AUTISM, REALISM, AND SYSTEM BALANCE IN A STUDENT GROUP

by
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CHAPTER I

THEORETICAL FORMULATION OF THE PROBLEM

Aim of the Thesis

Along with other related problems, the study of the interaction processes in groups is expanding at an extremely rapid rate as evidenced by an estimated 1,300 articles as of 1958 (McGrath, 1958) in the area of small group research alone. It is only in the last decade that general theorizing has developed to integrate and interpret the ever-growing volume of research and to stimulate further empirical studies.

As noted by Newcomb in 1951, the outstanding need in theorizing is the integration of individual and social approaches. He notes in a later article (Newcomb, 1959b) that within the area of human interaction processes two crucial linkages are in need of understanding, viz., the interpersonal processes underlying group functioning, and in turn, the psychological processes conditioning, determining, and modifying human interaction. The focus of this thesis is upon the second of these two problem areas—it attempts to understand further the substratum of processes underlying interpersonal interaction by examining the intrapersonal processes involved. It attempts to add to the fund of theoretical knowledge by examining one such general theory linking interactive behavior to the psychological structure of

the individual, namely, a theory of communicative acts, as noted below. It explores one problem, solution of which the theory's extension in the direction of providing an increased understanding of the psychological processes underlying interpersonal processes depends. This specific problem consists in increasing the understanding of the relation between the actor's frame of reference (the system of the person's perceptions of and attitudes toward the situation), and the objective, social situation existing in the group. This is the problem in essence; it will be developed and clarified in the following section in terms of its bearing upon the theory of communicative acts.

The Theory of Communicative Acts

Theorizing has been stimulated by the multitude of researches showing certain dependable relationships existing among certain sets of variables, viz., communication, attraction, and attitudes. Homans (1950), Heider (1946, 1958), Festinger (1950, 1957a) and Newcomb (1953, 1958b, 1959a) are somewhat similar in their attempts to link communicative behavior to the (attitudinal) orientations of individuals.

Newcomb attempts to provide a psychological framework for interpreting interaction, which will at the same time be sufficient for generating group properties. The theory is most explicitly outlined by Newcomb in the article entitled "A Theory of Communicative Acts" (1953) and later in "Individual Systems of Orientations" (1959a), and has been summarized by McGrath (1955) and Nordlie (1958). To gain an initial overview, the theory is outlined on the psychological level as follows:

> . . . a) accurate communication tends to result in increased attitudinal similarity, cognitive or cathectic or both, between

> transmitter and receiver of a communication with regard to the object of communication; b) socialized human beings find accurate communication rewarding, and therefore acquire motives of achieving attitudinal similarity; c) the rewards of accurate communication tend to become attached to co-communicators, as persons, as well as to the achievement of attitudinal similarity; d) an individual's attitudes toward persons, as co-communicators . . . tend to maintain a relationship of congruence with that individual's own attitudes, and with his attribution of attitudes to the co-communicator, in a manner which can best be accounted for by the assumption of an equilibrium-inducing force . . . labeled "strain"; and e) strain tends to induce equilibrium-restoring behaviors, including changes in attitude or in attraction, attributions of the same kinds of changes to the co-communicator, by means of which other changes are effected. (In "The Cognition of Persons as Cognizers," Newcomb, 1958b)

In a later paper (1959a), the theory is more generally described in terms of the overall processes involved:

> 1. Cognitive and cathectic predispositions (attitudes or orientations . . .) are acquired, interdependently, toward persons and toward objects of communication with those persons.
> 2. Simultaneously, beliefs are acquired concerning the attitudes of fellow-communicators toward objects of communication with them.
> 3. With regard to specific persons (or groups) and specific objects (or classes of objects) of communication, attitudes and beliefs about other's attitudes come to function interdependently as a system having equilibrium properties.
> 4. Communicative exchange is initiated by individuals under conditions of system disequilibrium.
> 5. System modifications tending toward restored equilibrium follow such communicative exchanges.
> 6. The new state of equilibrium tends to persist until it is disturbed by the receipt of new information (by direct sensory experience with the object, by communication with others, or by processes of memory, reasoning, fantasy, etc.), following which there is renewed instigation to communicative exchange. (In "Individual Systems of Orientations," Newcomb, 1959a)

The Theoretical Problem

As noted, the general aims of the theory of communicative acts are to provide a psychological framework for interpreting interaction processes which is at the same time sufficient for understanding the interpersonal processes underlying group structure and func-

tioning. Thus far, the theory, in terms of its explicit formulation, has realized its first aim to a greater degree than its second aim. To elaborate, the theory at present is formulated in terms of the phenomenal system of the individual, i.e., in terms of the individual's system of orientations of attraction toward the co-communicator and attitudes toward the objects of communication. Statistically, the major hypotheses of the theory of system strain are well supported at this level. It has been directly or indirectly tested by Barlow (1953), Kapos (1953), Lau (1954), McGrath (1955), Mellinger (1955), Nordlie (1958), Runkel (1956), Steiner (1952), and White (1953). In the early article on communicative acts (1953) and in a later article specifically dealing with the social psychology of consensus (1959b), Newcomb demonstrates how group properties can be derived and arise out of communicative practices. In the major formulations to date, viz., "Individual Systems of Orientation" (1959a), he suggests how the theory may be applied to systems of relationships and orientations existing between communicators, to explain the interrelationships between communication, objective similarity of attitudes, perceived similarity of attitudes, and attraction.

The other comparable theories of social communication cited above differ in their emphasis upon the psychological system of attitudes of the individual or upon the objective system of relationships existing between co-communicators. Heider's emphasis is upon the role of cognitive structuring, i.e., in his early article (1946) he was concerned with the way relations among persons involving some impersonal entity are cognitively experienced by the individual. He has maintained this psychological unit of analysis in his later formu-

lation, The Psychology of Interpersonal Relations (1958). At the other extreme is Homans who leans heavily upon social system requirements in accounting for interactive phenomena. His chief concern is to describe group properties in terms of hypothesized relationships among frequency of interaction, sentiment (i.e., liking), activity, and group norms (1950). Festinger's early theorizing of social communication (1950) was concerned with the interpersonal aspects; the variables of "pressures toward uniformity," perceived discrepancy, attraction to the group, and expected success of influence attempts were all systematically related to the "forces to communicate." He has more recently turned to a consideration of cognitive structures and their relations to individual behavior, in his theory of cognitive dissonance (1957a). In brief, each of these theories tends to concentrate either upon the phenomenal system of the individual or upon the relations of interaction existing between communicators, although Newcomb and Festinger approach an intermediate position. One direction in advancing a fuller understanding of the determinants and consequences of social communication is an approach more highly integrating the two levels of analyses.

An extension of Newcomb's theory of communicative acts in the direction of a more integrated emphasis, specifically in generalizing the system of concepts developed on the phenomenal level to the objective level, depends upon dealing with several problems, one of the major ones being that of the relationship between the objective and phenomenal systems.

If the relationship between the phenomenal system of the individual and the objective systems of orientation were a simple

one, for instance being a direct one-to-one relationship, no problem would exist; one could be predicted from knowledge of the other. But the relationship is determined by a host of factors arising from both personality and situational requirements and hence the correspondence would be expected to be complex.

It is the premise of this thesis that the processes occurring on the phenomenal level as the person simultaneously orients to communicators and objects of communication, or "co-orients," consists of autistic and realistic processes operating in varying degrees. It is these processes which mediate the relationships between the phenomenal and objective systems. We will call "autistic" intra-psychic processes occurring in response to personality needs and without reference to the requirements of the social situation; on the other hand "realistic" will designate processes occurring in response to the demand and requirements of the social situation.

The major problem to be explored in this thesis is then the operation of autistic and realistic processes in co-orientation evaluated with reference to the relation of the phenomenal system of the individual and the objective systems of relationships existing between himself and other group members. Newcomb has recognized the problem by stating that co-orientation invariably involves the dilemma of integrating personality needs, social reality, and empirical reality (1961). We will illuminate the problem by showing how processes arising in meeting this dilemma operate in various aspects of the communicative act. These processes will be examined as they mediate, influence, or determine the various phenomena with which the theory of communicative acts is concerned. We may further

increase our understanding of these processes by considering the more distal influences impinging upon the phenomenal system which correspond and give rise to autistic and realistic processes in co-orientation, viz., certain sets of personality and situational factors.

Let us develop the problem further by considering how it is involved in the various phenomena of the communicative act which the theory attempts to explain.

The Implications of the Theoretical Problem for the Theory of Communicative Acts

Tendencies Toward System Balance and the Postulate of System Strain

The first major postulate assumes the interdependence of orientations toward people (attraction) and orientations toward common objects (attitudes). On the phenomenal level, the individual attempts to maintain congruent patterns among his own attitudes, the attributed attitudes of others, and his relationships with others as co-communicators. In effect, it is assumed that there are forces toward balance. Specifically, the end states toward which tendencies toward balance are posited to move are as follows: (1) perceived agreement between own and estimated attitudes of others under conditions of high, positive attraction, or (2) perceived discrepancy between own and estimated attitudes of others with whom there is not strong positive attraction.

Not only does the theory deal with the equilibrium of systems of orientations but is especially concerned with the problem of system disequilibrium. This is the concern of the postulate of system strain. The postulate is stated as follows: "Certain combinations of a per-

son's orientations toward a co-communicator and toward an object of communication, together with the co-communicator's perceived orientations toward that person and toward the same object of communication (all of which orientations are viewed as constituting a system) are strain-inducing." Particularly, systems of orientations which are strain-inducing constitute perceived discrepancy between own and other's attitudes under conditions of high attraction and of important and relevant common, attitudinal objects. Under these conditions forces are set up to achieve balanced orientations.* Amount of strain, as a system variable is posited to vary with: 1) degree of perceived discrepancy, 2) significance and degree of attraction, 3) importance of the object of communication, 4) certainty ("committedness") of own orientation, and 5) object relevance. Newcomb has recently expanded his model to include both cases of strain arising from attitudinal discrepancy, and strain arising from uncertainty as to other's orientations, and for instances of both positive and negative attraction (1959a).

Let us examine the balance postulate more closely: From

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*Such strains toward symmetry (1953) or toward balance (1958b, 1959a) are similar to Heider's balance postulate (1946, 1958) limited to two and three entity systems in which an entity may be a person or an impersonal object. Heider's major hypotheses are: "1) If no balance state exists, then forces toward this state will arise; 2) If a balance state cannot be achieved, then the state of imbalance will produce tension." A theoretical paper extending and generalizing Heider's theory to deal with the problems of unsymmetric relations, units containing more than three entities, negative relations, relations of different types, and to include social systems as well as cognitive fields has been offered by Cartwright and Harary (1956) and tested by Morrisette (1956). Further, the strain postulate bears some correspondence to Festinger's "pressures toward uniformity" (1950) and his more recent theory of cognitive dissonance, which employs a decision-making and social reinforcement model (1957a).

behavioral tendencies, the theory postulates forces toward balance. In effect, this is an inference made from the consistent and general tendency of individuals to actually achieve and maintain balanced systems of orientations. These tendencies appear to be largely a function of and have their source in autistic processes. These individual tendencies toward a resultant system of balance somehow parallel consensual orientation on the social system level. Achievement of balanced relationships is reinforced in the person's social experience, because it is a requirement of the social situation. Consequently, a motive toward the achievement of balance is acquired and the occurrence of strain-induced tension which activates the person in the direction of reducing strain (Newcomb, 1959a).*

A further analysis of the requirements of "co-orientation" would lead us to believe that there are also reality determined processes, which correspond to other requirements of the social situation. One other such social system requirement appears to be that of obtaining optimal predictability of the attitudes and acts of co-communicators. The inference is made from the fairly well-substantiated phenomenon of increased accuracy with communication (see the review by Reed, 1959). Similarly, achievement of accurate assessment of others' orientation, because of its required nature, is socially rewarded and may acquire motivational significance. Newcomb posits that system strain, and hence communication, may arise out of uncertainty as to others' orientations (1959a). Indeed, G. A. Kelley in his cognitive approach to a personality theory (1955),

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*Heider (1946) and Festinger (1957a) make a similar assumption of the motivational character of strain, "imbalance" or "disonnance," respectively.

considers accurate prediction to be the goal of psychological processes. But prior to 1961, Newcomb has not dealt systematically with the interplay of autistic and realistic forces. (See, however, his forthcoming monograph, 1961.)

First, we will establish the fact that both of these sets of tendencies occur in the communicative act, i.e., that, in general, individuals respond to both sets of requirements. Our first consideration is to examine the occurrence of this tendency toward balance, and particularly to assess how the interaction process over time affects the behavior occurring as a result of this tendency. We predict that the tendencies toward balance constantly occur at all stages of the acquaintance process, whether autistically or realistically determined. We will also substantiate the fact that individuals are responding in terms of the reality requirements of the situation, which are mediated by communicative exchanges between communicators. The prediction is that of increases in accuracy with communication.

The crucial consideration will be that of determining how the joint effects of both autistic and realistic processes operate in the communicative act. To explore the simultaneous operation of these processes as they occur with developing acquaintance or with frequent communicative exchange between group members, we may ask first what is the relationship or correspondence between the phenomenal system of the person and the objective relationship existing between himself and others. From the degree of correspondence we will infer the relative contribution of autistically oriented or reality oriented processes; we predict the correspondence to increase with interaction, i.e., a decrease in the operation of autistic

factors and an increase in the operation of realistic factors:

> Hypothesis I: Tendencies toward balance are initially autistic, there being little relation between the objective and phenomenal systems; with interaction, tendencies toward balance become more realistic, there being an increased relation between the objective and phenomenal system.

A complementary way of exploring the interaction effects existing among autistically determined and reality determined processes is to examine more directly how tendencies toward balance and tendencies toward accuracy are interrelated over time, i.e., with interaction. Does one tendency occur at the expense of the other, or do individuals attempt to meet both sets of requirements which give rise to these tendencies? Stated differently, are autistic and realistic processes invariably in conflict as is popularly believed? If the correspondence between the objective and phenomenal systems increases with interaction, we may expect phenomenal systems of balanced orientations to be changed in the direction of the objective systems of orientations existing between the person and the co-communicator. This is not to deny the possibility that the objective system may be changed in the direction of the phenomenal system. We will assume that these tendencies toward balance and toward accuracy, with interaction, increasingly complement one another. The question to be explored may be stated in terms of the following hypothesis:

> Hypothesis II: The incidence of system strain or balance occurs in the initial stages of acquaintance without regard to accuracy requirements, i.e., autistic processes predominate; with interaction, tendencies toward accuracy and balance complement one another, i.e., the incidence of accurately balanced systems increases.

Variations in Autistic and Realistic Processes in System Strain and Balance—Individual Mechanisms

A second problem with regard to autistic and realistic processes in co-orientation has implications for the postulate of system strain and balance; it consists in explaining the conditions of which these processes are a function and under which they vary.

The first problem is the question of the generality of autistic and realistic processes in co-orientation. We are raising the question of consistent individual differences in the operation of these processes. The assumption is made that individuals differ in terms of their general autistic or reality orientations. If such differences in general, autistic-reality orientations, exist among persons, they would be expected to crucially affect the manner in which individuals operate under conditions of co-orientation, particularly in their relative tendencies toward balance, toward estimates of others' orientations, and how they interrelate and respond to both autistic and reality requirements. Cognitive theories (see the review by Scheerer, 1954) and motivational theories of personality (see the review by McClelland, 1953) respectively assume the predominance of a reality orientation or an autistic orientation on the part of the individual. Perhaps for individuals in general each assertion is partially valid, but individual variations in this respect also occur. Such a statement of relative degree of autistic or realistic orientation is a central postulate of G. A. Kelly's theory of personality (1955). Empirical research has pointed up some indirect evidence in support of our assumption. For example, Hovland and his associates (1953) have suggested the possibility of consistent individual

tendencies in degree of conformity, which may be related to personality predispositions. Results in the area of accuracy of social perception (see the review by Reed, 1959) indicate wide individual variations in accuracy, but are conflicting as to whether there is a general tendency to be accurate, and especially an empathy trait, which individuals possess to various degrees. Finally, Festinger (1957a) has suggested, on the basis of his findings, that individuals may consistently differ in their tolerance of cognitive dissonance. Together these findings, as applied to the conditions of co-orientation, suggest the possibility of consistent individual differences in the degree of their tendencies toward balance and toward accuracy. In effect we are asking an important question of relevance to the postulate of system strain and balance, viz., the generality of autistic or realistic orientations. The first two phenomena indicative of autistic and/or realistic orientations are tendencies to assume balance, and tendencies to be accurate. While they are exploratory questions, they are stated as follows:

> Hypothesis III: Individuals consistently* differ in their tendencies to have balanced systems, i.e., in the degree to which they interrelate attraction and perceived agreement.
>
> Hypothesis IV: Individuals consistently* differ in their tendencies to be accurate, i.e., the ability to estimate other's orientation accurately is an individual constant.

In addition, two other related phenomena are considered which are inferred to be indicative of the relative degree of autistic or realistic processes operative in co-orientation, the first being the tendency to be accurate under conditions of system strain and

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*Consistency means both with reference to different stages of the acquaintance process and with reference to different attitudinal objects.

balance. We view the conditions of system strain and balance as an especially important case under which autistic and realistic processes will be operative. The reasons for this assertion are as follows: The conditions of high positive attraction involved in generating strain or balance will be on the one hand especially likely to give rise to autistic distortion, but on the other hand will increase the possibilities of communicative exchange and hence the probabilities of accurate appraisal of others' attitudes. Further, the presence of system strain itself is assumed to give rise to psychological stress and hence may increase processes of autistic distortion, but balance-inducing forces and the attainment of balanced systems may also occur either through processes of autistic distortion or realistic appraisal, particularly in view of the importance and relevance of the attitude to the individual. Mellinger (1955) found that accuracy of judging others' attitudes varies directly with frequency of communication within the middle ranges of "liking" and the higher ranges of "trust." Apparently the extremes of "liking" introduce autistic distortion, and low degrees of "trust" make it difficult to evaluate information received. This suggests that especially the conditions of strain or balance impose and give rise to autistic processes, which may conflict with accuracy requirements, and to which individuals differentially react. The possibility of consistent individual differences in degree of distortion, or conversely accuracy, under conditions of strain and balance will be explored:

> Hypothesis V: Individuals consistently differ in the degree of accuracy of their systems in strain and balance.

Further additional individual mechanisms in system strain and balance are suggested by studies of social perception influenced by psychoanalytic schools of thought. Individual mechanisms have been postulated in the literature to account for the interrelationships of real similarity and assumed similarity, so called instances of "projection," "denial," and "empathy" (Read, 1959). Despite the consequent methodological problems and conceptual ones raised by Cronbach (1955) and others, may not such processes be operative in cases of system strain and balance? Perhaps, even, the conditions of strain and balance particularly give rise to these processes of distortion and displacement, realism representing forces toward accuracy (i.e., when assumed similarity equals real similarity), autism (when assumed similarity is greater than real similarity), and contra-autism (assumed similarity less than real similarity). The only directly suggestive evidence is that of Kapos (1953) and Lau (1954), who found that inaccurate judgments of the attitudes of attractive others, whether individuals or groups, tend to be strain-reducing--a process of "autistic displacement of other's attitudes toward agreement with oneself."

As an indication of either the operation of autistic or realistic processes, we are interested in the specific individual mechanisms of distortion or accurate appraisal under conditions of system strain and balance. The question is stated in hypothesis form:

> Hypothesis VI: Individuals differ consistently in their degree of distortion under conditions of strain and balance; they differ in the degree to which they assume greater similarity or dissimilarity than real similarity under conditions of strain and balance.

A second step in furthering the understanding of how autistic and reality requirements are mediated and jointly act together in the communicative act, and particularly how individual mechanisms in response to these requirements operate in system strain and balance, is to consider the more distal influences impinging upon the phenomenal system of the individual, which give rise to these autistic and realistic processes:

We have posited that processes occurring in the communicative act, especially which determine the correspondence between the phenomenal and objective systems, arise from intra-psychic processes occurring in response to personal needs without reference to the requirements of the social situation and from inter-personal processes occurring in response to the requirements of the social situation. On the psychological side, we have posited that individuals differ in their generally autistic or realistic orientation; such orientation appears to be a general personality predisposition. On the situational side, certain variables and conditions in the group, such as group status, appear to give rise to either autistic or realistic processes on the part of group members. We have selected certain personality and situational factors which on the basis of theorizing and research seem to be tapping autistic or realistic orientations and/or which give rise to autistic and/or realistic processes. By selecting variables from the personality and social system levels, we will attempt to assess the interplay between these sets of factors in determining autistic and realistic processes and requirements in the communicative act.

In support of the assertion in the above paragraph, further

discussion is in order: It has become almost a truism that the manner in which the individual perceives, cognizes, and relates to his environment is, to an important extent, a function of personality factors. That, in understanding and accounting for the variance in interaction, we need to consider the operation of personality factors has been demonstrated by numerous and diverse studies focused at all levels of social organization. The extensive reviews by Mann (1958) and McGrath (1958) of experimental studies in small groups show consistent and direct relations between personality dimensions and different types of behavior in small groups, including aspects of interpersonal perception processes, influence, and conformity behavior. With regard to these latter aspects of social behavior, variables of motivation and adjustment or general orientation to the environment loom large in accounting for the variance. We have selected three variables which, in terms of the literature, appear to be especially relevant in accounting for the operation of autistic and realistic factors in the communicative act: the F-scale, and two measures of general motivation, the need for achievement and the need for affiliation. In terms of theoretical formulations (Adorno, et al. 1950, and Sanford, 1956) and research results, as reviewed by Christie (1958), we may (for reasons noted below) expect authoritarianism to play a critical role in different phases of the processes involved in the dynamics of system strain and balance, particularly since it appears to measure how autistically or realistically the person orients to his environment. And the motive structure of the individual should influence, to some extent, the relative contribution of autistic and realistic processes in co-orientation, particularly in view of the dependable

relationship found between need for achievement and need for affiliation and conformity (McClelland, et al., 1953; Atkinson, 1958). And these specific dimensions appear to be tapping a general inner (i.e., intra-psychic) or outer (social) directedness on the part of the person.

On the situational side, an impressive array of studies have shown the relatively predominant role of group status variables, such as leadership, power, and friendship relations in determining and mediating processes of social perception, communication, influence, and conformity and deviation. (See, for example, the review by Lindsey and Borgatta, 1954, and also the review by Kelley and Thibaut, 1954). Of the major theories of social communication, it is especially Festinger who has included them in his formulation (1950). It is particularly in its potential in mediating either autistic or realistic processes that we have included one index of social power (French, 1956), viz., popularity status, as a variable which may, to a significant extent, influence the dynamics and processes operative in the communicative act.

We have thus far considered individual differences in tendencies toward balance and toward accuracy, and individual mechanisms of distortion or displacement under conditions of strain and balance. We will now explore the possibility that these autistic and realistic processes may be set up by, and correlated with, factors impinging upon the phenomenal systems of the individual, viz., the personality and situational factors mentioned.

Both theory and research findings indicate that the authoritarian syndrome represents a type of general adjustment to the environ-

ment in which autistic processes loom large. The person comes to terms with his environment by assuming an overconforming position, at the expense of other requirements and demands of the situation, including those of accuracy and perhaps balanced relationships. He further achieves this position by an overemployment of defense mechanisms, which results in a relatively high degree of distortion, an irrealistic appraisal of the social world, and an ignorance of the social demands of the situation. Non-authoritarians are assumed to have a converse adjustment. We would expect authoritarianism to be related to the following processes in co-orientation.

In terms of the conceptual meaning of authoritarianism, particularly as it connotes a general autistic predisposition primarily oriented toward the fulfillment of personal needs, we would expect authoritarianism to be related to the following processes in co-orientation, especially in system strain and balance.

> Hypothesis VII. Tendencies toward balance are inversely related to authoritarianism.
>
> Hypothesis VIII. General accuracy of estimates of others' orientations, particularly, accuracy under conditions of strain and balance, is inversely related to authoritarianism.
>
> Hypothesis IX. Under conditions of system strain and balance, i.e., at high levels of attraction, authoritarianism is positively related to the degree of distortion, as specified by the relations of assumed to real similarity.

Depending upon the motive structure of the person, we would expect correspondingly differing needs and goals to be operative in the social situation and to influence the relative occurrence of autistic and realistic processes in system strain and balance. The achievement motive is "the striving for success in competition with some standard of excellence," while need for affiliation denotes

"the need for recovery, maintenance, or attainment of warm and supporting interpersonal relationships" or "motivation for social acceptance" (Atkinson, 1958). The former implies a person who is primarily object oriented, who places a premium on accuracy in order to achieve success. The latter implies an individual who is primarily oriented toward persons. We would therefore expect these motives to operate differentially in mediating autistic and realistic processes in co-orientation, specifically under conditions of system strain and balance:

> Hypothesis X. Tendencies toward balance are inversely related to need for achievement and positively related to need for affiliation.
>
> Hypothesis XI. General accuracy of estimates of others' orientations, particularly, accuracy under conditions of strain and balance is positively related to need for achievement and inversely related to need for affiliation.
>
> Hypothesis XII. Tendencies toward autism, i.e., the inverse of the tendency to relate perceived agreement to real agreement under conditions of system strain and balance, are negatively related to need for achievement and positively related to need for affiliation.

A consideration of our situational predictor is now in order. That achievement and consequent position in the social structure of a group determines the occurrence of conformity or deviation, exertion of social influence, accuracy of estimates is well supported in the literature (Kelley and Thibaut, 1954; Lindzey & Borgatta, 1954). Such a position as degree of popularity status would be expected to mediate autistic or realistic processes in co-orientation, particularly under conditions of system strain and balance. Members high in popularity, in contrast to those low in this respect, may be expected to achieve status in terms of their relatively realistic orientations and

adjustment; they may also be expected to maintain it, not only for this reason, but because they are in a position to determine what "social reality" will be, e.g., in exerting social influence. (It is realized, of course, that there are many other bases for popularity.) Therefore, the following hypotheses are stated:

> Hypothesis XIII. Tendencies toward balance are positively related to popularity status.
>
> Hypothesis XIV. Degree of accuracy of estimates of others' orientations, especially accuracy under conditions of strain and balance, is positively related to popularity status.
>
> Hypothesis XV. Under conditions of system strain and balance, tendencies toward autism, i.e., the inverse of the tendency to relate perceived agreement to actual agreement, is inversely related to popularity status.

Tolerance and Thresholds of System Strain

Newcomb's first postulate states that certain states of systems of orientations are strain-inducing. He goes on to further specify the conditions under which such imbalanced systems result in stressful effects: "Amount of strain, as a system variable, is postulated to vary with 1) degree of perceived discrepancy, 2) sign and degree of attraction, 3) importance of the object of communication, 4) certainty ("committedness") of own orientations, and 5) objective relevance" (1959a).

A third question, relevant to the postulate of system strain, is the differing motivational significance of strain to the individual. Results on conformity processes indicate that individuals differ in their susceptibility to pressures toward uniformity, which may be related to basic personality predispositions (Mann, 1958; Festinger, 1950). Similarly, Hovland and his associates (1953) suggest similar

phenomena in the area of mass persuasion. This suggests that such processes may be operative under conditions of system strain and balance. Festinger, in the concluding section of his book on a theory of cognitive dissonance (1957a), points out that there are individual differences among people in the degree to which, and in the manner that, they react to the existence of dissonance. He suggests that this variation in "tolerance for dissonance" may be related to basic personality patterns.

Therefore, thresholds for phenomenal system strain, i.e., the point at which system changes will occur, may vary among individuals, and individuals may be able to tolerate different degrees of strain. McGrath (1955), in view of these facts, has shown that a phenomenal definition of system strain is needed. Barlow (1953) has shown that tolerance of perceived discrepancy--i.e., maximum discrepancy beyond which changes in systems of orientations are likely to occur--tends to be an individual constant, and is related to personality measures purporting to measure "conformity." White's findings (1953) suggest that situational factors may also be operative. It was found that strain is tolerated for some subjects in the experimental situation because, presumably, to reduce it by attitude change would induce still greater strain in other, competing systems of orientation.

These findings suggest that the impact of system strain upon the individual consists of a threefold problem: 1) tolerance for system strain may be an individual constant, 2) individuals may consistently differ in their thresholds of system strain, 3) the degree of reaction to system strain may differ among individuals. (The last problem will be considered in the following section.)

The first question remaining unanswered by these suggestions and findings is that of the operation of autistic and realistic factors operative in determining tolerance of system strain, or how tolerance of phenomenal strain is determined, or related, to the objective situation. In terms of the hypothesis of an increasing correspondence between the phenomenal and objective system we posit that tolerance of phenomenal strain is initially autistic in origin. We have assumed also that individuals act realistically in terms of the social requirements of the situation. Consequently, we predict that after communicative exchange individuals tolerate strain because of the existence of the conditions of strain in the objective system.

> Hypothesis XVI: Whether strain is tolerated or not bears little relation to presence or absence of objective system strain in the initial stages of the acquaintance process; following interaction, phenomenal system strain is tolerated when it is a reflection of, or corresponds to the presence of objective system strain.

To elaborate, a notion of tolerance of system strain from which the operation of autistic and/or realistic processes may be inferred is as follows: The following combinations of systems in strain or balance varying in accuracy (i.e., in degree of correspondence to the objective system) are possible: 1) accurately balanced, 2) accurately imbalanced, 3) inaccurately balanced, and 4) inaccurately imbalanced. The presence of accurately imbalanced systems would seem indicative of a realistic tolerance of system strain, while from the occurrence of an inaccurately balanced set of systems we would infer an autistic intolerance of system strain. (From an accurately balanced set of systems we would not be able to ascertain whether the person would tolerate strain or not.) Conse-

quently, hypothesis XVI could be stated to the effect that with interaction, the incidence of inaccurately balanced systems decreases and the incidence of accurately imbalanced systems increases, other things being equal (occurring within the general trend of an increase in accurately balanced systems predicted in hypothesis II). We will consequently infer a realistic tolerance of system strain from accurately balanced systems and an autistic intolerance of system strain from inaccurately balanced systems, especially after interaction.

In terms of this revision of viewing tolerance of phenomenal system strain in relation to objective system strain, we will first explore the possibility that individuals may consistently differ in how autistically or realistically they tolerate strain. The prediction is:

> Hypothesis XVII: Individuals consistently differ in the degree to which they are realistically tolerant of system strain, or conversely, autistically intolerant of system strain.

We explore further the second question of individual differences in sensitivity to strain, particularly concerning ourselves with the problem of the constancy of individual thresholds.

> Hypothesis XVIII: Thresholds of system strain are an individual constant.

It is the premise of this thesis that both autistic and realistic factors are operative in the dynamics of system strain and balance. The findings reviewed above point strongly to the possible operation of personality factors in interpreting the phenomena of individual differences in thresholds and tolerance of system strain. As noted, they seem to suggest that the differences may be explained in terms of a general intolerance for ambiguity factor and a generaliz-

ed conformity predisposition, briefly in terms of either a general autistic or realistic orientation of the person.

The hypotheses stated together are as follows:

Hypothesis XIX: Realistic tolerance of system strain (or conversely autistic intolerance of system strain) is inversely related to authoritarianism and need for affiliation and positively related to need for achievement.

Hypothesis XX: Thresholds of system strain are negatively related to authoritarianism and need for affiliation and positively related to need for achievement.

But situational factors may be operative also in determining when system strain will be tolerated, and sensitivity to strain or thresholds of system strain may be a function of situational demands or opportunity. Specifically, positional status in the group may be determined by high sensitivity to the orientations of other group members. On the other hand, high status, especially with regard to power and leadership, may bestow upon the person freedom to tolerate much system strain without pressures arising to change. But, in general, we would expect high status group members, as compared to those low in this respect, to be acting realistically in terms of the requirements of the situation. In terms of our one index of positional status in the group the following relationship may be expected to obtain:

Hypothesis XXI: Realistic tolerance of system strain (or conversely autistic intolerance of system strain) is positively related to popularity status.

Hypothesis XXII: Thresholds of system strain are negatively related to popularity status.

Autistic and Realistic Factors in the Dynamics of System Strain and Balance

Up to this point, we have focused upon questions raised in the examination of the first postulate of Newcomb's Theory of Communicative Acts. The questions have been concerned with static processes, i.e., with systems of balance or strain at particular points in time. The theory states that strain tends to induce equilibrium-restoring behaviors, i.e., system changes. While the model is equilibrium-like and systemic in nature, it is to an important extent concerned with change in response to strain, as a function of either autistic processes or communicative exchange.

It is especially with regard to the dynamics of system change that the theory is weakest. The postulate of system change leaves unanswered several questions. The first pertains to the question of the impact of system strain, or the degree of change in response to strain. The second is that of evaluating system changes in terms of how autistic or realistic are the reactions. The third has to do with predicting the nature or content of specific system changes. Again we are raising the possibility of individual differences and the differing contribution of autistic and realistic processes in the dynamics of system strain reduction. These three questions will be considered in turn.

Degree of Change in Response to System Strain

All the major theories of balance assume that pressures to achieve balance are a direct function of the amount of disequilibrium. For example, Festinger (1957a) states: "1. The presence of dissonance gives rise to pressures to reduce that dissonance. 2. The strength

of the pressure to reduce dissonance is a function of the magnitude of the existing dissonance." But the question is raised here as to whether actual system changes are a direct function of amount of strain. According to Newcomb's theory, strain sets up equilibrium-restoring behavior, but as to whether balance will be achieved would seem to depend upon a complex of conditions, including the autistic and realistic processes operative.

Just as it was suggested that individuals may differ in degree of tolerance of system strain, so a related question, important to the theory, is that of individual differences in response to strain. We have noted that recent research indicates that individuals react differently in response to pressures toward uniformity. It is important to determine how uniformly individuals are able to achieve system changes in the direction of balance in response to strain. We venture the following hypothesis to be tested:

> Hypothesis XXIII: Individuals consistently differ in the degree of balance restoring system changes in response to strain.

If individual differences are found to obtain, this would seem to indicate that variables are operative which modify any direct relationship between amount of strain and degree of resultant system changes in the direction of balance. Again we raise the possibility of the operation of certain personality and situational factors.

As noted, both authoritarianism and need for affiliation seem to be tapping a general conformity predispostion. Authoritarians, because of their intolerance of ambiguity and need for compliance with power figures, would seem to attempt to reduce strain more than non-authoritarians. The satisfactory social relations sought by a

person high in need for affiliation would seem to be contingent upon compliant behavior or strain reducing behavior. A person high in need for achievement would seem to be one who is more oriented toward success over others than to receiving affection from them; and, hence, a person high in this respect would attempt to restore balance less than a person low in this respect. The predictions are as follows:

> Hypothesis XXIV: Extent of balance-restoring behavior in response to system strain is positively related to authoritarianism and need for affiliation, and negatively related to need for achievement.

It would seem that, while pressures toward strain-reduction may be to an important extent a function of personality factors, actual strain-reducing system change, in a large proportion of the instances, would be a function of situational opportunity. The achievement and maintenance of group status, particularly with regard to the power structure of the group, seems to be particularly contingent upon response to group influences. But also, group status may confer freedom to deviate or to have imbalanced relationships. Therefore the following hypothesis is advanced (the direction of the relationship is not specified):

> Hypothesis XXV: Extent of balance-restoring changes in response to strain is significantly related to popularity status.

Autistic and Realistic Reactions in Response to System Strain

The second question pertaining to the postulate of equilibrium-restoring system changes in response to strain is that of the autism or reality of the resultant system changes. We have considered other possible requirements of the situation, beside the achievement

of balance, viz., the requirement of accuracy. It is again important to the theory to know how uniformily autistic or realistic responses to system strain are made. Are the relative tendencies toward accuracy and toward balance in response to strain an individual constant? Does one individual consistently reduce strain autistically at the expense of accuracy, while another adapts realistically, even perhaps at the expense of maintaining phenomenal strain? It is not only important to know whether reactions to strain are in general autistic or realistic, but also how uniform for each individual such pressures are. Again the theory must come to terms with the phenomenon of individual variation. It is probable that some individuals adapt to their environment in a relatively autistic manner, while others do so in a relatively realistic manner, other things being equal. The hypothesis is as follows:

> Hypothesis XXVI: Individuals consistently differ in terms of the frequency of autistic or realistic modes of system strain resolution, i.e., in the degree to which both increases in balance and accuracy occur in response to system strain.

As mentioned, degree of authoritarianism and need for affiliation seem to be tapping the degree of autistic orientation to the environment, while need for achievement and popularity status are expected to give rise to reality-oriented processes. Therefore, the predictions considered together are:

> Hypothesis XXVII: Extent to which increases in both balance and accuracy occur in response to system strain is negatively related to authoritarianism and need for affiliation and positively related to need for achievement and popularity status.

Modes of Resolving System Strain: The Content of Specific System Changes

The final question raised with regard to the dynamics of

system strain and balance concerns modes of reaction to system strain. The postulate of strain reduction in response to disequilibrium states: "The interdependence of relationships within systems of orientations is such that alternative intra-system changes may have equivalent effects upon strain" (Newcomb, 1959a). Hypothetically, strain may be reduced under any of the following conditions: 1) by reduction in the strength of attraction; 2) by reduction of objective ("own") object relevance; 3) by reduction of perceived ("other's") object relevance; 4) by reduction of objective ("own") importance of the object by communication; 5) by reduction of perceived ("other's") importance of the object of communication; 6) by changes in cathexis or in cognitive structuring of own attitudes, such that there is increased similarity with the other's perceived attitudes; and 7) by changes in perceived attitudes (cathectic or cognitive) of the other, such that there is increased similarity with own attitudes. Any of these changes hypothetically may occur with or without communication. And in any given instance, once any one of these changes has occurred with strain-reducing effects, the probability that any of the others will occur is reduced.

The theory would have greatly increased predictive power if an individual's method of resolving system strain could be predicted: Under what conditions does one type of change occur as compared to another? For example, a rough hierarchy of probable changes has been stated by McGrath (1955) for one set of situational conditions. It is possible that the styles of system strain resolution may be inherent in the individual. Just as communication is a learned response to system strain, so may the individual acquire generalized

tendencies to prefer one method of strain reduction over another. We are proposing that there are hierarchies of probable modes of strain reduction which differ between individuals, which the individual consistently employs in varying situations, and which are conditioned by the degree of autistic or realistic orientation on the part of the individual.

> Hypothesis XXVIII: Individuals consistently differ in how autistic or realistic their styles or modes of system strain reduction are.

Again both autistic and realistic processes may be expected to condition the hierarchy of types of reaction in response to system strain. On the personality side, because of the employment of a variety of defense mechanisms, many varieties of changes may be expected for the authoritarian, while specific changes and those varying with the situation may be expected for the non-authoritarian.

People high in need for achievement as compared to those low in this respect, because they are judging the situation in terms of their own standards of excellence, should be expected to evidence specific changes or to employ one preferred style over another, in attempting to obtain balanced systems.

> Hypothesis XXIX: Reactions to system strain by authoritarians as compared to non-authoritarians, and by group members low in need for achievement as compared to those high in this respect, will be those of extensive system changes in the direction of balanced states or in the direction of dissolving the system.

Because of the autistic orientation on the part of persons high in need for affiliation or the realistic orientation on the part of popular group members, we hypothesize:

> Hypothesis XXX: Reactions to system strain in the direction of balanced states will be specific and varying with the

requirements of the situation on the part of group members low in need for affiliation as compared to those high in this respect and on the part of popular in contrast to less popular group members.

Summary

The chief objective of this thesis is to investigate the operation of autistic and realistic processes in the communicative act. It does this through the approach of examining the relationships between the phenomenal system of the individual and the objective systems of orientations existing between himself and others.

In terms of this objective, an exploratory investigation is undertaken assessing the interplay between autistic and realistic processes over time, employing three foci of investigation, viz., the systems of orientations of all subjects of a group, possible consistent variation between individuals, and personality and situational differences from which sources autistic and realistic processes are expected to arise.

Employing these three foci, different aspects of the communicative act are examined in which autistic and realistic processes are expected to be operative, specifically those of system strain and balance, sensitivity to system strain (specifically considering the question of tolerance and thresholds of system strain) and reactions to system strain.

An investigation of these phenomena, viewed from the three foci of analysis, has led to a set of interrelated hypotheses to be explored. The exploratory nature of the study is emphasized, the hypotheses in actuality being a set of questions raised with regard to different aspects of the general problem area.

CHAPTER II

PROCEDURE

The present study reports one phase of the Michigan Group Study Project, whose major aims were as follows: "1) To set up and maintain a functioning group, consisting of 15 to 20 students, initially strangers to one another, to live together in a project-sponsored house. 2) To use this research situation to test, modify, and expand a set of interrelated propositions about communicative acts and interpersonal influence. 3) To take advantage of this situation to study the developmental history of the group, and to utilize the research setting, as far as possible within practical limits, to study peripheral but related social psychological variables in relation to the development and functioning of the group" (Newcomb, McGrath, and Burdick, 1953).

Within this framework, the joint purpose of the present aspect of the study is to determine the operation of autistic and realistic factors in the dynamics of individual attitude systems and to explore the operation of individual mechanisms in the dynamics of system strain and balance. This chapter presents the empirical steps and operations taken to realize these purposes. The research setting is described and evaluated in terms of its adequacy in meeting the study requirements necessary to test the hypotheses generated in Chapter I. The basic variables and constructs are then outlined in conceptual form,

followed by the operations employed in defining them empirically.

