:__:__:__:__:__:__: not at all
Active	very:__:__:__:__:__:__:__: not at all
Timid	very:__:__:__:__:__:__:__: not at all
Competent	very:__:__:__:__:__:__:__: not at all
Awkward	very:__:__:__:__:__:__:__: not at all
Independent	very:__:__:__:__:__:__:__: not at all
Rigid	very:__:__:__:__:__:__:__: not at all
Humorous	very:__:__:__:__:__:__:__: not at all
Creative	very:__:__:__:__:__:__:__: not at all
Excitable	very:__:__:__:__:__:__:__: not at all
Masculine	very:__:__:__:__:__:__:__: not at all
Sociable	very:__:__:__:__:__:__:__: not at all
Mature	very:__:__:__:__:__:__:__: not at all
Intelligent	very:__:__:__:__:__:__:__: not at all
Tense	very:__:__:__:__:__:__:__: not at all
Feminine	very:__:__:__:__:__:__:__: not at all
Dominant	very:__:__:__:__:__:__:__: not at all
Aloof	very:__:__:__:__:__:__:__: not at all
Extraverted	very:__:__:__:__:__:__:__: not at all

Do you feel that this person is generally similar to yourself in personality?

Yes, very similar:__:__:__:__:__:__:__: No, not similar at all

Generally speaking, do you feel that you would like this person?

Yes, definitely:__:__:__:__:__:__:__: No, definitely not

Please stop here

IMPRESSION SCALE 5

Clear-thinking	very:__:__:__:__:__:__: not at all
Indecisive	very:__:__:__:__:__:__: not at all
Active	very:__:__:__:__:__:__: not at all
Timid	very:__:__:__:__:__:__: not at all
Competent	very:__:__:__:__:__:__: not at all
Awkward	very:__:__:__:__:__:__: not at all
Independent	very:__:__:__:__:__:__: not at all
Rigid	very:__:__:__:__:__:__: not at all
Humorous	very:__:__:__:__:__:__: not at all
Creative	very:__:__:__:__:__:__: not at all
Excitable	very:__:__:__:__:__:__: not at all
Masculine	very:__:__:__:__:__:__: not at all
Sociable	very:__:__:__:__:__:__: not at all
Mature	very:__:__:__:__:__:__: not at all
Intelligent	very:__:__:__:__:__:__: not at all
Tense	very:__:__:__:__:__:__: not at all
Feminine	very:__:__:__:__:__:__: not at all
Dominant	very:__:__:__:__:__:__: not at all
Aloof	very:__:__:__:__:__:__: not at all
Extraverted	very:__:__:__:__:__:__: not at all

Do you feel that this person is generally similar to yourself in personality?

Yes, very similar:__:__:__:__:__:__: No, not similar at all

Generally speaking, do you feel that you would like this person?

Yes, definitely:__:__:__:__:__:__: No, definitely not

Please stop here

IMPRESSION SCALE 6

Think of someone of the same sex with whom you are "close friends;" that is, someone you know well that you like and who likes you. Then indicate on a scale of one to seven how well each of the following adjectives describes this person.

Clear-thinking	very:__:__:__:__:__:__:__: not at all
Indecisive	very:__:__:__:__:__:__:__: not at all
Active	very:__:__:__:__:__:__:__: not at all
Timid	very:__:__:__:__:__:__:__: not at all
Competent	very:__:__:__:__:__:__:__: not at all
Awkward	very:__:__:__:__:__:__:__: not at all
Independent	very:__:__:__:__:__:__:__: not at all
Rigid	very:__:__:__:__:__:__:__: not at all
Humorous	very:__:__:__:__:__:__:__: not at all
Creative	very:__:__:__:__:__:__:__: not at all
Excitable	very:__:__:__:__:__:__:__: not at all
Masculine	very:__:__:__:__:__:__:__: not at all
Sociable	very:__:__:__:__:__:__:__: not at all
Mature	very:__:__:__:__:__:__:__: not at all
Intelligent	very:__:__:__:__:__:__:__: not at all
Tense	very:__:__:__:__:__:__:__: not at all
Feminine	very:__:__:__:__:__:__:__: not at all
Dominant	very:__:__:__:__:__:__:__: not at all
Aloof	very:__:__:__:__:__:__:__: not at all
Extraverted	very:__:__:__:__:__:__:__: not at all

Do you feel that this person is generally similar to yourself in personality?

Yes, very similar:__:__:__:__:__:__:__: No, not similar at all

IMPRESSION SCALE 7

Think of someone of the same sex with whom you have a "negative relationship;" that is, someone you know well that you dislike and who appears to dislike you. Then indicate on a scale of one to seven how well each of the following adjectives describes this person.