The research setting has been more fully described by Newcomb (1961) and Nordlie (1958). As noted, the study was designed with the following requirements in mind: 1) It must constitute a natural group setting; 2) The group studied must be composed of members who, previous to the time that the observations were undertaken, had had no contact with one another or with the larger social environment of which the group is a part; 3) a group should in fact exist, i.e., there should be a common goal for the group members, the group situation should offer shared activities, and it should be such that the members are mutually dependent to the extent that the behavior of any member in the group can have consequences for other members; 4) there should be relatively unrestricted communication in which information exchange of all forms not only can occur, but, in fact, is likely to occur; 5) interaction over a long period of time should be established in order to permit the full play of dynamic processes; 6) the group should initially lack an imposed structure, i.e., the situation should be such that there is complete freedom for the group members to become related to one another along lines of their own choosing; and finally 7) the group should be normal in member characteristics, i.e., group members should be selected in such a manner that they represent the fairly typical heterogeniety to be expected in normal social situations in the larger context of which the group is a part. These conditions are especially relevant in this specific study in determining whether a relatively free play of autistic and realistic processes will occur under actual conditions of system strain or balance. That these requirements were met will become apparent after the

research setting has been described.

The Research Setting

In terms of the aims and requirements of the overall project, two different populations of 17 subjects were studied, each for a continuing period of 16 weeks. The present study is concerned with only the second population which, as will become apparent, was more appropriate in meeting the specific requirements of this study.

Subjects

Subjects were selected from a population of transfer students to the university, who would become sophomores or juniors upon entering. The selection was based on responses to a letter of recruitment explaining the research project and asking if the student was interested in living at the project-sponsored house, rent free, in exchange for making available four to five hours a week for answering questionnaires, being interviewed, participating in house meeting, etc. Thus, recruitment was first on the basis of subjects who wanted to live in the house under "fraternity-like conditions," as described in the recruitment letter, and/or who desired to save a semester's rent. The selection of the 17 students were made on the basis of the following criteria: 1) No two could come from the same previous school or could have lived in the same city; 2) religious affiliation should be distributed in proportions not greatly dissimilar to those found in the student community in regard to three main religious bodies--Protestant, Catholic, and Jewish; 3) all students should be within the age range of 18 to 26 (the latter limit designed to include veterans which should be distributed in a proportion similar to that

found in the student community; 5) foreign-born and races other than Caucasian were excluded; 6) approximately equal numbers of students should be enrolled in the School of Engineering and the College of Literature, Science, and the Arts.

Thus, the characteristics of the 17 students in the second group were: All white, male, transfer students, either entering as sophomores or juniors, with the following distribution on the other demographic variables:

Religious Affiliation	Veteran Status	School
9 Protestant	14 non-veterans	8 Engineering
4 Catholic	3 veterans	9 Lit., Sci., & Arts
4 Jewish	17	17
17		

Age	Home
Range: 18 to 24	No two had lived in the same city
Mean: 20.1	or known each other previously

House Arrangements

A large house within walking distance to the University campus was leased to serve as the research site. It accommodated 17 men, nine on the second floor and eight on the third; on each floor there were one or more singles, double, and triple rooms--three singles, four doubles, and two triples in all. On the ground floor, there were a large living room, a dining room, kitchen and pantry, and a reception room. Two basement rooms accommodated two research assistants.

Induction of New Arrivals

All of the men arrived the same day a week before the beginning of classes. Room assignments were arbitrarily made, before their

arrival. A meeting was held on the second day after their arrival, in which the general purposes of the project, and the manner in which the house was to be run were explained. These were as follows: 1) University rules and regulations concerning housing would be observed; 2) the group must decide on some two-hour period during the week which would be reserved for a weekly group meeting at which attendance was required and during which various research procedures would be conducted; 3) in addition, each subject would make available up to three hours during the week, at his own convenience, for the purpose of filling out questionnaires, being interviewed, etc.; 4) the group must decide on eating arrangements; 5) the group must be responsible for maintaining reasonable standards of cleanliness, particularly in the common living areas; 6) other than the above, the group was free to conduct itself in any fashion it chose.

Thus, the group members were free to organize in any fashion they wanted and to make whatever decisions suited them within the broadly prescribed limits. The group elected to hire a cook, and appointed committees to handle the buying of food. They set up rules and assigned responsibility for maintaining quiet hours and keeping the house clean. The group eschewed any formal organization--electing only persons to perform specific functions. Attendance at the 15 full-group meetings during the fall semester of 1955-56 was perfect.

Data Gathering Procedures

The data obtained were openly gathered and uniform for all subjects with full confidentiality assured. It consisted mainly of response to questionnaires, tests, and interviews. Each week for

the entire semester, each subject was required to fill out questionnaires, parts of which were the same for every week and parts of which were different. (The specific data employed in this study will be summarized in the section on operational procedures.)

Weekly Meetings

Regular two-hour weekly meetings were held, the general purpose being to facilitate communication and acquaintance, in the sense of providing planned opportunities for increasing each subject's information about other subjects. Toward this end, house-relevant business was freely discussed, controversial speakers on such topics as religion and politics were invited in order to "stir up" attitudes, occasional experiments were conducted in order to further communication exchange and acquaintance as well as to test specific predictions, as well as various other acquaintance-facilitating devices such as problem-solving and role-taking activities.

The Project Staff

The project was staffed by a director and four graduate research assistants, who participated in interviewing, administering questionnaires, and conducting the weekly project meeting. Two of the research assistants, with their wives, lived in the basement of the house, acting as house parents, as well as research assistants. All staff members' roles were that of friendly objectivity, extreme care being taken not to influence the attitudes of the subjects or their developing relationships. No behavioral observations were made without initially obtaining the consent of the subjects involved. The running of the house was left up to the group whenever possible.

A Summary of the Research Setting

Nordlie (1958) has summarized the research setting in terms of meeting the study requirements, which is paraphrased as follows: A group setting was created which could have existed independently of the study conducted. In many respects it was not dissimilar to a fraternity or co-op house. Motivation to participate in the research project was provided by the remuneration of free rent as well as the satisfactions deriving from a group experience. All group members were initially strangers, not only to each other, but to the University community as a whole.

The group was mutually dependent by the fact of having to live cooperatively together, to make common decisions affecting the group, and through engaging in shared activities. No restrictions on communication were imposed except that of the ecological distribution of members in the house. As noted, on the contrary, various devices were employed to stimulate open and free communication. Further, the group was completely free to organize itself in any way in terms of such factors as prestige, leadership, authority and role differentiation, and nothing was introduced into the situation to prevent this. Further, subjects were selected so that the group would be similar to the larger student community, as is apparent from the description of member characteristics (with the exception that all were transfer students). To this extent, the general requirements of the project were fulfilled.

The Basic Schema--Conceptualization of Variables

Chapter I considered the broad outline of Newcomb's theory of communication from the point of view of the problems remaining unex-

plored and the additional questions remaining unanswered. It was thought that a specific exposition of the model would detract from the purpose of the discussion at that point. To understand the meaning of the basic empirical variables and their systemic interrelationships, it remains necessary to map these variables into the model at this point. Such a contiguous consideration will make clearer the rationale for employing the specific variables utilized in this study. Prior to considering the basic data gathered, consequently, it is necessary to digress a bit and define the basic conceptual elements from which the various measures were derived (See especially Newcomb, 1959a).

Elements of the System

Basic to the systems of relationships with which the theory of communicative acts is concerned is the concept of orientation, formally defined as "that existing organization of the psychological processes of any organism which affects the direction and strength of its subsequent behavior with regard to a discriminable object or class of objects." Orientations are categorized in two ways: according to the role of the object of orientation in a communicative process (attitudes and attractions) and according to the psychological aspect (cognitions and cathexis). "Attitudes" are conceptually defined as orientations toward any object viewed as the object of communication, i.e., about which information may be transmitted and/or received." "Attractions" analogously are defined as "orientations toward co-communicators--specifically toward the source of a message, on the part of the receiver, or toward the recipient on the part of the

transmitter." Orientations have been categorized secondly as being either "cognitive" or "cathectic." The former refers to "approach-avoidance tendencies having the conceptual properties of sign and strength"; cognitive orientations have to do with "the ordering, or structuring of attributes as cognized 'in' the object of orientation."

Systems of Orientation

The fundamental postulate of the theory rests upon the view that all of the foregoing kinds of orientations, and of judged orientations of others, on the part of the same individual, are dynamically interdependent. The totality of these orientations is regarded as having system properties in the sense that a change in any one of them, under certain hypothetical conditions, induces changes in one or more of the others. In effect, the theory postulates the interdependence of a person's orientations toward other persons and toward objects of their common environment.

The Phenomenal System

This refers to the co-orientation of the person, i.e., the simultaneous orientation of a person to an object and to another person as viewed as being oriented to the same object. Three foci of an individual's phenomenal field are identified: A, the subject or cognizer; B, the other person toward whom A is co-orienting; and X, the object of A's and (phenomenally for A) of B's orientation. The phenomenal system of A consists of the following components: 1) A's orientation toward B, 2) A's orientation toward X, 3) A's estimate of B's orientation toward A, and 4) A's estimate of B's orientation toward X.

The Objective System

This consists of A's orientation toward B and toward X, together with B's actual orientation toward A and toward X. In the typical A-B-X schema the dotted lines refer or represent A's estimate of B's orientations, while the solid line represents A (and B's) actual orientation.



a) Phenomenal System b) Objective System

Figure 1. Schemata of the A-B-X systems

Additional parameters of the system are "object relevance" and "importance." "Object relevance refers to the degree of joint dependence of two or more communicators upon a specific object of communication, as judged by one of them." Or "alternatively it is the strength of forces acting upon an individual to co-orient toward a specified object and toward a specified other person." "Importance" refers to "the valence aspects of attitudes or to the degree of cathectic orientation toward an object regardless of sign."*

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*As noted in Chapter 1, where the X is relevant and important to both A & B, these components constitute an interdependent system in the following respects: 1. Certain patterns of these relationships are balanced patterns or states of equilibrium. Others are imbalanced patterns or states in disequilibrium. 2. There is a tendency for patterns to achieve balance and avoid strain. 3. A change in any part of the system will tend to be met by counterbalancing changes which tend to maintain equilibrium.

System Strain and Balance

The nature and conditions of interdependence among orientations and judged orientations of others depend upon the hypothetical intervention of the constructs of strain and balance. The concept of balance is conceived of as an end state toward which systems are postulated to move. Descriptively, positive balance exists most clearly where A-B orientations are positive and there is minimal discrepancy (in both sign and intensity) between A-X and estimated B-X orientations. Negative balance exists most clearly where the A-B orientation is negative and there is maximum discrepancy (in both intensity and direction) between A-X and estimated B-X orientation. Strain refers to a hypothetical state of psychological tension occurring under certain conditions of the co-communicators judged orientations in relation to one's own. The source of such tension is perceived discrepancy between own and estimated attitudes of B toward a common object when A-to-B attraction is high and positive. Negative strain is perceived agreement between own and estimate attitude of B toward a common object where the attraction between A & B is negative. Amount of strain as a variable is postulated to vary with 1) degree of perceived discrepancy, 2) sign and degree of attraction, 3) importance of the object of communication, 4) certainty of own orientation, and 5) object relevance. Each of these variables has been defined above.

Additional conceptual variables and constructs of concern in the present study, for example, tendencies toward accuracy, autistic and realistic processes involved in the relation of assumed similarity to real similarity, tolerance and thresholds of system strain, and

reactions to system strain may be derived from the elementary conceptual terms specified above, and have been conceptually defined in Chapter 1; their operationalization will be specified in Chapters 3-6 in which findings are reported.

In summary, the conceptual variables may be outlined as follows:*

I Independent Variables

A. Personality Variables

B. Group Status Variables

II Independent or Dependent Variables--Orientations of Individuals

A. Attraction (person-to-person orientations)
1. Cathectic (sign and strength)
a. liking (undifferentiated attraction toward another)
(1) objective liking (as reported by the subject)
(2) perceived liking (by member B for any other member) as judged by subject A
(3) accuracy of perceived liking (discrepancy between preceding judgments and B's objective liking for same member)
(4) perceived reciprocity of liking (discrepancy between A's objective liking for B and B's for A, as judged by A)

B. Attitudes (person-to-object orientations)
1. Cathectic
a. attitude (degree and sign of favoring or disfavoring)
(1) objective attitude (as reported by subject A toward object, X)
(2) perceived attitude (by member B toward object X, as perceived by subject A)
(3) accuracy of perceived attitude (discrepancy between preceding judgment and B's objective favoring
(4) perceived similarity of attitude (discrepancy between A's objective attitude toward X and B's attitude toward X, as judged by A)
(5) objective similarity (discrepancy between A's objective attitude toward X and B's objective attitude toward X)

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*The outline is incomplete with regard to Newcomb's schema--only those variables actually employed in this study are listed.

C. Object relevance* (person-to-object-to-person orientation)
   1. Relevance (of common object to self-other relationship)
      a. objective relevance (jointly for A and B as reported by A)
      b. perceived relevance (jointly for A and B as A judges it would be reported by B)
      c. accuracy of perceived relevance (as previously)
      d. perceived similarity of relevance (as previously)

III Intervening Variables

A. System Strain
   1. Discrepancy strain
      a. positive cathectic strain (toward similarity with positive attraction)
      b. negative cathectic strain (toward similarity with negative attraction)

IV Independent or Dependent Variables: Communication**

A. Amount of information transmitted

B. Amount of information received

The Basic Data

Measures of Attraction

A general measure of attraction was obtained, more or less compounding such aspects of attraction as "liking," "trust," "respect." The operation produced a rank ordering of the other sixteen subjects by each subject. In addition, each subject made estimates of how the other sixteen subjects would rank him in attraction. These sets of measures were obtained for each of the 16 weeks. Essentially, the questionnaire had the instructions to rate each other member on a 100 point scale in terms of how much he liked that member. (A rating

*Object relevance is not directly measured in this study, but rather represents a relatively controlled condition. The attitudinal objects were selected which were assumed to be of high and common relevance for all group members.

**Amount of communication is not directly measured in this study. As noted, conditions were set up to maximize communicative exchange between group members. Length of time is taken as an indirect index of experienced interaction.

of 100 represented the most liked person in the rater's experience, a rating of 0 the most disliked, and a rating of 50 represented complete indifference.) No two identical ratings by the same subject were permitted, ties thus being precluded. Therefore, it was possible to rank order the data. This measure was in terms of actual, felt attraction. Employing the same scale procedure, the subject was asked to rate how each of the other subjects would rate him with regard to attraction—this is termed "perceived reciprocal attraction."

From these basic data the following derived measures were determined: 1) perceived reciprocity of attraction—discrepancy between A's ranking of B and B's ranking of A as judged by A. 2) Accuracy of perceived liking—discrepancy between A's estimate of B's ranking of himself and B's actual ranking of A. 3) Popularity—this variable distinguishes among group members in terms of how generally each was liked. The operation for defining popularity was a rank ordering of the sums of attraction ranks received by every member from every other member.

Measures of Attitudes

The attempt for the second year was to obtain measures of attitudes which were relevant and important to each subject and which sampled a wide range of content. The validity of our analysis depends upon the degree to which these assumptions were met. Two attitudinal measures were selected for consideration in this thesis which seemed to meet these requirements: 1) The Spranger Value Measures and 2) B-to-C attraction measures.

General Values

The attempt was made to tap widely generalized attitudes, which would simultaneously be applicable to many specific situations and objects. The well known list of six values suggested by Spranger was employed as a source of this type of information. Rather than using the Allport-Vernon-Lindzey Study of Values (Allport, 1951), an alternative device was decided upon that would simplify the task of obtaining from each respondent estimates of the value positions of all other subjects. The procedure consisted in obtaining a rank-ordering, by each subject, of the importance of the six values to himself and also his estimates of how each other S would respond to the same task. These measures were taken at Week 2 and again at Week 14.

The instructions, in essence, were as follows: "Below are listed six important areas, or interests in life. People differ in the emphasis or degree of importance that they attribute to each of these interests. . . . Rank order the following in terms of <u>their importance to you</u> . . .

<u>Theoretical</u>: Interested primarily in empirical, critical, or rational matters--observing and reasoning, ordering and systematizing, discovering truths.
<u>Economic</u>: Interested primarily in what is useful and practical, especially the practical affairs of the business world--judges things by their tangible utility.
<u>Aesthetic</u>: Interested primarily in beauty, in form and harmony for its own sake--an artistic interpretation of life.
<u>Social</u>: Interested primarily in other human beings--human relationships and love are very important.
<u>Political</u>: Interested primarily in power and influence--leadership and competition are the key words descriptive of such an interest.
<u>Religious</u>: Interested primarily in the satisfaction and meaning to be derived from religious experience--interested in relating oneself to the unity of the universe as a whole."

The subject was then asked to estimate how each of the other subjects would rank order these sets of values. From these basic data the following derived measures were determined: 1) perceived similarity of attitudes, 2) objective similarity of attitudes, and 3) accuracy of perceived attitudes. 1) Perceived similarity of value rankings were operationalized as the rank-order correlation between own ranking of the six values and the ranking of B of the same values as estimated by A. 2) Objective similarity of the value rankings was operationalized as the rank-order correlation between A's ranking of the six values and the actual ranking of the values by B. 3) Accuracy of estimated values was operationalized as the rank-order correlation between A's estimate of B's ranking of the six values and B's actual ranking of these values.

B-C Estimates

Because the other house members were assumed to be the primary objects of co-orientation by the very "social-emotional" nature of the group, the following attitudinal measures were obtained which were thought to be both relevant and important to the subjects. This procedure consisted in obtaining estimates of attraction by a second person (B) toward a third (C) via a sampling procedure. Beginning with Week 2, each subject made 12 pre-selected B-C estimates, as determined by a random drawing from the total population of the 120 pairs, excluding the estimator himself, in the population. For each S, as estimator, three different samples were drawn, in such a manner that each of all 136 pairs were included in at least two of the 51 sets of pairs (17 S X 3 samples). Responses were made in successive weeks to the three samples, and then the same cycle was repeated in the next

three weeks, and so on for four full cycles. Estimates were made in terms of ratings on a 100 point scale in the same manner as the basic attraction measures (in addition, quartile rankings were also estimated), so that estimated attraction ranking of B for C could be obtained. Since the basic attraction ranking provided us with the attraction ranking of every S for every other S, A's attraction ranking of C, and B's attraction ranking of C could be specified. This permitted the determination of the derived indices of perceived similarity of A & B with respect to C, objective similarity of A & B with respect to C, and accuracy of B-C attraction estimates. Specifically, the measures were derived as follows: 1) Perceived similarity of B-C estimates were operationalized as the discrepancy between A's estimate of how B would rank C in attraction and the ranking in attraction of C by A. 2) Objective similarity of B-C attraction orientations was operationalized as the discrepancy between A's ranking of C and B's ranking of C. 3) Accuracy of B-C attraction estimates was operationalized as the discrepancy between A's estimate of how B would rank C and the ranking actually given to C by B.

Personality Variables

In addition to the predictor variable of popularity, the following personality data in this study were obtained:* 1) Authoritarianism (the 30 item F- scale). All Ss responded to this instru-

*Since all personality measures were administered only once, we are unable to determine their reliability for our subjects. But since all are standard measures which have evidenced a fair degree of reliability in many research studies, we make the assumption that the reliability of these measures for our subjects is sufficient for our purposes.

ment, which was scored in the standard manner (Adorno et al., 1950). It was administered at Week 7. 2) Need Achievement. This was obtained from the coded responses to two Thematic Apperception Test Pictures (cf. Atkinson, 1958). The score was the number of themes in each S's story that were coded as indicating need for achievement.* 3) Need Affiliation. (from coded responses to the same two pictures) The score was the number of themes in each S's story that were coded as indicating need for affiliation. Responses were obtained for both measures at Week 10.*

These, then, comprise the data of the present study. In the next four chapters, the results of the specific analyses employing the above basic data are presented.

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*Mr. William Morrison of the Psychology Department at the University of Michigan scored the story responses to the TAT pictures.

CHAPTER III

AUTISTIC AND REALISTIC PROCESSES IN CO-ORIENTATION GENERAL CONSIDERATIONS

The Problem

The problem in this chapter is to examine and evaluate the operation of autistic and realistic processes which occur as the acquaintance process develops in a group and as individuals become complexly interrelated with one another. As noted in the first chapter, the individual, as he behaves in the social situation, is confronted with several requirements--he must integrate the demands of his psychological needs, of social reality, and of empirical reality. From these assumptions we have postulated the presence of autistic processes (i.e., intra-psychic processes occurring without reference to the external environment and activated in response to personality needs) and also the occurrence of reality-oriented processes (i.e., behavior occurring in response to the requirements of the social situation). From the examination of the theory of communicative acts, it was maintained that the formulation does not at present take into consideration these processes, separate out the consequences of their operation, or assess the effects of their joint operation. Such a consideration not only has implications for the predictions derived from the hypotheses, but also implies additional

predictions which bear on the generality of the hypotheses of the theory.

The Hypotheses

From the assumption of the occurrence of both autistic and realistic processes, several implications for the theory result. Newcomb's central hypothesis is that of the presence of a tendency toward balance, inferred from the empirical tendency to interrelate attraction and perceived agreement under specified conditions. This process is essentially autistic in nature, but also is affected by the reality requirements of the situation. Our first consideration is to examine the occurrence of this tendency toward balance, and particularly to see how the interaction process over time affects the behavior occurring as a result of this tendency.

But reality-oriented processes have also been postulated. This has led to the prediction of increases in accuracy, with the occurrence of incoming information from the social environment, and is the second prediction to be tested.

The crucial consideration of this chapter is to assess the joint interplay of autistic and realistic processes and their relative importance as the acquaintance process develops. The general prediction is that there will be a general shift from primarily an autistic orientation to a relatively realistic orientation. The important question is posed by asking what is the relation of the phenomenal system of the individual to the objective system of orientations existing between himself and others. This is a question which at present remains unanswered by the major theories of balance, with

their respective emphasis being upon either the phenomenal system or the objective system, but not on their interrelationship. The hypothesis was consequently stated as follows: "Tendencies toward balance are initially autistic, there being little relation between the objective and phenomenal system; with time, tendencies toward balance become more realistic, there being an increased relation between the objective and phenomenal system."

A complementary way of assessing the joint operation of autistic and realistic processes is to examine their interaction more closely by considering how tendencies toward accuracy and toward balance are interrelated. Does one tendency occur at the expense of another, or do individuals attempt to meet both sets of requirements which give rise to these tendencies? The predictions were consequently as follows: The incidence of system strain or balance occurs initially without regard to accuracy requirements, i.e., autistic processes predominate; with interaction, tendencies toward accuracy and balance complement one another, i.e., the incidence of accurately balanced systems increases. These then are the major predictions to be considered in this chapter, the purpose being to illuminate the operation of autistic and realistic processes and their joint interaction.

Results

In the following analyses assessing the tenability of the predictions, the focus is upon the generality of the predicted relationships as they apply to the group under study. The unit of analysis is the systems of orientations not individuals, such as the attraction of one subject A for another B, A's attitude toward X,

and estimated attitude of B toward X, as previously described. Properly then, the results consist of a description of the trends and relationships existing in the group under study. Because of the multi-dependencies existing in the data, i.e., as a result of employing systems of orientations as the unit of analysis, and interaction effects existing among the variables, the analyses are not properly tests of hypotheses because of the inability to employ rigorous statistical inference. For example, since the sampling distributions of the variables in question are unknown, we are unable to generalize to a larger population. It is only with the purpose of describing trends and relationships existing in the group that the usual procedures of statistical inference are employed.* This important limitation should be borne in mind in all the following analyses. In a partial attempt to compensate for the limitations, non-parametric statistics are employed which require a minimum number of assumptions concerning the nature of the variables. In all cases in this chapter, one-tailed statistical tests are employed, and corrections for continuity made when necessitated by the data.

Tendencies Toward Balance

The purposes of this set of analyses are two fold: First, to see if the prediction derived from the balance postulate is substantiated--viz., the intercorrelation of attraction and perceived agreement--and, secondly, by examining the relationships, to see if

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*I am indebted to Professor William Hayes of the Department of Psychology, University of Michigan, for advice concerning the limitations imposed by the nature of the data and study design and in the resulting caution regarding statistical inference to be taken in the data analysis.

any suggested trends with regard to the operation of autistic and realistic processes are apparent. In terms of the basic variables outlined in Chapter II, three predictions were derived to test the hypothesis of a tendency toward balance, viz., the occurrence of attraction reciprocity, the correlations of attraction and perceived agreement with regard to the Spranger Values, and a correlation between attraction and perceived agreement of B-C estimates.

The first prediction is that of attraction reciprocity, viz., that A will estimate B's attraction toward himself as similar to his own attraction toward B. The correlation by chi-square between A-B attraction rankings with estimated B-A attraction rankings for four time periods are presented in Table I. The data as seen in this table show that the tendency to perceive reciprocation of attraction is indeed strong, being significant beyond the .001 level of confidence at all times. This supports the earlier findings of Taguri et al. (1953). Although a constancy in tendencies toward balance is indicated by the data, there appears to be an increment in perceived reciprocity up to the fifth week, a decline in later periods, with a final upsurge in the terminal periods. The changes, however, are not significant, and so do not imply a shift from autistic to realistic orientations. The relationships between the phenomenal system (A's perceptions) and the objective systems (the actual relationship between A and B) will be subsequently examined to determine how autistic or realistic the perceived attraction reciprocity actually is.

A second test of the validity of the balance postulate is furnished by the prediction of a relationship between attraction

TABLE 1

ATTRACTION RECIPROCITY CORRELATION BY X^2 OF A-B GL RANKING WITH B-A EST. RANKING

A-B GL Ranking	B-A Est. Ranking 1-4	5-8	9-12	13-16	Total
			Week 1		
1- 4	22(8.0)	31(20.0)	11(21.8)	4(18.2)	68
5- 8	5(8.0)	28(20.0)	27(21.8	8(18.2)	68
9-12	4(8.0)	14(20.0)	33(21.8)	17(18.2)	68
13-16	1(8.0)	7(20.0)	16(21.8)	44(18.2)	68
Totals	32	80	87	73	272
		X^2 = 131.72	df = 9	p<.001	
			Week 5		
1- 4	31(9.8)	21(16.7)	6(22.0)	6(15.5)	64
5- 8	7(9.8)	25(16.7)	22(22.0)	10(15.5)	64
9-12	0(9.8)	13(16.7)	35(22.0)	16(15.5)	64
13-16	1(9.8)	8(16.7)	25(22.0)	30(15.5)	64
Totals	39	87	88	62	256
		X^2 = 146.57	df = 9	p<.001	
			Week 10		
1- 4	26(10.5)	22(18.2)	13(23.0)	7(16.3)	68
5- 8	8(10.5)	33(18.2)	19(23.0)	8(16.3)	68
9-12	5(10.5)	12(18.2)	32(23.0)	19(16.3)	68
13-16	3(10.5)	6(18.2)	28(23.0)	31(16.3)	68
Totals	42	73	92	65	272
		X^2 = 87.98	df = 9	p<.001	
			Week 14		
1- 4	17(6.8)	41(27.8)	5(18.8)	5(14.7)	68
5- 8	7(6.8)	42(27.8)	11(18.8)	8(14.7)	68
9-12	3(6.8)	15(27.8)	37(18.8)	13(14.7)	68
13-16	0(6.8)	13(27.8)	22(18.8)	33(14.7)	68
Totals	27	111	75	59	272
		X^2 = 115.95	df = 9	p<.001	

rankings and perceived agreement with regard to the Spranger Values. An initial analysis indicated that the relationship appears to be masked by the general tendency to perceive agreement in values. It is only when the estimated agreement of each A with the other S's are rank ordered and also when the high and low ends of the attraction continuum are divided that the relationship between attraction and perceived agreement becomes apparent. The correlations between attraction and ranked perceived agreement are presented in Table 2.

As evident from the Table, the tendency to assume balance, i.e., to correlate attraction and perceived agreement, appears stronger at the early week 2 than at the terminal week 14. This seems to suggest a shift in the operation of autistic processes to realistic processes. That this speculation has some validity will become apparent in later analyses which show that this somewhat decreasing tendency to assume balance was accompanied by increases in accuracy of estimates. However, the tendency to assume balance is still quite significant at week 14.

One of the conditions necessary for the operation of the tendency to assume balance is that the object of orientation be important to the person. Consequently, attraction was further correlated with self-other perceived agreement estimates only for the first ranked Spranger Value; the results are presented in Table 3. The results for both weeks are insignificant. Apparently the correlation is reduced by the unreliability inherent in employing only one value and by the general tendency to perceive agreement in self-other estimates.

A final test of the predictions derived from the hypothesis

TABLE 2

NUMBERS OF INDIVIDUAL ESTIMATES AT THREE LEVELS OF AGREEMENT ON SPRANGER VALUES, CLASSIFIED BY FIVE DEGREES OF ATTRACTION RESPONSES

Estimated Agreement	General Liking Ranks 1	2-4	5-12	13-15	16	Total
			Week 2			
≥ .60	9	20	42	15	4	90
100-.59	5	14	56	14	5	94
≤ .00	3	17	38	22	8	88
Total	17	51	136	51	17	272
			Week 14			
≥ .60	8	20	42	15	4	90
.00 - .59	8	17	56	14	5	94
≤ .00	1	14	38	22	8	88
Total	17	51	136	51	17	272

	Week 2			Week 14		
Same Findings, 3 x 3 Tables	29	42	19	28	63	14
	19	56	19	25	44	31
	20	38	38	15	29	23
	$X^2 = 9.80$			$X^2 = 12.01$		
	$p < .05$ (4df)			$p < .02$ (4df)		

INDIVIDUAL RANKINGS OF ESTIMATED AGREEMENT IN SPRANGER VALUES, AS RELATED TO THEIR RANKINGS OF ATTRACTION TOWARD THE SAME Ss

Attraction Ranks	Number of Ss Whose Ranks of Estimated Agreement Are As Indicated: 1-4	5-12	13-16	Total	1-4	5-12	13-16	Total
1- 8	45	70	21	136	46	62	28	136
9-16	23	66	47	136	22	74	40	136
Total	68	136	68	272	68	136	68	272
	$X^2 = 17.19$				$X^2 = 11.65$			
	$p < .001$ (2 df)				$p < .01$ (2 df)			

TABLE 3

CORRELATIONS OF A-B GL RANKING WITH SELF-OTHER AGREEMENT ESTIMATES OF FIRST RANKED SPRANGER VALUES

A-B GL Ranking	A-V Values (1st Ranked) Self-Other Agreement Estimates				Total
	0	1-2	3-4	5	
		Week 2			
1- 4	22(21.7)	22(23.7)	17(14.5)	7(8.0)	68
5- 8	22(21.7)	25(23.7)	12(14.5)	10(8.0)	68
9-12	23(21.7)	30(23.7)	11(14.5)	4(8.0)	68
13-16	21(21.7)	18(23.7)	18(14.5)	11(8.0)	68
Totals	87	95	58	32	272
	X^2 = 7.99 df = 9 p > .05				
		Week 14			
1- 4	32(24.5)	21(25.0)	11(14.2)	4(4.2)	68
5- 8	24(24.5)	26(25,0)	17(14.2)	1(4.2)	68
9-12	18(24.5)	28(25.0)	16(14.2)	6(4.2)	68
13-16	24(24.5)	25(25.0)	13(14.2)	6(4.2)	68
Totals	98	100	57	17	272
	X^2 = 10.64 df = 9 p > .05				

of tendencies toward balance comes from the findings with regard to B-C attraction estimates. The prediction is that A will perceive agreement or disagreement in his attraction ranking of a third group member, C, and his estimate of B's attraction toward C, depending upon his attraction toward B. The procedure for obtaining a sample of B-C estimates for each subject in the initial weeks and then repeating the procedure at intermediate and terminal weeks has been

TABLE 4

CORRELATION OF A-B GL RANKINGS WITH PERCEIVED DISCREPANCY OF B-C GL EST. AND A-C GL RANKINGS

A-B GL Ranking	Perceived Discrepancy B-C GL Est. And A-C GL Rankings				Total
	0-2	3-4	5-6	7-14	
	Time I Pooled Samples from Initial Weeks*				
1- 4	80(62.4)	23(31.6)	26(26.4)	21(30.6)	151
5- 8	58(60.7)	41(30.7)	21(25.7)	27(29.8)	147
9-12	62(63.6)	27(32.2)	34(26.9)	31(31.2)	154
13-16	52(66.1)	37(33.4)	26(28.0)	45(32.4)	160
Totals	253	128	107	124	612
	$X^2 = 26.19$ df = 9 $p < .001$				
	Time II Pooled Samples from Terminal Weeks**				
1- 4	77(72.7)	33(30.2)	18(17.8)	21(28.2)	149
5- 8	85(73.3)	33(30.3)	13(17.8)	19(28.4)	150
9-12	75(75.7	24(31.4)	20(18.5)	36(29.4)	155
13-16	62(77.1)	34(32.0)	22(18.8)	40(29.9)	158
Totals	299	124	73	116	612
	$X^2 = 19.13$ df = 9 $p < .025$				

*Samples I, II, III of Weeks 2, 3, 4 combined

**Samples I, II, III of Weeks 12, 13, 14 combined

described in Chapter 2. In Table 4, A-B attraction rankings were correlated by chi-square with perceived discrepancy of B-C attraction estimates and AC attraction rankings, pooling the three samples in the initial weeks and the same three samples in the terminal weeks.

The obtained chi-square value for the initial weeks is highly significant beyond the .001 level of confidence; for the terminal weeks, the relationship is still significant but is seen to have decreased somewhat. Thus, the third prediction is supported, viz., a significant relationship between A-B attraction rankings and perceived agreement with regard to B-C attraction estimates. A slight decrease in the relationship indicates that the tendency to assume balance is strongest at initial weeks and decreases with interaction. That such a shift is accompanied by a change in emphasis from autistic to realistic processes is suggested. Whether this phenomenon actually occurs depends, again, upon examining the actual relationship between the objective and phenomenal systems.

In summary, the prediction made from the balance hypothesis, viz., a significant correlation between attraction and perceived agreement, is supported by the three sets of data involving different attitudinal objects. This tendency toward balance is significant at all times for each of the attitudinal objects, but appears to decrease somewhat in strength with interaction for the Spranger Values and B-C attraction estimates. This decrease in tendency to interrelate positively attraction and perceived agreement points to the possibility of a decrease in the operation of autistic processes and an increase in the operation of realistic processes. The next two sets of analyses comparing the relative accuracy of estimates over time and the relation of the phenomenal to the objective system will shed some light on the validity of this suggestion.

Tendencies Toward Accuracy

It is the contention of this thesis that not only are autistic processes operating, but also realistic processes, and that, with time, there will be a shift in relative emphasis from the former to the latter. An increase in the operation of realistic processes leads to the prediction of increases in accuracy of estimates with communication. If the somewhat decreasing tendency to assume balance, as found in the previous analysis, is accompanied by increases in accuracy, the general contention of a shift in operation of autistic to realistic processes receives partial support. Therefore, relative accuracy of estimates over time was examined for attraction reciprocity, Spranger Value estimates, and B-C attraction estimates.

Frequencies of different degrees of accuracy in estimating B-A attraction rankings at different time periods was compared by chi-square. The results are presented in Table 5.

TABLE 5

FREQUENCIES OF DIFFERENT DEGREES OF ACCURACY IN ESTIMATING B-A GL RANKINGS OVER TIME

Accuracy of B-A Est.	Week 1	Week 5	Week 10	Week 14	Total
0 -1.0	63(53.0)	43(49.9)	54(53.0)	49(53.0)	209
1.1-3.0	77(77.1)	76(72.5)	77(77.1)	74(77.1)	304
3.1-5.0	64(64.9)	61(61.1)	68(64.9	63(64.9)	256
5.1-15.0	68(76.9)	76(72.3)	73(76.9)	86(76.9)	303
Totals	272	256	272	272	1072

$X^2 = 6.29$ df = 9 $p > .05$

(It will be recalled that accuracy was operationalized as degree of discrepancy between estimated ranking of B-A attraction and actual B-A attraction ranking and is consequently an error measure.) As seen in the table, no increases in accuracy of estimating B-A attraction rankings are obtained. But it should be noted that these estimates are fairly accurate to begin with, 70% of the estimated B-A rankings being within five ranks of the actual B-A ranking and 20% within one ranking. It will be recalled that a strong tendency to perceive attraction reciprocity was obtained at all times. Therefore, the operation of autistic and realistic processes is indicated at all times for this object of orientation, rather than a shift from one process to another.

Table 6 compares the frequencies of different degrees of accuracy in estimating other's ranking of the six Spranger Values and also the estimated first ranking for weeks 2 and 14. (The accuracy score is measured in terms of squared discrepancies between estimated and actual ranking and is consequently an error measure.) A highly significant increase in estimating Spranger Values occurs; consideration of only the accuracy of estimates of B's first ranked value decreases the relationship slightly. This highly significant increase in accuracy of estimating other's value ranking is accompanied by a somewhat decreasing tendency to correlate attraction with perceived agreement in value rankings. These sets of results, taken together, suggest a shift in the emphasis upon autistic processes to a later emphasis upon realistic processes, supporting the hypothesis.

Similar findings are obtained for accuracy of B-C attraction estimates. Table 7 presents the distributions, at times noted, of

TABLE 6

FREQUENCIES OF DIFFERENT DEGREES OF ACCURACY IN ESTIMATING OTHER'S RANKING OF SPRANGER VALUES OVER TIME

ΣD^2 of Accuracy	Week 2	Week 14	Total
0-15	69(89.5)	110(89.5)	179
16-30	100(97.5)	95(97.5)	195
31-40	64(52.0)	40(52.0)	104
41-64	39(33.0)	27(33.0)	66
Totals	272	272	544

$X^2 = 17.22$ df = 3 $p < .001$

FREQUENCIES OF DIFFERENT DEGREES OF ACCURACY IN ESTIMATING OTHER'S FIRST RANKINGS OF SPRANGER VALUES OVER TIME

Rank Discrepancies of Accuracy	Week 2	Week 14	Total
0 - 1.0	87(106.0)	125(106.0)	212
1.1 - 2.0	72(65.5)	59(65.5)	131
2.1 - 3.0	72(67.5)	63(67.5)	135
3.1 - 5.0	41(33.0)	25(33.0)	66
Totals	272	272	544

$X^2 = 12.56$ df = 3 $p < .01$

TABLE 7

DISTRIBUTIONS, AT TIMES NOTED, OF SCORES OF ACCURACY IN MAKING B TO C ESTIMATES OF GENERAL ATTRACTION

Actual Estimated Rank Discrepancy	Week 2 Sample I	Week 3 Sample II	Week 4 Sample III	Week 12 Sample III	Week 13 Sample I	Week 14 Sample II
0	19	20	16	22	27	21
0.5 - 1.0	41	42	47	62	53	61
1.5 - 2.0	41	38	31	40	45	40
2.5 - 3.0	27	27	26	26	24	26
3.5 - 4.0	24	27	28	17	17	25
4.5 - 5.0	14	16	14	15	14	11
5.5 - 6.0	15	9	14	5	7	9
6.5 - 7.0	12	11	12	10	7	7
7.5 - 8.0	7	7	12	5	6	3
8.5 - 9.0	2	4	1	1	4	1
9.5 -10.0	0	1	1	1	0	0
10.5 -11.0	2	2	2	0	0	0
Total	204	204	204	204	204	204

Accuracy	Early Weeks	Late Weeks	Total
High	294	371	665
Low	318	241	559
Total	612	612	1224

$X^2 = 19.01$ $p < .001$ (1 df)

scores of accuracy in making B to C estimates of general attraction. (Again the accuracy score is the discrepancy between estimated and actual attraction ranking--an error measure of accuracy.) If these distributions are dichotomized between discrepancy scores ≤ 2.0 and those ≥ 2.5 (approximately the midpoint), then the accuracy scores between any of the early weeks differ significantly from any one of the three late weeks, at the .03 level or beyond. Poolingthe samples

of the early weeks and comparing them to the same pooling at later weeks yield a highly significant chi-square, indicating significant increases in accuracy. And again, for the B-C attraction estimates increases in accuracy are accompanied by a slight decrease in the tendency to intercorrelate attraction and perceived agreement. Both the operation of autistic and realistic processes are indicated, with the occurrence of a relative shift from the former to latter being suggested.

In summary, the prediction of increases in accuracy made from the hypothesis of the increasing operation of realistic processes is supported for the Spranger Values and the B-C attraction estimates. Due to the initially high level of B-A attraction estimates, no increments in accuracy were obtained. Considering these results on accuracy, together with the results obtained in the test of the predictions made from the hypothesized tendency to assume balance (i.e., to intercorrelate attraction and perceived agreement), the following pattern emerges: In general, a relative decrease in the tendency to assume balance (while at all times being significant) is accompanied by an increase in accuracy of estimates, suggesting a shift in emphasis from autistic to realistic processes. The exception is perceived attraction reciprocity which appears to be both autistic and realistic at all times. It should be noted, however, that realistic processes play some role even in early periods of the acquaintance processes, Spranger Values and B-C attraction estimates being fairly significantly accurate at these times. In effect, this generalization is merely suggested from these findings. A more direct test of the hypothesis of the relative degree of operation of autistic and realistic processes

may be made in the next section which considers the relation of correspondence between the phenomenal system of the individual and the objective system existing between himself and others.