Clear-thinking	very:__:__:__:__:__:__:__: not at all
Indecisive	very:__:__:__:__:__:__:__: not at all
Active	very:__:__:__:__:__:__:__: not at all
Timid	very:__:__:__:__:__:__:__: not at all
Competent	very:__:__:__:__:__:__:__: not at all
Awkward	very:__:__:__:__:__:__:__: not at all
Independent	very:__:__:__:__:__:__:__: not at all
Rigid	very:__:__:__:__:__:__:__: not at all
Humorous	very:__:__:__:__:__:__:__: not at all
Creative	very:__:__:__:__:__:__:__: not at all
Excitable	very:__:__:__:__:__:__:__: not at all
Masculine	very:__:__:__:__:__:__:__: not at all
Sociable	very:__:__:__:__:__:__:__: not at all
Mature	very:__:__:__:__:__:__:__: not at all
Intelligent	very:__:__:__:__:__:__:__: not at all
Tense	very:__:__:__:__:__:__:__: not at all
Feminine	very:__:__:__:__:__:__:__: not at all
Dominant	very:__:__:__:__:__:__:__: not at all
Aloof	very:__:__:__:__:__:__:__: not at all
Extraverted	very:__:__:__:__:__:__:__: not at all

Do you feel that this person is generally similar to yourself in personality?

Yes, very similar:__:__:__:__:__:__:__: No, not similar at all

APPENDIX B

COMMON FACTOR STRUCTURE OF SELF-IMAGE TEST AND IMPRESSION SCALES

Test	Factor and items with highest loadings		
	Competence	Social Value	Activity
Self-image test N = 173	Clear-thinking (.68)	Aloof (.64)	Active (.65)
	Incompetent (-.75)	Tense (.67)	Independent (.35)
	Mature (.68)	Rigid (.70)	Excitable (.34)
	Intelligent (.68)	Timid (.45)	Sociable (.57)
		Awkward (.34)	Dominant (.51)
			Extraverted (.78)
Impression scale 1 N = 83	Clear-thinking (.82)	Timid (.52)	Humorous (.65)
	Indecisive (-.73)	Awkward (.46)	Creative (.69)
	Competent (.82)	Rigid (.75)	Excitable (.72)
	Mature (.71)	Tense (.65)	Sociable (.60)
	Intelligent (.62)	Aloof (.36)	Dominant (.55)
			Extraverted (.54)
Impression scale 2 N = 83	Clear-thinking (.80)	Timid (.52)	Active (.54)
	Indecisive (-.80)	Independent (-.65)	Humorous (.76)
	Competent (.68)	Dominant (-.69)	Excitable (.73)
	Mature (.79)	Awkward (.43)	Sociable (.65)
	Intelligent (.78)		Extraverted (.51)
	Rigid (-.52)		
	Tense (-.48)		
	Aloof (-.71)		
Impression scale 3 N = 83	Clear-thinking (.72)	Timid (.71)	Active (.72)
	Indecisive (-.69)	Awkward (.74)	Excitable (.65)
	Competent (.72)	Rigid (.78)	Sociable (.59)
	Independent (.66)	Tense (.68)	Extraverted (.56)
	Mature (.77)	Aloof (.51)	
	Intelligent (.73)		
Impression scale 4 N = 83	Clear-thinking (.80)	Timid (.65)	Active (.68)
	Indecisive (-.62)	Awkward (.57)	Humorous (.71)
	Competent (.74)	Rigid (.44)	Creative (.69)
	Mature (.79)	Tense (.81)	Excitable (.74)
	Intelligent (.81)		Sociable (.61)
	Aloof (.47)		Extraverted (.58)

APPENDIX B (continued)

Test	Factor and items with highest loadings		
	Competence	Social value	Activity
Impression scale 5 N = 83	Clear-thinking (.70)	Timid (.63)	Active (.71)
	Indecisive (-.65)	Awkward (.74)	Humorous (.72)
	Competent (.61)	Rigid (.70)	Creative (.62)
	Independent (.75)	Tense (.67)	Excitable (.75)
	Mature (.74)	Aloof (.65)	Sociable (.53)
	Intelligent (.69)		
	Dominant (.45)		
Impression scale 6 "Close friend" N = 83	Clear-thinking (.81)	Timid (.61)	Active (.63)
	Competent (.83)	Awkward (.55)	Sociable (.66)
	Independent (.53)	Tense (.69)	Aloof (-.58)
	Mature (.69)	Dominant (-.70)	Extraverted (.69)
	Intelligent (.77)		
Impression scale 7 "Enemy" N = 83	Clear-thinking (.83)	Timid (.66)	Active (.54)
	Indecisive (-.63)	Awkward (.59)	Humorous (.65)
	Competent (.64)	Rigid (.63)	Creative (.51)
	Independent (.62)	Sociable (-.50)	Excitable (.68)
	Mature (.81)	Tense (.67)	
	Intelligent (.64)	Extraverted (.65)	

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