A Consideration of the Operation of Autistic and Realistic Processes

The Relation of the Phenomenal to the Objective System

In this section we shall consider more directly the joint operation of autistic and realistic processes. Inferences concerning the relative degree of influence of these processes may be made first by considering the relationship or correspondence between the phenomenal system of the person and the objective system existing between himself and others. We have predicted the correspondence to increase with interaction, indicating a decrease in the operation of autistic factors and an increase in the operation of realistic factors. This hypothesis was tested by determining to what degree the relationship between attraction and perceived agreement depends upon actual agreement at different points in time. Once more the analysis is made considering attraction reciprocity, Spranger Values, and B-C attraction estimates.

Table 8 shows the correlation by chi-square of A-B rankings of attraction with B-A estimated rankings before and after controlling on real agreement in attraction for four time periods. In general, perceived reciprocity of attraction appears to be a relatively autistic process at all time periods, i.e., regardless of the objective relationship existing between himself and others, A tends to perceive reciprocity in his attraction rankings significantly

TABLE 8

CORRELATION BY X^2 OF A-B GL RANKING WITH B-A EST. RANKING CONTROLLING ON ACTUAL AGREEMENT IN GENERAL LIKING

Week 1

A-B GL Ranking	B-A Est. Ranking 1-8	9-16	
1- 8	85	51	136
9-16	25	110	136
	110	162	272

X^2 = 59.27 df = 1 p < .001

Actual GL Agreement 0 - 3.0

A-B GL Ranking	B-A Est. Ranking 1-8	9-16	
1- 8	52	22	74
9-16	11	58	69
	63	80	143

X^2 = 42.76 df = 1 p < .001

Actual GL Agreement 4.0 - 15.0

A-B GL Ranking	B-A Est. Ranking 1-8	9-16	
1- 8	33	29	62
9-16	14	53	67
	47	82	129

X^2 = 13.52 df = 1 p < .001

Week 5

A-B Gl Ranking	B-A Est. Ranking 1-8	9-16	
1- 8	86	42	128
9-16	23	105	128
	109	147	256

X^2 = 63.41 df = 1 p < .001

Actual GL Agreement 0 - 3.0

A-B GL Ranking	B-A Est. Ranking 1-8	9-16	
1- 8	55	20	75
9-16	10	51	61
	65	71	136

X^2 = 43.71 df = 1 p < .001

Actual GL Agreement 4.0 - 15.0

A-B GL Ranking	B-A Est. Ranking 1-8	9-16	
1- 8	31	22	53
9-16	13	54	67
	44	77	120

X^2 = 19.22 df = p < .001

TABLE 8—Continued

Week 10

A-B GL Ranking	B-A Est. Ranking 1-8	9-16	
1- 8	89	47	136
9-16	26	110	136
	115	157	272

$X^2 = 59.79$ df = 1 $p < .001$

Actual GL Agreement 0 - 3.0

A-B GL Ranking	B-A Est. Ranking 1-8	9-16	
1- 8	52	22	74
9-16	9	58	67
	61	80	141

$X^2 = 46.28$ df = 1 $p < .001$

Actual GL Agreement 4.0 - 15.0

A-B GL Ranking	B-A Est. Ranking 1-8	9-16	
1- 8	37	25	62
9-16	17	52	69
	54	77	131

$X^2 = 16.55$ df = 1 $p < .001$

Week 14

A-B GL Ranking	B-A Est. Ranking 1-8	9-16	
1- 8	105	31	136
9-16	32	104	136
	137	135	272

$X^2 = 78.37$ df = 1 $p < .001$

Actual GL Agreement 0 - 3.0

A-B GL Ranking	B-A Est. Ranking 1-8	9-16	
1- 8	62	16	78
9-16	18	53	71
	80	69	149

$X^2 = 43.81$ df = 1 $p < .001$

Actual GL Agreement 4.0 - 15.0

A-B GL Ranking	B-A Est. Ranking 1-8	9-16	
1- 8	43	15	58
9-16	14	51	65
	57	66	123

$X^2 = 34.10$ df = 1 $p < .001$

beyond the .001 level at all times, as evident from the table. But to indicate also the operation of realistic factors, A tends to perceive reciprocation of his attraction rankings especially at high levels of actual agreement of attraction. However, the correspondence between the phenomenal and the objective system does not increase with interaction--there is not the predicted shift in the relative contribution of autistic and realistic factors.

For co-orientation with regard to the Spranger Values, the hypothesis of an increasing correspondence between the phenomenal and objective system appears to be supported. Table 9 presents the chi-square correlation of A-B attraction rankings with estimated agreement of Spranger Values before and after controlling on actual agreement at weeks 2 and 14. First, the operation of realistic factors is indicated, since the relation between attraction and perceived agreement holds only for an above medium degree of actual agreement. Secondly, while the relationship appears to be fairly independent of real similarity at week 2, at week 14 the relationship between attraction and perceived agreement is seen to depend more upon actual agreement, as shown by the decreased significance of the relationship when actual agreement is controlled for. This suggests a shift from the operation of autistic to the operation of realistic processes in this case.

The findings with regard to the B-C attraction estimates complement those of the Spranger Values. The results are presented in Table 10, in which A-B attraction rankings are correlated with perceived agreement of B-C estimated attraction before and after controlling on actual agreement. For the pooled samples for the

TABLE 9

CORRELATION OF A-B GL RANKINGS WITH ESTIMATED AGREEMENT OF SPRANGER VALUES (RANKED) CONTROLLING ON ACTUAL AGREEMENT OF SPRANGER VALUES

Week 2

A-B GL Ranking	Ranked Est. Agreement 1-8	9-16	
1- 8	77	59	136
9-16	59	77	136
	136	136	272

$X^2 = 4.76$ df = 1 $p < .05 > .01$

Actual Agreement Ranks 0 - 8

A-B GL Ranking	Ranked Est. Agreement 1-8	9-16	
1- 8	49	25	74
9-16	29	36	65
	78	61	139

$X^2 = 6.56$ df = 1 $p < .05 > .01$

Actual Agreement Ranks 9 - 16

A-B GL Ranking	Ranked Est. Agreement 1-8	9-16	
1- 8	28	34	62
9-16	30	41	71
	58	75	133

$X^2 = .11$ df = 1 $p > .05$

Week 14

A-B GL Ranking	Ranked Est. Agreement 1-8	9-16	
1- 8	81	55	136
9-16	57	79	136
	138	134	272

$X^2 = 8.47$ df = 1 $p < .01$

Actual Agreement Ranks 0 - 8

A-B GL Ranking	Ranked Est. Agreement 1-8	9-16	
1- 8	54	19	73
9-16	37	30	67
	91	49	140

$X^2 = 5.40$ df = 1 $p < .05 > .01$

Actual Agreement Ranks 9 - 16

A-B GL Ranking	Ranked Est. Agreement 1-8	9-16	
1- 8	27	36	63
9-16	20	49	69
	47	85	132

$X^2 = 2.76$ df = 1 p approx. .10

TABLE 10

CORRELATION OF A-B GL RANKINGS WITH PERCEIVED AGREEMENT OF B-C GL ESTIMATES AND A-C GL RANKINGS CONTROLLING ON ACTUAL AGREEMENT (A-C GL - B-C GL)

Samples from Initial Weeks*

A-B GL Ranking	Perceived Agreement (B-C GL Est. - A-C GL) 0 - 3.0	4.0 - 15.0	
1- 8	170	127	297
9-16	152	163	315
	322	290	612

$X^2 = 4.95$ df = 1 $p < .05 > .01$

A-B GL Ranking	Actual Agreement (A-C GL - B-C GL) Perceived Agreement (B-C GL Est. - A-C GL) 0 - 3	4 - 15	
1- 8	103	51	154
9-16	74	77	151
	177	128	305

$X^2 = 9.95$ df = 1 $p < .001$

A-B GL Ranking	Actual Agreement (A-C GL - B-C GL) Perceived Agreement (B-C GL Est. - A-C GL) 0 - 3	4 - 15	
1- 8	67	76	143
9-16	78	86	164
	145	162	307

$X^2 = .15$ df = 1 $p > .05$

Samples from Terminal Weeks**

A-B GL Ranking	Perceived Agreement (B-C GL Est. - A-C GL) 0 - 3.0	4.0 - 15.0	
1- 8	205	92	297
9-16	171	144	315
	376	236	612

$X^2 = 14.01$ df = 1 $p < .001$

A-B GL Ranking	Actual Agreement (A-C GL - B-C GL) Perceived Agreement (B-C GL Est. - A-C GL) 0 - 3	4 - 15	
1- 8	132	35	167
9-16	99	53	152
	231	88	319

$X^2 = 7.63$ df = 1 $p < .01$

A-B GL Ranking	Actual Agreement (A-C GL - B-C GL) Perceived Agreement (B-C GL Est. - A-C GL) 0 - 3	4 - 15	
1- 8	73	57	130
9-16	72	91	163
	145	148	293

$X^2 = 4.15$ df = 1 $p < .05 > .01$

*Samples I, II, III of Weeks 2, 3, 4 combined.

**Samples I, II, III of Weeks 12, 13, 14 combined.

initial weeks, the relation between attraction and perceived agreement appears to hold only for the upper quartile of actual agreement, indicating the autistic nature of the orientations. For the terminal weeks (employing the same pooled samples), the relationship of attraction and perceived agreement in B-C attraction estimates seems to be increasingly dependent upon actual agreement, i.e., the relationship decreases when actual agreement is controlled for, indicating an increasing contribution of realistic processes. But also in the terminal weeks, the continued, although decreasing, operation of autistic processes seems to be occurring—the relationship between attraction and perceived similarity is significant at all ranges of actual agreement.

In summary, the assessment of the joint interaction of autistic and realistic processes, inferred by examining the degree of correspondence between the phenomenal and objective systems, yields the following set of results: Attraction reciprocity appears fairly autistic at all stages of interaction, but for the Spranger Values and the B-C attraction estimates the correspondence between the objective and phenomenal system increases with interaction, indicating a shift in the relative operation of autistic and realistic processes. In general the predicted shift from an autistic orientation to a relatively realistic orientation is substantiated. However, at all times both autistic and realistic processes seem operative to varying degrees, their relative contribution depending upon the amount of interaction incurred and the attitudinal object considered.

Accuracy of Systems in Strain and Balance

A complementary and more direct manner of evaluating the joint interaction of autistic and realistic processes is to assess the co-variation between tendencies toward balance and tendencies toward accuracy. We may do this by examining how realistic the tendencies toward balance are, i.e., by considering at different time periods the frequency of occurrence of systems in strain or balance, classified as to their degree of accuracy. The prediction is that the occurrence of strain or balance will initially occur with little relation to reality requirements. Assuming that, with time, there will be a shift from an autistic to a realistic basis, tendencies toward accuracy and toward balance should increasingly complement one another, i.e., balanced systems will correspond to the objective situation and estimates will be accurate. Let us turn to the operation for defining balanced systems or systems in strain. Balance was defined as perceived agreement under conditions of high attraction and strong cathexis upon the X, assuming relevance and importance of the object of co-orientation. Strain was defined as perceived discrepancy under conditions of high attraction and strong cathexis upon the X, assuming relevance and importance of the object of co-orientation. Specifically, the following method of operationalizing strain was employed: The first four ranks of the general like continuum were taken as representing high attraction. Perceived agreement or discrepancy was dichotomized into one or the other category--generally less than four of sixteen ranks of discrepancy between own and estimated other attitudes was taken as perceived agreement, more than four as perceived discrepancy. (The data fell

into either of the categories of perceived agreement or perceived discrepancy with little overlap.)

Then considering only these systems under high attraction, they were classified as being in strain or balance on the basis of falling into either of the categories of perceived discrepancy or perceived agreement. The same procedure was employed in operationalizing systems in strain or balance for attraction reciprocity, Spranger Values, and B-C estimates.

The method of deriving indices of accuracy has been specified in the section examining increases in accuracy of estimates over time and in the procedure chapter in the section on operationalizing the basic data. For each of the sets of attitudinal data, accuracy of estimates was categorized into high or low on the basis of a median split.

The results are presented in Tables 11 and 12. Degree of accuracy of systems in strain and balance for initial and terminal weeks for, attraction reciprocity, Spranger Values, and B-C estimates are presented in Table 11. For the attraction data, there is a significant tendency for balanced systems to be accurate and systems in strain to be inaccurate; this tendency increases to beyond the .001 level of confidence at week 14. It is seen, therefore, that tendencies toward accuracy and toward balance tend to complement one another for the attraction data. However, for the Spranger Values, the relationship is insignificant at both initial and terminal weeks, i.e., the incidence of strain or balance occur randomly with respect to accuracy. For the B-C estimates, while the incidence of strain or balance is not initially related to the

TABLE 11

ACCURACY OF INITIAL AND FINAL STATES OF STRAIN AND BALANCE

1. Attraction

	Week 1			Week 14		
	High Accuracy 0 - 3.1	Low Accuracy 3.1 - 15		High Accuracy 0 - 3.1	Low Accuracy 3.1 - 15	
Strain	21	23	44	11	29	40
Balance	19	5	24	26	2	28
	40	28	68	37	31	68
	$X^2 = 6.34$ df = 1 $p < .02$			$X^2 = 28.36$ df = 1 $p < .001$		

1. Spranger Values

	Week 2			Week 14		
	High Accuracy 0 - 20	Low Accuracy 21 - 64		High Accuracy 0 - 20	Low Accuracy 21 - 64	
Strain	19	20	39	22	17	39
Balance	15	14	29	21	8	29
	34	34	68	43	25	68
	$X^2 = .06$ df = 1 $p > .05$			$X^2 = 1.83$ df = 1 $p > .05$		

3. B-C Estimates

	Initial Weeks (2+3+4)			Terminal Weeks (12+13+14)		
	High Accuracy 0 - 3.1	Low Accuracy 3.1 - 15		High Accuracy 0 - 3.1	Low Accuracy 3.1 - 15	
Strain	28	29	57	17	21	38
Balance	54	39	93	66	42	108
	82	68	150	83	63	146
	$X^2 = 1.22$ df = 1 $p > .05$			$X^2 = 3.86$ df = 1 $p < .05$		

TABLE 12

FREQUENCY OF OCCURRENCE OF DIFFERENT COMBINATIONS OF ACCURATE OR INACCURATE SYSTEMS IN STRAIN OR BALANCE AT INITIAL AND TERMINAL WEEKS

1. Attraction

	Week 1		Week 14		
	F	%	F	%	
Realistic and Autistic (Accurately Balanced)	19	28	26	38	45
Realistic (Accurately Imbalanced	21	31	11	16	32
Autistic (Inaccurately Balanced)	5	7	2	3	7
Contra-Autistic (Inaccurately Imbalanced)	23	34	29	43	52
	68	100	68	100	136

$X^2 = 4.46$ df = 3 $p > .05$

2. Spranger Values

	Week 2		Week 14		
	F	%	F	%	
Realistic and Autistic (Accurately Balanced)	15	22	21	31	36
Realistic (Accurately Imbalanced)	19	28	22	32	41
Autistic (Inaccurately Balanced)	14	21	8	12	22
Contra-Autistic (Inaccurately Imbalanced)	20	29	17	25	37
	68	100	68	100	136

$X^2 = 3.10$ df = 3 $p > .05$

3. B-C Estimates

	Initial Weeks (2,3,4)		Terminal Weeks (12, 13, 14)		
	F	%	F	%	
Realistic and Autistic (Accurately Balanced)	54	36	66	45	120
Realistic (Accurately Imbalanced)	28	19	17	12	45
Autistic (Inaccurately Balanced)	39	26	42	29	81
Contra-Autistic (Inaccurately Imbalanced)	29	19	21	14	50
	150	100	146	100	296

$X^2 = 5.38$ df = 3 $p > .05$

degree of accuracy, a significant relationship appears--balanced systems are more accurate than systems in strain. In general then, with the exception of the Spranger Values, there is an increasing tendency over time for tendencies toward accuracy and balance to be related or to complement one another.

While this tendency is found, a different analysis comparing the frequency of occurrence of different combinations of accurate and inaccurate systems in strain or balance at initial and terminal weeks proves insignificant as seen in Table 12. However, this table merely compares the incidence of accurate or inaccurate systems in strain or balance at different time periods, but not the degree of relationship between tendencies toward accuracy and balance itself, and therefore does not contradict the previous findings. Together the data, especially of Table 11, indicate that tendencies toward accuracy and balance tend to complement (i.e., occur in the same systems) each other, especially after interaction. This tendency may occur as a consequence of re-adjustments on the part of the person of his attitudinal and attraction relationship so that they are congruent with the realities of the situation; the person obtains balanced systems only in those instances where the actual orientations between himself and others warrant it. (This possibility will be investigated in a later chapter dealing with individual mechanisms.)

Conclusion

In view of the findings of this chapter, a general assessment of the role of autistic and realistic processes and their interaction in co-orientation for the population considered may be

made. The tendency to assume balance, essentially an autistic process, i.e., to inter-relate attraction and perceived agreement, is significant at all times for each of the attitudinal objects. However, this tendency appears to decrease in strength somewhat with acquaintance for the Spranger Values and B-C estimates, pointing to the possibility of a decrease in the operation of autistic processes and an increase in the operation of realistic processes. The tenability of this alternative was partially confirmed in the analysis of accuracy of estimates, i.e., the decreasing tendency to assume balance was found to be accompanied by an increase in accuracy of estimates, indicating an increase in the operation of realistic factors. (Attraction reciprocity was highly realistic at all time periods examined.) It should be noted that both tendencies toward balance and accuracy, as inferred from the results, are present at all time periods after a minimum of information about others' orientations has been exchanged. The shift from an autistic to a realistic basis is that of relative emphasis, not a shift in an absolute sense.

The examination of the degree of correspondence between the phenomenal and objective systems permitted a more direct investigation of the joint interaction of autistic and realistic processes. The results again suggested that both autistic and realistic processes are operative, as inferred from the partial extent of correspondence. For two of the three attitudinal areas, the correspondence between the phenomenal and objective system increases with interaction indicating a shift in the relative operation of autistic and realistic processes.

Finally, the co-variation between tendencies toward balance

and tendencies toward accuracy was assessed by determining the accuracy of systems in strain and balance. Generally, while no relationship initially exists, tendencies toward accuracy and balance tend to complement each other at terminal periods, indicating that the final obtainment of balance is made on a realistic basis.

We may conclude that the hypothesis asserting the operation of realistic processes as well as autistic processes in co-orientation, and a relative shift from an autistic to a reality-based orientation is substantially supported by the data. The theoretical implications of these findings will be considered in the concluding chapter.

CHAPTER IV

INDIVIDUAL, PERSONALITY, AND SITUATIONAL DIFFERENCES IN AUTISTIC AND REALISTIC PROCESSES

The Problem

The previous chapter was a general consideration of the operation of autistic and realistic processes as they occurred in the group under study. The general conclusion was that both autistic and realistic processes are operative and are complexly interrelated as the acquaintance process develops.

While providing some information which has implications for the theory of communicative acts, such a consideration is inadequate in itself in fully understanding the operation of these processes and their bearing upon the theoretical formulation. Additional understanding may be obtained by determining the generality of these processes and how they vary and interact together under specified conditions. The problem of generality of relationships is first the question of individual differences. This is the question of the relative degree of autism or realism among different individuals under conditions of co-orientation. If such variance in the operation of autistic and realistic processes is established, a second, complementary approach may be undertaken, viz., that of examining some of the factors which give rise to autistic and/or realistic processes and which impinge upon the phenomenal system of the individual. Drawing upon the maxim that any social act is a function

of the personality in the situation, autistic and realistic processes may be expected to arise from both sources. Consequently, the prediction of autistic and realistic processes from personality and group structural variables was expected to be especially fruitful in further understanding their operation in the communicative act.

The Hypotheses

We have predicted that autistic and realistic processes will give rise to certain types of phenomena in the communicative act which may be indicative of either of these types of processes. These include the following: 1) tendencies toward balanced systems, 2) tendencies toward accuracy, 3) processes of distortion or accurate appraisal under conditions of system strain or balance, and 4) the tendency to relate perceived agreement and actual agreement. For the entire population, the occurrence of each of these phenomena has been substantiated. From the assumption of variation between individuals in relative degree of autistic or realistic orientations, we hypothesize consistent individual differences in tendencies to assume balance, to be accurate, to distort under conditions of system strain or balance, and finally to interrelate perceived agreement and actual agreement.

We will then attempt to interpret such variance in these four sets of phenomena in terms of the personality and group status variables from which it is assumed they originate. To reiterate briefly, the hypotheses are as follows:

1. Tendencies to assume balance are inversely related to authoritarianism and need for achievement and positively related to

need for affiliation and popularity status.

2. Tendencies toward accuracy, and especially accuracy of system in strain or balance is inversely related to authoritarianism and need for affiliation and positively related to need for achievement and especially popularity status.

3. Degree of autism, i.e., the inverse of the tendency to relate perceived agreement to real agreement, is positively related to authoritarianism and need for affiliation and inversely related to need for achievement and popularity status.

The rationale of each of these hypotheses has been presented in Chapter 1. In short, need for affiliation, and especially authoritarianism, are posited to give rise to autistic processes (i.e., intra-psychic processes occurring without reference to the external, social environment), while need for achievement and popularity are posited to give rise to reality-oriented processes (i.e., psychological processes oriented to the interpersonal requirements of the social environment). As noted, this rationale is based both upon the conceptual properties of the dimensions in question and upon research showing certain consistent relationships of these with certain aspects of social behavior. These then are the major predictions to be considered in this chapter, the purpose being to assess the variation in the relative degree of operation of autistic and realistic processes and the factors and conditions upon which they depend.

Results

The analysis proceeds in four steps: First, individual differences and consistencies in tendencies toward balance are

investigated with a subsequent interpretation made in terms of the personality and group status variables. Second, we turn to a consideration of individual consistencies and differences in tendencies toward accuracy and relate these to our predictor variables. Third, our attention is focused on individual mechanisms of distortion, or the converse, under conditions of system strain or balance, with the attempt being made to determine their accompanying personality and/or group status correlates. Finally, an analysis is made of individual consistencies in degree of autism or the inverse of the degree of the tendency to relate perceived agreement to actual agreement; again, an interpretation of the variation in terms of the selected predictor variables is employed.

Tendencies Toward Balance

We have found the tendency toward balance, as inferred from the attitudes of attraction and perceived agreement, to be significant at all stages of the acquaintance process and for a variety of common objects. While the relationship is initially autistic, it becomes increasingly realistic with interaction.

The first question to be raised of especial relevance to the theory of communicative acts is the question of the generality of the tendency to assume balance, the question of individual differences. For each individual, the following index was derived as an operation to infer the relative degree of his tendency to assume balance: Tendencies toward balance were operationalized as the degree of relationship between attraction and perceived agreement in attitudes. First then, the several perceived agreement scores of A

with the other B's were rank-ordered to present a scale of ranked perceived agreement relative to each individual. Attraction ranks and ranked perceived agreement over the 16 B's were intercorrelated for each individual for each of the three attitudinal objects or X's, each respectively at initial and terminal periods of acquaintance. These individual indices of tendencies toward balance are presented in Table 13. In addition to variations among different attitudinal objects and among different time periods, an examination of the table shows wide individual variation in the inter-correlations of attraction and ranked perceived agreement, ranging from almost perfect, positive correlations to minus correlations. Thus, individual differences in tendencies toward balance are obtained.

The question remains, however, as to whether these differences are constant or consistent between individuals. Individual consistencies in tendencies toward balance were assessed by obtaining the rank-order intercorrelation of relative standing with reference to the degree of correlation of attraction ranking and ranked perceived agreement for initial and terminal time periods for each of the sets of Xs. The results are presented in Table 14. The conclusion to be reached from this table, in view of the low and generally insignificant intercorrelations, is that such response to balance forces is not an individual constant. Rather, individuals differ in their relative standing depending upon the particular common object or X and depending upon the time period at which the measure is taken. (An alternative conclusion to the effect that the measures are of relatively low reliability can not be overlooked, although what is "unreliability" and what is actual change occurring as the group

TABLE 13

INDIVIDUAL TENDENCIES TOWARD BALANCE--RANK ORDER CORRELATION OF A-B GL WITH RANKED PERCEIVED AGREEMENT

Subject	Correlation A-B GL and B-A Estimated GL				Correlation A-B GL Ranked Perceived Agreement Spranger Values				Correlation A-B GL and Ranked Perceived Agreement B-C Est. Pooled Samples				Mean Rank		Mean R of Correl. w. Perceived Agreement Rank
	Week 2		Week 14		Week 2		Week 14		Init. Wks.		Term. Wks.		Init. Wks.	Term. Wks.	
	R	Rank	R	Rank	R	Rank	R	Rank	R	Rank	R	Rank	Rank	Rank	
1	.288	17	.514*	14	.375	5	.184	10	.289	5	.194	9	11	11	12
2	.735*	6	.764*	7	.591*	2	.768*	2	.081*	13	.096	12	5.5	7	6
3	.647*	9	.575*	12	.750*	1	.277	6	.347	2	-.287	17	2	13	8
4	.623*	10	.901*	2	.421*	4	.344	5	.080	14	.371	4	12	1	4
5	.799*	3	.941*	1	.224	13	.825*	1	.269	7	.150	10	8	2	3
6	.656*	8	.700*	9	.311	7	-.022	16	.266	8	.483*	2	8	9	9
7	.828*	2	.626*	10	.149	14	.100	13	.318	4	.211	8	4	10	10
8	.435*	6	.197	16	.374	6	.199	9	.240	9	.094	13	5.5	16	11
9	.668*	7	.803*	6	.306	8	.386	4	.139	10	.235	7	10	3	6
10	.591*	12	.589*	11	.236	12	.156	12	-.191	17	.091	14	15.5	15	15
11	.918*	1	.458*	15	.456*	3	.536*	3	.275	6	.302	6	1	8	2
12	.747*	5	.748*	8	.137	15	.220	8	.323	3	.397	3	8	4.5	6
13	.777*	4	.864*	3	.264	9	.172	11	.414*	1	.329	5	3	4.5	1
14	.539*	15	.132	17	-.059	16	.230	7	.078	15	.114	11	17	13	16
15	.540*	14	.518*	13	.242	10	-.295	17	.000	16	.047	15	14	17	17
16	.597*	11	.862*	4	.236	11	.012	15	.099	12	.014	16	13	13	14
17	.576*	13	.831*	5	-.187	17	.020	14	.108	11	.518*	1	15.5	6	13
	*p < .05		*p < .05		*p < .05		*p < .05		*p < .05		*p < .05				

TABLE 14

INDIVIDUAL CONSISTENCIES IN TENDENCIES TOWARD BALANCE: RANK-ORDER CORRELATION OF RANKS OF CORRELATION OF A-B GL WITH RANKED PERCEIVED AGREEMENT

	R – A-B GL & B-A Est. GL Week 1	R – A-B GL & B-A Est. GL Week 14	R – A-B GL & Perc. Agr. Spranger Values Week 2	R – A-B GL & Perc. Agr. Spranger Values Week 14	R – A-B GL & Perc. Agr. B-C Est. Pooled Sample Initial Wks.	R – A-B GL & Perc. Agr. B-C Est. Pooled Sample Term. Wks.
R – A-B GL & B-A Est. GL, Week 1	1.000	.298	.127	.439*	.549*	.277
R – A-B GL & B-A Est. GL, Week 14		1.000	−.142	.162	.071	.336
R – A-B GL & Perc. Agr. Spranger Values Week 2			1.000	.375	.158	−.220
R – A-B GL & Perc. Agr. Spranger Values Week 14				1.000	.163	.003
R – A-B GL & Perc. Agr. B-C Est. Pooled Sample Initial Wks.					1.000	.405*
R – A-B GL & Perc. Agr. B-C Est. Pooled Sample Terminal Wks.						1.000

*R of .410 significant at .05 level of confidence

develops is a difficult question.)

Despite the conclusion in the above paragraph, the possibility remains that the variation in tendencies to assume balance may be predictable. The relative plausibility of the rationale of the hypotheses would lead us to expect certain relationships between the personality and group status variables on the one hand and tendencies toward balance on the other. As noted, three personality measures were employed, which on an a priori basis, were throught to relate to how the individual structures, perceives, and relates to his social environment, viz., authoritarianism or F-scale, need for achievement, and need for affiliation. In addition, one situational predictor was employed, viz., popularity ranking in the group at Week 1 and Week 14.

The personality and popularity data indicate that individuals are discriminated and are distributed widely on these measures; Table 15a presents the scores and rankings of the group members on these variables. The question arises as to the independence of these variables. The rankings of individuals on these five variables were intercorrelated and are presented in Table 15b. It is seen in this table that the personality variables are relatively independent of one another or are negatively related. The popularity measures at initial and terminal periods are highly related to one another and will be expected to yield similar relationships with our predicted variables. The especially important relationship is between authoritarianism and popularity, which is significantly negative--authoritarians are low status group members, while non-authoritarians are high status members. This will particularly affect the relationships

TABLE 15a

PERSONALITY AND POPULARITY SCORES AND RANKINGS

Subject	F-Score	Rk	n Ach	Rk	n Aff	Rk	Popularity Rankings Week 1	Week 14
1	129	2	4	13	0	16	11	6
2	77	12	0	16	7	7	12	9
3	127	4	4	13	16	1	14	15
4	71	13	9	7	14	2	2	3
5	108	8	0	16	9	4	6	10
6	62	16	5	10.5	8	5.5	8.5	5
7	114	7	18	3	6	8	7	7
8	116	6	4	13	8	5.5	17	12
9	69	14	12	6	4	11.5	3	2
10	128	3	21	1.5	3	13	16	17
11	121	5	6	9	5	9.5	8.5	13
12	109	7	14	5	2	14	4	4
13	95	10	7	8	0	16	5	8
14	141	1	17	4	0	16	13	11
15	89	11	21	1.5	5	9.5	10	14
16	103	9	0	16	12	3	15	16
17	65	15	5	7.5	4	11.5	1	1

TABLE 15b

RANK-ORDER INTERCORRELATIONS OF PERSONALITY AND POPULARITY DATA

	F-Scale	n Ach	n Ach	Popularity Wk. 1	Wk. 14
F - Scale	1.000	-.089	-.363	-.466*	-.443*
n Ach		1.000	-.449*	.255	.116
n Aff			1.000	-.142	-.210
Popularity Wk. 1				1.000	.802*
Popularity Wk. 14					1.000

*R of .410 significant at .05 level of confidence

with the variables predicted, the expectation being that opposite relationships will obtain, and will crucially affect the interpretations to be made of these particular results.

Table 16 presents the rank-order correlations of the personality and popularity variables with individual rankings in the degree to which attraction and perceived agreement are intercorrelated (i.e., with degree of tendency to assume balance) for the three sets of attitudinal objects at initial and terminal periods. Several significant relationships are found and some trends are indicated: We fail to find individual tendencies toward balanced systems in the initial weeks with the important exception that tendencies toward balance for the Spranger Values are negatively related to need for achievement rank and are partially related to need for affiliation rank supporting our predictions. Pooling over the attitudinal items, no relationships are obtained between the predictor variables and mean ranking of the correlation of attraction with perceived agreement for the initial weeks. For the terminal weeks, rather clear cut relationships emerge between authoritarianism and popularity on the one hand and ranking with regard to the tendency to assume balance or to interrelate attraction and perceived agreement on the other hand. <u>For group relevant attitudes</u> authoritarianism is significantly negatively related to ranking with regard to attraction reciprocity and ranking with regard to degree of interrelation of attraction and perceived agreement in B-C attraction estimates for the pooled samples. For the same attitudinal objects in the terminal weeks, popularity at both Weeks 1 and 14 is positively related to tendency to have balanced systems. However, neither predictor vari-

TABLE 16

CORRELATION OF PERSONALITY AND POPULARITY DATA WITH INDIVIDUAL TENDENCIES TO INTERCORRELATE ATTRACTION AND PERCEIVED AGREEMENT FOR SEVERAL ATTITUDINAL OBJECTS

Attitude	F-Score Rank	n Ach. Rank	n Aff. Rank	Popularity Wk. 1 Rk.	Popularity Wk. 14 Rk.
R - A-B GL & B-A Est. GL Week 1	+.010	-.124	+.290	+.223	+.106
R - A-B GL & B-A Est. GL Week 14	-.499*	-.223	+.255	+.583*	+.395
R - A-B GL & Perc. Agr. Spranger Values Week 2	+.056	-.446*	+.425*	-.284	-.163
R - A-B GL & Perc. Agr. Spranger Values Week 14	+.176	-.323	+.161	+.134	+.086
R - A-B GL & Perc. Agr. B-C GL Est. Pooled Samples, Initial Weeks	+.199	-.251	-.046	+.283	+.274
R - A-B GL & Perc. Agr. B-C GL Est. Pooled Samples, Terminal Weeks	-.433*	+.227	-.273	+.817*	+.843*
Mean Rank of Correl. of A-B GL with Perc.Agr. of Estims., Initial Per.	+.099	-.325	+.276	+.016	-.051
Mean Rank of Correl. of A-B GL with Perc.Agr. of Estims., Term. Per.	-.363	-.118	+.024	+.827	+.728*

*R of .410 significant at .05 level of confidence

able is related to the ranking of this tendency toward balance for the Spranger Values. No relationship emerges between need for achievement or need for affiliation and tendency to assume balance. The findings for the terminal weeks, therefore, support our predictions for the authoritarianism and popularity variables. The possibility should be considered that authoritarians or popular group members have different vantage points in the group, which affects their ability to achieve and maintain balance. Authoritarians, on the one hand, are dissimilar from other group members in attitudes, but are attracted to high status group members, hence they would have a high incidence of imbalanced systems of orientations. On the other hand, high status group members are attracted to other high status members with whom they share similar attitudes and dislike low status members who are dissimilar to them--hence they would have a high incidence of balanced systems. To check the possibility of this statistical artifact yielding spurious results, the personality and popularity variables were correlated with ranking of degree of actual agreement in attitudes. The results are presented in Table 17 and 18. An examination of Table 18 does not support this alternative interpretation. With the exception of an inverse relationship between authoritarianism and actual similarity in the initial weeks, the relationships between the personality and popularity variables and actual agreement in attitudes are low and insignificant. The relationship between authoritarianism and popularity on the one hand and tendency to have balanced systems does not seem to be mediated by the fact of actual similarity or dissimilarity in attitudes, or in brief, by different vantage points in the group of authoritarians or popular group members.

TABLE 17

ACTUAL SIMILARITY RANKS

Subject	Attraction Reciprocity		Spranger Values		Pooled B-C Systems		Mean Rank	
	Wk. 1	Wk.14	Wk.2	Wk.14	Init. Wks.	Term. Wks.	Initial Weeks	Terminal Weeks
1	17	3.5	7	16	14	12	15	11
2	5.5	6	4	4.5	9	2	3	2
3	7	14	13	11	3	14	5.5	15
4	9	6	5.5	9	10.5	8	8.5	7
5	1	2	10	14.5	8	1	4	3
6	11	10	1.5	4.5	2	5	2	4
7	3.5	8	15	13	6	6.5	7	9
8	14	6	16	8	12.5	11	17	8
9	3.5	12	5.5	7	5	3	1	6
10	14	17	9	1	17	15	16	13
11	10	3.5	11	2	4	4	8.5	1
12	5.5	11	17	10	15	17	14	14
13	2	1	14	3	7	16	5.5	5
14	14	9	12	14.5	1	6.5	11	10
15	8	13	1.5	6	16	13	10	12
16	16	16	3	17	10.5	9	12	16
17	12	15	8	12	12.5	10	13	14

A similar conclusion holds for the relationships of need for achievement and need for affiliation and tendencies to have balanced systems with regard to the Spranger Values, Week 2. Rather authoritarianism and popularity status appear to be important determinants of the tendency to have imbalanced or balanced systems with reference to group relevant attitudes in the terminal periods of acquaintance. Need of achievement and need for affiliation predict the tendency to have balanced or imbalanced systems for personality relevant attitudes (i.e., the Spranger Values) in the initial stages of acquaintance. The hypotheses, with the exception noted, are therefore supported. The sets of findings considered in this section, it must be emphasized, are relationships of the predictor variables with tendencies to have

TABLE 18

RANK ORDER CORRELATION OF PERSONALITY AND POPULARITY MEASURES WITH RANKING OF ACTUAL AGREEMENT IN ATTITUDES

Ranking in Actual Agreement in	F-Score Rank	n Ach Rank	n Aff Rank	Popularity Week 1	Popularity Week 14
Attraction Reciprocity Week 1	-.226	.119	.107	.543*	.276
Attraction Reciprocity Week 14	.236	-.246	-.097	.213	.215
Spranger Values Week 2	-.422*	-.134	.244	.019	.002
Spranger Values Week 14	-.141	.309	-.120	.051	-.065
B-C GL Orientations Initial Weeks	.040	-.163	.191	.067	.073
B-C GL Orientations Terminal Weeks	-.202	-.333	.429*	.155	.187
Pooled Attitude Systems Initial Weeks	-.454*	-.188	.309	.358	.260
Pooled Attitude Systems Terminal Weeks	-.103	-.165	.115	.269	.242

*R of .410 significant at .05 level of confidence

phenomenal balance or imbalance.

The general conclusion to be drawn is that individual variations in tendencies to have balanced systems exist. While this variation is not a highly consistent trait of the individual, it is predictable from the personality and popularity variables, the particular relationships depending upon whether the attitudinal object is group relevant or personality relevant and depending upon the stage in the acquaintance process considered. In terms of the criterion of whether the person is reacting in terms of the social requirements of the situation, tendencies toward balanced systems are realistic and tend-

encies toward imbalanced systems are autistic by definition and we have in part predicted the occurrence of autistic and realistic processes. But it should be emphasized that we have been concerned with predicting the tendency toward phenomenal balance. Whether such variations in tendencies toward balance or imbalance are actually realistic or autistic depends upon relating the phenomenal system of the individual to the objective system of relationships existing between himself and others. This then brings us to a consideration of the accuracy of the person's systems of orientations and the prediction of such variation from the personality and popularity variables. This takes the task of examining variations in autistic and realistic processes and their determinants one step further.

Tendencies Toward Accuracy

In this section, we will examine individual variations in accuracy of estimates, determine whether such individual differences are consistent, and attempt to account for such variation in terms of our predictor variables. The purpose of the analysis is to illuminate the operation and prediction of autistic and realistic processes and to complement the previous section on tendencies toward balance and is not merely a consideration of accuracy by itself. In the concluding section of the chapter we will inter-compare the relationships obtained in predicting tendencies toward accuracy and tendencies to have balanced systems to obtain the total picture of the variance in autistic and realistic processes operative.

At the onset let us consider a methodological problem central to the analyses: Several theorists, among them Cronbach (1955) have

aptly demonstrated that accuracy (viewed as an individual's capacity) may be sometimes "artifically" a function of real similarity, there occurring a positive relationship between accuracy and real similarity. We first sought to determine whether this tendency existed in the accuracy data of our subjects by correlating raw accuracy scores with actual agreement. Table 19 presents the ranking of subjects

TABLE 19

RANKS OF RAW ACCURACY SCORES

Subject	Accuracy of B-A GL Est.		Accuracy of Spranger Values		Accuracy of B-C GL Est. Pooled Samples		Mean Accuracy Rank	
	Wk.1	Wk.14	Wk.2	Wk.14	In.Wks.	Ter.Wks.	Initial Periods	Terminal Periods
1	4	12	13	7	13.5	8	11	8
2	10	4.5	10	1	7	2	8	1
3	12	14.5	15.5	17	5	12.5	12	17
4	15	6	6.5	3.5	8.5	17	10	7
5	7	1.5	2	16	11	7	7	5
6	11	1.5	3	6	4	3	3	2
7	7	17	15.5	9	6	4	9	12
8	1	7	5	10	13.5	15	6	13
9	7	9	1	3.5	1	1	1	3
10	14	11	17	14	2	11	13	14
11	2.5	8	6.5	5	10	9.5	4.5	4
12	16	3	12	13	12	12.5	15	10.5
13	2.5	4.5	4	11	8.5	9.5	2	6
14	13	13	14	12	16	14	17	16
15	9	10	8.5	2	17	16	14	9
16	5	16	11	15	3	5	4.5	15
17	17	14.5	8.5	8	15	6	16	10.5

with respect to raw accuracy scores. Table 20 presents the correlation by chi-square of accuracy with actual agreement for the three attitudinal areas and at two time periods. As seen from this table, there is a highly significant tendency for accuracy scores to be a

TABLE 20

CORRELATION OF ACCURACY
WITH ACTUAL AGREEMENT

1. Attraction

Actual Agreement	Week 1 Accuracy 0-3.0	3.1-15	
0 - 3.0	93	48	141
4.0 - 15	48	83	131
	141	131	272

$X^2 = 23.38$ df = 1 $p < .01$

Actual Agreement	Week 14 Accuracy 0-3.0	3.1-15	
0 - 3.0	90	59	149
4.0 - 15	35	88	123
	125	147	272

$X^2 = 27.79$ df = 1 $p < .001$

2. Spranger Values

Actual Agreement	Week 2 Accuracy 0-24	25-64	
0 - 3.0	78	53	131
31 - 64	57	84	141
	135	137	272

$X^2 = 9.93$ df = 1 $p < .005$

Actual Agreement	Week 14 Accuracy 0-24	25-64	
0 - 3.0	105	35	140
31 - 64	57	75	132
	162	110	272

$X^2 = 28.56$ df = 1 $p < .001$

3. B-C GL Estimates

Actual Agreement	Pooled Sample Initial Weeks Accuracy 0-3.0	3.1-15	
0 - 3.0	169	132	301
3.1 - 15	129	182	311
	298	314	612

$X^2 = 13.17$ df = 1 $p < .01$

Agreement	Pooled Sample Terminal Weeks Accuracy 0-3.0	3.1-15	
0 - 3.0	216	105	321
3.1 - 15	121	170	291
	337	275	612

$X^2 = 40.77$ df = 1 $p < .01$

function of actual agreement in attitudes. An attempt was made to develop an accuracy score corrected for actual agreement. Particularly drawing upon Hastorf and Bender's suggestion for a refined "empathy" measure (1954), the following measure was developed:

$$Acc' = (Acc)^2 - (RS)^2$$

where Acc' is corrected accuracy, RS is real similarity or actual agreement, and Acc is the raw accuracy score. While the formula is admittedly somewhat arbitrary, it does seem to partial out the very strong contaminating effects upon accuracy of real similarity. Table 21 presents the ranking of subjects with regard to corrected accuracy scores for the three attitudinal objects at initial and terminal periods. The rank correlations between raw accuracy scores and accuracy scores corrected for actual agreement are summarized in Table 22. An examination of the table reveals that the two accuracy measures are quite independent measures, or even negatively related to one another, and their relationships with other variables may be expected to yield different results. Consequently, because the raw accuracy score is the traditional measure, and therefore permits comparisons with other studies, and because the corrected accuracy score has the merits of partialling out the contaminating effects of real similarity, however arbitrary the procedure, the ensuing results are presented employing both sets of scores.

The first question to arise is that of how the ranking of individuals with regard to accuracy relates to the ranking of individuals with reference to the tendency to intercorrelate attraction and perceived agreement or the tendency to have balanced systems. Essentially this is a comparison between individuals of the interrelationship of the tendency to assume balance, which may be either autistic or realistic, with tendencies toward accuracy, a reality-oriented process.

Table 23 presents the rank-order correlations between rankings

TABLE 21

RANKS OF CORRECTED ACCURACY SCORES

Subject	Accuracy of B-A GL Est.		Accuracy of Spranger Values		Accuracy of B-C GL Est. Pooled Samples		Mean Accuracy Rank	
	Wk.1	Wk.14	Wk.2	Wk.14	In.Wks.	Ter.Wks.	Initial Periods	Terminal Periods
1	14	3	10	1	5	9	13	2
2	5.5	11	16	9.5	14	8	15	12
3	8.5	5.5	11	15.5	10	6	14	10.5
4	2.5	13.5	12	6.5	10	7	6.5	10.5
5	5.5	13.5	6.5	2.5	10	2	4	3
6	14	15.5	9	9.5	2	11	8.5	14
7	4	11	6.5	2.5	12.5	10	5	8
8	16.5	9.5	2	6.5	16	15	6.5	5
9	7	9.5	4	13.5	7	14.5	3	15.5
10	10.5	15.5	14.5	16.5	17	12	16	17
11	16.5	5.5	5	16.5	3.5	1	8.5	6.5
12	2.5	17	1	15.5	12.5	14.5	1	9
13	8.5	2	3	13.5	15	17	11	13
14	12	1	13	4.5	1	3.5	10	1
15	10.5	5.5	14.5	9.5	3.5	3.5	2	4
16	14	5.5	17	4.5	16	13	17	6.5
17	1	12	8	9.5	8	16	2	15.5

with regard to tendencies toward balance both with raw accuracy rankings and corrected accuracy rankings. From an examination of the table there is a general tendency for balance rankings and rankings of raw accuracy scores to co-vary, i.e., tendencies toward balance and toward accuracy complement each other or are interdependent, especially in terminal periods. However, this relationship appears to be mediated by the occurrence of actual agreement, since the rankings of tendencies toward balance and rankings of accuracy scores corrected for actual agreement are generally independent or negative of one another. If we partial out the effects of actual agreement, then individuals who tend to have balanced

TABLE 22

SUMMARY OF RANK ORDER CORRELATIONS BETWEEN RAW ACCURACY SCORES AND CORRECTED ACCURACY SCORES FOR THE THREE ATTITUDINAL AREAS EACH AT INITIAL AND TERMINAL PERIODS

Attitude	R Between Raw and Corrected Accuracy
Accuracy of B–A GL Estimates	
Week 1	-.612
Week 14	-.412
Accuracy of Spranger Value Estimates	
Week 2	.443
Week 14	-.034
Accuracy of B–C GL Estimates Pooled Samples	
Initial Weeks	-.437
Terminal Weeks	-.409
Mean Accuracy Rank	
Initial Periods	-.195
Terminal Periods	-.236

systems are no more accurate than individuals who tend to have imbalanced systems; conversely, the assumption of balance does not necessarily occur at the expense of accuracy requirements nor do individuals tend toward balance for the sake of accuracy requirements. Thus, as noted previously, tendencies to assume balance may be either autistic or realistic in nature. Consequently, in the consideration of accuracy as a phenomenon from which we infer reality-oriented processes, it must be remembered that this phenomenon is independent of another phenomenon, namely, tendencies to have balanced systems, which may be either autistic or realistic in nature.

We have hypothesized consistent individual differences in terms of their tendency to be autistically or realistically oriented.

TABLE 23

RANK CORRELATIONS BETWEEN RANKING RE: TENDENCIES TOWARD BALANCE AND RAW ACCURACY AND CORRECTED ACCURACY RANKINGS

Attitude	R - Balance Ranking and Raw Accuracy Ranking	R - Balance Ranking and Corrected Accuracy Ranking
B-A GL Estimates		
Week 1	.578*	.185
Week 14	.310	-.374
Spranger Value Estimates		
Week 2	.163	-.112
Week 14	.027	-.128
B-C GL Estimates		
Pooled Sample		
Initial Weeks	.086	-.085
Terminal Weeks	.205	-.459*
Pooled Attitude Estimates		
Initial Weeks	.346	-.096
Terminal Weeks	.614*	-.291

*R of .410 significant at .05 level of confidence

One prediction derived from this hypothesis is that there will be individual differences in terms of accuracy of estimates and that such differences will be consistently maintained regardless of the attitudinal objects or the period of acquaintance considered. This is a very tentative prediction, particularly in view of the conflicting evidence, regarding an accuracy ability or empathy trait, according to Read's review of the literature (1959).

The occurrence of individual differences in accuracy of estimates was assessed employing both raw accuracy and corrected accuracy scores. Accuracy scores for each individual were plotted against a median break in accuracy scores, giving a 17 by 2 table. Individual differences in accuracy were then compared by chi-square

analysis. The results for the several Xs, each at two time periods are presented in Table 24. With the exception of the Spranger Values, significant individual differences in accuracy are obtained in accuracy un-corrected for actual agreement. For corrected accuracy the variation between individuals decreases.

TABLE 24

INDIVIDUAL DIFFERENCES IN ACCURACY BY CHI-SQUARE

Attitude	Raw Accuracy	Corrected Accuracy $[(RS)^2 - (Acc)^2]$
B-A GL Estimates Week 1	$X^2 = 25.2$ df = 16 $p < .10 > .05$	$X^2 = 74.4$ df = 16 $p < .01$
B-A GL Estimates Week 14	$X^2 = 47.0$ df = 16 $p < .001$	$X^2 = 22.1$ df = 16 $p > .05$
A-V Value Estimates Week 2	$X^2 = 10.9$ df = 16 $p > .05$	$X^2 = 18.0$ df = 16 $p > .05$
A-V Value Estimates Week 14	$X^2 = 14.6$ df = 16 $p > .05$	$X^2 = 18.2$ df = 16 $p > .05$
B-C GL Estimates Sample I Week 2	$X^2 = 23.6$ df = 16 $p < .10 > .05$	$X^2 = 21.3$ df = 16 $p > .05$
B-C GL Estimates Sample I Week 13	$X^2 = 31.0$ df = 16 $p < .01$	$X^2 = 24.6$ df = 16 $p < .10 > .05$
B-C GL Estimates Sample II Week 3	$X^2 = 24.0$ df = 16 $p < .10 > .05$	$X^2 = 19.5$ df = 16 $p > .05$
B-C GL Estimates Sample II Week 14	$X^2 = 12.8$ df = 16 $p > .05$	$X^2 = 26.8$ df = 16 $p < .05 > .01$
B-C GL Estimates Sample III Week 4	$X^2 = 17.7$ df = 16 $p > .05$	$X^2 = 18.0$ df = 16 $p > .05$
B-C GL Estimates Sample III Week 12	$X^2 = 30.2$ df = 16 $p < .05 > .01$	$X^2 = 14.9$ df = 16 $p > .05$

The degree of individual consistency in accuracy of estimates was determined by intercorrelating accuracy rankings of the 17 subjects for different time periods and for different Xs. The results for the rankings of raw accuracy scores are presented in Table 25. Table 26 shows the intercorrelations for the rankings of corrected

TABLE 25

INDIVIDUAL CONSISTENCIES IN UNCORRECTED ACCURACY OF ESTIMATES
RANK-ORDER INTERCORRELATION OF ACCURACY RANKS

Accuracy of	Accuracy of B-A GL Estimates, Wk. 1	B-A GL Estimates, Wk. 14	Spranger Value Estimates Week 2	Spranger Value Estimates Week 14	B-C GL Estimates Pooled Sample, Initial Weeks	B-C GL Estimates Pooled Sample, Terminal Weeks
B-A GL Est. Week 1	1.000	.027	.349	.059	.042	.168
B-A GL Est. Week 14		1.000	.646*	.344	-.026	-.010
Spranger Values Est. Week 2			1.000	.634*	.010	.217
Spranger Values Est. Week 14				1.000	-.110	.159
B-C GL Est. Pooled Sample, Initial Wks.					1.000	.535*
B-C GL Est. Pooled Sample, Termin. Wks.						1.000

*R of .410 significant at .05 level of confidence

accuracy scores. In general we find only slight evidence for consistent individual differences in accuracy, whether in raw accuracy or accuracy corrected for actual agreement. For the un-corrected accuracy there does appear to be a clustering of variables which include B-A attraction estimates at week 14, Spranger Values at both time periods, and a relationship between initial and terminal B-C attraction estimates. This partially supports the prediction. The consistency, as shown by the intercorrelation of accuracy rankings, decreases to

TABLE 26

INDIVIDUAL CONSISTENCIES IN CORRECTED ACCURACY OF ESTIMATES: RANK-ORDER INTERCORRELATION OF ACCURACY RANKS

Accuracy of	Accuracy of: B-A GL Estimates, Wk. 1	B-A GL Estimates, Wk. 14	Spranger Value Estimates Week 2	Spranger Value Estimates Week 14	B-C GL Estimates Pooled Sample, Initial Weeks	B-C GL Estimates Pooled Sample, Terminal Weeks
B-A GL Est. Week 1	1.000	-.504*	.106	-.070	-.390	-.322
B-A GL Est. Week 14		1.000	-.137	.141	.245	.225
Spranger Values Est. Week 2			1.000	-.267	.134	-.179
Spranger Values Est. Week 14				1.000	.146	.211
B-C GL Est. Pooled Sample, Initial Wks.					1.000	.506*
B-C GL Est. Pooled Sample, Termin. Wks.						1.000

*R of .410 significant at .05 level of confidence

a generally insignificant degree when the accuracy scores are controlled for actual agreement, with the exception of the relation between the 2 indices B-C attraction accuracy. In summary, the prediction of consistent individual differences in accuracy of estimates receives only partial support from our data.

While accuracy did not appear to be a consistent or general trait of the individual, the question remained as to whether persons with different personality characteristics or different status in

the group would show differences in accuracy of estimates. It was predicted that authoritarianism and need for achievement would give rise to autistic processes and consequently a relative low degree of accuracy, while need for affiliation and popularity would be associated with reality-oriented processes and, hence, a relatively high degree of accuracy. Rank-order correlations were computed between the personality and popularity measures with individual rankings in accuracy for the three sets of attitudes, each at initial and terminal periods. The results for the relationships between the predictor variables and uncorrected accuracy rankings are presented in Table 27.

TABLE 27

CORRELATION OF PERSONALITY AND POPULARITY DATA WITH RAW ACCURACY SCORES

Accuracy of	F-Scale	n Ach.	n Aff.	Popularity Week 1	Popularity Week 14
B-A GL Est., Week 1	.196	-.375	.016	-.289	-.284
B-A GL Est., Week 14	-.259	-.198	.046	.276	.274
Spranger Value Est. Week 2	-.503*	-.257	.172	.458*	.393
Spranger Value Est. Week 14	-.376	.178	-.078	.320	.440*
B-C GL Est., Pooled Sample, Initial Wks.	-.112	-.111	.334	-.089	-.095
B-C GL Est., Pooled Sample, Termin. Wks.	-.297	-.346	.012	.186	.303
Mean Accuracy Rank Initial Periods	-.258	-.401	.261	.081	.049
Mean Accuracy Rank Terminal Periods	-.466*	-.194	-.013	.491*	.478*

*R of .410 significant at .05 level of confidence

The negative relationship between authoritarianism and accuracy of estimates found by many investigators (see the review by Christie) is obtained. Authoritarianism is especially related to distortion in estimating the Spranger Values. The general, negative relationship is especially true for terminal periods of the acquaintance process, a significant correlation of -.466 between authoritarianism and mean accuracy rank for the terminal periods being obtained. And the expected positive relationship between popularity and accuracy of estimates is found for the terminal weeks. This relationship is particularly due to the superior ability of popular group members in estimating Spranger Values. Finally, the predicted inverse relationship between need for achievement and accuracy of estimates is obtained for the pooled accuracy scores for the initial weeks, the rank-order correlation being -.401 (just missing the .05 level of significance). With the exception of need for affiliation, the predicted relationships between the personality and popularity measures with accuracy rankings are obtained.

An interesting reversal in the results occurs when the personality and popularity measures are correlated with rankings in accuracy scores corrected for actual agreement. The rank-order correlations between the predictor variables and corrected accuracy scores are summarized in Table 28. A significant <u>positive</u> relationship between authoritarianism and accuracy of the pooled estimates for the terminal periods emerges (R = .573), whereas the previous correlation between authoritarianism and mean uncorrected accuracy rank for the terminal periods was significantly negative. Another reversal occurs for the relationship between popularity ranking and accuracy ranking:

TABLE 28

CORRELATION OF PERSONALITY AND POPULARITY DATA WITH CORRECTED ACCURACY SCORES

Accuracy of	F-Scale	n Ach.	n Aff.	Popularity Week 1	Popularity Week 14
B-A GL Est. Week 1	-.284	+.236	+.037	+.696*	+.573*
B-A GL Est. Week 14	+.442*	-.086	-.263	-.288	-.324
Spranger Value Est. Week 2	-.015	+.087	-.236	+.445*	+.445*
Spranger Value Est. Week 14	+.095	-.343	+.114	-.110	+.083
B-C GL Est., Pooled Sample, Initial Wks.	+.087	+.163	-.104	+.045	+.178
B-C GL Est., Pooled Sample, Termin. Wks.	+.508*	-.153	+.291	-.353	-.447*
Mean Accuracy Rank Initial Periods	-.228	+.243	-.085	+.737*	+.721*
Mean Accuracy Rank Terminal Periods	+.573*	-.191	+.002	-.301	-.294

*R of .410 significant at .05 level of confidence

Whereas popularity was significantly related to mean uncorrected accuracy for the terminal periods, employing corrected accuracy scores yields a highly significant relationship between the predictor variables (both at weeks 1 and 14) and mean corrected accuracy for the initial periods (R = .737 and .721 respectively). No relationship emerges between corrected accuracy ranks and need for achievement or need for affiliation ranking.

Apparently the relationships between uncorrected accuracy and the personality and popularity variables are mediated by the presence of actual agreement. Partialling out actual agreement

produces a different set of relationships. To check this possibility let us consider the relationships between the personality and popularity variables and ranking with regard to actual agreement in attitudes, which is summarized in the previously presented Table 18. This explanation indeed seems plausible in interpreting the negative relationship between authoritarianism and uncorrected accuracy ranking for the Spranger Values. An examination of the table shows a significant negative relationship between ranking with regard to authoritarianism and actual agreement in Spranger Values. Thus, non-authoritarians have values more similar to other group members than do authoritarians and are able more accurately and easily to estimate others' values, in terms of the criterion of uncorrected accuracy. It is, therefore, the partialling out of actual agreement to obtain a refined accuracy score which yields a reversal between authoritarianism and accuracy from a significantly negative to a significantly positive relationship in the terminal periods of acquaintance. A similar interpretation follows for the relationship between popularity and accuracy. The relationship between popularity and raw accuracy in the terminal periods is mediated by the fact of a relationship between popularity and actual agreement in attitudes. Partialling out actual agreement has the effect of producing an insignificant negative relationship between popularity and accuracy ranking in the terminal periods and producing a highly significantly positive relationship between popularity and accuracy ranking in the initial periods, as we would predict. We must conclude then that popularity is particularly related to accuracy of estimates in the initial periods and authoritarianism is related to accuracy of estimates in the terminal

periods when the effects of actual agreement are partialled out.

In summary the following conclusions may be drawn from the results of the analyses concerned with accuracy of estimates:

1) Initially it was found that tendencies toward corrected accuracy are relatively independent of tendencies toward balance, as shown by the absence of a relationship between corrected accuracy rankings and rankings of individuals according to the degree to which they intercorrelate attraction and perceived agreement; any positive relationship appears to be mediated by the existence of actual agreement.

2) Individuals differ significantly among themselves in relative degree of accuracy of estimates of attraction and attitudes. Accuracy does not appear to be a general trait of the individual in terms of the results obtained. Little or no consistency in rankings with regard to accuracy is found. Rather, accuracy rankings are a function of the attitudinal object under consideration and vary as a function of the point in the acquaintance process at which the assessment is made.

3) However, tendencies toward accuracy, both raw and corrected accuracy, are predicted from the personality and group status variables. As predicted, raw accuracy of estimates is negatively related to authoritarianism and need for achievement and positively related to popularity status for the terminal periods of the acquaintance process. It was shown that these relationships between uncorrected accuracy and the personality and popularity variables are mediated by the presence of actual agreement. A reversal in the relationship occurs when the personality and popularity measures are

correlated with rankings in accuracy scores corrected for actual agreement. A positive relationship was obtained between authoritarianism and corrected accuracy of estimates in the terminal periods and a highly positive relationship between the popularity rankings and corrected accuracy rankings was obtained for the initial periods of acquaintance. Whether the selected predictor variables give rise to either autistic or realistic processes depends upon the stage of the acquaintance process considered. An interpretation of the operation of autistic or realistic processes, as inferred from the phenomenon of relative accuracy of estimates, will be reserved until we have considered two additional phenomena indicative of these processes, viz., accuracy of systems in strain or balance and tendencies to interrelate perceived agreement with actual agreement.

Accuracy of Systems in Strain or Balance

In this section we will consider a third phenomenon which is inferred to be indicative of the relative degree of autistic or realistic processes operative, viz., the accuracy of systems in strain or balance. While, in one sense this consideration may be viewed as complementing the findings with regard to general accuracy of estimates, in another sense we view the conditions of system strain and balance as an especially important case under which autistic and realistic processes will be operative. The conditions of high positive attraction, involved in generating strain or balance will be on the one hand especially likely to give rise to autistic distortion, but on the other hand will increase the possibilities of communicative exchange and hence the probabilities of accurate appraisal of other

attitudes. Further, the presence of system strain itself is assumed to give rise to psychological stress and hence increases processes of autistic distortion, but balance-inducing forces and the attainment of balanced systems may also occur either through processes of autistic distortion or realistic appraisal, particularly in view of the importance and relevance of the attitude to the individual. Consequently, for these reasons we view conditions of system strain and balance as especially relevant in giving rise to autistic and/or realistic processes.

The predictions to be tested in this section are as follows: First, assuming that individuals differ in their relative degree of autistic or realistic orientation, we predict consistent individual differences in degree of distortion under conditions of system strain or balance. Second, positing that authoritarianism and need for affiliation will give rise to autistic processes, while need for achievement and popularity status will generate realistic processes, it was predicted that relative accuracy of systems in strain and balance would be negatively related to authoritarianism and need for affiliation and positively related to need for achievement and popularity status.

The operations for defining system strain and balance have been reviewed in Chapter III. It may be useful to reiterate them at this point. Balance was defined as perceived agreement under conditions of high attraction and strong cathexis upon the X, assuming relevance and importance of the object of co-orientation. Strain was defined conversely as perceived discrepancy under conditions of high attraction and strong cathexis upon the X, again assuming rele-

vance and importance of the object of co-orientation. Specifically, the following method of operationalizing strain and balance was employed: The first four ranks of the general like continuum were taken as representing high attraction. Perceived agreement or discrepancy was dichotomized into one or the other category--generally less than four ranks of discrepancy between own and estimated others' attitudes was taken as perceived agreement, more than four as perceived discrepancy. Relevance and importance were assumed present and constant. Only those systems fulfilling these requirements were selected, i.e., systems under high attraction, classified as being in strain or balance on the basis of falling into either of the categories of perceived discrepancy or perceived agreement. The same procedure was employed in operationalizing systems in strain or balance for attraction reciprocity, Spranger Values, and B-C attraction estimates.

Mean accuracy scores for systems in strain and balance for each subject for the different attitude objects, each measured at an initial and final period, were computed. Because, in general, degree of accuracy was not found to be highly correlated with whether systems are in strain or balance (see Chapter III), accuracy scores were determined combining systems in strain and balance. This combination was especially necessitated by the small and unequal number of systems meeting the criterion of being in strain or balance for each subject from which accuracy was determined. Separate consideration of systems in strain and balance would yield less reliable accuracy measures and make comparisons between individuals difficult. For purposes of comparison, both mean raw accuracy scores and accuracy scores corrected for actual agreement were determined. While the results employing

raw accuracy measures might be viewed as not particularly meaningful, when compared to the results based on corrected accuracy, they do permit comparison when one objective condition is varied, viz., actual agreement. Further, because of the somewhat arbitrary nature of the corrected accuracy scores, a basis of comparison was thought necessary, i.e., the raw accuracy measures traditionally employed in the literature.

Let us first consider the results of accuracy of systems in strain and balance when raw accuracy is employed as the measure. Table 29 presents the ranking of subjects in accuracy of systems in

TABLE 29

RANKS OF RAW ACCURACY OF SYSTEMS IN STRAIN AND BALANCE

Subject	Accuracy of B-A GL Est.		Accuracy of Spranger Value Est.		Accuracy of B-C GL Est. Pooled Samples		Mean Accuracy Rank	
	Wk.1	Wk.14	Wk. 2	Wk.14	In.Wks.	Ter.Wks.	Initial Periods	Terminal Periods
1	3.5	13	6	3.5	17	8	6	7
2	9	8	10	2	3	1	5	2
3	15	10	17	17	2	17	14.5	16
4	7	1	2	3.5	7	2	3	1
5	12	5	11	13	10	4	13	6
6	14	2	3	11.5	13	6	8.5	5
7	6	6	16	5.5	9	5	10	4
8	10	15	5	8	15	12.5	8.5	13
9	8	7	1	5.5	1	3	1	3
10	17	16	8.5	9	5	7	16	11.5
11	11	9	13	14	8	9	11.5	11.5
12	5	3.5	15	11.5	12	10	11.5	8
13	1	3.5	12	10	4	14	4	10
14	2	14	4	7	6	16	2	14
15	3.5	12	8.5	16	16	11	7	15
16	13	17	14	15	14	12.5	17	17
17	16	11	7	1	11	15	14.5	9

strain and balance for each of the attitudinal objects, measured at initial and terminal periods. These ranks of accuracy were based on scores which evidenced wide individual variations. The prediction of individual consistencies in accuracy of estimates of systems in strain and balance was tested by assessing the degree of intercorrelation of accuracy rankings for different time periods and for different Xs. The results are presented in Table 30. These findings indicate that consistent individual differences emerge in the terminal periods, but are not found in the initial weeks, as seen by the significant relationships between the rankings of the attitudinal measures at this stage of the acquaintance process. The prediction of individual consistencies is supported therefore in the terminal periods.

TABLE 30

INDIVIDUAL CONSISTENCIES IN RAW ACCURACY OF SYSTEMS IN STRAIN OR BALANCE--RANK-ORDER INTERCORRELATION OF ACCURACY RANKS

Accuracy of	(1)	(2)	(3)	(4)	(5)	(6)
(1) B—A GL Est., Wk. 1	1.000	.214	.093	.155	-.083	-.040
(2) B—A GL Est., Wk. 14		1.000	.032	.098	.076	.462*
(3) Spranger Value Est. Week 2			1.000	.501*	-.049	.250
(4) Spranger Value Est. Week 14				1.000	.138	.406*
(5) B—C GL Est., Pooled Samples, Init. Wks.					1.000	.091
(6) B—C GL Est., Pooled Samples, Term. Wks.						1.000

*R of .410 significant at .05 level of confidence

The prediction of personality and group status differences in raw accuracy of systems in strain and balance was then tested. Table 31 summarizes the rank-order correlations of the personality

TABLE 31

RANK-ORDER CORRELATION OF PERSONALITY AND POPULARITY WITH RAW ACCURACY OF SYSTEM STRAIN AND BALANCE RANKINGS

Accuracy of System in Strain or Balance of	F-Scale	n Ach.	n Aff.	Popularity Week 1	Popularity Week 14
B-A GL Est. Week 1	.225	.294	-.561*	.216	.331
B-A GL Est. Week 14	-.399	.017	.140	.739*	.633*
Spranger Value Est. Week 2	-.231	.143	-.139	.156	.474*
Spranger Value Est. Week 14	-.121	.086	-.300	.336	.648*
B-C GL Est., Pooled Sample, Initial Wks.	.047	.116	.002	.135	.018
B-C GL Est., Pooled Sample, Termin. Wks.	-.202	-.056	.207	.277	.332
Mean Accuracy Rank Initial Periods	-.089	.162	-.311	.275	.451*
Mean Accuracy Rank Terminal Periods	-.369	-.007	.026	.605*	.743*

*R of .410 significant at .05 level of confidence

and popularity measures with the rankings of raw accuracy of systems in strain and balance. As seen from this table, while there is some tendency for accuracy to be negatively related to need for affiliation in the initial periods and to be negatively related to authoritarianism in the terminal periods, only popularity ranking emerges as a significant predictor of accuracy of systems in strain and balance.

These relationships between popularity status and raw accuracy of systems in strain or balance are much higher than the relationships found to obtain between popularity status and general accuracy of estimates as presented in the preceding section. While the prediction receives support as far as the popularity-accuracy relationship is concerned, the question remains as to whether the results are mediated by actual agreement or whether other relationships are suppressed because of the presence or absence of this condition. The results on general accuracy, presented in the previous section, indicated that this was indeed the case.

A more unequivocal test of the predictions concerning accuracy of systems in strain and balance may be made employing accuracy measures corrected for actual agreement. Table 32 presents the

TABLE 32

RANKS OF CORRECTED ACCURACY OF SYSTEMS IN STRAIN AND BALANCE

Subject	Accuracy of B-A GL Est.		Accuracy Spranger Value Est.		Accuracy of B-C GL Est., Pooled Samples		Mean Accuracy Rank	
	Wk.1	Wk.14	Wk.2	Wk.14	In.Wks.	Ter. Wks.	Initial Periods	Terminal Periods
1	17	2	8.5	1	1	11	9	3
2	14	6.5	11	9.5	10	13	13	10
3	8	15	8.5	15	5	12	7	15.5
4	5	8	12.5	13.5	15	5.5	11	8
5	9	11	12.5	17	12	14	12	15.5
6	6	6.5	4	5	7	10	3	6
7	2	12	16	7	16	15	14	13
8	12	1	1	8	2.5	7.5	2	5
9	3	4	10	4	6	3.5	4.5	2
10	16	17	7	9.5	17	9	16	4
11	10	10	6	16	9	5.5	8	11
12	4	9	2	12	2.5	7.5	1	9
13	7	5	5	13.5	8	3.5	6	7
14	13	3	3	6	13	2	10	1
15	11	16	15	11	11	16	15	17
16	15	14	17	2	14	17	17	12
17	1	13	14	3	4	1	4.5	4

rankings of subjects in corrected accuracy of systems in strain and balance for each of the attitudinal objects, each measured at initial and terminal periods. The rankings based on corrected accuracy scores show wide individual variations. To test the prediction of individual consistencies in corrected accuracy of systems in strain or balance, the accuracy rankings for different Xs and different time periods were inter-correlated and are presented in Table 33. As seen from

TABLE 33

INDIVIDUAL CONSISTENCIES IN CORRECTED ACCURACY OF SYSTEMS IN STRAIN OR BALANCE RANK-ORDER INTERCORRELATION OF CORRECTED ACCURACY RANKS

Corrected Accuracy of	B-A GL Estimates, Wk. 1	B-A GL Estimates, Wk. 14	Spranger Value Estimates Week 2	Spranger Value Estimates Week 14	B-C GL Estimates, Pooled Sample, Initial Weeks	B-C GL Estimates, Pooled Sample, Terminal Weeks
B-A GL Est. Week 1	1.000	-.182	-.112	-.351	.141	.396
B-A GL Est. Week 14		1.000	.557*	.260	.456*	.441*
Spranger Values Est. Week 2			1.000	-.154	.493*	.302
Spranger Values Est. Week 14				1.000	.184	.046
B-C GL Est., Pooled Sample, Initial Wks.					1.000	.291
B-C GL Est., Pooled Sample, Termin. Wks.						1.000

*R of .410 significant at the .05 level of confidence

the table, there is some tendency for individual consistency, as evidenced from the clustering of correlations among B-A attraction estimates Week 14, the Spranger Values at both Weeks 2 and 14, and the initial and final measures of B-C attraction estimates.

Again we attempted to interpret the variation in corrected accuracy of systems in strain and balance in terms of the personality and popularity predictor variables. Table 34 summarizes the rank-

TABLE 34

RANK-ORDER CORRELATION OF PERSONALITY AND POPULARITY WITH CORRECTED ACCURACY OF SYSTEM STRAIN AND BALANCE RANKINGS

Corrected Accuracy of Systems in Strain or Balance of	F-Scale	n Ach.	n Aff.	Popularity Week 1	Popularity Week 14
B-A GL Est. Week 1	-.445*	.318	.094	.929*	.691*
B-A GL Est. Week 14	.102	-.222	-.307	.059	.385*
Spranger Value Est. Week 2	.385	.065	-.365	-.207	.004
Spranger Value Est. Week 14	-.045	.021	-.265	-.118	.268
B-C GL Est., Pooled Sample, Initial Wks.	-.032	-.286	-.212	.134	.376
B-C GL Est., Pooled Sample, Termin. Wks.	.001	.322	-.477*	.420*	.482*
Mean Accuracy Rank Initial Periods	-.108	-.045	-.177	.341	.546*
Mean Accuracy Rank Terminal Periods	-.023	.010	-.470*	.219	.602*

*R of .410 significant at .05 level of confidence

order correlations of personality and popularity rankings with the corrected accuracy of system strain and balance rankings. As seen from the table, popularity as a significant predictor of accuracy is

maintained in spite of the fact that actual agreement has been partialled out; the relationship is highly significant particularly when popularity at Week 14 is employed as the predictor. In addition, it is seen that need for affiliation is negatively related to accuracy of systems in strain and balance in the terminal weeks; the relationship is largely due to the negative relationship between need for affiliation and accuracy of B-C attraction estimates. This is counter to our prediction. No relationships exist between authoritarianism or need for achievement on the one hand and corrected accuracy of systems in strain or balance on the other.

In conclusion, the occurrence of autistic or realistic processes under conditions of system strain or balance is partially accounted for in terms of our predictor variables, which cannot be attributed to the contaminating effects of actual agreement. The following conclusions concerning processes of distortion, or conversely accurate appraisal, under conditions of system strain or balance may be drawn: 1) Wide individual variations in relative accuracy of their systems in strain or balance are obtained; 2) A moderate degree of individual consistency in accuracy under conditions of strain or balance is found, whether the measure employed is raw accuracy or accuracy corrected for actual agreement; 3) Such variance in accuracy of systems in strain or balance can be accounted for in terms of the variable of popularity status which can not be attributable to the mediating effects of actual agreement. Further, need for affiliation is negatively related to corrected accuracy of systems in strain and balance, emerging as a finding counter to our prediction. We failed to obtain the predicted inverse relationships

between authoritarianism or need for achievement on the one hand and accuracy of system strain or balance on the other. Therefore, the predictions of this section received partial support.

Autism, Realism, and Contra-Autism

A final phenomenon indicative of either autistic or realistic processes in co-orientation will be considered in this section, viz., the tendency to relate perceived agreement and actual agreement. Such a consideration will not only complement the findings concerning accuracy but will illuminate the processes involved, viz., whether the person assumes greater perceived agreement than actual agreement--"autism"; or underestimates the degree of actual agreement in his estimates of perceived agreement--"contra-autism"; or is "realistic" --perceived agreement equaling actual agreement. By determining tendencies in one direction or another we will be partially successful in separating out the effects of autistic distortion from sheer error of estimates.

We first predict consistent individual differences in relative degrees of autism, realism, or contra-autism. The second prediction to be tested is that differences in these tendencies will be related to the personality and popularity variables, specifically that degree of autism or contra-autism will be positively related to authoritarianism and need for affiliation and inversely related to need for achievement and popularity status.

While we are interested particularly in the occurrence of autistic, realistic, or contra-autistic responses under conditions of system strain or balance, it was necessary to consider all the

systems of the individual to overcome possible regressive effects. To consider only systems in strain or balance would mean analyzing only instances involving high attraction where the statistical artifact of actual agreement would increase the probabilities of autistic responses as compared to realistic or contra-autistic responses.

Table 35 presents the frequencies of occurrence of the three

TABLE 35a

INDIVIDUAL DIFFERENCES IN THE RELATION OF ASSUMED SIMILARITY TO REAL SIMILARITY: ATTRACTION

	Week 1				Week 14			
Subject	AS > RS	AS = RS	AS < RS	Rank. of Prop. of Realism to Autism and Contra-Autism	AS > RS	AS = RS	AS < RS	Rank. of Prop. of Realism to Autism and Contra-Autism
1	6	6	3	4	6	3	7	12
2	7	5	4	12	7	6	3	5.5
3	5	4	1	14.5	9	2	5	14.5
4	5	7	4	4	7	6	3	5.5
5	4	8	4	1.5	5	8	2	1
6	10	2	4	16.5	8	8	2	2
7	7	6	3	8	6	7	3	3.5
8	9	4	3	14.5	4	5	7	7.5
9	4	8	5	6	7	4	5	9.5
10	6	6	4	8	11	3	2	12
11	10	6	0	8	8	3	7	12
12	5	6	5	8	11	5	0	7.5
13	7	7	2	4	4	7	5	3.5
14	6	8	2	1.5	3	2	11	14.5
15	7	5	4	12	8	4	4	9.5
16	9	5	2	12	12	1	3	16.5
17	7	2	7	16.5	11	1	4	16.5

cases of the relation of perceived agreement to actual agreement, viz., autistic, realistic, and contra-autistic responses for attraction, Spranger Values, and pooled samples of B-C attraction estimates each for initial and terminal weeks. Somewhat wide individual differ-

TABLE 35b

INDIVIDUAL DIFFERENCES IN THE RELATION OF ASSUMED SIMILARITY TO REAL SIMILARITY: SPRANGER VALUES

Subject	Week 1 AS > RS	AS = RS	AS < RS	Rank. of Prop. of Realism to Autism and Contra-Autism	Week 14 AS > RS	AS = RS	AS < RS	Rank. of Prop. of Realism to Autism and Contra-Autism
1	4	7	5	4.5	4	8	4	5
2	4	5	7	10.5	5	10	1	1
3	12	4	0	13.5	13	2	1	17
4	5	8	3	2.5	8	7	1	9.5
5	1	2	13	15.5	3	7	6	9.5
6	2	10	4	1	4	8	4	5
7	14	2	0	15.5	9	5	2	13
8	6	6	4	7	6	9	1	2
9	6	7	3	4.5	5	8	3	5
10	4	5	6	10.5	7	7	2	9.5
11	7	5	4	10.5	6	8	2	5
12	15	1	0	17	13	3	0	16
13	7	6	3	7	9	7	0	9.5
14	4	8	4	2.5	7	4	5	14.5
15	5	5	6	10.5	9	4	3	14.5
16	8	4	4	13.5	7	6	3	12
17	6	6	4	7	5	8	3	5

ences in these types of responses are seen to occur, but it is also evident that all individuals show all three tendencies toward autistic, realistic, and contra-autistic responses to some degree.

Are these differences predictable? Tables 36 through Table 40 show the chi-square analysis of the relations of the personality and popularity dimensions to the frequency of occurrence of autistic, realistic, and contra-autistic responses. The results of these analyses are summarized in Table 41. Considering all the possible relationships, the number of significant relationships emerging is relatively low. There is some evidence to indicate that the personality measures, specifically the F-scale and need for achievement,

TABLE 35c

INDIVIDUAL DIFFERENCES IN THE RELATION OF ASSUMED SIMILARITY TO REAL SIMILARITY: B-C ORIENTATIONS--3 SAMPLES POOLED

Subject	Week 1				Week 14			
	AS > RS	AS = RS	AS < RS	Rank. of Prop. of Realism to Autism and Contra-Autism	AS > RS	AS = RS	AS < RS	Rank. of Prop. of Realism to Autism and Contra-Autism
1	14	10	12	11	17	12	7	10
2	12	13	11	3.5	12	12	12	10
3	14	12	10	5	13	18	5	1.5
4	14	10	12	11	13	13	10	8
5	17	11	8	7	11	15	10	4.5
6	17	10	9	11	10	17	9	3
7	12	14	10	1.5	12	18	6	1.5
8	17	6	13	16.5	8	9	19	15
9	12	14	10	1.5	11	14	11	6.5
10	15	13	8	3.5	19	11	6	13
11	14	10	12	11	10	12	14	10
12	14	9	13	14	18	8	10	16
13	17	10	9	11	18	11	7	13
14	10	11	15	7	6	14	16	6.5
15	19	6	11	16.5	14	7	15	17
16	16	8	12	15	12	15	9	4.5
17	14	11	11	7	12	11	13	13

are positively related to the occurrence of autism for the Spranger Values as we would expect, while need for affiliation is inversely related to the occurrence of autism, as predicted. Further, initial popularity status is significantly related to the occurrence of realistic responses as compared to autistic or contra-autistic ones for attraction reciprocity at Week 14, while we find popularity status is significantly related to autism and inversely to the occurrence of contra-autism for the Spranger Values.

These results suggested that the personality and popularity variables might be accounting in part for the occurrence of distortion

TABLE 36

CORRELATION OF F-SCORE RANKS WITH OCCURRENCE OF AUTISTIC, REALISTIC, AND CONTRA-AUTISTIC RESPONSES*

1. Attraction

	Week 1				Week 14		
	High F	Low F			High F	Low F	
Autistic	61(61.9)	56(55.0)	117	Autistic	61(65.1)	62(57.9)	123
Realistic	55(49.8)	39(44.2)	94	Realistic	39(40.2)	37(35.8)	76
Contra-Autistic	28(32.9)	33(28.7)	61	Contra-Autistic	44(38.6)	29(34.3)	73
	144	128	272		144	128	272
X^2 = 2.34	df = 2	p > .05		X^2 = 2.19	df = 2	p > .05	

2. Spranger Values

	Week 2				Week 14		
	High F	Low F			High F	Low F	
Autistic	67(58.2)	43(51.8)	110	Autistic	68(63.5)	52(56.5)	120
Realistic	41(48.7)	51(43.2)	92	Realistic	53(58.7)	58(52.3)	111
Contra-Autistic	36(37.0)	34(33.0)	70	Contra-Autistic	23(21.7)	18(19.3)	41
	144	128	272		144	128	272
X^2 = 5.51	df =	p < .10 > .05		X^2 = 2.02	df = 2	p > .05	

3. B-C Orientations

	Initial Weeks				Terminal Weeks		
	High F	Low F			High F	Low F	
Autistic	128 (132.9)	121 (116.1)	249	Autistic	120 (118.5)	102 (103.5)	222
Realistic	96 (95.0)	82 (83.0)	178	Realistic	117 (115.9)	100 (101.1)	217
Contra-Autistic	106 (102.0)	85 (89.0)	191	Contra-Autistic	93 (95.6)	86 (83.4)	179
	330	288	618		330	288	618
X^2 = .59	df = 2	p > .05		X^2 = .21	df = 2	p > .05	

*Autistic - Perceived Agreement > Actual Agreement
Realistic - Perceived Agreement = Actual Agreement
Contra-Autistic - Perceived Agreement < Actual Agreement

TABLE 37

CORRELATION OF n ACHIEVEMENT RANKS WITH OCCURRENCE OF AUTISTIC, REALISTIC, AND CONTRA-AUTISTIC RESPONSES*

1. Attraction

	Week 1			Week 14		
	High n Ach	Low n Ach		High n Ach	Low n Ach	
Autistic	47(55.0)	70(61.9)	117	57(57.9)	66(65.1)	123
Realistic	51(44.2)	43(49.8)	94	38(35.8)	38(40.2)	76
Contra-Autistic	30(28.7)	31(32.9)	61	33(34.3)	40(38.6)	73
	128	144	272	128	144	272
X^2 = 4.34	df = 2 p > .05			X^2 = .37	df = 2 p > .05	

2. Spranger Values

	Week 2			Week 14		
	High n Ach	Low n Ach		High n Ach	Low n Ach	
Autistic	60(51.8)	50(58.2)	110	67(56.5)	53(63.5)	120
Realistic	42(43.2)	50(48.7)	92	42(43.2)	50(46.7)	111
Contra-Autistic	26(33.0)	44(37.0)	70	16(19.3)	25(21.7)	41
	128	144	272	128	144	272
X^2 = 5.32	df = 2 p < .10 > .05			X^2 = 6.67	df = 2 p < .05	

3. B-C Orientations

	Initial Weeks			Terminal Weeks		
	High n Ach	Low n Ach		High n Ach	Low n Ach	
Autistic	113 (116.1)	136 (132.9)	249	111 (103.5)	111 (118.5)	272
Realistic	87 (83.0)	91 (95.0)	178	96 (101.1)	121 (115.9)	217
Contra-Autistic	88 (89.0)	103 (102.0)	191	81 (83.4)	98 (95.6)	179
	288	330	618	288	330	618
X^2 = .53	df = 2 p > .05			X^2 = 1.61	df = 2 p > .05	

*Autistic - Perceived Agreement > Actual Agreement
Realistic - Perceived Agreement = Actual Agreement
Contra-Autistic - Perceived Agreement < Actual Agreement

TABLE 38

CORRELATION OF NEED AFFILIATION WITH OCCURRENCE OF AUTISTIC, REALISTIC, AND CONTRA-AUTISTIC RESPONSES*

1. Attraction

	Week 1 High n Aff	Week 1 Low n Aff		Week 14 High n Aff	Week 14 Low n Aff	
Autistic	59(55.0)	58(61.9)	117	56(57.9)	67(65.1)	123
Realistic	41(44.2)	53(49.8)	94	44(35.8)	32(40.2)	76
Contra-Autistic	28(28.7)	33(32.9)	61	28(34.3)	45(38.6)	73
	128	144	272	128	144	272
	X^2 = 1.00 df = 2 p > .05			X^2 = 5.88 df = 2 p < .10 > .05		

2. Spranger Values

	Week 2 High n Aff	Week 2 Low n Aff		Week 14 High n Aff	Week 14 Low n Aff	
Autistic	52(51.8)	58(58.2)	110	55(56.5)	65(63.5)	120
Realistic	41(43.2)	51(48.7)	92	54(52.3)	57(58.7)	111
Contra-Autistic	35(33.0)	35(37.0)	70	19(19.3)	22(21.7)	41
	128	144	272	128	144	272
	X^2 = .47 df = 2 p > .05			X^2 = .21 df = 2 p > .05		

3. B-C Orientations

	Initial Weeks High n Aff	Initial Weeks Low n Aff		Terminal Weeks High n Aff	Terminal Weeks Low n Aff	
Autistic	119 (116.1)	130 (132.9)	249	91 (103.5)	131 (118.5)	222
Realistic	84 (83.0)	94 (95.0)	178	117 (101.1)	100 (115.9)	217
Contra-Autistic	85 (89.0)	106 (102.0)	191	80 (83.4)	99 (95.6)	179
	288	330	618	288	330	618
	X^2 = .49 df = 2 p > .05			X^2 = 7.77 df = 2 p < .025		

*Autistic - Perceived Agreement > Actual Agreement
Realistic - Perceived Agreement = Actual Agreement
Contra-Autistic - Perceived Agreement < Actual Agreement

TABLE 39

CORRELATION OF POPULARITY RANKS (WK. 1), WITH OCCURRENCE OF AUTISTIC, REALISTIC, AND CONTRA-AUTISTIC RESPONSES*

1. Attraction

	Week 1				Week 14		
	High Pop.	Low Pop.			High Pop.	Low Pop.	
Autistic	49(55.0)	68(61.9)	117	Autistic	57(57.9)	66(65.1)	123
Realistic	44(44.2)	50(49.8)	94	Realistic	47(35.8)	29(40.2)	76
Contra-Autistic	35(28.7)	26(32.9)	61	Contra-Autistic	24(34.3)	49(38.6)	73
	128	144	272		128	144	272
X^2 = 4.10	df = 2 p > .05			X^2 = 12.55	df = 2 p < .01		

2. Spranger Values

	Week 2				Week 14		
	High Pop.	Low Pop.			High Pop.	Low Pop.	
Autistic	56(51.8)	54(58.2)	110	Autistic	56(56.5)	64(63.5)	120
Realistic	42(43.2)	50(48.7)	92	Realistic	53(52.3)	58(58.7)	111
Contra-Autistic	30(33.0)	40(37.0)	70	Contra-Autistic	19(19.3)	22(21.7)	41
	128	144	272		128	144	272
X^2 = 1.21	df = 2 p > .05			X^2 = .09	df = 2 p > .05		

3. B-C Orientations

	Initial Weeks				Terminal Weeks		
	High Pop.	Low Pop.			High Pop.	Low Pop.	
Autistic	117 (116.1)	132 (132.9)	249	Autistic	105 (103.5)	117 (118.5)	222
Realistic	89 (89.0)	89 (95.0)	178	Realistic	107 (101.1)	110 (115.9)	217
Contra-Autistic	82 (89.0)	109 (102.0)	191	Contra-Autistic	76 (83.4)	103 (105.6)	179
	288	330	618		288	330	618
X^2 = 1.65	df = 2 p > .05			X^2 = 1.93	df = 2 p > .05		

*Autistic - Perceived Agreement > Actual Agreement
Realistic - Perceived Agreement = Actual Agreement
Contra-Autistic - Perceived Agreement < Actual Agreement

TABLE 40

CORRELATION OF POPULARITY RANKS, WK. 14, WITH OCCURRENCES OF AUTISTIC, REALISTIC, AND CONTRA-AUTISTIC RESPONSES*

1. Attraction

	Week 1				Week 14		
	High Pop.	Low Pop.			High Pop.	Low Pop.	
Autistic	51(55.0)	66(61.9)	117	Autistic	58(57.9)	65(65.1)	123
Realistic	43(44.2)	51(49.8)	94	Realistic	41(35.8)	35(40.2)	76
Contra-Autistic	34(28.7)	27(32.9)	61	Contra-Autistic	29(34.3)	44(38.6)	73
	128	144	272		128	144	272
X^2 = 2.63	df = 2 p > .05			X^2 = 2.99	df = 2 p > .05		

2. Spranger Values

	Week 2				Week 14		
	High Pop.	Low Pop.			High Pop.	Low Pop.	
Autistic	59(51.8)	51(58.2)	110	Autistic	57(56.5)	63(63.5)	120
Realistic	47(43.2)	45(48.7)	92	Realistic	54(52.3)	57(58.7)	111
Contra-Autistic	22(33.0)	48(37.0)	70	Contra-Autistic	17(19.3)	24(21.7)	41
	128	144			128	144	272
X^2 = 9.43	df = 2 p < .01			X^2 = .63	df = 2 p > .05		

3. B-C Orientations

	Initial Weeks				Terminal Weeks		
	High Pop.	Low Pop.			High Pop.	Low Pop.	
Autistic	114 (116.1)	135 (132.9)	249	Autistic	111 (103.5)	111 (118.5)	222
Realistic	88 (83.0)	90 (95.0)	178	Realistic	104 (101.1)	113 (115.9)	217
Contra-Autistic	86 (89.0)	105 (102.0)	191	Contra-Autistic	73 (83.4)	106 (95.6)	179
	288	330	618		288	330	618
X^2 = .82	df = 2 p > .05			X^2 = 3.56	df = 2 p > .05		

*Autistic - Perceived Agreement > Actual Agreement
Realistic - Perceived Agreement = Actual Agreement
Contra-Autistic - Perceived Agreement < Actual Agreement

TABLE 41

SUMMARY OF CHI-SQUARE CORRELATIONS OF PERSONALITY AND POPULARITY MEASURES WITH OCCURRENCE OF AUTISTIC, REALISTIC, AND CONTRA-AUTISTIC RESPONSES

Occurrence of Autistic, Realistic, & Contra-Autistic Responses re:	F-Scale Rank	n Ach. Rank	n Aff. Rank	Popularity Week 1	Popularity Week 14
Attraction, Week 1	$X^2=2.34$	$X^2=4.34$	$X^2=1.00$	$X^2=4.10$	$X^2=2.63$
Attraction, Week 14	$X^2=2.19$	$X^2=.37$	$X^2=5.88*$	$X^2=12.55***$	$X^2=2.99$
Spranger Values, Week 2	$X^2=5.51*$	$X^2=5.32*$	$X^2=.47$	$X^2=1.21$	$X^2=9.43***$
Spranger Values, Week 14	$X^2=2.02$	$X^2=6.67**$	$X^2=.21$	$X^2=.09$	$X^2=.63$
Pooled B-C Orientations Initial Weeks	$X^2=.59$	$X^2=.53$	$X^2=.49$	$X^2=1.65$	$X^2=.82$
Pooled B-C Orientations Terminal Weeks	$X^2=.21$	$X^2=1.61$	$X^2=7.77**$	$X^2=1.93$	$X^2=3.56$

*P with 2 df significant at < .10 > .05

**P with 2 df significant at < .05 > .01

***P with 2 df significant at < .01

but not for the direction of distortion. It was thought that a more appropriate analysis would be that of predicting the relative degree of discrepancy between perceived and actual agreement regardless of the direction of the discrepancy. In addition, this was thought to be especially relevant in terms of our aim of accounting for the occurrence of either autistic or realistic processes.

Consequently, individuals were ranked in terms of the relative proportion of their realistic responses to their autistic or contra-autistic responses. The rankings of subjects in this respect for the three attitudinal objects each at initial and terminal periods are presented in Table 42. The degree of individual consistencies in

TABLE 42

INDIVIDUAL RANKINGS OF PROPROTION OF REALISTIC TO AUTISTIC AND CONTRA-AUTISTIC RESPONSES

Subject	Attraction Estimates		Spranger Value Est.		Pooled B-C GL Est.		Mean Rank	
	Wk.1	Wk.14	Wk.2	Wk.14	Initial	Terminal	Initial Weeks	Terminal Weeks
1	4	12	4.5	5	11	10	4	9.5
2	12	5.5	10.5	1	3.5	10	9	3
3	14.5	14.5	13.5	17	5	1.5	13	11.5
4	4	5.5	2.5	9.5	11	8	3	6
5	1.5	1	15.5	9.5	7	4.5	7	2
6	16.5	2	1	5	11	3	10	1
7	8	3.5	15.5	13	1.5	1.5	8	4
8	14.5	7.5	7	2	16.5	15	14	7
9	8	9.5	4.5	5	1.5	6.5	2	5
10	8	12	10.5	9.5	3.5	13	5.5	13.5
11	8	12	10.5	5	11	10	11	9.5
12	8	7.5	17	16	14	16	15.5	16
13	4	3.5	7	9.5	11	13	5.5	8
14	1.5	14.5	2.5	14.5	7	6.5	1	15
15	12	9.5	10.5	14.5	16.5	17	15.5	17
16	12	16.5	13.5	12	15	4.5	17	11.5
17	16.5	16.5	7	5	7	13	12	13.5

these rankings was determined by intercorrelating the ranks. Table 43 presents the intercorrelations of the rankings of the proportion of realistic to autistic and contra-autistic responses for each of the attitudinal measures. The only evidence for individual consistency is in the rankings with regard to the same attitudes to be related at initial and terminal periods, especially the Spranger Values and the B-C attraction estimates.

TABLE 43

INDIVIDUAL CONSISTENCIES IN RANKINGS OF PROPORTION OF REALISTIC TO AUTISTIC AND CONTRA-AUTISTIC RESPONSES: RANK INTERCORRELATIONS

	Attraction		Spranger Value		B-C Orientations	
	Wk. 1	Wk.14	Wk. 2	Wk.14	Init. Wk.	Term.Wk.
Attraction Wk. 1	1.000	.328	.320	-.190	.175	.077
Attraction Wk.14		1.000	-.008	.199	.079	.111
Spranger Values Week 2			1.000	.549*	-.024	.018
Spranger Values Week 14				1.000	.098	-.128
B-C Orientations Initial Weeks					1.000	.500*
B-C Orientations Terminal Weeks						1.000

*R of .410 $p < .05$

Finally, we attempted to interpret the variations in the degree of realistic as compared to autistic or contra-autistic responses in terms of our predictor variables. Table 44 presents the rank correlations of the personality and popularity rankings with rankings of the degree of realism as compared to autism for each of the atti-

tudinal measures. Two of the four predictions are substantiated. Need for achievement is inversely related to this measure of accuracy (or positively to the degree of autism) in the terminal periods, while need for affiliation is negatively related to the degree of realism as compared to autism in the initial weeks and positively related to degree of realism in the terminal weeks. No relationships emerge between degree of autism on the one hand and authoritarianism or popularity status on the other.

TABLE 44

RANK CORRELATION OF PERSONALITY AND POPULARITY RANKINGS WITH RANKINGS OF PROPORTION OF REALISTIC TO AUTISTIC AND CONTRA-AUTISTIC RESPONSES

Ranking of Proportion of Realistic to Autistic & Contra-Autistic Resps.	F-Scale Rank	n Ach. Rank	n Aff. Rank	Popularity Week 1	Popularity Week 14
Attraction Week 1	.473*	.281	-.354	.221	.081
Attraction Week 14	-.229	.049	.073	.320	.333
Spranger Values, Wk. 2	-.146	.111	-.190	.116	.385
Spranger Values, Wk. 14	-.110	-.359	.010	.047	.305
Pooled B-C GL Estimates Initial Weeks	.102	.156	-.039	.159	.180
Pooled B-C GL Estimates Terminal Weeks	-.130	-.301	.464*	-.044	.000
Mean Ranking Initial Weeks	.161	-.226	-.408	.238	.332
Mean Ranking Terminal Weeks	-.286	-.459*	.423*	.178	.311

*R of .410 significant at .05 level of confidence

The possibility remained that these findings of the relationships of the personality and popularity dimensions with degree of

realistic as compared to autistic responses might be mediated by a statistical artifact, viz., that of actual agreement. This is seen by the fact that actually agreeing subjects cannot be very autistic, while actually disagreeing ones cannot be very contra-autistic. Further, if individuals high in need for achievement as compared to those in this respect are actually dissimilar to other group members and project their attitudes onto others, the degree of measured distortion will be enhanced due to the presence of actual agreement and might account for the negative relationship between need achievement and degree of realism as compared to autism. Conversely, if members high in need for affiliation are actually similar, this might increase the probabilities of their being realistic. Let us turn back to Table 18 which presents the rank-order correlations of the personality and popularity measures with rankings of actual agreement in attitudes. The operation of actual dissimilarity seems to account for the negative relationship between need for achievement and degree of realism for the B-C attraction estimates, but not for the negative relationship between need for achievement and realism for the Spranger Values. The positive relationship between degree of realism and need for affiliation in the terminal weeks is seen to be a function of actual agreement, particularly in view of the significant positive relationship between need for affiliation and actual agreement in B-C attraction orientations, the latter being the main component in the relationship of need for affiliation and realism in the terminal weeks.

In summary, the following conclusions may be drawn: 1) While somewhat wide individual differences in the occurrence of autistic, realistic, and contra-autistic responses occur, it is evident also

that all individuals show the occurrence of these three types of responses to some degree; 2) The prediction of the occurrence of autistic, realistic, and contra-autistic responses from the personality and popularity variables does not appear to yield any general relationships, although some significant correlations in the predicted direction are obtained. These specific relationships appear to be mediated largely in terms of the operation of actual agreement and hence are artifactual. 3) When degree of distortion or discrepancy between perceived and actual agreement is considered without regard to direction, some individual consistency is indicated. Degree of realism (or conversely autism) was found to be inversely related to need for achievement in the terminal periods, inversely related to need for affiliation in the initial weeks and positively related to this personality variable in the terminal periods. Again these relationships appear to be mediated by the presence of actual agreement or disagreement in attitudes.

Conclusions

The problem of this chapter was to assess the generality of autistic and realistic processes by determining individual variations in these processes and how these processes vary and interact together under specific conditions of personality and group status differences. The operation of autistic and realistic processes was inferred from four phenomena: 1) tendencies to interrelate attraction and perceived agreement or tendencies to have balanced systems, 2) tendencies toward accuracy, 3) processes of distortion or accurate appraisal under conditions of system strain and balance, and finally, 4) tend-

encies to interrelate perceived agreement with actual agreement.

The findings for each of these phenomena will be reviewed in turn and then brought together to determine if any overall pattern exists which will illuminate the interpretation of the variation in autistic and realistic processes.

1. In spite of the fact that all subjects obtain some degree of balanced orientations, wide individual variation in tendencies to have balanced systems exists. While this variation is not a highly consistent trait of the individual, it is predictable from the personality and popularity variables to a fair degree. The particular relationships obtained depend upon whether the attitudinal object is personality relevant (i.e., the Spranger Values) or group relevant (i.e., attraction reciprocity and the B-C attraction estimates) and depends upon the stage in the acquaintance process considered. Specifically, tendencies toward balance for the Spranger Values were found to be significantly negatively related to need for achievement in the initial weeks. In the terminal periods, a general tendency to assume balance for group relevant attitudes was found to be significantly negatively related to authoritarianism and highly and positively related to popularity status at both Weeks 2 and 14.

2) An examination of the correlation between balance and accuracy rankings revealed them to be generally independent of one another, when the influence of actual agreement upon accuracy has been partialled out. Consequently, in the consideration of corrected accuracy as an indicator of reality-oriented processes, it must be considered as a phenomenon relatively independent of the tendency to have balanced systems, which may be either autistic or realistic in nature.

3) With regard to accuracy, individuals differ significantly among themselves in relative degree of accuracy of estimates of attraction and attitudes. However, in this study, accuracy does not appear to be a general trait of the individual, as seen by the low consistency in accuracy rankings. Rather, accuracy rankings are a function of the attitudinal object considered and the stage of acquaintance. In spite of this finding, tendencies toward raw and corrected accuracy are predictable from the personality and group status variables. As predicted, raw accuracy of estimates is negatively related to authoritarianism and need for achievement and positively related to popularity status for the terminal periods of the acquaintance process. It was shown, however, that these relationships are mediated by the presence or absence of actual agreement to a certain degree, a reversal in the relationships occurring when the personality and popularity measures are correlated with rankings in accuracy scores corrected for actual agreement. In this case a significantly positive relationship was obtained between authoritarianism and corrected accuracy estimates in the terminal periods and a highly positive relationship between popularity rankings and corrected accuracy rankings was obtained for the initial periods of acquaintance.

4) Considering the degree of distortion (or, conversely, accurate appraisal) under conditions of system strain or balance, first, wide individual variations in this respect were found; a moderate degree of individual consistency in rankings of accuracy of system strain or balance was obtained. Second, such variance in accuracy of systems in strain or balance is partially accounted for in terms of our predictor variables. A significantly positive relationship was

obtained between popularity status and system strain or balance accuracy in the terminal weeks and a significantly negative relationship was found between need for affiliation and this measure of accuracy. These relationships were obtained for the corrected accuracy measure and, therefore, cannot be attributable to the mediating effects of actual agreement.

5) It was finally found that while there were individual differences in the occurrence of autistic, realistic, and contra-autistic responses, all individuals evidence these three types of tendencies to some degree. The prediction of these type of responses from the personality and popularity variables does not indicate any general set of relationships, although some significant relationships are obtained. When degree of distortion or discrepancy between perceived and actual agreement is considered without regard to direction, some individual consistency is obtained. Degree of autism as thus defined was found to be positively related to need for achievement in the terminal weeks, positively related to need for affiliation in the initial weeks, and inversely related to this personality variable in the terminal weeks. Again these relationships appear to be mediated by degree of actual agreement, but we should not rule out the possibility that perceived agreement might make for actual agreement and hence make valid the relationships obtained.

What are the implications, in terms of autistic and realistic processes operative, of these findings concerning tendencies toward balance, toward accuracy, toward accuracy of systems in strain or balance and toward autism? Considering each of these phenomena by itself, individuals do not consistently differ from one another and

do not, therefore, indicate a constancy on the part of the individual of an autistic or realistic orientation. Rather, whether individuals will be autistic or realistic, as inferred from different measures of each of these phenomena, depends upon the attitudinal object and the stage of the acquaintance process.

Further, each of these phenomenon as measured appears to be relatively independent of the other phenomena. Table 45a presents the rank-order intercorrelations of rankings in balance, corrected accuracy, corrected accuracy of systems in strain and balance, and in degree of realism (or conversely the degree of autism), each for initial and terminal periods. (The relevant rankings of subjects is presented in Table 45b.) Each of these measures appears to be moderately reliable as seen from the significant correlations between measures of the same phenomenon for initial and terminal weeks, and there is some clustering of the accuracy measures. But from the generally low inter-correlations among rankings of measures from which the operation or either autistic or realistic processes is inferred, either a generally autistic or realistic orientation between individuals is not indicated.

We have assumed that tendencies toward balance, accuracy, accuracy of systems in strain or balance, and autism tend to arise from the operation of either autistic and/or realistic processes. Attempting to account for these phenomena, we selected a sample of personality and group status variables which would give rise to autistic or realistic processes. How successful has been the attempt to account for these phenomenon and consequently to predict autistic and realistic processes?

TABLE 45a

RANK ORDER INTERCORRELATIONS OF RANKINGS IN BALANCE, CORRECTED ACCURACY, CORRECTED ACCURACY OF SYSTEMS IN STRAIN AND BALANCE, AND REALISM FOR INITIAL AND TERMINAL PERIODS

	Balance Ranking		Correc. Accur. Ranking		Correc. Accur. of Sys. Strain & Bal. Ranking		Realism Ranking	
	Initial Weeks	Terminal Weeks	Initial Weeks	Terminal Weeks	Initial Weeks	Terminal Weeks	Initial Weeks	Terminal Weeks
Balance Ranking Initial Wks.	1.000	.416*	-.313	-.025	.309	-.231	-.188	.172*
Balance Ranking Terminal Wks.		1.000	.338	-.323	.313	.221	.374	.459*
Cor. Accur. Ran. Initial Wks.			1.000	.011	.403*	.068	-.136	-.080
Cor. Accur. Ran. Terminal Wks.				1.000	-.200	-.054	-.073	-.161
Cor. Accur. of Str. & Bal. Sys., Init. Wks.					1.000	.569*	-.064	.078
Cor. Accur. of Str. & Bal. Sys., Term. Wks.						1.000	.467*	.079
Realism Ranking Initial Weeks							1.000	.313
Realism Ranking Terminal Weeks								1.000

* R of .410 significant at the .05 level of confidence

TABLE 45b

INDIVIDUAL RANKINGS IN TENDENCIES TOWARD BALANCE, TOWARD ACCURACY, TOWARD ACCURACY OF SYSTEMS IN STRAIN AND BALANCE, AND IN AUTISM FOR INITIAL AND TERMINAL WEEKS

Subject	Balance Ranking		Corrected Accuracy Ranking		Correc. Accur. of Sys. Strain & Bal. Rank.		Realism Ranking	
	Init. Wks.	Term. Wks.	Init. Wks.	Term. Wks.	Init. Wks.	Term. Wks.	Init. Wks.	Term. Wks.
1	11	11	13	2	9	3	4	9.5
2	5.5	7	15	12	13	10	9	3
3	2	13	14	10.5	7	15.5	13	11.5
4	12	1	6.5	10.5	11	8	3	6
5	8	2	4	3	12	15.5	7	2
6	8	9	8.5	14	3	6	10	1
7	4	10	5	8	14	13	8	4
8	5.5	16	6.5	5	2	5	14	7
9	10	3	3	15.5	4.5	2	2	5
10	15.5	15	16	17	16	14	5.5	13.5
11	1	8	8.5	6.5	8	11	11	9.5
12	8	4.5	1	9	1	9	15.5	16
13	3	4.5	11	13	6	7	5.5	8
14	17	13	10	1	10	1	1	15
15	14	17	2	4	15	17	15.5	17
16	13	13	17	6.5	17	12	17	11.5
17	15.5	6	2	15.5	4.5	4	12	13.5

To review the findings succinctly, Table 46 presents a summarization of the relationships of the personality and popularity variables to rankings in tendencies toward balance, accuracy, accuracy of systems in strain or balance, and autism. For each of these phenomena, specific conclusions concerning relationships have been drawn. Turning to the general relationship obtained, i.e., between our predictor variables and each of these phenomena when the attitude systems are pooled for the initial weeks and pooled for the terminal weeks, some interesting findings emerge. The most interesting finding is that in the initial weeks popularity status is highly related to accuracy

TABLE 46

SUMMARY TABLE OF RELATIONS OF PERSONALITY AND POPULARITY VARIABLES TO RANKINGS IN TENDENCIES TOWARD BALANCE, ACCURACY, ACCURACY OF SYSTEMS IN STRAIN OR BALANCE, AND AUTISM

	F-Score Rank	n Ach. Rank	n Aff. Rank	Popularity Week 1	Popularity Week 14
Attraction Reciprocity, Wk. I					
Balance Rank	.010	-.124	.290	.223	.106
Autism Rank	-.473*	-.281	.354	-.221	-.081
Uncorrected Accuracy Rank	.196	-.375	.016	-.289	-.284
Corrected Accuracy Rank	-.284	.236	.037	.696*	.573*
System Strain Balance Accuracy**	-.445*	.318	.094	.929*	.691*
Attraction Reciprocity, Wk. 14					
Balance Rank	-.499*	-.223	.255	.583*	.395
Autism Rank	.229	-.049	-.073	-.320	-.333
Uncorrected Accuracy Rank	-.259	-.198	.046	.276	.274
Corrected Accuracy Rank	.442*	-.086	-.263	-.288	-.324
System Strain Balance Accuracy**	.102	-.222	-.307	.059	.585*
Spranger Values, Wk. 2					
Balance Rank	.056	-.446*	.425*	-.248	-.163
Autism Rank	.146	-.111	.190	-.116	-.385
Uncorrected Accuracy Rank	-.503*	-.257	.172	.458*	.393
Corrected Accuracy Rank	-.015	.087	-.236	.445*	.445*
System Strain Balance Accuracy**	.385	.065	-.365	-.207	.004
Spranger Value, Wk. 14					
Balance Rank	.176	-.323	.161	.134	.086
Autism Rank	.110	.359	-.010	-.047	-.305
Uncorrected Accuracy Rank	-.376	.178	-.078	.320	.440*
Corrected Accuracy Rank	.095	-.343	.114	-.110	.083
System Strain Balance Accuracy**	-.045	.021	-.265	-.118	.268

TABLE 46--Continued

	F-Score Rank	n Ach. Rank	n Aff. Rank	Popularity Week 1	Popularity Week 14
B-C GL Systems, Initial Weeks					
Balance Rank	.199	-.251	-.046	.283	.274
Autism Rank	-.102	-.156	.039	-.159	-.180
Uncorrected Accuracy Rank	-.112	-.111	.324	-.089	-.095
Corrected Accuracy Rank	.087	.163	-.104	.045	.178
System Strain Balance Accuracy**	-.032	-.286	-.212	.134	.376
B-C GL Systems, Terminal Weeks					
Balance Rank	-.433*	.227	-.273	.817*	.843*
Autism Rank	.130	.301	-.464*	.044	.000
Uncorrected Accuracy Rank	-.297	-.346	.012	.186	.303
Corrected Accuracy Rank	.508*	-.153	.291	-.353	-.447*
System Strain Balance Accuracy**	.001	.322	-.477*	.420*	.482*
Pooled Attitude Systems, Init. Weeks					
Balance Rank	.099	-.325	.278	.016	.051
Autism Rank	-.161	.226	.408	-.238	-.332
Uncorrected Accuracy Rank	-.258	-.401	.261	.081	.049
Corrected Accuracy Rank	-.228	.243	-.085	.737*	.721*
System Strain Balance Accuracy**	-.108	-.045	-.177	.341	.546*
Pooled Attitude Systems, Terminal Wks.					
Balance Rank	-.363	-.118	.024	.827*	.728*
Autism Rank	.286	.459*	-.423*	-.178	-.311
Uncorrected Accuracy Rank	-.466*	-.194	-.013	.491*	.478*
Corrected Accuracy Rank	.573*	-.191	.002	-.301	-.294
System Strain Balance Accuracy**	-.023	.010	-.470*	.219	.602*

*R of .410 significant at .05 level of confidence

**System strain-balance accuracy scores corrected for actual agreement

of estimates, corrected for actual agreement and unrelated to tendencies toward balance. In the terminal periods popularity status becomes highly related to tendencies to have balanced systems but only moderately related to corrected accuracy. In contrast, authoritarianism doesn't account for any of the variance in either tendencies toward accuracy or balance in the initial periods, but in the final weeks authoritarianism is negatively related to balance ranking and positively and significantly related to corrected accuracy. And together these sets of results cannot be attributable to actual agreement in attitudes or group status. Apparently, popular group members, in contrast to members low in popularity, initially correctly assess the situation and then attain balanced systems in latter periods which may or may not then be accurate. In contrast, authoritarians, as compared to non-authoritarians, correctly assess the situation, even if this is at the expense of attaining balance in the terminal periods.

Finally, the other two predictor variables tend to relate to another phenomena, viz. autism, or the degree of negative relationship between perceived and actual agreement. Need for achievement is positively related to autism in the terminal weeks, while need for affiliation predicts autism positively in the initial stages of acquaintance and negatively in the terminal weeks. In addition, need for affiliation is found to be negatively related to accuracy of system strain and balance in the terminal weeks. Apparently, need for achievement in the terminal weeks and need for affiliation in the initial weeks results in a general distortion which operates against obtaining balance or being accurate. And need for affiliation in

the terminal periods gives rise to the general orientation of being accurately in agreement with other group members, particularly under conditions of strain or balance, which again decreases the probability of having balanced systems or accurately estimating the attitudes of other group members in general.

In general, the prediction of autistic and realistic processes as assumed operative in the four phenomena considered is fairly successful, although each of the four predictor variables seem to be accounting for different aspects of the total pattern.

CHAPTER V

AUTISTIC AND REALISTIC PROCESSES IN THE DYNAMICS OF SYSTEM STRAIN AND BALANCE: TOLERANCE AND THRESHOLDS OF SYSTEM STRAIN

The Problem

In Chapter III we considered autistic and realistic processes in system strain and balance as they operated in general for the group under study. In Chapter IV the investigation was centered upon individual, personality, and situational differences in these processes.

Both chapters were concerned with static processes, i.e., in autistic and realistic processes as they operated together at specific points in time. The purpose was to expand and illuminate the first major postulate of the theory of communicative acts, viz., the balance postulate, by pointing up the operation of both sets of processes in the phenomena which the postulate is purported to explain. In this chapter and the next one we turn to the operation of these sets of autistic and realistic processes as they operate in the dynamics of system strain, i.e., in setting up and determining system changes or lack of system changes. In the present chapter we will be concerned with the motivational significance of system strain to the individual. In spite of the postulate of forces toward balance, a few studies and several theorists, as well as commonplace observation, point up that system strain does occur, and, under certain conditions, individuals

will tolerate strain to varying degrees. A related problem in considering the motivational significance of system strain is the phenomenon of varying degrees of sensitivity to strain, i.e., the possibilities of individual and group variation in thresholds of system strain.

The purpose of this chapter is not simply to demonstrate the existence of these phenomena, i.e., variations in tolerance and thresholds of system strain, but to consider some of the conditions which account for their variation, whether autistic or realistic in nature.

The Hypotheses

Consequently, the hypotheses to be explored in this section first pertain to the possibility that tolerance for system strain may be an individual constant and that individuals may consistently differ in their sensitivity to strain, i.e., in their thresholds of system strain. We will then consider whether such variation arises from autistic and/or realistic factors, i.e., personality and/or situational variables. A few previous studies reviewed in Chapter I point to the operations of personality factors particularly as they are related to a general intolerance for ambiguity factor and a generalized conformity predisposition, essentially autistic processes. It was, therefore, hypothesized that tolerance of system strain would be inversely related to authoritarianism and need for affiliation and positively related to need for achievement. Conversely, thresholds of system strain would be negatively related to authoritarianism and need for affiliation and positively related to need for achievement. Further, assuming that positional status gives rise to realistic processes, we finally hypothesized that tolerance of system strain

is inversely related to popularity status and that thresholds of system strain are negatively related to popularity status.

Results

Tolerance of System Strain

This problem consists in investigating the conditions under which imbalance will occur or be maintained in spite of the fact that the state of the system would lead to the prediction of system changes. In effect we are attempting to account for the absence of change.

The following operations were employed to investigate the problem of tolerance of system strain. It will be recalled that phenomenal strain was operationally defined as perceived attitudinal discrepancy under high positive attraction. Tolerance of phenomenal system strain was operationalized as the average degree of attitudinal discrepancy (i.e., average over all systems involving high attraction) under conditions of high attraction, especially after interaction.

Table 47 presents a summary of the scores of tolerance of phenomenal strain, i.e., the average degree of perceived discrepancy scores for high levels of attraction (first four general liking ranks), for the several Xs at initial and terminal periods for each group member; subjects are also ranked in terms of these scores. An examination of the table shows wide individual differences in this respect at initial and terminal periods.

Is tolerance of phenomenal system strain an individual constant? The hypothesis predicts consistent individual differences in tolerance of phenomenal system strain. If individual consistencies in tolerance of phenomenal system strain are actually to obtain, mean perceived

TABLE 47

TOLERANCE OF PHENOMENAL SYSTEM STRAIN, DEGREE OF PERCEIVED DISCREPANCY SCORES AND RANKS FOR HIGH LEVELS OF ATTRACTION

S	B-A GL Est., Wk. 1 $\bar{X}$	B-A GL Est., Wk. 1 R	B-A GL, Est., Wk. 14 $\bar{X}$	B-A GL, Est., Wk. 14 R	Spranger Value Est., Wk.2 $\bar{X}$	Spranger Value Est., Wk.2 R	Spranger Value Est.,Wk.14 $\bar{X}$	Spranger Value Est.,Wk.14 R	B-C GL Est., Pooled Sample, Init. Wks. $\bar{X}$	B-C GL Est., Pooled Sample, Init. Wks. R	B-C GL Est., Pooled Sample, Term. Wks. $\bar{X}$	B-C GL Est., Pooled Sample, Term. Wks. R	Mean Ranking of Perceived Discrepancy, Init. Wks. R	Mean Ranking of Perceived Discrepancy, Init. Wks. $\bar{R}$	Mean Ranking of Perceived Discrepancy, Term. Wks. R	Mean Ranking of Perceived Discrepancy, Term. Wks. $\bar{R}$
1	7.1	2	5.9	3	6.0	14	7.7	6.5	3.5	7.5	2.9	7.5	23.5	8	17	4
2	3.5	4	4.7	6.5	8.4	6	4.2	16	2.8	10	2.7	10	20	7	32.5	12
3	5.9	9	3.9	13	4.5	17	6.7	9	2.8	10	4.9	4.5	36	12.5	26.5	8
4	2.5	15	1.9	14	5.4	15	5.7	13.5	1.9	15	2.3	14.5	45	16.5	42	16
5	2.7	14	1.6	15	7.5	9	2.2	17	2.0	13.5	2.9	7.5	36.5	14	39.5	15
6	3.7	8	1.5	16	7.7	7.5	10.7	1	1.2	17	2.5	11	32.5	11	28.0	9
7	3.4	10.5	3.2	9	8.7	5	7.7	6.5	2.1	12	5.0	3	27.5	10	18.5	5
8	7.8	1	8.0	2	6.2	13	9.5	3	4.3	5	6.0	1	19.0	5	6.0	1
9	3.1	12	5.1	5.5	6.7	10.5	8.0	4.5	2.0	13.5	2.4	13	36.0	12.5	23.0	7
10	2.9	13	5.1	5.5	9.0	4	7.0	8	6.7	1	36	6	18	4	19.5	6
11	1.5	16	5.5	4	4.7	16	5.2	15	2.8	10	1.9	16	42	15	35	13
12	4.1	7	1.2	17	9.5	2	8.0	4.5	4.7	4	2.3	14.5	13.0	3	36	14
13	.8	17	2.4	12	6.5	12	5.7	13.5	1.5	16	1.8	17	45	16.5	42.5	17
14	5.2	5	9.2	1	10.0	1	7.5	8	3.9	6	5.8	2	12.0	2	11.0	2
15	4.6	6	4.7	6.5	6.7	10.5	10.6	2	5.2	3	4.9	4.5	19.5	6	13	3
16	3.4	10.5	2.5	11	7.7	7.5	6.2	10.5	3.5	7.5	2.8	9	25.5	9	30.5	10.5
17	6.5	3	4.0	8	9.2	3	6.2	10.5	5.3	2	2.4	12	8.0	1	30.5	10.5

discrepancy ranks for high levels of attraction should be intercorrelated for different time periods and for different attitudinal objects. Table 48 presents the rank intercorrelations of tolerance of phenomenal strain scores among the several Xs, each measured at initial and terminal periods. As is evident from the table, there is a rather inclusive clustering of the rankings, 9 out of the 15 rank-order correlations being greater than .375, which indicates a definite individual consistency. Therefore, the prediction of tolerance of system strain as an individual constant is fairly well supported.

TABLE 48

INDIVIDUAL CONSISTENCIES IN TOLERANCE OF THE PHENOMENAL SYSTEM STRAIN: RANK INTERCORRELATIONS OF MEAN PERCEIVED DISCREPANCY RANKS FOR HIGH LEVELS OF ATTRACTION

	B-A GL Est., Wk. 1	B-A GL Est., Wk. 14	Spranger Value Est., Wk. 2	Spranger Value Est., Wk. 14	B-C GL Est., Pooled Sample, Init. Wks.	B-C GL Est., Pooled Sample, Term. Wks.
B-A GL Est., Wk. 1	1.000	.386	.276	.478*	.536*	.516*
B-A GL Est., Wk. 14		1.000	-.020	.121	.443*	.412*
Spranger Value Est., Week 2			1.000	.177	.403	.156
Spranger Value Est., Week 14				1.000	.277	.386
B-C GL Est., Pooled Sample, Init. Wks.					1.000	.396
B-C GL Est., Pooled Sample, Term. Wks.						1.000

*R of .410 significant at .05 level of confidence

Assuming that position with respect to the various predictor variables gives rise to autistic or realistic processes and hence determines whether strain will be tolerated or not, certain relationships of tolerance of strain with the personality and popularity variables have been hypothesized. Table 49 summarizes the findings with

TABLE 49

THE PREDICTION OF PHENOMENAL SYSTEM STRAIN RANK CORRELATION OF MEAN PERCEIVED DISCREPANCY RANKS FOR HIGH LEVELS OF ATTRACTION WITH PERSONALITY AND POPULARITY MEASURES

Mean Perceived Discrepancy For High Attraction of	F-Score Rank	n Ach. Rank	n Aff. Rank	Popularity Week 1	Popularity Week 14
B-A GL Est., Wk. 1	.153	-.139	-.133	-.316	.108
B-A GL Est., Wk. 14	.450*	.157	-.370	-.447*	-.103
Spranger Value Est., Wk. 2	.034	.356	-.380	.061	.163
Spranger Value Est., Week 14	.066	.424*	-.156	-.161	.098
B-C GL Est., Pooled Sample, Initial Weeks	.429*	.309	-.311	-.363	-.327
B-C GL Est. Pooled Sample, Terminal Weeks	.520*	.041	.155	-.668*	-.480*
Mean Ranking of Perceived Discrepancy, Init. Wks.	.265	.363	-.383	-.286	-.050
Mean Ranking of Perceived Discrepancy, Term. Wks.	.432*	.270	-.169	-.571*	-.281

*R of .410 significant at .05 level of confidence

regard to predicting phenomenal system strain. Here the rank-order correlations of mean perceived discrepancy ranks for high levels of attraction with the personality and popularity measures are presented.

As evident from the table, our predictions are partially supported and partially contradicted. Initial popularity status, but not final popularity status, is found to be inversely related to tolerance of phenomenal system strain in the terminal weeks, particularly with regard to group relevant attitudes (attraction reciprocity and B-C attraction estimates). And it is especially mean perceived discrepancy for high levels of attraction in the terminal weeks which is taken as indicating phenomenal system strain. This finding is congruent with the result in Chapter IV in which popularity status was highly related to the general tendency to have balanced systems. In addition, need for achievement is seen to be positively related to tolerance of phenomenal strain for personality relevant attitudes, i.e., the Spranger Values, in the terminal weeks, supporting our prediction. But counter to our prediction, authoritarianism is positively related to tolerance of phenomenal strain in the terminal periods for group relevant attitudes. This too is in agreement with the finding of Chapter IV of an inverse relation between authoritarianism—the tendency to have balanced systems. The prediction of a negative relation between authoritarianism and tolerance of phenomenal strain was based on the rationale that authoritarians, with their intolerance of ambiguity, would attempt to minimize strain at all costs. But the positive relationship between authoritarianism and tolerance of phenomenal strain might be indicative of an essentially negative or alienative orientation, presumably characteristic of authoritarians; this would provide the rationale of the obtained relationship.

But how realistic or autistic is tolerance of phenomenal

system strain on the part of group members varying in personality and group status characteristics? How do these findings of tolerance for system strain relate to the objective conditions in the group? Specifically, does tolerance of phenomenal strain mirror to any degree the conditions of objective system strain? If so, the tolerance of phenomenal strain on the part of authoritarians as compared to non-authoritarians, and the intolerance of popular as compared to less popular group members may have a realistic basis.

Table 50 presents tolerance of objective system strain scores and ranks for each of the subjects, i.e., mean degree of actual attitudinal discrepancy for high levels of attraction, for the several Xs at initial and terminal weeks. Again wide individual differences in mean degree of objective system strain are seen to exist. As with phenomenal system strain, there appears to be moderate individual consistency in tolerance of objective system strain, as seen from the fact that approximately half of the rank intercorrelations of mean objective discrepancy ranks for high levels of attraction are significant (See Table 51).

Table 52 presents the crucial data to interpret our findings of the relationships of authoritarianism, popularity, and need for achievement to tolerance of phenomenal system strain. As seen from the table, significant positive relationships are obtained between authoritarianism and tolerance of objective system strain for both initial and terminal weeks. On the other hand, an inverse relationship of tolerance of objective system strain for both initial and terminal periods with initial and terminal popularity status is obtained. (The rank-order correlation between the two measures of popularity

TABLE 50

TOLERANCE OF OBJECTIVE SYSTEM STRAIN, DEGREE OF ACTUAL DISCREPANCY FOR HIGH LEVELS OF ATTRACTION--SCORES AND RANKS

S	B-A GL, Wk. 1		B-A GL, Wk. 14		Spranger Values, Wk. 2		Spranger Values, Wk. 14		B-C GL, Pooled Sample, Initial Weeks		B-C GL, Pooled Sample, Terminal Weeks		Mean Ranking, Actual Discrepancy, Init. Wks.		Mean Ranking, Actual Discrepancy, Term. Wks.	
	X	R	X	R	X	R	X	R	X	R	X	R	R	R	R	R
1	7.8	2.5	1.0	16	9.2	7	9.2	1	3.1	13.5	3.9	8	23	6	25	6
2	5.5	6	3.0	9.5	7.8	12	5.0	15.5	4.0	8	3.2	12	26	8.5	37	14
3	3.5	10	8.5	4	11.0	3	8.0	7	4.1	7	5.4	1	20.5	4	12	2.5
4	1.8	15	1.5	14	8.5	9.5	3.0	17	4.5	4	2.3	16	28.5	12.5	47	17
5	2.5	13	3.2	7.5	7.7	13	5.5	14	3.8	10	4.2	6	36	15	27.5	9
6	2.8	12	1.0	16	9.8	5	9.0	2	3.1	13.5	2.4	15	30.5	14	3.3	12
7	3.8	9	3.2	7.5	8.5	11	5.0	15.5	4.2	6	5.1	3	26	8.5	26	7
8	5.8	5	3.0	9.5	11.0	3	7.8	9	3.9	9	3.4	10	17	2	28.5	10
9	1.2	16	1.0	16	6.0	16.5	8.2	5.5	2.7	15	1.7	17	47.5	17	38.5	16
10	7.2	4	12.0	1	7.0	14	7.8	9	8.1	1	4.7	4	19	3	14	4
11	3.5	10.5	4.5	6	9.5	6	7.5	1.5	3.4	12	2.6	14	28.5	12.5	31.5	11
12	2.0	14	2.5	12	11.2	1	7.5	11.5	3.6	11	3.2	12	26	8.5	35.5	13
13	.5	17	7.5	5	8.7	8	8.2	5.5	2.2	17	3.6	9	42	16	19.5	5
14	4.8	7	2.7	11	11.0	3	7.8	9	2.5	16	4.0	7	26	8.5	27	8
15	4.0	8	11.0	3	6.0	16.5	8.3	4	5.4	3	4.5	5	27.5	11	12	2.5
16	7.8	1	11.2	2	8.5	9.5	8.8	3	6.7	2	5.3	2	12.5	1	7	1
17	7.5	2.5	1.8	13	6.8	15	6.8	13	4.3	5	3.2	12	22.5	5	38	15

TABLE 51

INDIVIDUAL CONSISTENCIES IN TOLERANCE OF OBJECTIVE SYSTEM STRAIN RANK INTERCORRELATIONS OF MEAN OBJECTIVE DISCREPANCY RANKS FOR HIGH LEVELS OF ATTRACTION

Objective Discrepancy of	B-A GL, Wk. 1	B-A GL, Wk. 14	Spranger Values, Wk. 2	Spranger Values, Wk. 14	B-C GL, Pooled Sample Initial Weeks	B-C GL, Pooled Sample, Terminal Weeks
B-A GL, Wk. 1	1.000	.221	-.086	.171	.475*	.439*
B-A GL, Wk. 14		1.000	-.127	.029	.506*	.733*
Spranger Values, Week 2			1.000	.121	-.400*	.024
Spranger Values, Week 14				1.000	-.252	.178
B-C GL, Pooled Sample, Initial Weeks					1.000	.424*
B-C GL, Pooled Sample, Terminal Weeks						1.000

*R of .410 significant at .05 level of confidence

TABLE 52

THE PREDICTION OF OBJECTIVE SYSTEM STRAIN RANK CORRELATION OF MEAN ACTUAL DISCREPANCY RANKS FOR HIGH LEVELS OF ATTRACTION WITH PERSONALITY AND POPULARITY MEASURES

Mean Actual Discrepancy of	Personality and Popularity Measures				
	F-Score Rank	n Ach. Rank	n Aff. Rank	Popularity Week 1	Popularity Week 14
B-A GL, Week 2	.355	-.180	-.027	-.590*	-.382
B-A GL, Week 14	.397	.068	.179	-.495*	-.850*
Spranger Values, Wk. 2	.495*	-.197	.012	-.281	-.088
Spranger Values, Wk. 14	.148	-.066	-.216	-.334	-.214
B-C GL, Pooled Sample Initial Weeks	.001	.113	.484*	-.223	-.331
B-C GL, Pooled Sample, Terminal Weeks	.586*	-.023	.128	-.571*	-.700*
Mean Ranking, Actual Discrepancy, Init. Wks.	-.484*	-.114	.141	-.643*	-.447*
Mean Ranking, Actual Discrepancy, Term. Wks.	.561*	-.006	-.004	-.629*	-.779*

*R of .410 significant at .05 level of confidence

status is .802.) This analysis is revealing in that the same pattern of relationships between our predictor variables and both tolerance of phenomenal strain and objective strain is obtained. From the common relationships of authoritarianism and popularity with tolerance of strain, whether phenomenal or objective, we may infer the objective nature of tolerance of phenomenal system strain. To test this inference directly, tolerance of phenomenal system strain and tolerance of objective system strain were interrelated. Table 53 presents the rank correlations between perceived discrepancy ranks for high attrac-

TABLE 53

INTERRELATIONS BETWEEN TOLERANCE OF PHENOMENAL SYSTEM STRAIN AND TOLERANCE OF OBJECTIVE SYSTEM STRAIN RANK CORRELATIONS BETWEEN PERCEIVED DISCREPANCY RANKS FOR HIGH ATTRACTION AND ACTUAL DISCREPANCE FOR HIGH ATTRACTION

Attitude System	R
B-A GL, Wk. 1	.612*
B-A GL, Wk. 14	.019
Spranger Values, Week 2	-.123
Spranger Values, Week 14	.549*
B-C GL, Pooled Samples, Initial Weeks	.459*
B-C GL, Pooled Samples, Terminal Weeks	.649*
Mean Ranking of Discrepancy, Initial Weeks	.607*
Mean Ranking of Discrepancy, Terminal Weeks	.326

*R of .410 significant at .05 level of confidence

tion (degree of phenomenal strain) and actual discrepancy ranks for high attraction (degree of objective strain). Not only is tolerance of objective system strain related to tolerance of phenomenal system strain in the terminal weeks for two of the three attitudinal objects, but the two are also generally related in the initial weeks. Phenomenal system strain, and tolerance thereof, has its source in, and is a reflection of, the general tendency toward objective system strain, especially in the terminal weeks. This conclusion is reinforced by the previous findings of Chapter III of a relatively high degree of accuracy of estimates. The correlation of objective system strain measures with the personality and popularity variables reveals that

authoritarians, as compared to non-authoritarians, are higher in actual system strain, while for popularity the reverse is true. Consequently, the differing relationships of authoritarianism and popularity status with tolerance of phenomenal system strain indicate that both authoritarians and popular group members are acting realistically in terms of the objective relationships existing in the group.

The general interpretation of these findings is as follows: Certain aspects of personality structure, along with ensuing status in the group, set up the conditions of objective system strain and balance. This, in turn, determines the occurrence or lack of occurrence of phenomenal system strain and tolerance of this, especially in the terminal stages of acquaintance. As measured then, tolerance of phenomenal system strain, especially in the terminal periods, has a realistic basis, and the relationships of it with authoritarianism and popularity is mediated by a reality based process.

As a more appropriate index of tolerance of system strain from which the operation of autistic and/or realistic could be inferred, a supplementary measure of tolerance of strain was derived: The derivation is based upon the fact that the following combinations of systems in strain or balance varying in accuracy are possible: (1) accurately balanced, (2) accurately imbalanced (3) inaccurately balanced, (4) inaccurately imbalanced. The presence of accurately imbalanced systems would seem indicative of an actual tolerance of system strain, while from the occurrence of inaccurately balanced set of systems, we would infer an autistic intolerance of system strain. (From an accurately balanced set of systems we would not be able to ascertain whether the person would tolerate strain or not.) On the

basis of these assumptions, the following tolerance of system strain score was derived:

$$\text{Tolerance of System Strain} = \frac{\text{N of accurately imbalanced systems minus N of inaccurately balanced systems}}{\text{Total N of systems in strain or balance}}$$

It is seen that this score can hypothetically vary between +1.0 (high tolerance) and -1.0 (high intolerance).

The operations for defining system strain and balance and high and low accuracy have been presented in Chapter III and again in Chapter IV. The frequency of occurrence of different combinations of balance or imbalanced systems of high or low accuracy for each of the attitudinal items for initial and terminal periods was determined for each subject. (The results are tabulated in Appendix B.) From these data, the frequencies of occurrence of the different combinations of strain and balance of different degrees of accuracy were determined, pooling the results for the three attitudinal objects for initial and for terminal periods. Then for each subject the revised tolerance of system strain scores were computed for initial and terminal periods and are presented in Table 54. The rank-order correlation between tolerance of strain scores for initial and terminal weeks is .408, significant at the .05 level of confidence. In effect these scores yield a measure of tolerance of phenomenal system strain relative to objective system strain which tells the degree of strain tolerated and how autistic or realistic it is. For these reasons it presents a more valid measure of degree of tolerance of system strain.

How are the predicted relationships between the personality and popularity measures, on the one hand, and tolerance of system strain, on the other, supported? Table 55 presents the rank-order correlations of the personality and popularity variables with the

TABLE 54

REVISED TOLERANCE OF SYSTEM STRAIN SCORES AND RANKS*

S	Initial Weeks		Terminal Weeks	
	Score	R	Score	R
1	0	9	0	9
2	-.06	10	+.12	4
3	-.12	12	-.31	16.5
4	-.13	14	+.23	2
5	-.13	14	+.06	6.5
6	-.07	11	0	9
7	+.06	7.5	+.06	6.5
8	+.35	3	+.22	3
9	+.37	1.5	+.33	1
10	+.20	4.5	-.06	11
11	-.31	17	-.10	13
12	+.20	4.5	-.07	12
13	-.23	16	-.25	15
14	+.37	1.5	0	9
15	+.12	6	+.11	5
16	-.13	14	-.31	16.5
17	+.06	7.5	-.24	14

*Tolerance of System Strain Score = $\frac{\text{Accurately Imbalanced Systems minus Inaccurately Balanced Systems}}{\text{Total N of Systems in Strain or Balance}}$

R-Tolerance Init. Wks. with Tolerance Term. Wks. = .408

TABLE 55

RANK-ORDER CORRELATION OF PERSONALITY AND POPULARITY VARIABLES WITH REVISED TOLERANCE OF SYSTEM STRAIN SCORES

Predictor	Tolerance of Strain Score	
	Initial Weeks	Terminal Weeks
F-Scale	.217	-.170
n Ach.	.492*	.129
n Aff.	-.394	.125
Popularity Week 1	-.178	.147
Popularity Week 14	.130	.373

*R of .410 significant at .05 level of confidence

revised tolerance of system strain scores for initial and terminal weeks. From the table it is seen that a new set of relationships emerges. In the initial periods tolerance of system strain is positively and significantly related to need for achievement and approaches significance for its relationship with need for affiliation (R = -.394), supporting our predictions. Neither authoritarianism nor popularity status is related to system strain tolerance. In the terminal weeks, only final popularity status shows a tendency to be related to tolerance of system strain (R = .373), which is the only support of our prediction at this time period. Thus for the initial weeks, two of the four expected relationships emerge when the revised measure of tolerance of system strain is employed, but with this measure we are unable to account for tolerance of system strain in terms of our predictor variables in the terminal weeks. In summary, support for our predictions of tolerance of system strain is contingent upon the measure of tolerance employed. Tolerance of phenomenal system strain is related to authoritarianism and popularity status, but is mediated by the condition of objective system strain. When tolerance of system strain is considered in relation to degree of objective system strain, it is need for achievement and need for affiliation which account for part of the variance.

Thresholds of System Strain

The second problem dealing with the motivational significance of strain to the person concerns the sensitivity of the person to strain, specifically the problem of differential thresholds of phenomenal system strain. The prediction is that individuals will

vary in a general manner in their thresholds of system strain, and that depending upon the degree of which the person is autistically or realistically oriented, as measured by position with respect to our predictor variables, system strain thresholds will vary accordingly.

The analyses dealing with this problem are primarily exploratory in nature due to the difficulties involved in operationalizing the concept of strain thresholds. Conceptually, thresholds of system strain are defined as the points at which system changes will be induced or the degree of strain it takes to produce system changes. Two somewhat different measures were derived to operationalize the concept of strain thresholds. In both, the degree of system change is held constant and variations in initial states, from which strain is inferred, is taken in order to specify strain thresholds. In both measures, degree of system change was equated by comparing only those systems wherein terminal balanced states were achieved. In the first measure, thresholds were simply operationalized as the degree of initial perceived agreement in system states--low perceived agreement indicative of low thresholds, high perceived agreement designating high thresholds. In the second measure, thresholds for the specified amount of system change were operationalized in terms of initial system states varying in degree of strain from high states of strain (perceived discrepancy under high attraction), through intermediate states involving neither strain or balance, to balanced states (perceived agreement under high attraction). If achievement of terminal balance occurs for states initially already in balance, this would indicate a very low threshold of system strain (or, of course, it

might mean simply that balanced systems are stable); conversely a high threshold would be system changes toward balance only in response to high perceived discrepancy under high levels of attraction.

Let us turn to the tests of our predictions employing each of these two measures of system strain thresholds. Employing the first measure of strain thresholds, i.e., degree of initial perceived discrepancy, perceived discrepancy was classified into low and high categories (the same points used to define strain or balance) for all the systems of each subject in which balanced terminal states were achieved. Table 56 presents the frequency of occurrence of initially low and high perceived discrepancy for all terminally balanced systems of each individual, i.e., pooled over the three sets of attitudinal items. A mean threshold score was determined for each subject by computing the ratio, for those systems in which balanced terminal states were achieved, of initial states involving low perceived discrepancy to the total number of initial systems for which terminal balance was achieved. The scores and rankings of subjects are presented in Table 56. These thresholds of system strain scores were correlated with the personality and popularity measures; the results are presented in Table 57. It is seen that need for achievement is significantly and inversely related to the strain threshold measures, $R = -.496$; i.e., group members high in need for achievement have higher thresholds than members low in need for achievement. This is the only predictor variable related to this measure of thresholds of system strain, but it supports our prediction.

It was thought that the second measure of strain thresholds would provide a more adequate or valid test of our predictions.

TABLE 56

THRESHOLDS OF SYSTEM STRAIN, MEASURE #1

	System Changes Toward Balance: Balanced Terminal States			Initial Perceived Discrepancy	
	Initial Low Perceived Discrepancy	Initial High Perceived Discrepancy	Total	Low/Total	R
1	7 (6.9)	4 (4.1)	11	.64	10
2	7 (6.3)	3 (3.7)	10	.70	8
3	5 (5.7)	4 (3.3)	9	1.25	1
4	5 (6.9)	6 (4.1)	11	.45	15.5
5	5 (8.1)	8 (4.8)	13	.62	11
6	11 (8.8)	3 (5.2)	14	.78	4
7	7 (6.2)	3 (3.7)	10	.70	8
8	5 (4.4)	2 (2.5)	7	.71	6
9	7 (6.2)	3 (3.7)	10	.70	8
10	2 (3.8)	4 (2.2)	6	.33	17
11	10 (8.2)	3 (4.8)	13	.76	5
12	6 (6.9)	5 (4.1)	11	.55	13
13	13(10.0)	3 (5.9)	16	.81	3
14	3 (3.1)	2 (1.8)	5	.60	12
15	3 (3.8)	3 (2.2)	6	.50	14
16	6 (4.4)	1 (2.5)	7	.85	2
17	5 (6.9)	6 (4.1)	11	.45	15.5
	107	63	170		

TABLE 57

CORRELATION OF THRESHOLD FOR SYSTEM STRAIN, MEASURE #1 WITH PERSONALITY AND POPULARITY MEASURES

Variable	Threshold For System Strain (High Rank, Low Threshold)
F-Scale Rank	.023
n Ach. Rank	-.496*
n Aff. Rank	.336
Popularity Wk. 1	-.292
Popularity Wk. 14	-.251

*R of .410 = $p < .05$

Thresholds of strain for which terminal balance is achieved, as operationalized by this measure, are specified in terms of the actual degree of strain of initial states, whether strain, intermediate states, or balance, rather than merely in terms of degree of perceived discrepancy of initial states, ignoring the actual attraction. In this second measure, initial states, indicative of degree of strain were specified, as follows: Initial states of strain were designated as perceived discrepancy under high attraction; balanced states were specified as perceived agreement under high attraction; system states not falling into either of the two previous categories were classified as representing intermediate states of strain. For those systems in which terminal balance was achieved, initial states of balance were taken as representing low thresholds (the individual reacts to this low degree of strain by maintaining balance), intermediate states as representing moderate thresholds, and initial states of strain representing high thresholds.

Employing this second measure of strain thresholds, the frequency of occurrence of cases in the three categories indicating degree of initial strain for balanced terminal states, pooling on the three sets of attitudinal items, was computed for each subject. Table 58 presents the summary of these results. Variation in strain thresholds, was related to the predictor variables employing a chi-square analysis. Table 59 presents the results of this analysis. Of the five correlations of the personality and popularity variables with this second measure of thresholds of system strain, it is authoritarianism which is found to be significantly related to this dependent variable. An examination of Table 59 shows that authoritarians as

TABLE 58

THRESHOLDS OF PHENOMENAL SYSTEM STRAIN, MEASURE #2
FREQUENCY OF OCCURRENCE OF DIFFERENT TYPES OF
INITIAL STATES IN WHICH TERMINAL
BALANCE IS ACHIEVED

Subject	Initial States			Total
	Strain	Intermediate States	Balance	
H 1	3	3	6	12
H 2	3	2	5	10
L 3	4	1	4	9
H 4	0	5	5	10
L 5	7	4	3	14
H 6	2	1	11	14
H 7	2	5	4	11
L 8	3	2	0	5
H 9	3	0	7	10
L 10	4	1	1	6
L 11	3	1	9	13
H 12	6	2	3	11
H 13	2	1	13	16
L 14	2	2	1	5
L 15	1	4	1	6
L 16	1	2	4	7
H 17	6	2	3	11
	52	38	80	170

compared to non-authoritarians have high thresholds or have less sensitivity to strain, supporting our predictions.

In summary, our predictions concerning thresholds of system strain are generally not supported by the results, with a few noteworthy exceptions. The attempt to deal with this problem is admittedly exploratory, and the failure to obtain general support for our predictions may be due not so much to their theoretical tenability as to our operational measures employed to define thresholds of system strain. One measure of system strain thresholds showed a significantly positive relationship between need for achievement, indicating that

TABLE 59

CHI-SQUARE CORRELATION OF PERSONALITY AND POPULARITY VARIABLES TO THRESHOLDS OF PHENOMENAL SYSTEM STRAIN, MEASURE #2

Variable	Initial States: Strain	Intermediate States	Balance	Total
F-Score				
High	34(26.3)	21(19.2)	36(37.6)	80
Low	18(25.8)	17(18.8)	49(39.5)	84
	52	38	80	170
	$X^2 = 9.45$	df = 3	$p < .025$	
n Ach.				
High	26(26.3)	22(19.2)	38(40.5)	86
Low	26(25.8)	16(18.8)	42(39.5)	84
	52	38	80	170
	$X^2 = 1.15$	df = 3	$p > .05$	
n Aff.				
High	22(24.5)	22(17.9)	36(37.6)	80
Low	30(27.5)	16(20.1)	44(42.4)	90
	52	38	80	170
	$X^2 = 2.38$	df = 3	$p > .05$	
Popularity Week 1				
High	31(33.6)	21(24.6)	58(51.8)	110
Low	21(18.4)	17(13.4)	22(28.2)	60
	52	38	80	170
	$X^2 = 4.17$	df = 3	$p > .05$	
Popularity Week 14				
High	27(32.1)	21(23.5)	57(49.4)	105
Low	25(19.9)	17(14.5)	23(30.6)	65
	52	38	80	170
	$X^2 = 5.87$	df = 3	$p > .05$	

members high in need for achievement are less sensitive to strain than members low in this respect. The other measure of strain thresholds, perhaps somewhat more valid, was found to be significantly related to authoritarianism; i.e., authoritarians as compared to non-authoritarians were found to have higher thresholds or were less sensitive to system strain.

Conclusions

This chapter was concerned with the motivational significance of strain, i.e., in accounting for variation in tolerance and thresholds of system strain in terms of some of the determinants, whether autistic or realistic in nature. The following results were obtained:

(1) That tolerance of phenomenal system strain is an individual constant, is supported to a fair degree by the findings of a moderate degree of consistency in tolerance rankings for different attitudinal objects and at different time periods.

(2) The variance in tolerance of phenomenal system strain was found to be positively related to authoritarianism for group relevant attitudes in the terminal weeks, positively related to need for achievement for the Spranger Values in the terminal periods, and inversely related to initial popularity status for group relevant attitudes in the terminal weeks. A similar set of relationships was obtained when tolerance of objective system strain was employed as the dependent variable. Further, tolerance of phenomenal system strain was found to be generally related to the degree of objective system strain in both the initial and terminal weeks. Consequently, tolerance of phenomenal system strain is seen to arise from the objective conditions

existing in the group and is accurately perceived in the terminal weeks. The obtained relationships of authoritarianism, need for achievement, and initial popularity status to tolerance of phenomenal system strain is based upon variations in actual system strain accompanying differing positions on these dimensions. Thus, tolerance of system strain, as measured, is predictable from the objective relationship existing in the group, and hence is a reality based process, particularly in the terminal weeks.

(3) Employing a second measure of tolerance of system strain that simultaneously considers phenomenal system strain in relation to objective system strain, the variance was found to be positively related to need for achievement and inversely, although not quite significantly, with need for affiliation, supporting our predictions.

(4) In the exploratory analysis attempting to account for variations in thresholds of system strain, two measures of strain thresholds were employed. While we were not able to account for the variance in terms of the majority of our predictors, a few significant relationships were obtained: a significantly positive relationship between need for achievement and the first measure of thresholds of strain, and a significantly positive relationship between authoritarianism and the second measure of strain thresholds was found. These results parallel the findings of the relation of our predictor variables with tolerance of system strain.

(5) In summary, our predictions concerning the motivational significance of strain (i.e., accounting for variance in tolerance of thresholds of strain) are partially supported. It was seen that variance in these phenomena is in large part related to the objective

conditions existing in the group, and hence represents a realistic adaptation of group members to these states of affairs. The portion of the variance to be explained in terms of a general autistic or realistic orientation on the part of the person appears to be mediated by the objective systems of strain and balance which are set up.

This chapter has been concerned with predicting sensitivity and tolerance to strain, and autistic and realistic factors involved therein. In the next chapter we will be concerned with how autistic and realistic processes are related to reactions to system strain.

CHAPTER VI

AUTISTIC AND REALISTIC PROCESSES IN THE DYNAMICS OF SYSTEM STRAIN AND BALANCE: REACTIONS TO STRAIN

The Problem

In the previous chapter we considered some of the conditions under which system change will and will not occur, specifically autistic and realistic processes in tolerance and thresholds of system strain. In this chapter we will continue the investigation of these sets of processes in the dynamics of system strain and balance. At this point we turn from a concern with the balance postulate to some unanswered questions raised by the postulate of system change. The theory states that strain tends to induce equilibrium-restoring behaviour, i.e., system changes in the direction of balanced states. As noted, all the major theories of balance assume that <u>pressures</u> to achieve balance are a direct function of the amount of disequilibrium. In actuality whether system change occurs, and the <u>nature</u> or content of system changes, depends upon a complex set of conditions. It is the thesis of this chapter that the degree and nature of such equilibrium-restoring behavior in response to strain depends upon mediating the autistic demands of the personality and the reality requirements of the social situation. We believe that the operation of these processes modifies any simple relationship between system strain and

reactions to system strain. The problem of this chapter is then how individuals and groups of individuals who are assumed to differ in degree of autistic or realistic orientation react to system strain in the face of these dual and perhaps conflicting requirements, and how these reactions are mediated by these autistic and realistic processes which are set up.

The Hypotheses

In terms of the premise that autistic and realistic factors condition reactions to strain, we turn to a test of predictions derived therefrom. We shall first investigate individual differences in reactions to strain, i.e., how uniform are the predicted system changes, evaluated in terms of extent of change? Individual differences in the degree of system change in response to strain are predicted. Second, we turn to a consideration of how autistic or realistic such reactions are; individual variation in this respect is again predicted. Finally, the question of individual differences is explored in terms of how autistic or realistic such tendencies toward balance in response to strain are.

It has further been assumed that the extent of autistic or realistic orientation on the part of the individual will influence and mediate reactions to strain. Consequently, the following predictions were made: (1) Extent of balance-restoring behaviour in response to system strain is negatively related to authoritarianism and need for achievement and positively related to need for affiliation and popularity status. (2) The frequency of autistic or realistic modes of system strain resolution, i.e., the degree to which changes result

in increased or decreased accuracy, is respectively negatively related to authoritarianism and need for achievement and positively related to need for affiliation and popularity status. (3) Extent to which increases in both balance and accuracy occur in response to strain is negatively related to authoritarianism and need for achievement and positively related to need for affiliation and popularity status. These predicted relationships are especially assumed to hold when the reactions to system strain are evaluated with respect to the end state achieved. Therefore, we predict that the proportion of time accurately balanced systems are achieved in response to strain is negatively related to authoritarianism and need for achievement and positively related to need for affiliation and popularity status.

A second somewhat different, although complementary, approach is then applied to the problem of the autism or realism of system strain resolution, viz., that of predicting the content of specific system changes. Again such changes are evaluated in terms of the criterion of the degree of autism or realism of the processes involved. We first investigate the possibility that there may be hierarchies of probable modes of strain reduction, classified in terms of the degree of autism or realism involved, which differ between individuals, and which the individual consistently employs in varying situations. Again, it is assumed that both autistic and realistic processes may be expected to condition the hierarchy of types of reactions in response to system strain. Our predictor variables are presumed to be tapping different degrees of autistic or realistic orientation. Therefore, the following predictions were set forth:

Reaction to system strain in the direction of balanced states

will be specific and varying (with the requirements of the situation) on the part of group members high in need for affiliation as compared to those low in this respect and on the part of popular as against less popular group members. In contrast, reactions to system strain by authoritarians as compared to non-authoritarians, and by group members high in need for achievement as compared to those low in this respect, will be those of extensive system changes in the direction of balanced states or in the direction of dissolving the system.

Results

Autistic and Realistic Reactions to System Strain

In this section we will be concerned with the extent and degree of autism or realism of reactions to phenomenal system strain. The criterion of how autistic or realistic the reactions are is the degree of correspondence between the objective and phenomenal system, or the criterion of accuracy of the phenomenal system. Two general analytic approaches will be employed. The first evaluates reactions to system strain in terms of the resultant end states, whether balanced or imbalanced, and accurate or inaccurate. The second is an intermediate criterion, viz., that of examining changes in terms of whether they are balance-promoting or not, and whether they result in accuracy increases or decreases. The two approaches are viewed as essentially complementing one another and will be expected to yield similar tests of the same predictions.

In the two analysis procedures evaluating reactions to strain, the initial state of all systems for the different attitudinal objects

and for each of the subjects was held constant by comparing only those systems which met the criterion of being in phenomenal strain. It will be recalled that phenomenal system strain was defined as perceived discrepancy under conditions of high positive attraction and strong cathexis upon the X, assuming relevance and importance of the object of co-orientation. Operationally the first four ranks of the attraction continuum of each S were taken as representing high attraction, and generally greater than four ranks of discrepancy between own and estimated other's attitude was taken as designating perceived discrepancy. Relevance and importance of the attitudes in question were assumed present and constant.

Let us turn to the results employing the first analysis, viz., evaluating reactions in terms of the end states achieved. For all systems meeting the criterion of being initially in strain, reactions were categorized as being either the achievement of terminal balance states or else not obtaining this state (i.e., intermediate degrees of strain reduction or strain increase) and as being accurate or inaccurate. The operations for defining a system as being in balance parallel those for defining strain, i.e., perceived agreement under conditions of high attraction. Accurate or inaccurate systems were categorized on the basis of a median split in the distribution of the degree of correspondence between perceived and objective agreement scores. Applying these classifications, terminal states achieved in response to initial strain were categorized as being accurately balanced, inaccurately balanced; accurately not balanced, and inaccurately not balanced--the latter two designate intermediate degrees of strain reduction or increases in strain.

Table 60 presents a summary of the frequency of occurrence of

TABLE 60

FREQUENCY OF OCCURRENCE OF AUTISTIC AND REALISTIC REACTIONS TO SYSTEM STRAIN

Subject	Achievement of Accurately Balanced States	Achievement of Inaccurately Balanced States	Attainment of Intermed. Strain Red. or Strain Inc. Which is Accurate	Attainment of Intermed. Strain Red. or Strain Inc. Which is Inaccurate	Total
1	4	1	1	1	7
2	2	3	0	2	7
3	0	4	2	2	8
4	3	0	0	1	4
5	5	3	0	0	8
6	3	0	2	1	6
7	4	0	5	0	9
8	3	0	4	3	10
9	4	1	2	2	9
10	2	3	3	4	12
11	1	1	3	1	6
12	5	2	2	2	10
13	1	0	0	1	2
14	1	3	1	8	12
15	3	2	3	2	10
16	2	1	1	4	8
17	4	3	4	2	13
	47	27	33	36	141

these different types of reactions to initial system strain for each subject; the results are pooled over the three sets of Xs, viz., attraction reciprocity, Spranger Values, and the combined samples of B-C attraction estimates. Complementing the findings in Chapter III, it is seen that the most frequent response to system strain is the achievement of accurately balanced terminal states when the results for all subjects combined are considered. Hence our subjects are, in general, acting quite realistically, i.e., they successfully reduce

strain and are accurate in doing so, and achievement of balanced terminal states at the expense of accuracy is the less frequent reaction to system strain. A further examination of Table 60 reveals moderate individual differences in the frequencies of the different types of reactions to system strain, although the number of reactions corresponding to system strain which are in initial strain are rather low for each of the subjects; this prevents a statistical analysis of the apparent individual differences. Thus, on the basis of this rather impressionistic analysis, individual variation in the type of terminal states achieved in response to initial system strain is suggested, lending some support to our predictions of individual variation--although, as noted, the general tendency considering all the group members together is a quite realistic reaction, i.e., achieving accurately balanced terminal states. In an attempt to subject the results of Table 60 to a more quantitative treatment, scores were derived to specify the degree of the reactions in the direction of achievement of balanced terminal states and the relative accuracy of the resultant terminal states. Consequently the following scores were computed for each subject to summarize the end states in response to strain achieved: (1) The proportion of time balanced terminal states was achieved in response to strain; (2) the proportion of time accurate terminal systems is achieved, irrespective of whether balance was achieved or not; and (3) a score combining the phenomena involved in the measurement specified by the first two scores, viz., the proportion of time accurately balanced systems is achieved in response to initial system strain. The proportion of time each of these phenomena occurs is made proportional to the total number of

reactions, or initial systems of strain of each subject, thus partialling out sheer quantity of reactions on the part of each subject. These three sets of scores for each subject, summarizing different types of end states obtained in response to system strain, are presented in Table 61. When the type of end state achieved is measured

TABLE 61

SCORES AND RANKS INDICATING DIFFERENT TYPES OF END STATES OBTAINED IN RESPONSE TO STRAIN

Proportion of Time Balance Achieved		Proportion of Time Accurate Systems Ach.		Proportion of Time Accurately Balanced Systems Achieved	
Score	Rank	Score	Rank	Score	Rank
.71	3.5	.71	4	.57	3
.71	3.5	.28	15	.28	12
.50	9.5	.25	16	.00	17
.75	2	.75	3	.75	1
1.00	1	.62	9	.62	2
.50	9.5	.83	2	.50	5
.44	12	1.00	1	.44	7.5
.33	16	.70	5.5	.30	10.5
.55	7	.67	7.5	.44	7.5
.41	13	.41	13	.17	14.5
.33	16	.67	7.5	.17	14.5
.60	5.5	.70	5.5	.50	5
.50	9.5	.50	12	.50	5
.33	16	.17	17	.08	16
.50	9.5	.60	11	.30	10.5
.38	14	.38	14	.25	13
.61	5.5	.61	10	.31	9

on this proportional basis (i.e., relative to the total number of systems initially in strain for each subject), wide individual variation in these three sets of scores is evident from this table. This lends firmer support to our predictions of individual differences in frequency of occurrence of balanced terminal states, accurate terminal

systems, and accurately balanced terminal systems achieved in response to initial system strain.

Can we account for this variance in terms of the relative degree of autistic or realistic orientation of groups of individuals? Stated differently, can we predict degree of system change, autism or realism of system changes, and degree of autism or realism of equilibrium-restoring behavior (i.e., in the achievement of balanced end states) in terms of the personality and popularity variables? Let us consider each of these sets of hypothesized relationships in turn.

The first hypothesis predicts that the extent of balance-restoring behavior in response to system strain is negatively related to authoritarianism and need for achievement and positively related to need for affiliation and popularity status. Table 62 presents

TABLE 62

RANK ORDER CORRELATION OF PROPORTION OF TIME BALANCE ACHIEVED IN RESPONSE TO STRAIN WITH PERSONALITY AND POPULARITY MEASURES

Predictor Variables	Proportion of Time Balance Achieved in Response to Strain
F-Scale Rank	-.445*
n Achievement Rank	-.251
n Affiliation Rank	.111
Popularity Wk. 1	.590*
Popularity Wk. 14	.591*

*R of .410 significant at .05 level of confidence

the results bearing on this prediction. Here the proportion of time that balanced terminal states are achieved in response to strain is correlated with the personality and popularity measures. It is seen that degree of strain-reduction, as defined, is significantly and negatively related to authoritarianism and significantly and positively related to initial and terminal popularity status. Thus, non-authoritarians react to system strain by achieving balance more often than do authoritarians, and high-status group members reduce strain to a greater degree than do low-status group members. The other two predictor variables are not related to the extent of balance-restoring behavior. Thus our predictions are partially supported, and complement the findings of Chapter IV in which a similar set of relationships were obtained between the predictor variables and the general tendency toward balance in the terminal weeks, i.e., the degree of the tendency to interrelate attraction and perceived agreement.

The second hypothesis is concerned with accounting for the relative degree of autism or realism of the end states achieved. Specifically the prediction is that the frequency of autistic or realistic modes of system strain resolution--i.e., in the degree to which responses to system strain result in accurate or inaccurate terminal states--is negatively related to authoritarianism and need for achievement and positively related to need for affiliation and popularity status. The pertinent results providing a test of this prediction are presented in Table 63. In this table; the rank-order correlations between the proportion of time accurate systems are achieved or maintained in response to strain (irrespective of whether or not balance is achieved) and the personality and popularity measures

TABLE 63

RANK-ORDER CORRELATIONS OF PROPORTION OF TIME ACCURATE SYSTEMS ARE ACHIEVED OR MAINTAINED IN RESPONSE TO STRAIN WITH PERSONALITY AND POPULARITY MEASURES

Predictor Variable	Proportion of Time Accuracy Achieved in Response to Strain
F-Scale Rank	-.240
n Achievement Rank	.141
n Affiliation Rank	.075
Popularity, Week 1 Rank	.433*
Popularity, Week 14 Rank	.579*

*R of .410 significant at .05 level of confidence

are summarized. It is seen that initial and terminal popularity status is significantly, positively related to accuracy of terminal states corresponding to initial states of system strain. None of the personality variables are related to this index of autism or realism of system strain reactions. Thus, it is only popularity which is related to degree of realism, and which provides support for our prediction.

The crucial test of the hypothesis predicting degree of autistic or realistic processes involved in reactions to system strain combines both the criteria or balance restoring reactions and the degree of autism or realism into a simple prediction, viz., that of the proportion of time accurately balanced systems are achieved in response to phenomenal system strain. To elaborate, the achievement of balance in response to strain may be viewed as a realistic adaptive reaction, but only if there is an obtainment of a close correspondence between the objective and phenomenal systems. In the first chapter

we assumed that these two tendencies toward balance and accuracy will complement, or be positively related to, one another. In this assumption, we were implicitly making the inference that it is both tendencies operating together which make for the highest adaptation of the person to the social situation. Thus, the achievement of balanced terminal states which are also accurate is assumed to be the most realistic reaction to system strain, and can be predicted from the relatively autistic or realistic orientations of the individual.

Consequently, in the examination and explanation of autistic and realistic reactions to system strain, we finally predicted that the proportion of time accurately balanced systems are achieved in response to strain is negatively related to authoritarianism and need for achievement and positively related to need for affiliation and popularity status. The relevant results are presented in Table 64,

TABLE 64

RANK-ORDER CORRELATION OF PROPORTION OF TIME ACCURATELY BALANCED SYSTEMS ACHIEVED IN RESPONSE TO SYSTEM STRAIN WITH PERSONALITY AND POPULARITY MEASURES

Predictor Variables	Proportion of Time Accurately Balanced Systems Achieved in Response to Strain
F-Scale Rank	-.424*
n Achievement Rank	-.047
n Affiliation Rank	-.020
Popularity, Week 1 Rank	.655*
Popularity, Week 14 Rank	.692*

*R of .410 significant at .05 level of confidence

which summarizes the relationships of the personality and popularity measures with ranking of subjects with respect to the proportion of time accurately balanced systems are achieved in response to system strain. It is seen that authoritarianism is significantly negatively related to this combined index of degree of realism of the end states achieved in response to system strain, while initial and terminal popularity states are highly and positively related to this index. Need for achievement and need for affiliation are not related to the proportion of time accurately balanced systems are achieved. The hypotheses received then partial support and we are thus able to account for a major portion of the variance in degree of autism or realism of reactions to phenomenal system strain with two of the four of our predictor variables.

One possibility remained that might make the above analysis, evaluating reactions in terms of end states achieved, somewhat difficult to interpret. This is as follows: Certain of the subjects might initially be relatively more accurate in their attitudinal estimates than other subjects. Being initially accurate under conditions of phenomenal system strain might have the following consequences which would make the interpretation somewhat invalid: 1) Correctly assessing that initial strain does indeed exist might increase the pressures to obtain balance; 2) The end states of an accurately balanced system could simply represent the maintaining of the earlier level of accuracy and would not represent a reaction (i.e., increasing the correspondence between the phenomenal and objective system) to system strain; indeed subjects could maintain their initial level of accuracy and react to strain simply by restoring balance in the

phenomenal systems. Conversely, subjects less accurate to begin with would be handicapped in their attempts to obtain accurately balanced terminal system states. A check on this possibility would be in assessing whether subjects are in effect realistic in their reactions to system strain, i.e., whether increases in the correspondence of the phenomenal and objective system actually occur.

Therefore, rather than evaluating autistic and realistic reactions to system strain in terms of the end states achieved, the nature of system changes in response to strain was examined, in terms of whether such changes resulted in decreased or increased balance, and increased or decreased accuracy. Responses to strain, as thus classified might result in balance and accuracy increase, balance increase but accuracy decrease, balance decrease and accuracy increase, or balance and accuracy decreases. Frequencies were again pooled over the three Xs (attraction reciprocity, Spranger Values, the pooled sample of B-C attraction estimates) and tallied for each subject. The results are presented in Table 65. Complementing our previous findings, it is seen that in the majority of the cases, reactions are in the direction of strain reduction. Trends toward the achievement of balance are most frequently accompanied by increases in accuracy, although, in an almost equal proportion of times, balance increase is accompanied by accuracy decrease. But it is very infrequent that balance decreases for the sake of accuracy requirements. As measured in this analysis, the tendency toward balance is very strong, but may be either autistic or realistic in nature.

The question remaining is how realistic are the reactions to phenomenal system strain, i.e., to what degree do reactions result in

TABLE 65

INDIVIDUAL DIFFERENCES IN MODES OF SYSTEM STRAIN RESOLUTION: AUTISTIC AND REALISTIC MODES

Subject	Balance and Accuracy Increase	Balance Increase Accuracy Decrease	Balance Decrease Accuracy Increase	Balance Decrease Accuracy Decrease	Total
1	5	2	0	0	7
2	2	3	0	2	7
3	2	5	1	0	8
4	3	1	0	0	4
5	5	3	0	0	8
6	3	1	1	1	6
7	4	4	1	0	9
8	3	3	1	3	10
9	4	4	1	0	9
10	6	4	0	2	12
11	4	2	0	0	6
12	4	4	1	1	10
13	1	1	0	0	2
14	2	7	0	3	12
15	5	3	2	0	10
16	3	4	0	1	8
17	5	5	2	1	13
	61	56	10	14	141
	43.3%	39.7%	7.1%	9.9%	100%

accuracy increases? The following index of the degree of realistic changes in response to system strain was derived:

$$\text{Realism Score} = \frac{\text{Balance and Accuracy Increases} + \text{Balance Decreases and Accuracy Increases}}{\text{Balance Increases and Accuracy Decreases} + \text{Balance Decreases and Accuracy Decreases.}}$$

In effect this score is a ratio of the proportion of accurate system changes (realistic) to inaccurate system changes. Degree of realism scores, as specified, were computed for each subject and are presented

in Table 66, along with his rank-ordering in this respect.

TABLE 66

DEGREE OF REALISM IN RESPONSE TO SYSTEM STRAIN, SCORES,* AND RANKS

Subject	Score	Rank
1	2.50	2
2	.40	16
3	.60	14.5
4	3.00	1
5	1.67	6
6	2.00	4.5
7	1.25	7.5
8	.67	13
9	1.25	7.5
10	1.00	11
11	2.00	4.5
12	1.00	11
13	1.00	11
14	.20	17
15	2.33	3
16	.60	14.5
17	1.16	9

$$\text{*Scores of Realism} = \frac{\text{Balance \& Accuracy Increases} + \text{Balance Decreases \& Accuracy Increases}}{\text{Balance Increase \& Accuracy Decrease} + \text{Balance Decrease \& Accuracy Decrease}}$$

A test of the hypothesis that the personality and popularity variables, position on which is inferred to measure degree of autistic or realistic tendencies, are related to the degree of realism of reactions to system strain was then undertaken. Rankings on the personality and popularity variables were correlated with rankings with respect to the degree of realism in reactions to strain, i.e., to the

change scores. The results are presented in Table 67. A significant, positive correlation between initial popularity status and degree of realism in reactions to strain is obtained, while no relationship with this measure of realism and authoritarianism is found. This, then, lends support to the previous findings employing the type of end state achieved in response to strain, and does not support the alternative interpretation of simply increases in balance without being realistic.

TABLE 67

RANK-ORDER CORRELATION OF DEGREE OF REALISM IN REACTIONS TO STRAIN RANKINGS WITH PERSONALITY AND POPULARITY RANKINGS

Predictor Variables	Degree of Realism of Reactions Ranking
F-Scale Rank	-.272
n Achievement Rank	.205
n Affiliation Rank	.042
Popularity, Week 1	.503*
Popularity, Week 14	.380

*R of .410 significant at .05 level of confidence

In summary, popular group members, as compared to less popular group members, most often react to phenomenal system strain by reducing strain and achieving accurate systems of orientation in the terminal periods. Authoritarians as compared to non-authoritarians do not necessarily react to system strain realistically, nor do balance-increasing tendencies occur. We are unable to account for the variance in degree of autism or realism of reactions or the degree of balance-restoring responses to system strain in terms of

the variables of need for achievement and need for affiliation.

Autistic and Realistic Reactions to System Strain, As Inferred from Content of Specific System Changes

A second approach to the problem of considering and accounting for autistic and realistic processes in reactions to phenomenal system strain is to consider the content of specific system changes. Whether the content of specific system changes was considered autistic or realistic was inferred from the efficiency (i.e., the specificity) of the changes involved and the direction involved, i.e., whether resolving or increasing strain. Specific changes in the direction of promoting balance were assumed to be most realistic or adaptative. Next in degree of adaptiveness or realism were classified responses involving inclusive changes in the system, but which were also in the direction of strain reduction. Least realistic responses were inferred to be inclusive changes in either the direction of strain increase or dissolving the system.

The types of reactions in response to strain which were measured were classified as either changes in attraction, changes in perceived agreement, or some combination of the two. Such changes, depending upon their direction, could result in reducing, maintaining, or increasing system strain. Specifically, strain-reducing system changes could be either attraction decrease, perceived agreement increase, or both. Strain increasing system change would include either attraction increase, perceived agreement decrease, or both. System dissolving changes would require decreases in attraction and perceived agreement.

Table 68 presents the incidence of types of changes in response to strain, pooling over the three attitudes (attraction reciprocity, Spranger Values, B-C estimates) tallied separately for each subject. Considering first the general tendency in type of system change in response to strain, we see that the most frequent is an inclusive change in all parts of the system in the direction of balance, i.e., in decreasing attraction somewhat and in increasing perceived agreement and maintaining the same attraction ranking. Strain increasing system changes infrequently occur. Finally, in some instances (approximately 20% of the time) the reaction is to dissolve the system by decreasing both attraction and perceived agreement.

On the basis of the premise that individuals differ in the relative degree of autistic or realistic orientation, we would expect the type of system strain resolution to vary along the autistic-realistic continuum from inclusive changes in the direction of strain increase or system dissolution to specific and varying changes which are balance-promoting. A re-examination of Table 68 shows a fairly high degree of similarity among subjects in their modes of reaction to system strain, although the incidence of different types of changes for each S does not permit an adequate test of individual differences.

But do groups of individuals varying in degree of autistic or realistic orientation, as inferred from the personality and popularity measures, evidence differing degrees of realism in their types of reactions to system strain? To reiterate, the predictions were that reactions to system strain in the direction of balanced states will be specific and varying on the part of group members high in need for affiliation as compared to those low in this respect and on the part

TABLE 68

FREQUENCY OF OCCURRENCE OF DIFFERENT MODES OF SYSTEM STRAIN RESOLUTION: TYPES OF SYSTEM CHANGES

	Strain Reducing System Changes			Strain Increasing System Changes			System	
S	Attraction Decrease	Perceived Agr. Increase	Attraction Decrease & Perceived Agr. Inc.	Attraction Increase	Perceived Agr. Decrease	Attraction Increase & Perceived Agr. Dec.	Dissolv. Change Attraction Dec. & Perc. Agr. Decrease	Total
1	1	1	5	0	0	0	0	7
2	2	1	3	0	0	1	0	7
3	0	2	3	0	0	2	1	8
4	1	0	3	0	0	0	0	4
5	0	0	7	0	0	0	1	8
6	0	3	1	0	0	0	2	6
7	0	2	5	0	0	0	2	9
8	0	0	3	0	1	1	5	10
9	0	3	3	0	1	0	3	9
10	0	4	5	0	0	1	2	12
11	0	2	3	0	0	0	1	6
12	1	3	5	0	0	1	0	10
13	0	1	0	0	0	0	1	2
14	0	1	6	0	0	0	5	12
15	0	2	6	0	0	0	2	10
16	0	1	5	0	0	1	1	8
17	0	3	5	1	0	1	3	13
	5 (3.5%)	29 (20.4%)	69 (48.9%)	1 (.7%)	2 (1.4%)	8 (5.6%)	28 (19.7%)	141

of popular as against less popular group members. In contrast, reactions to system strain by authoritarians as compared to non-authoritarians, and by group members high in need for achievement as compared to those low in this respect, will be those of extensive system changes in the direction of balanced states or in the direction of dissolving the system.

The results testing these predictions are presented in Table 69. In Table 69 the personality and popularity variables were correlated by chi-square with the different types of reactions to system strain, presumed to represent different degrees of realism or adaptability. As seen by the table, the results are uniformly insignificant. This may be partially due to the lack of variance among subjects in modes of response, or may be due to the invalidity of the category system employed to infer the degree of realism involved. Nevertheless, we fail to obtain support for our predictions.

Conclusions

This chapter was concerned with predicting and accounting for autistic and realistic reactions in response to phenomenal system strain. Two approaches were employed, viz., (1) inferring autistic and realistic reactions from the degree of change toward balance and the accuracy of such changes, and (2) inferring autistic and realistic reactions from the content or modes of system changes.

In the first approach our hypotheses are partially supported. (1) In the majority of the cases, the most frequent reaction to phenomenal strain is to achieve accurately balanced terminal states; hence, in general, our subjects reacted quite realistically to system strain.

TABLE 69

CORRELATION OF PERSONALITY AND POPULARITY MEASURES WITH MODES OF REACTION TO SYSTEM STRAIN

Variable	Specific Changes Toward Balance	Inclusive Changes Toward Balance	System Dissolv. or Strain Inc. Changes	Total
High F	17(17.1)	32(34.7)	22(19.1)	71
Low F	17(16.9)	37(34.3)	16(18.9)	70
	34	69	38	141
	$X^2 = 1.32$ df = 2 $p > .05$			
High n Ach.	17(16.1)	33(32.8)	17(18.1)	67
Low n Ach.	17(17.9)	36(36.2)	21(19.9)	74
	34	69	38	141
	$X^2 = .24$ df = 2 $p > .05$			
High n Aff.	12(14.5)	30(29.3)	18(16.2)	60
Low n Aff.	22(19.5)	39(39.7)	20(21.8)	81
	34	69	38	141
	$X^2 = 1.13$ df = 2 $p > .05$			
High Popul. Week 1	17(14.7)	29(29.8)	15(16.4)	61
Low Popul. Week 1	17(19.3)	40(39.2)	23(21.6)	80
	34	69	38	141
	$X^2 = .88$ df = 2 $p > .05$			
High Popul. Week 14	19(14.5)	27(29.3)	14(16.2)	60
Low Popul. Week 14	15(19.5)	42(38.7)	24(21.8)	81
	34	69	38	141
	$X^2 = 3.21$ df = 2 $p > .05$			

(2) Only moderate individual differences in the frequency of different types of end states (whether balanced or imbalanced and accurate or inaccurate) achieved are evident. (3) The proportion of time that balanced terminal states were achieved in response to strain was found to be negatively related to authoritarianism and positively related to initial and terminal popularity status. (4) The proportion of time accurate terminal systems are achieved or maintained in response to strain (irrespective of whether or not balance is achieved) was found to be positively related to initial and terminal popularity status, but unrelated to our personality predictors. (5) The proportion of time that accurately balanced systems are achieved in response to phenomenal system strain was negatively related to authoritarianism and positively related to initial and terminal popularity status. Need for achievement or need for affiliation failed to account for the variance in any of these three phenomena. (6) The possibility of regressive effects of initial level of accuracy influencing these results, or determining whether subject, or groups of subjects classified in terms of our predictor variables, were actually reacting to system strain autistically or realistically, i.e., whether or not the correspondence between the phenomenal and objective system actually increased, was assessed. The measure of autism-realism was taken as the ratio of the proportion of accurate to inaccurate system changes. This measure was found to be positively related to popularity status but unrelated to authoritarianism, lending partial support to our previous set of findings.

In the second approach (inferring autistic or realistic reactions from the content or mode of system changes), the following

results were obtained: (1) The most frequent type of system change in response to system strain on the part of our subjects consists in an inclusive change in all parts of the phenomenal system in the direction of balance, designated as a moderately realistic type of reaction. (2) While the number of cases is small, a fairly high degree of similarity among subjects in their modes of reaction to system strain were obtained. (3) We failed to account for different modes of system strain resolution (from which autistic or realistic methods were inferred) in terms of our predictor variables.

Therefore, in summary, our predictions concerning autistic and realistic factors and processes in reactions to phenomenal system strain receive a fair degree of support.

CHAPTER VII

DISCUSSION, CONCLUSIONS, AND SUMMARY

This chapter is organized in the following manner: First, the specific conclusions with regard to the findings are summarized in terms of the degree to which they support the hypotheses. These conclusions are then drawn together and interrelated to give the total picture of the results of this study, and are evaluated in terms of the major aim of the thesis, and in terms of the limitations of the study. The implications of the findings and conclusions for the theory of communicative acts are then drawn. The insights gained in this study in terms of aspects of the problem remaining unsolved are discussed in terms of suggestions for future research. Finally, the theoretical problem, procedure, and results and conclusions are reiterated in the form of a brief summing up of the study.

Conclusions

The objective of this thesis was an exploratory investigation of the operation of autistic and realistic processes in the communicative act. The general approach consisted in the study of the formation and change of attitudes. The specific approach to the problem was that of examining the relations between the phenomenal system of the individual and the objective systems of orientations existing between the individual and others. Different aspects of the process

of attitude formation and change were examined in which autistic and realistic processes were expected to be operative. Let us review the conclusions drawn with regard to obtained results for the three different levels of analyses employed, for all subjects in the group under consideration, for differences between individuals, and for subjects differing in terms of the personality and group status characteristic employed.

Autistic and Realistic Processes in System Strain and Balance

In Chapter III a general assessment of the role of autistic and realistic processes and their interaction in co-orientation for the general population studied was undertaken. The tendency to assume balance, i.e., as inferred from the tendency to interrelate attraction and perceived agreement, while significant at all times during the acquaintance process for each of the attitudinal objects considered, appeared to decrease somewhat with interaction. This was accompanied by an increase in accuracy of estimates. First, this indicated the operation of tendencies both toward balance and tendencies toward accuracy. Second, these sets of results together are suggestive of a possible relative shift from the operation of autistic to the operation of realistic processes. This possibility was investigated more directly by determining the degree of correspondence between the phenomenal and objective system at different stages of interaction. The hypothesis predicting an increased correspondence was partially confirmed, for two of the three attitudinal objects. (The correspondence between the phenomenal and objective systems for the remaining attitudinal object, attraction reciprocity, was quite close after

only one week of interaction.) Finally, the interrelation over time between tendencies toward balance and tendencies toward accuracy was investigated. The hypothesis stated that "the incidence of system strain or balance occurs in the initial stages of acquaintance without regard to accuracy requirements, i.e., autistic processes predominate; with interaction, tendencies toward accuracy and balance complement or are positively related to one another, i.e., the incidence of accurately balanced system increases." The hypothesis was generally confirmed. While no relationship was found to exist between the accuracy of systems in strain and systems in balance in the initial periods, tendencies toward accuracy and balance tended to complement one another in the terminal weeks. This indicated that the final attainment of balance was made on a realistic basis for members of the group studied. Therefore, the hypotheses positing the operation of realistic processes as well as autistic processes in co-orientation, and a relative shift from an autistic to a reality-based orientation is substantially supported by the data. Stated differently, we may infer that, in general, members of the group eventually met quite successfully both the reality requirements of the situation and the autistic demands arising from personality requirements, as indicated by the increasing tendency to obtain balanced systems of orientation, which at the same time corresponded to extant objective systems of orientations.

Individual, Personality, and Situational Differences in Autistic and Realistic Processes

The next aspect of the general problem consisted in deter-

mining the generality of autistic and realistic processes and how they varied and interacted together under specified conditions. Thus in Chapter IV, we attempted to interpret and account for the variance in autistic and realistic processes in co-orientation by investigating individual, personality, and situational differences in these processes. The operation of autistic and/or realistic processes was inferred from four phenomena, viz., 1) tendencies to interrelate attraction and perceived agreement or tendencies to have balanced systems, 2) tendencies toward accuracy, 3) processes of distortion or accurate appraisal under conditions of system strain and balance, and finally, 4) tendencies toward autism, or the inverse of the tendency to interrelate perceived agreement with actual agreement. Let us consider each of these phenomena in terms of the conclusions to be drawn for the entire group of subjects, variation between individuals, and the relationships obtained with the personality and group status variables from which autistic and/or realistic processes are posited to originate.

Balance Tendencies

All subjects in the group obtained some degree of balanced orientations, in terms of tendencies to interrelate attraction and perceived agreement. Despite this overall trend, wide individual variation in tendencies to have balanced systems occurred. But the hypothesis of consistent individual variation in their tendencies toward balance is not supported; rather, relative ranking of subjects in this respect was found to depend upon the particular attitudinal object and the stage of the acquaintance process considered. Hypothesizing that tendencies toward balance are a function of a general

autistic or realistic orientation, and that such tendencies arise from certain personality and group status factors, relationships between our personality and popularity status variables with tendencies toward balance were predicted. The obtained relationships indicated that this tendency is predictable from the personality and popularity variables to a fair degree. Tendencies toward balance for the Spranger Values were found to be significantly and negatively related to need for achievement in the initial weeks. It was in the terminal periods of acquaintance that a general trend emerged. A general tendency to assume balance for group relevant attitudes was found to be significantly and negatively related to authoritarianism and highly and positively related to initial and terminal popularity status. We conclude, therefore, that the particular relationships obtained between our predictor variables and tendencies toward balance depended upon whether the attitudinal object was personality or group relevant, and also upon the stage of the acquaintance process considered.

Accuracy Tendencies

After the initial stage of acquaintance in which information regarding one anothers' orientations has been exchanged, subjects in the group obtained a relatively high level of accurate appraisal of one anothers' orientations. The hypothesis predicting consistent individual differences in general ability to estimate other's orientations was not supported, as evidenced by the low consistency in accuracy rankings for different attitudes and different stages of acquaintance. However, tendencies toward accuracy were found to be related to the personality and group status variables in the predicted

directions. As predicted, accuracy of estimates is negatively related to authoritarianism and positively related to popularity status for the terminal periods of the acquaintance process. In addition, accuracy of estimates was found to be negatively related to need for achievement. These relationships were found to be mediated by the presence or absence of actual agreement to a certain extent. When the effects of actual agreement are partialled out, a new pattern of relationships emerges: Accuracy of estimates corrected for actual agreement was then found to be positively related to popularity status for the initial periods of acquaintance and positively related to authoritarianism in the terminal periods. Thus the factors of actual agreement in orientations and stage of acquaintance appeared to be quite important in conditioning the relationships obtained. Thus the variance in accuracy of estimates is partially accounted for, but not all the obtained relationships are in the predicted direction when they are interpreted in terms of these conditioning factors.

Accuracy of Systems in Strain or Balance

It was posited that the conditions of system strain or balance especially would be conducive to the operation of autistic or realistic processes. The hypothesis of individual consistencies in accuracy under these conditions was supported to a fair degree.* Wide indivi-ual variations in this aspect of accuracy was found; and a moderate

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*A separate consideration of accuracy of systems in strain and in balance, while quite interesting, did not prove feasible in terms of the data obtained. Because, in general, degree of accuracy was not found to be highly correlated with whether systems are in strain or balance, and especially because of the small and unequal number of systems meeting the criterion of being in strain or balance for each subject, accuracy scores were determined combining systems in strain and balance.

degree of individual consistency in rankings of accuracy were obtained. The hypothesis that the variance in accuracy of system strain and balance would be related to those variables, from which autistic or realistic processes were assumed to originate, was partially supported. In the terminal weeks, system strain or balance accuracy was found to be positively related to popularity status and negatively related to need for affiliation.

Autistic, Realistic, and Contra-Autistic Responses

All of our subjects evidenced these three types of responses to some degree, with only a moderate degree of individual variation in such responses being obtained. The prediction that these different types of responses would be related to the personality and popularity variables was not generally supported; no general set of relationships were obtained. However, when the extent of the discrepancy between perceived and actual agreement was considered without regard to direction, i.e., the degree of autism, some general relationships emerged: Degree of autism was found to be significantly, positively related to need for affiliation in the initial weeks and significantly inversely related to this personality variable in the terminal weeks; degree of autism was also found to be significantly, positively related to need for achievement in the terminal weeks. Once again, however, the operation of actual agreement seemed to be accounting in part for the obtained relationships.

General Implications of Findings

The implications of these findings concerning tendencies toward balance, toward accuracy, toward accuracy of systems in strain

or balance, and tendencies toward autism in terms of the autistic and realistic processes operative appear to be as follows. Each of these phenomena, as measured, appears to be relatively independent of the other phenomena, and therefore they are different aspects of the total pattern of behavior in attitude formation and change. From the generally low intercorrelations found to exist among the rankings of subjects with respect to each of these phenomena, either a generally autistic or realistic orientation on the part of individuals was not indicated. Further, the conclusion to be drawn in accounting for the variance in these different phenomena in terms of the personality and group status variables from which it was assumed autistic and/or realistic tendencies originate is as follows: In general, the prediction of autistic and realistic processes, as assumed to be operative in the four different phenomena involved in co-orientation which were measured, is fairly successful. However, each of the four predictor variables seem to be accounting for different aspects of the total pattern. Specifically, the following general relationships were obtained which evidenced support for our prediction. In the initial weeks, popularity status is highly related to general accuracy of estimates corrected for actual agreement, and to a lesser, though still significant extent, related to corrected accuracy of systems in strain or balance; but it is unrelated to tendencies toward balance. In the terminal periods, popularity status becomes highly related to tendencies to have balanced systems, and to corrected accuracy of systems in strain or balance. In contrast, authoritarianism does not account for any of the variance in either tendencies toward accuracy or balance in the initial periods, but in

the final weeks authoritarianism is negatively related to balance ranking and positively and significantly related to corrected accuracy; these results ran counter to our predictions. Together these sets of results cannot be attributable to actual agreement in attitudes or to the particular structure of the group. It is thus seen that popular group members, in contrast to members low in popularity, initially (and also later) assess the orientations of other group members rather correctly and then obtain balanced systems in the later periods of acquaintance. In contrast, authoritarians, as compared to non-authoritarians, only obtain accurate assessment of other's orientations in the terminal periods, but never obtain a general set of accurately balanced systems. Finally, the other two predictor variables were found to be related to another phenomena, viz., degree of autism or the discrepancy between perceived and actual agreement. Need for affiliation was positively related to autism in the initial stages of acquaintance and negatively related to autism in the terminal periods, when there was a negative relationship between accuracy of system strain or balance and the predictor variables. In addition, need for achievement was positively related to autism in the terminal weeks. Apparently, need for achievement in the terminal weeks and need for affiliation in the initial weeks resulted in a general distortion which operated against obtaining balance or being accurate. Need for affiliation in the terminal periods gave rise to the general orientation of being accurately in agreement with other group members, particularly under conditions of strain or balance, which decreased the probability of having balanced systems or accurately estimating the attitudes of other group members in

general.

Taken together, all of the obtained relationships present a consistent picture, in terms of our predictor variables, of the processes operative in the group as members with different personality characteristics and different statuses in the group interacted over an extended period of time. In general, the operation of both autistic and realistic processes in complex interrelationships is indicated, supporting our hypotheses.

Tolerance and Thresholds of System Strain

In Chapter V we were concerned with autistic and realistic processes as they conditioned the motivational significance of system strain to the individual, specifically the problem of the conditions which determine tolerance of system strain, and the related problem of sensitivity to strain, i.e., the factors determining differential thresholds of system strain. 1) For our group of subjects in general, it was found that tolerance of phenomenal system strain occurs when it corresponds to the presence of objective system strain, i.e., it is predictable from the objective relationships existing in the group, and hence is a reality-based process, particularly in the terminal weeks. 2) Tolerance of phenomenal system strain is an individual constant, as indicated by the finding of a moderate degree of consistency in individual's tolerance rankings for different attitudinal objects and at different time periods. 3) The obtained relationships of authoritarianism, need for achievement, and initial popularity status to tolerance of phenomenal system strain in the predicted directions were seen to be based upon variations in actual or objective

system strain accompanying differing positions on these personality and situational dimensions. Employing a second measure that considered phenomenal system strain in relation to objective system strain, tolerance of system strain was found to be positively related to need for achievement and inversely related to need for affiliation supporting our predictions. 4)In an exploratory analysis attempting to account for variations in thresholds of system strain, we were unable to account for the variance in terms of the majority of our predictors, although a positive relationship between need for achievement and one measure of thresholds of system strain was obtained, while a positive relationship between authoritarianism and a second measure of strain thresholds was found. These results parallel the findings of the relation of our predictor variables with tolerance of system strain. 5) In summary, our predictions concerning the motivational significance of strain, i.e., in accounting for the variance in tolerance and thresholds of system strain, were partially supported. Again, it was seen that these phenomena varied with objective conditions, i.e., systems of orientations existing in the group, and hence they represent a realistic adaptation of group members to these conditions, especially in the terminal periods of acquaintance.

Autistic and Realistic Processes in the Dynamics of System Strain and Balance-Reactions to Strain

Finally, in Chapter VI, we considered the question of how reactions to system strain are conditioned and mediated by autistic and realistic processes and how individuals and categories of individuals, who are assumed to differ in degree of autistic or realistic orien-

tations, react to system strain. Two approaches were employed, viz., 1) inferring autistic and realistic reactions from the degree of change toward balance and the accuracy of such changes, 2) inferring autistic and realistic reactions from the content or mode of system changes.

We may draw the following conclusions: 1) In the first approach, our hypotheses were partially supported. First, for the majority of subjects, the most frequent reaction to phenomenal system strain was to achieve accurately balanced terminal states. Hence, in general, our subjects reacted quite realistically to the occurrence of system strain. Second, only moderate individual differences in the autism or realism of reactions to system strain were obtained. Finally, the proportion of time that accurately balanced systems were achieved in response to phenomenal system strain was negatively related to authoritarianism and positively related to initial and terminal popularity status.

2) In the second approach, the following results were obtained. First, the most frequent type of system change in response to system strain on the part of our subjects consisted in an inclusive change in all parts of the phenomenal system in the direction of balance--a fairly realistic type of reaction. Second, a fairly high degree of similarity among subjects in their modes of reaction to system strain was obtained. 3) We failed to find support for the hypothesis that the autistic or realistic mode of system strain resolution, as inferred from the content of system changes, would be related to personality and situational variables measuring relative degrees of autistic or realistic orientation. In summary, our predictions concerning autistic

and realistic factors and processes in reactions to phenomenal system strain were supported employing the first approach, but not by the second.

General Conclusions

The general aim of this thesis has been that of exploring the operation of autistic and realistic processes in the communicative act, and interpreting these in terms of the factors which give rise to them, whether personality or situational. We have approached the problem through an investigation of the formation and change of attitudes. This has been an exploratory study of one group, the consideration of which sought to increase our understanding of these processes. On this descriptive level, what overall conclusions may be drawn from the pattern of relationships obtained?

First, on the most general level, the operation of both autistic and realistic processes has been demonstrated, and they were seen to be complexly interrelated as the acquaintance process develops. Group members were seen to integrate adaptively both the autistic demands of tendencies toward psychological balance and the reality requirements of the objective systems of orientations between themselves and others. This conclusion is applicable in terms of 1) group members establishing and maintaining accurately balanced systems of orientations, 2) the objectively based significance of strain to them, and 3) their realistic reactions to strain in the direction of achieving accurately balanced systems by a re-adjustment in all parts of the system.

Second, as the acquaintance process develops, it is the objec-

tive systems of orientations existing between the individual and others which come to play the predominant role in attitude formation and change. While a causal relationship between the phenomenal system and the objective system in either direction has not been demonstrated in this study, the evidence is suggestive that the attainment of balance, tolerance of strain, and reactions to strain are such as to increase the congruence of the phenomenal system of the individual with the actual, objective system of orientations. (It must be realized of course that while the phenomenal system may move in the direction of becoming congruent with the objective system, the rather strong possibility remains that the reverse process might also have frequently occurred under certain conditions.) With communicative exchange, there is a shift from an autistically to a realistically based set of phenomenal systems on the part of the person.

Third, in addition to these overall tendencies, individual variations in the relative operation of autistic and realistic processes were found, whether in the attainment of balanced systems, in degree of accuracy, autism, system strain tolerance, sensitivity to strain, or in reactions to system strain. And, fourth, we are able to account for variation in degree of autism or realism in these different phenomena in terms of certain personality and situational variables from which such processes were assumed to arise. While the variables of need for achievement, need for affiliation, authoritarianism, and popularity status each seemed to be accounting for different processes, it is the latter two variables which accounted for the major portion of autistic and realistic processes operative. Part of the variance may be attributed to a general autistic-realistic

personality orientation. But the major portion of the remaining variance must be attributed to objective conditions existing in the group, for popularity status is the best predictor of this variance. Hence again, it is, in large part, a reality factor or situational requirement which sets up either autistic or realistic processes.

Thus the general objective of this study has been fairly well obtained in terms of the overall pattern of results obtained and conclusions reached: That is to say, a general and consistent tendency on the part of our subjects has been found, and we have been fairly successful in interpreting the variance in autistic and realistic processes in terms of our predictors.

Limitations of the Study

The present study is exploratory in nature. It is an initial approach to understanding the dynamics of autistic and realistic processes in a natural group setting. The procedure was thought to be appropriate particularly in terms of certain characteristics of the research setting (see Chapter 3) which would permit the full interplay of autistic and realistic processes.

The major limitations are as follows: 1) Our examination of autistic and realistic processes has been done largely on the basis of inference rather than direct observation and measurement of these processes in the communicative act. We made no direct measurement of communication by which we could actually establish the autism or realism of a particular communicative act. 2) Secondly, the phenomena examined consist of a complex network of relationships having many interaction effects, which in the absence of controlled experimentation

preclude the drawing of conclusions concerning causal relationships. This is especially true since our approach has been that of examining the relationship between the phenomenal and objective systems to infer the operation of autistic and realistic processes. But due to the difficulty of teasing our causal relationships, the actual dynamics between the phenomenal and objective systems remain unexplored. A similiar problem of interpretation arises concerning the effects of our predictor variables. For example, does authoritarianism directly effect the occurrence of autistic processes, or does it operate indirectly through group structural effects? Thus, our conclusions are in effect descriptions of relationships rather than tests of hypothesized cause and effect relationships. 3) Third is the problem of generalization inherent in any study of the members of a single group. We make no claim, of course, that the findings from a single, small population can be generalized to other populations. Legitimately our generalizations are limited to a description of relationships in the group studied.

4) Much of our analytic examination was carried out employing a very provisional and crude operational definition of system strain and balance, in which most of the parameters were assumed present and constant, such as relevance and importance. These are assumptions which crucially effect the interpretation of our results. An improved set of operations combining all aspects of a phenomenal system into a single index congruent with the conceptual definition of strain and balance would, ideally, have been available.

5) Finally, while the personality dimensions and group status variables yielded a significant set of relationships, their validity

as measures of general autistic or realistic orientations may be questioned. On the situational side, a more appropriate index might be a direct index of social power and leadership status. On the personality side, motivation and adjustment variables have been emphasized, neglecting the strictly cognitive tendencies, such as measures of intelligence or cognitive processes. The limited selection of predictor variables assumed to be indicative of autistic or realistic orientations correspondingly limits the interpretations of the processes which actually occurred in the group.

These then are salient limitations of the study and our specific and general conclusions should be interpreted in the light of these limitations.

Implications of Findings for the Theory of Communicative Acts

From one point of view, this study has been concerned with how the person integrates the autistic demands of his personality with the objective requirements of the situation. It might have turned out that, contrary to the present theory, the tendency toward balance might be in conflict with other demands and requirements of the personality and situation. But under the conditions of this research, our subjects were seen in general to integrate adaptively both the autistic demands of tendencies toward phenomenal balance and the reality requirements of the objective system of orientations existing between themselves and others. Consequently, this conclusion undergirds and lends additional support to the basic postulates of the theory of communicative acts, making the theory more generally applicable to situations where both autistic and realistic require-

ments and conditions are operating.

Secondly, the finding that the relationship between the phenomenal and objective system is such as to establish a congruent correspondence, lends further credence to the expectation that the dynamics and laws operative on both the phenomenal and objective level will be similar. Thus, the dynamics of the phenomenal system reflect to a large extent, or at least are congruent with, the objective conditions and systems of orientations, whether in obtaining balance, tolerating strain, or in reacting to strain. This finding suggests that the dynamics and laws on the phenomenal level are not simply describing intra-psychic phenomena, but also are applicable to the inter-personal systems of orientations and relationships which to a large degree govern the dynamics of the phenomenal system. This supports the conclusion that the theory is adequate as a psychological framework for interpreting the causes and consequences of communicative acts.

We have also established that there is significant variation in autistic and realistic processes, which the theory must come to terms with, whether this is variation in tendencies toward balance, accuracy, autism, strain tolerance, sensitivity to strain, or in reactions to strain. We have been fairly successful in accounting for such variation. In effect we have established some of the boundary conditions for the relationships formulated by the theory. Thus, the theory must take into consideration personality and situational factors as influencing and conditioning autistic and realistic processes.

Suggestions for Future Research

A portion of the suggestions for future research arise out of the research design limitations of the present study, partially out of the questions we have been unable to explore adequately in this thesis, and finally out of the questions which the results raise. These may be briefly outlined as follows:

1) We have limited ourselves to an exploratory study of autistic and realistic processes as inferred from the correspondence between the objective and phenomenal systems. Foremost in future research is needed a further consideration and understanding of these processes of autism and realism, and an experimental manipulation of them, such as the degree of communicative exchange.

2) A second area of exploration is a further, more extended, examination of the dynamics existing between the phenomenal and objective systems which determines their correspondence or lack of correspondence. Under what conditions does the phenomenal system come to reflect the objective systems and in what manner, and under what conditions does the reverse process occur and in what manner?

3) Third, in addition to a more adequate measurement, autistic and realistic processes should be examined under varying conditions of autistic, or personality, and reality, or situationally, determined requirements. The findings of this research have been such as to indicate an essential complementarity between these two sets of requirements. The operation of autistic and realistic processes should also be explored experimentally when there is actual conflict between the two sets of requirements.

4) The prediction of autistic and realistic processes should

be carried out employing a wide and perhaps more valid selection of variables both on the personality side and the situational, such as measures of cognitive functioning, social power and leadership variables.

5) The interplay between autistic and realistic factors should be employed in group situations which would give a freer play to each, and which would also permit wider generalization. In the present study the personality variables were partially contaminated with, and partially corresponded to, our measures of group structure, which drastically limits the generality of our results.

6) Substantive problems which should be further explored are as follows: (a) an examination of autistic and realistic processes employing more adequate operational definitions of system strain and balance, (b) a closer examination of the interaction of tendencies toward balance, accuracy, autism, etc., over time, (c) a more adequate study of the problem of differential sensitivity to strain with particular attention to the problem of strain thresholds, and finally (d) a relatively unexplored problem--the prediction of modes of reactions to system strain in terms of autistic and reality-based determinents. Finally, a major unexplored theoretical problem consists in developing a broader theory of balance which will encompass instances of imbalance. For example, a person having a set of phenomenal systems which are in strain may be acting quite realistically in terms of the objective state of affairs existing between himself and others, i.e., a set of objective systems may exist which are in strain. In one sense he is "in balance" with the social situation. Similarly on the personality side, a person may actually tolerate or even like strain

and have a set of phenomenal systems in strain, but in a broad sense there is a balance between this personal need and his attitude system. In short, a broader theory of balance is needed which will encompass these negative instances if they are found to exist.

Thus, the dual purpose of a research study is not only to answer questions and solve problems, but to generate new questions and problems to be explored. To some extent the present research has fulfilled this second function as well as the first.

Summary

The problem of this thesis was an exploratory investigation of the operation of autistic and realistic processes in co-orientation, examined in terms of their implications for Newcomb's theory of communicative acts. The approach to the problem was that of examining the relationships between the phenomenal system of the individual and the objective system of orientations existing between the individual and others in the formation and change of these orientations.

Several interrelated questions concerning the interplay of autistic and realistic processes in different aspects of the communicative act were raised for examination. These essentially had to do with the interaction between autistic tendencies toward balance and the realistic tendencies toward accurate appraisal of others' orientations, in establishing and maintaining system balance, in tolerance of, and sensitivity to system strain, and in determining modes of reactions to system strain. Three foci of analysis were employed: 1) the general tendencies as they operated in a developing group, 2) consistent individual variations in autistic and realistic tend-

encies and 3) the predictions of these processes in terms of selected personality and group status variables, from which it was assumed such processes originated. Each analysis was undertaken for different stages of the acquaintance process.

To these ends a longitudinal study was made of a student group in a natural setting, the study being conducted as part of the Michigan Group Study Project. Male undergraduate students were formed into a cooperative group living situation for a period of 16 weeks. Subjects were selected such that no group members knew each other prior to coming together to live in the house. The setting was such as to make for the full interplay of autistic and realistic processes. Measures of attraction, own and estimated attitudes of other group members were obtained at weekly intervals. In addition, personality measures of general orientation (the F-scale) and motivation (as derived from the TAT) were obtained and measures of group status characteristics of members were derived.

From the results the following general conclusions were drawn: 1) The operation of both autistic and realistic processes was demonstrated; they were seen to be complexly interrelated in changing ways as the acquaintance process developed. Group members were seen to integrate adaptively both the autistic demands of tendencies toward phenomenal balance and the reality requirements of accuracy. This conclusion applied in establishing and maintaining accurately balanced systems of orientations, in terms of members' sensitivity to and tolerance of phenomenal strain, and in terms of their realistic reactions to strain in the direction of obtaining accurately balanced terminal system states. 2) Such processes are in the direction of

an increased congruence of the objective and phenomenal system, with the phenomenal system dynamics apparently reflecting the objective systems of orientations to a large extent. 3) In addition to these general tendencies, individual variations in the relative operation of autistic and realistic processes were found to occur, as inferred from the above-mentioned phenomena examined. 4) We were able to account partially for variation in degree of autism or realism in these different phenomena in terms of the personality and group status variables employed.

APPENDIX A. QUESTIONAIRES EMPLOYED

RECRUITMENT FORM

Application for Michigan Group Study House

1. Name: _____

2. Home Address: _____ (City) _____ (State)

3. Mailing Address: _____

4. Date of birth: _____

5. Place of birth: _____

6. For how many years have you resided in the United States? _____

7. Race: _____

8. Religious preference _____

9. If you are a veteran: Date of Discharge: _____
   Months of Service: _____
   Months Overseas: _____

10. General health: Very good _____ Good _____ Fair _____ Poor _____

11. Physical disability, if any (specify): _____

12. Colleges attended prior to University of Michigan _____

    _____

13. High School attended: _____

14. Will your financial arrangements for the fall semester be adequate without this low-rent living arrangement? Yes____ No_____

15. Do you plan to work part-time during the fall semester?
    Yes_____ No_____

16. How often do you plan to be away from campus for weekends during the fall semester (every week, every second or third week, every month, etc.)? _____

    _____

17. Major, preprofessional program, or prospective major (if any)?

    _____

Applications will be acted upon in order of arrival and will be recognized immediately.

Instrument Used to Obtain Attraction Data in Group 2

Directions:

This part of the questionaire deals with how you feel toward the other people living in this house.

Your task is to indicate in the blank to the left of each code number on the next page how much you like the person for which that code number stands.

Look at the scale at the bottom of the next page which is numbered from 0 to 100. You can use this scale to indicate how favorable or unfavorable you feel toward any person. You would assign a value of 100 to the person toward whom you feel the most favorable as possible. You would assign a value of 0 to the person toward whom you feel as unfavorable as possible. You would assign a value of 50 to a person toward whom you feel completely indifferent. Of course, most all of the values you would assign would fall somewhere between these three points.

Keep this scale in mind. Look at the name of the first of the people listed on the next sheet. Decide how strongly you feel about him. Assign him a corresponding value from 0 to 100 on the line to the <u>left</u> of the code number. Do the same for each other person. Remember that your ratings of how well you like each of the men in the house should be relative to all of the people that you personally know (except your family). This means that the guy that you like best of all in the house would not be assigned a value of 100 unless you liked him better than anyone you know.

ONE IMPORTANT POINT: Avoid assigning two people the same

number; if two people seem to be the same for you, separate them by one point.

(over)

Instrument Used to Obtain Attraction Data in Group 2 (continued)

A-B Score	GL Code No.	Wk _____
_____	2-F	
_____	3-G	
_____	4-H	
_____	5-J	
_____	6-L	
_____	7-M	
_____	8-O	
_____	9-P	
_____	10-Q	
_____	11-R	
_____	12-S	
_____	13-T	
_____	14-U	
_____	16-X	
_____	17-Y	
_____	18-Z	
_____	19-B	

Most Unfavorable	Completely Indifferent	Most Favorable
0	50	100

Instrument Used to Obtain Attraction Data in Group 2 (continued)

B-A GL Estimates:

Now please estimate how each other man in the House would respond to the question about how favorable he feels toward you. Make your estimate by inserting any number between 0 and 100, just as you did in indicating your own feelings about the other men.

100 means he feels as favorably as possible toward you
50 means he feels neither favorable nor unfavorable
0 means he feels as unfavorable as possible toward you

B-C GL Estimates:

Below there appear the code numbers of several pairs of men in the House. Please estimate how favorable the man at the left of each pair feels about the man at the right.

In Column I, insert F, S, T, or L according to whether you think the man on the left would place the man on the right among the first four, the second four, the third four, or the last four of the other men in favorability.

In Column II, insert any number between 0 and 100, according to the 100-point scale that you have used before (100 means as favorable as possible; 50 means neither favorable nor unfavorable; and 0 means as unfavorable as possible).

B Code Number	Col. I	Col. II	C Code Number
18-Z	_____	_____	13-T
2-F	_____	_____	4-H
3-G	_____	_____	14-U
5-J	_____	_____	17-Y
12-S	_____	_____	6-L
8-O	_____	_____	16-X
14-U	_____	_____	3-G
17-Y	_____	_____	5-J
13-T	_____	_____	6-L
4-H	_____	_____	2-F
6-L	_____	_____	12-S
16-X	_____	_____	8-O

(The above is a sample of B-C GL Estimates for one subject)

Instrument Used to Obtain Spranger Value Information

Below are listed six important areas, or interests, in life. People differ in the emphasis or degree of importance they attribute to each of these interests.

Rank order the following interests in terms of their importance to you. Put the symbol standing for the area (i.e., T., E., A., etc.) in the spaces which are appropriate, to indicate how important they are to you.

T. Theoretical: Interested primarily in empirical, critical, or rational matters--observing and reasoning, ordering and systematizing, discovering truths.

E. Economic: Interested primarily in that which is useful and practical, especially the practical affairs of the business world--judge things by their tangible utility.

A. Aesthetic: Interested primarily in beauty, in form and harmony for its own sake--an artistic interpretation of life.

S. Social: Interested primarily in other human beings--human relationships and love are very important.

P. Political: Interested primarily in power and influence--leadership and competition are the key-words descriptive of such an interest.

R. Religious: Interested primarily in the satisfaction and meaning to be derived from religious experiences--interested in relating self to the unity of the universe as a whole.

Rank order areas for self:

1	2	3	4	5	6
___	___	___	___	___	___

Now estimate how you think each of the other members of the house would rank order these interests in terms of their importance for them.

Place the symbol of the most important interest, for each person considered, in the first column--through the least important in the sixth column. Use the code letter for each of these interests.

T. Theoretical
E. Economic
A. Aesthetic
S. Social
P. Political
R. Religious

Omit the row corresponding to your own code number.

How would each man rank-order these interests for himself?

Code	1	2	3	4	5	6
2-F						
3-G						
4-H						
etc.						

F-Scale Questionaire

This is a study of what the general public thinks about a number of social questions. The best answer to each statement below is your personal opinion. We have tried to cover many different points of view. You may find yourself agreeing strongly with some of the statements, disagreeing just as strongly with others, and perhaps uncertain about others. Whether you agree or disagree with any statement, you can be sure that many other people feel the same way you do.

Mark each statement in the left margin according to how much you agree or disagree with it. Please mark every one. Write in +1, +2, or +3, or -1, -2, -3, depending on how you feel in each case.

+1:	I AGREE A LITTLE	-1:	I DISAGREE A LITTLE
+2:	I AGREE PRETTY MUCH	-2:	I DISAGREE PRETTY MUCH
±3:	I AGREE VERY MUCH	±3:	I DISAGREE VERY MUCH

_____ 1. Human nature being what it is, there will always be war and conflict.

_____ 2. Obedience and respect for authority are the most important virtues children should learn.

_____ 3. No weakness or difficulty can hold us back if we have enough will power.

_____ 4. Science has its place, but there are many important things that can never possibly be understood by the human mind.

_____ 5. Every person should have complete faith in some supernatural power whose decision he obeys without question.

_____ 6. When a person has a problem or worry, it is best for him not to think about it, but to keep busy with more cheerful things.

_____ 7. A person who has bad manners, habits and breeding can hardly expect to get along with decent people.

_____ 8. What the youth needs most is strict discipline, rugged determination, and the will to work and fight for family and country.

_____ 9. Some people are born with an urge to jump from high places.

_____ 10. Nowadays, when so many different kinds of people move around and mix together so much, a person has to protect himself especially carefully against catching an infection or disease from them.

_____ 11. An insult to our honor should always be punished.

_____ 12. Young people sometimes get rebellious ideas, but as they grow up they ought to get over them and settle down.

_____ 13. What this country needs most, more than laws and political programs, is a few courageous, tireless, devoted leaders in whom the people can put their faith.

_____ 14. Sex crimes, such as rape and attacks on children, deserve more than mere imprisonment; such criminals ought to be publicly whipped, or worse.

_____ 15. People can be divided into two distinct classes: the weak and the strong.

_____ 16. There is hardly anything lower than a person who does not feel a great love, gratitude, and respect for his parents.

_____ 17. Some day it will probably be shown that astrology can explain a lot of things.

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

_____ 19. Wars and social troubles my someday be ended by an earthquake or flood that will destroy this world.

_____ 20. Most of our social problems would be solved if we could somehow get rid of the immoral, crooked and feebleminded people.

_____ 21. The wild sex life of the old Greeks and Romans was tame compared to some of the goings-on in this country, even in places where people might least expect it.

_____ 22. If people would talk less and work more, everybody would be better off.

_____ 23. Most people don't realize how much our lives are controlled by plots hatched in secret places.

_____ 24. Homosexuals are hardly better than criminals and ought to be severely punished.

_____ 25. No sane, normal, decent person could ever think of hurting a close friend or relative.

_____ 26. Familiarity breeds contempt.

_____ 27. It is essential for learning or effective work that our teachers or bosses outline in detail what is to be done and exactly how to go about it.

_____ 11. An insult to our honor should always be punished.

_____ 12. Young people sometimes get rebellious ideas, but as they grow up they ought to get over them and settle down.

_____ 13. What this country needs most, more than laws and political programs, is a few courageous, tireless, devoted leaders in whom the people can put their faith.

_____ 14. Sex crimes, such as rape and attacks on children, deserve more than mere imprisonment; such criminals ought to be publicly whipped, or worse.

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_____ 21. The wild sex life of the old Greeks and Romans was tame compared to some of the goings-on in this country, even in places where people might least expect it.

_____ 22. If people would talk less and work more, everybody would be better off.

_____ 23. Most people don't realize how much our lives are controlled by plots hatched in secret places.

_____ 24. Homosexuals are hardly better than criminals and ought to be severely punished.

_____ 25. No sane, normal, decent person could ever think of hurting a close friend or relative.

_____ 26. Familiarity breeds contempt.

_____ 27. It is essential for learning or effective work that our teachers or bosses outline in detail what is to be done and exactly how to go about it.

_____ 28. Some leisure is necessary but it is good hard work that makes life interesting and worthwhile.

_____ 29. Books and movies ought not to deal so much with the unpleasant and seamy side of life, they ought to concentrate on themes that are entertaining or uplifting.

_____ 30. When you come right down to it, it's human nature never to do anything without an eye to one's own profit.

APPENDIX B. THE BASIC DATA

Explanation of Tables:

Tables B-1 through B-10 present the basic indices employed in the major analyses of this research. For each of the three attitudinal objects—attraction reciprocity, Spranger Values, and the samples of B-C attraction estimates, each measured at initial and terminal periods of acquaintance—the following scores were obtained: A-B attraction ranking, perceived agreement in estimates, and accuracy of estimates. The operations for defining each of these scores has been specified in the procedure chapter. Subjects listed for each row are those doing the judging, while subjects listed by columns are Ss being judged. The first score in each cell, i.e., the top score is the A-B attraction ranking; the second or middle score is that of perceived agreement of estimates; the last or bottom score in each cell is the accuracy of estimates score.

TABLE B-1. ATTRACTION RECIPROCITY, WEEK 1

Scores: (1) A-B GL Ranking, (2) Perceived Agreement, (3) Accuracy of Estimates

Ss	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	---	9 -5.5 1.5	14 -1.0 2.0	7 -7.6 5.6	11 4.0 5.0	8 3.0 4.0	16 1.2 .2	12 -2.0 5.0	3 -10.0 3.0	15 .6 12.4	13 .5 1.5	4 -9.5 1.5	1 0 0	2 -9.0 4.0	10 -3.4 .6	5 -7.6 .6	6 -4.5 .5
2	13 1.0 3.0	---	12 2.0 1.0	1 -2.0 1.0	8 3.0 4.0	10 2.0 4.0	3 -2.0 1.0	15 4.3 3.3	14 2.0 3.0	16 8.0 8.0	11 -1.0 6.0	5 -3.0 2.0	6 -2.0 3.0	7 -1.0 4.0	9 -1.0 5.0	4 -4.0 6.0	2 -6.0 4.0
3	13 -2.0 1.0	9 1.0 4.0	---	5 -4.0 4.0	4 -4.5 3.5	10 -1.6 3.4	14 .2 .8	16 6.1 8.1	6 -3.6 2.4	11 1.5 3.5	8 -1.4 6.4	1 -6.0 4.0	12 -2.0 2.0	7 -2.3 5.3	2 -4.9 4.9	15 2.0 3.0	3 8.3 4.3
4	9 1.0 3.0	1 -1.0 1.0	13 7.5 .5	---	7 -2.0 4.0	5 -3.0 4.0	4 0 3.0	15 1.0 7.0	3 -7.5 4.5	16 3.0 1.0	12 2.0 3.0	6 -6.0 8.0	8 -3.0 4.0	11 -3.1 12.1	10 -3.0 10.0	14 7.0 1.0	2 -1.5 2.5
5	2 -4.0 5.0	9 1.0 0	12 3.0 5.0	5 -1.0 1.0	---	13 3.0 1.0	15 2.0 1.0	7 -.6 4.4	11 3.4 3.4	14 5.0 3.0	4 -1.5 1.5	8 -1.0 1.0	1 -3.0 2.0	16 0 9.0	6 -4.5 9.5	10 1.0 1.0	2 -5.6 5.6
6	1 -1.2 5.8	12 .7 1.3	15 4.7 .3	4 -6.6 5.6	10 -1.3 1.7	---	13 3.0 8.0	6 4.3 .7	2 -5.3 2.3	14 7.0 3.0	9 1.3 6.3	11 -.8 2.2	3 -2.0 2.0	5 2.0 7.0	8 -.3 1.7	16 7.0 6.0	7 -1.0 6.0
7	15 1.0 2.0	4 3.0 2.0	13 0 1.0	1 -5.0 2.0	14 1.0 2.0	2 -6.5 4.5	---	10 1.5 6.5	5 -3.0 4.0	7 .3 3.7	6 -2.5 .5	2 -1.0 2.0	11 1.0 2.0	8 - .5 5.5	12 -4.0 8.0	16 1.0 6.0	3 -1.5 1.5
8	9 -2.6 .4	14 -.2 .8	16 1.0 1.0	7 -6.0 2.0	12 .6 4.4	1 -8.2 3.2	15 1.3 3.7	---	13 -1.0 2.0	2 -8.0 1.0	6 -5.8 2.2	8 -3.4 1.6	3 -8.2 6.2	11 -3.3 1.7	4 -7.0 2.0	10 -4.6 1.6	5 -6.4 4.6

TABLE B-1--Continued

Ss	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	10	15	12	6	11	5	4	16		14	1	9	13	3	8	7	2
9	0	1.0	9.0	-5.0	3.0	-4.0	-3.0	4.0	---	4.0	-4.0	2.0	3.0	-3.9	0	3.0	-2.5
	7.0	0	3.0	8.0	3.0	7.0	2.0	1.0		3.0	3.0	5.0	1.0	5.0	1.0	3.0	1.5
	2	16	6	14	12	4	3	9	7		13	11	1	15	8	10	5
10	-5.0	0	-8.0	-1.9	-3.3	1.0	.7	2.3	-8.0	---	-2.2	-2.0	-5.0	-.1	-5.5	-2.0	-6.0
	8.0	0	3.0	.1	1.3	11.0	4.7	4.7	1.0		.8	3.0	7.0	1.1	9.5	8.0	3.0
	11	6	3	7	4	15	8	14	2	16		5	10	12	13	9	1
11	-1.0	-2.2	-1.0	-1.2	.6	2.7	0	3.0	-1.7	2.6	---	-3.8	0	-.6	0	.4	-2.6
	1.0	2.8	4.0	3.8	.6	3.3	2.0	5.0	2.7	.4		.2	4.0	.4	3.0	5.6	5.4
	15	6	3	4	8	14	1	13	2	10	9		12	16	7	11	5
12	-1.0	-2.0	-3.0	-4.5	4.0	0	-2.0	0	-7.0	3.0	-3.0	---	-3.0	0	-3.7	1.0	-6.0
	12.0	3.0	5.0	2.5	4.0	3.0	1.0	5.0	0	4.0	7.0		5.0	7.0	4.7	5.0	7.0
	1	11	16	7	2	3	8	5	9	13	6	10		12	14	15	4
13	-.5	-2.5	.6	-5.0	-1.1	0	-.7	-2.0	-2.0	7.9	0	-2.5	---	-1.2	5.9	2.0	-1.6
	.5	7.5	2.6	4.0	2.1	0	2.3	4.0	2.0	4.2	4.0	.5		2.2	2.9	5.0	.6
	15	12	4	2	5	10	3	16	1	14	13	9	11		7	6	8
14	-1.0	0	-5.0	-8.0	-6.0	3.0	-5.0	0	-3.0	0	0	3.0	6.3	---	-9.0	1.0	3.7
	14.0	5.0	2.0	1.0	5.0	2.0	0	5.0	1.0	1.0	1.0	10.0	7.3		1.0	2.0	6.7
	14	5	2	3	1	10	8	13	7	4	16	6	11	15		12	9
15	-1.1	-5.2	-3.3	-9.1	-4.0	-2.5	-4.5	.4	-7.8	-2.0	1.0	-8.3	-1.3	-.1	---	0	-3.5
	5.1	1.2	3.3	2.1	1.0	4.5	.5	8.6	6.8	2.0	2.0	7.3	1.7	8.1		1.0	.5
	12	14	16	6	10	15	9	13	1	4	3	5	8	7	11		2
16	.7	10.0	2.0	-5.0	-2.0	-.4	-4.0	-1.5	-1.2	-3.5	-6.0	2.0	-3.2	1.0	7.0	---	-3.0
	6.3	0	1.0	3.0	2.0	.6	3.0	4.5	4.8	.5	0	4.0	3.8	0	8.0		10.0
	10	12	7	1	2	14	6	16	3	8	9	4	5	11	13	15	
17	-6.0	-4.0	-5.0	-6.5	-3.0	-2.0	-1.5	0	-4.5	-8.0	-3.0	-12.0	-7.0	-1.0	-3.0	7.5	---
	10.0	14.0	9.0	5.5	3.0	9.0	4.5	11.0	5.5	11.0	11.0	9.0	8.0	4.0	7.0	5.5	

TABLE B-2. ATTRACTION RECIPROCITY, WEEK 14

Scores: (1) A-B GL Ranking, (2) Perceived Agreement, (3) Accuracy of Estimates

Ss	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		13	14	10	9	4	7	3	6	15	11	8	2	5	12	16	1
1	---	.3	1.3	2.7	-3.7	-3.0	0	-4.0	-1.0	2.3	-1.7	-4.7	-5.0	-2.0	-.7	9.0	-11.7
		3.7	6.7	3.7	8.7	3.0	4.0	6.0	5.0	11.7	.7	4.7	6.0	3.0	1.7	5.0	10.7
	9		13	2	5	6	8	10	3	15	7	4	11	12	14	16	1
2	-2.0	---	.7	-4.0	-3.5	-2.5	-.5	-1.0	-5.5	4.0	-1.5	-2.0	-1.3	-.3	1.0	3.0	-7.5
	2.0		4.3	2.0	3.5	2.5	4.5	3.0	.5	0	5.5	4.0	2.3	1.3	0	6.0	4.5
	6	8		9	14	5	4	13	7	15	10	3	11	12	2	16	1
3	-1.0	1.0	---	2.0	7.0	-.3	-1.0	6.0	0	7.0	1.0	-2.7	4.0	5.0	-6.0	8.0	6.0
	7.0	6.0		8.0	6.0	9.7	5.0	8.0	7.0	7.0	4.0	5.3	8.0	5.0	1.0	5.0	7.0
	9	4	15		2	3	8	10	5	16	7	6	11	12	14	13	1
4	0	0	2.0	---	-1.5	-2.0	1.0	-1.2	-.5	4.0	-2.0	-2.5	1.0	-3.7	2.5	0	-4.0
	1.0	2.0	4.0		1.5	0	2.0	9.2	.5	1.0	3.0	1.5	2.0	5.7	7.5	11.0	2.0
	4	5	13	2		7	9	8	1	14	12	11	3	10	15	16	6
5	2.0	2.5	.5	-.5	---	1.0	-2.0	2.0	-2.0	1.0	1.0	0	-2.0	-1.0	2.0	0	-2.3
	3.0	2.5	1.5	.5		1.0	1.0	1.0	3.0	1.0	4.0	1.0	1.0	3.0	1.0	5.0	3.3
	4	11	15	5	7		8	1	2	13	14	12	3	10	9	16	6
6	0	4.3	8.0	-.5	0	---	0	-2.0	-2.0	5.5	4.0	4.0	-2.0	3.0	3.0	5.0	-2.0
	0	.7	2.0	2.5	0		5.0	1.0	3.0	1.5	1.0	6.0	2.0	6.0	0	2.0	1.0
	11	4	10	5	12	13		9	6	15	8	1	7	3	14	16	2
7	2.0	-1.0	5.3	-1.0	6.5	1.0	---	-2.0	-3.0	6.5	3.3	-.7	2.0	-2.0	.2	4.0	-9.3
	2.0	3.0	.7	2.0	3.5	4.0		2.0	5.0	6.5	3.3	.7	0	3.0	.2	7.0	1.3
	1	8	15	3	5	4	13		11	14	9	10	2	7	12	16	6
8	2.0	-6.0	.5	-11.2	0	-10.1	-1.5	---	-3.4	1.0	-5.6	-4.2	-9.0	-7.5	3.0	1.0	-8.2
	0	4.0	1.5	4.2	3.0	13.1	5.5		4.4	9.0	4.6	1.2	9.0	.5	1.0	0	3.2

TABLE B-2--Continued

Ss	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	12	8	14	5	6	1	4	10		16	9	7	11	3	13	15	2
9	35	4.0	1.4	-2.0	2.0	-4.0	-4.0	1.5	---	2.8	-3.0	-4.0	2.0	-3.0	-.6	1.9	-1.5
	25	1.0	5.6	2.0	3.0	3.0	2.0	2.5		4.2	8.0	8.0	2.0	3.0	11.6	10.1	2.5
	1	11	15	13	12	6	2	4	9		14	7	3	10	5	16	8
10	-5.5	0	5.3	.2	1.5	-2.8	-6.0	-3.0	-.3	---	2.0	-3.0	-6.0	-2.5	-7.3	7.8	-.6
	8.5	4.0	5.3	3.2	3.5	4.2	7.0	7.0	6.7		4.0	6.0	5.0	.5	3.7	7.8	7.4
	12	3	5	6	7	9	8	10	4	16		2	11	13	14	15	1
11	-4.0	-2.0	-5.0	-6.0	-2.0	-7.0	-8.0	-6.0	-12.0	0	---	-4.0	-5.0	-3.0	-2.0	-1.0	-4.0
	5.0	2.0	0	5.0	3.0	2.0	8.0	7.0	7.0	2.0		1.0	4.0	11.0	1.0	6.0	2.0
	8	2	11	7	10	14	1	13	3	16	5		6	9	15	12	4
12	.5	.7	3.0	1.3	0	1.5	0	-1.0	-2.5	5.0	0	---	-1.5	0	8.2	7.3	-1.7
	.5	2.7	5.0	.3	1.0	.5	0	4.0	1.5	4.0	3.0		1.5	2.0	3.8	3.7	2.3
	1	10	15	8	6	3	5	2	11	14	12	9		7	13	16	4
13	-1.0	-3.0	-1.0	-3.0	0	-2.0	-2.0	-2.0	1.0	-2.0	4.0	-3.0	---	-2.0	-2.5	0	-4.5
	0	2.0	5.0	0	3.0	2.0	0	2.0	1.0	13.0	3.0	6.0		0	6.5	0	2.5
	4	11	12	10	14	1	2	15	3	13	5	7	9		8	16	6
14	-7.0	-5.0	-4.0	-6.0	-2.0	-14.0	-12.0	-1.0	-4.0	-2.0	-8.0	-7.0	-7.0	---	-6.0	0	-9.0
	6.0	4.0	4.0	4.0	6.0	5.0	11.0	9.0	4.0	5.0	0	5.0	9.0		7.0	8.0	2.0
	11	13	9	4	12	6	14	10	2	16	15	3	8	7		5	1
15	3.0	2.0	5.0	4.0	5.0	.3	5.3	2.7	-6.0	9.0	6.3	-4.0	3.0	1.3	---	1.0	-5.0
	4.0	3.0	2.0	6.0	8.0	3.3	5.3	4.7	5.0	2.0	5.3	8.0	8.0	2.3		2.0	6.0
	12	7	13	2	11	9	5	15	3	14	10	1	16	8	6		4
16	-.6	1.0	1.0	-2.0	1.5	-1.5	1.5	2.0	-3.5	4.0	1.0	-1.0	2.4	-.5	4.5	---	-3.5
	3.4	10.0	4.0	9.0	5.5	5.5	12.5	3.0	8.5	6.0	6.0	10.0	2.4	7.5	3.5		7.5
	2	4	14	3	5	9	10	11	1	16	7	8	6	13	12	5	
17	-6.0	0	0	-5.5	-3.4	0	1.0	2.0	-4.5	0	-1.5	-.4	-2.5	1.5	.3	1.0	---
	7.0	3.0	13.0	7.5	2.4	3.0	7.0	3.0	3.5	8.0	7.5	4.4	4.5	5.5	10.7	10.0	

TABLE B-3. A-B GL RANKINGS AND DERIVED MEASURES SPRANGER-VALUES, WEEK 2

(1) A-B GL Ranking, (2) Ranked Estimated Agreement (Spranger Values), (3) Ranked Accuracy of Estimates (Spranger Values)

Ss	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		13	14	9	6	4	16	11	8	15	3	7	2	1	12	10	5
1	---	12	7	4	3	13	15	6	11	10	1	8	2	8	5	14	16
		15	5	5	12	1	10	8	4	8	7	14	11	3	16	12	2
	8		3	1	6	10	2	15	14	16	12	5	7	4	11	9	3
2	6	---	16	2	8	3	9	13	15	11	6	5	9	14	12	3	1
	10		9	4	1	4	13	16	15	7	13	13	2	8	11	4	4
	11	13		5	6	9	14	15	8	10	7	2	12	4	3	16	1
3	13	16	---	4	9	9	12	9	4	4	9	4	13	1	9	15	4
	8	6		10	5	12	1	2	7	15	3	14	12	4	8	11	15
	11	1	13		6	5	4	4	2	16	8	9	7	15	10	12	3
4	2	1	16	---	8	9	13	5	5	12	15	11	5	5	14	10	3
	11	2	11		5	7	9	11	1	4	5	13	8	14	16	15	2
	2	9	12	5		7	16	6	10	15	4	11	1	14	8	13	3
5	9	1	13	16	---	2	11	14	5	14	11	3	7	6	8	11	3
	2	2	4	16		2	7	5	5	14	10	9	13	7	15	11	12
	1	9	14	7	8		13	4	2	16	11	10	3	5	12	15	6
6	7	2	14	2	5	---	12	9	1	4	7	6	14	9	16	12	11
	5	3	3	1	7		2	7	5	11	10	16	12	9	15	13	14
	16	2	9	4	12	10		8	6	13	5	1	11	7	15	14	3
7	9	9	9	11	16	6	---	6	15	6	1	3	13	1	13	3	12
	3	10	3	13	5	12		7	5	13	1	8	10	2	16	10	15
	10	13	16	2	5	1	15		14	7	6	8	4	11	9	12	3
8	6	15	5	1	2	8	7	---	13	3	13	9	13	10	16	10	3
	2	12	12	2	16	1	10		6	4	7	10	4	14	9	7	14

TABLE B-3--Continued

Ss	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	10	9	12	3	11	2	6	15		16	1	7	13	5	8	14	4
9	9	1	12	7	4	2	12	14	—	16	8	6	10	15	5	3	10
	12	7	14	3	2	1	8	10		10	5	15	15	3	5	12	10
	4	16	11	15	13	1	2	8	9		12	10	3	14	6	7	5
10	13	15	15	7	15	1	12	14	2	—	10	5	10	3	4	6	8
	3	15	1	12	13	1	11	9	7		5	16	8	4	14	6	9
	7	10	3	8	9	13	6	14	2	16		4	5	15	11	12	1
11	15	1	5	3	7	16	11	10	7	13	—	5	12	13	9	5	2
	9	12	2	6	4	13	7	15	1	2		16	4	13	10	11	7
	15	3	7	4	10	16	1	14	2	8	9		13	5	11	12	6
12	11	13	4	6	16	11	4	8	15	8	11	—	4	1	14	1	6
	6	10	16	11	14	6	13	15	3	6	9		1	11	2	4	8
	1	10	16	12	2	3	13	4	8	7	6	11		9	15	14	5
13	1	8	2	14	11	8	12	6	10	12	6	16	—	6	14	3	4
	3	5	14	9	11	2	11	16	9	7	14	13		9	3	1	6
	6	9	10	8	7	3	11	15	1	16	12	5	13		2	14	4
14	3	10	3	16	7	14	13	8	14	12	5	5	13	—	1	8	11
	6	13	4	16	15	1	3	6	2	11	8	5	11		13	9	10
	15	2	4	3	6	14	16	13	7	1	9	8	12	11		5	10
15	15	1	13	3	11	5	14	11	9	10	1	3	6	6	—	16	8
	1	3	10	2	8	4	5	12	7	14	15	15	12	5		9	11
	15	7	10	8	12	16	11	13	2	6	5	4	14	3	9		1
16	14	15	2	8	2	9	12	6	10	4	4	2	10	12	16	—	7
	16	1	7	13	13	11	5	9	12	2	10	7	3	15	6		4
	6	11	8	1	3	15	4	16	2	13	9	7	5	12	10	14	
17	4	16	9	2	15	1	8	3	12	6	4	12	9	6	11	14	—
	14	14	9	1	10	2	12	16	5	2	13	10	4	7	7	6	

TABLE B-4. A-B GL RANKINGS AND DERIVED MEASURES SPRANGER-VALUES, WEEK 14

(1) A-B GL Ranking, (2) Ranked Estimated Agreement (Spranger Values), (3) Ranked Accuracy of Estimates (Spranger Values)

Ss	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		13	14	10	9	4	7	3	6	15	11	8	2	5	12	16	1
1	—	12	8	12	8	10	7	12	12	2	6	15	4	1	3	16	5
		12	8	13	8	4	15	6	1	14	1	16	4	3	6	11	10
	9		13	2	5	6	8	10	3	15	7	4	11	12	14	16	1
2	5	—	14	2	3	1	9	16	3	9	7	5	11	14	11	13	7
	10		15	1	12	1	14	16	8	4	6	13	4	9	3	11	6
	6	8		9	14	5	4	13	7	15	10	3	11	12	2	16	1
3	3	3	—	3	8	16	1	15	12	14	8	3	6	6	10	10	13
	7	9		14	15	7	2	11	3	1	13	6	4	12	16	9	5
	9	4	15		2	3	8	10	5	16	7	6	11	12	14	13	1
4	7	5	13	—	5	2	13	2	4	12	15	7	9	10	2	15	11
	13	3	6		10	3	12	11	1	3	6	16	8	8	15	14	6
	4	5	13	2		7	9	8	1	14	12	11	3	10	15	16	6
5	3	7	8	2	—	5	11	5	1	15	13	11	3	8	11	15	13
	14	6	2	1		8	6	3	4	8	12	11	16	10	15	12	5
	4	11	15	5	7		8	1	2	13	14	12	3	10	9	16	6
6	12	3	10	6	3	—	10	16	1	8	14	3	14	13	6	9	5
	10	2	1	8	11		15	7	3	3	13	16	6	5	13	8	13
	11	4	10	5	12	13		9	6	15	8	1	7	3	14	16	2
7	2	15	11	8	16	11	—	6	14	9	6	4	5	1	2	11	11
	15	5	5	13	11	10		8	1	9	2	14	5	5	16	11	2
	1	8	15	3	5	4	13		11	14	9	10	2	7	12	16	6
8	11	10	6	9	7	16	7	—	12	14	4	2	2	1	14	13	5
	15	1	9	7	8	3	10		1	11	3	16	5	5	11	14	13

TABLE B-4—Continued

Ss	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	12	8	14	5	6	1	4	10		16	9	7	11	3	13	15	2
9	12	1	12	8	4	1	9	7	—	14	15	5	3	16	10	11	6
	7	2	12	5	16	2	13	14		7	9	15	11	2	10	7	4
	1	11	15	13	12	6	2	4	9		14	7	3	10	5	16	8
10	8	16	5	11	14	3	8	11	1	—	5	1	11	7	3	14	14
	2	14	5	16	13	9	10	12	8		5	5	5	3	1	10	15
	12	3	5	6	7	9	8	10	4	16		2	11	13	14	15	1
11	7	2	5	2	14	14	4	13	9	12	---	1	7	11	7	16	9
	1	3	11	7	7	9	14	12	1	4		15	4	6	9	12	16
	8	2	11	7	10	14	1	13	3	16	5		6	9	15	12	4
12	3	15	9	6	14	16	3	9	11	3	6	—	3	13	11	8	3
	12	6	10	16	10	4	7	14	15	3	12		2	7	1	10	5
	1	10	15	8	6	3	5	2	11	14	12	9		7	13	16	4
13	5	10	7	10	16	4	1	2	14	5	5	2	—	12	7	9	12
	1	41	9	12	15	1	13	8	11	4	4	7		4	9	6	16
	4	11	12	10	14	1	2	15	2	13	5	7	9		8	16	6
14	2	16	2	15	14	6	9	9	13	5	1	4	12	—	6	9	9
	14	14	3	16	14	7	4	7	1	1	11	7	4		10	9	11
	11	3	9	4	12	6	14	10	2	16	15	3	8	7		5	1
15	1	15	5	7	9	13	9	11	6	1	13	9	11	4	—	3	16
	8	1	8	11	4	4	13	15	3	1	8	16	6	14		11	8
	12	7	13	2	11	9	5	15	3	14	10	1	16	8	6		4
16	13	15	13	13	5	9	6	9	9	3	4	2	6	9	16	—	1
	2	1	5	9	13	7	9	16	4	3	9	9	12	6	14		15
	2	4	14	3	5	9	10	11	1	16	7	8	6	13	12	15	
17	15	5	10	1	12	2	10	9	4	3	14	7	13	16	7	7	—
	4	6	7	9	12	1	13	9	4	7	11	16	2	4	15	14	

TABLE B-5. B-C GL ORIENTATIONS, SAMPLE I, WEEK 2

(1) A-B GL Ranking, (2) Perceived Agreement (B-C GL Est.—A-C GL)
(3) Accuracy of Estimates (B-C GL Est.—B-C GL)

Ss	1	2	3	4	5	6	7	8	9	10	11	12
	12	13	14	6	7	10	1	5	2	9	4	10
1	8.6	4	8.0	2.0	7.5	1.0	1.8	3.0	7.0	5.0	5.0	.4
	1.4	12.0	5.0	0	4.5	1.0	2.2	0	10.0	7	2	2.6
	1	10	14	9	7	5	15	16	8	3	12	4
2	4.0	3.0	4.0	3.8	.8	7.2	1.2	3.0	11.0	3.0	6.2	6.2
	1.0	8.0	3.0	5.2	5.2	6.2	10.2	5.0	3.0	10.0	6.2	6.2
	6	9	15	10	4	3	7	2	14	5	16	11
3	1.0	3.2	5.7	2.3	2.5	2.0	1.0	1.5	1.8	5.5	2.5	1.5
	2.0	2.2	1.7	5.7	2.5	0	2.0	3.5	.8	1.5	3.5	4.5
	5	4	8	7	1	10	2	3	11	16	13	15
4	0	3.0	0	5.0	1.0	4.0	4.5	1.0	8.5	4.0	.5	4.0
	0	1.0	10.0	3.0	4.0	5.0	3.5	1.0	3.5	8.0	6.5	0
	10	15	2	7	12	8	1	3	13	14	16	4
5	3.5	6.0	.5	3.5	3.0	4.0	4.0	2.5	2.0	3.5	4.0	3.0
	6.5	4.0	1.5	5.5	6.0	4.0	4.0	5.5	1.0	7.5	3.0	5.0
	2	10	8	7	14	9	5	1	15	16	13	4
6	2.0	1.0	8.2	1.0	2.4	11.6	5.5	.6	0	3.0	3.0	.6
	1.0	4.0	.8	1.0	4.0	.6	6.5	3.6	0	5.0	3.0	3.4
	1	7	11	4	9	15	6	10	12	14	13	8
7	5.5	3.0	0	0	0	.5	8.0	0	5.5	2.0	1.0	12.5
	.5	6.0	0	4.0	1.0	5.5	9.0	5.0	2.0	5.0	6.0	5.5
	11	12	15	16	13	9	8	10	3	14	1	6
8	.5	5.0	3.0	2.0	4.0	1.0	9.7	3.0	7.0	5.5	3.5	3.4
	15	6.0	4.0	1.0	5.0	6.0	4.3	5.0	8.0	6.5	1.5	9.6

TABLE B-5--Continued

Ss	1	2	3	4	5	6	7	8	9	10	11	12
	7	2	11	3	9	8	14	13	6	1	15	4
9	2.0	2.0	6.0	1.0	0	2.0	9.0	3.0	2.0	3.5	.5	1.0
	2.0	3.0	3.0	1.0	1.0	0	5.0	1.0	1.0	1.5	1.5	3.0
	5	2	3	15	11	16	13	14	12	1	7	10
10	1.0	4.0	8.0	12.0	1.8	3.0	1.0	5.0	3.5	6.3	9.8	.3
	2.0	3.0	3.0	8.0	6.2	5.0	1.0	4.0	9.5	1.7	.8	4.3
	11	10	3	8	9	16	2	14	4	5	5	1
11	0	7.1	1.5	7.5	2.0	3.0	0	9.5	6.2	1.0	4.5	.8
	4.0	5.1	2.5	2.5	6.0	1.0	2.0	3.5	6.2	1.0	4.5	2.2
	11	3	7	16	1	2	15	8	5	9	13	14
12	5.5	2.0	8.0	11.5	8.0	6.0	12.5	6.0	4.0	6.0	4.0	3.0
	5.5	3.0	6.0	8.5	2.0	6.0	.5	2.0	2.0	6.0	2.0	11.0
	15	10	5	2	13	11	12	6	1	7	14	8
13	14.0	3.0	1.0	1.0	5.6	6.0	.5	6.0	1.0	5.5	2.0	7.0
	0	3.0	2.0	7.0	5.6	0	3.5	6.0	2.0	5.5	10.0	3.0
	9	6	8	7	11	15	12	3	5	10	16	4
14	6.0	6.0	6.0	7.0	0	4.0	1.0	1.0	2.0	6.0	5.0	1.0
	6.0	12.0	2.0	5.0	3.0	5.0	1.0	2.0	8.0	1.0	14.0	0
	4	6	13	9	5	12	16	7	10	15	3	8
15	9.0	4.0	5.5	0	.6	14.0	6.7	1.0	7.0	11.0	4.0	3.0
	7.0	4.0	1.5	4.0	9.6	14.0	.7	3.0	2.0	11.0	5.0	3.0
	9	7	10	2	11	13	1	12	14	15	16	6
16	2.5	6.0	5.0	1.5	9.0	9.0	2.5	1.0	.5	1.7	6.0	3.0
	6.5	4.0	1.0	12.5	6.0	4.0	1.5	1.0	1.5	.3	6.0	6.0
	10	11	1	6	16	13	3	5	14	2	12	9
17	15	6.5	11.0	1.5	4.0	.5	0	12.0	5.0	5.0	0	3.0
	11.0	5.5	9.0	1.5	5.0	3.5	4.0	1.0	6.0	7.0	1.0	0

TABLE B-6. B-C GL ORIENTATIONS, SAMPLE I, WEEK 13

(1) A-B GL Ranking, (2) Perceived Agreement (B-C GL Est.—A-C GL)
(3) Accuracy of Estimates (B-C GL Est.—B-C GL)

Ss	1	2	3	4	5	6	7	8	9	10	11	12
	5	12	16	13	11	4	3	1	2	9	6	14
1	6.0	8	10.5	0	6.4	1.6	2.5	12.0	1.2	2.0	1.4	3.0
	1.0	1.0	3.5	6.0	2.6	3.6	2.5	4.0	.6	3.0	.4	6.0
	2	4	5	16	10	3	11	15	9	1	7	12
2	3.0	3.5	2.0	1.8	2.0	0	3.5	0	7.0	2.0	1.0	6.0
	0	5.5	0	2.8	3.0	4.0	2.5	0	4.0	2.0	2.0	4.0
	11	4	13	14	10	1	15	6	12	7	16	5
3	0	14.0	1.0	0	2.0	2.0	2.0	2.0	2.0	10.0	0	1.0
	1.0	6.0	9.0	3.0	5.0	4.0	1.0	0	6.0	3.0	0	8.0
	1	8	7	9	4	14	5	2	12	16	15	11
4	1.5	2.0	1.0	.3	5.0	7.0	1.7	2.3	2.0	6.0	4.0	3.5
	1.5	0	2.0	4.3	2.0	2.0	.3	.7	6.0	1.0	9.0	7.5
	1	13	6	5	14	16	2	7	15	10	9	11
5	1.3	7.0	0	.5	2.0	5.0	1.0	3.0	1.0	7.3	3.0	8.5
	3.3	5.0	6.0	.5	3.0	0	0	7.0	1.0	8.3	1.0	6.5
	4	12	7	5	14	11	9	1	16	13	10	2
6	.3	5.7	1.5	.3	6.5	8.0	5.3	4.0	0	1.7	7.0	12.0
	.7	4.3	.5	3.3	8.5	1.0	3.3	3.0	2.0	4.3	3.0	4.0
	1	7	9	6	4	14	3	12	11	15	16	13
7	2.0	0	1.0	2.0	3.3	2	2.3	6.0	1.0	3.0	1.0	9.0
	3.0	2.0	0	0	4.7	2.0	4.3	4.0	3.0	3.0	6.0	2.0
	3	16	14	15	10	13	12	1	8	11	5	7
8	6.0	13.5	11.0	3.0	4.0	2.0	10.0	.3	10.0	1.8	1.0	6.0
	4.0	2.5	0	11.0	3.0	11.0	3.0	1.7	0	1.8	0	4.0

TABLE B-6—Continued

Ss	1	2	3	4	5	6	7	8	9	10	11	12
	8	1	5	4	7	13	15	11	6	9	12	3
9	2.0	2.0	1.0	0	0	3.0	8.7	1.8	.3	4.7	2.5	1.0
	2.0	3.0	1.0	2.0	2.0	1.0	.7	.8	2.3	2.7	2.5	3.0
	1	2	4	11	15	12	13	14	10	6	16	3
10	0	3.5	11.0	3.0	5.6	0	2.5	6.8	7.4	.5	4.0	0
	2.0	3.5	3.0	8.0	2.6	0	.5	.8	7.4	5.5	10.0	6.0
	14	4	5	6	7	16	3	10	2	11	12	1
11	7.0	5.0	3.3	1.7	1.0	1.0	2.0	8.5	.3	9.5	7.7	0
	4.0	6.0	.3	2.7	3.0	1.0	0	1.5	.3	3.5	3.7	0
	14	2	9	15	1	3	11	16	8	5	7	12
12	4.0	.7	8.0	10.0	6.7	3.0	14.0	1.0	9.0	9.0	1.0	2
	11.0	4.7	6.0	0	7.7	7.0	5.0	5.0	1.0	9.0	6.0	11.0
	13	10	6	5	2	9	11	12	1	14	16	8
13	12.0	2.0	4.0	1.5	2.5	1.0	4.0	6.0	0	4.5	9.5	.7
	0	7.0	2.0	.5	1.5	6.0	8.0	12.0	8.0	3.5	3.5	.3
	12	2	10	9	8	13	3	4	5	11	14	6
14	6.0	5.0	10.0	9.0	2.0	10.0	3.0	4.0	4.0	11.0	5	3.0
	8.0	0	6.0	8.0	0	8.0	7.0	6.0	14.0	8.0	11.0	4.0
	6	11	10	12	3	7	14	2	1	13	9	5
15	2.0	2.8	9.0	6.7	8.3	4.7	4.5	.5	8.5	2.5	7.0	.5
	4.0	2.2	0	9.7	6.3	7.3	5.5	2.5	3.5	7.5	2.0	6.5
	5	6	14	2	8	13	3	11	15	12	9	16
16	3.0	0	7.4	6.3	11.5	10.0	1.4	3.0	4.7	10.0	1.0	1.0
	3.0	1.0	7.4	1.7	5.5	1.0	7.4	3.0	1.3	1.0	3.0	7.0
	11	3	4	2	12	16	5	6	15	1	13	8
17	11.0	.5	4.0	1.0	2.0	2.0	2.0	7.0	9.5	6.0	1.0	0
	1.0	3.5	5.0	9.0	8.0	0	2.0	0	3.5	2.0	2.0	0

TABLE B-7. B-C GL ORIENTATIONS, SAMPLE II, WEEK 3

(1) A-B GL Ranking, (2) Perceived Agreement (B-C GL Est.--A-C GL)
(3) Accuracy of Estimates (B-C GL Est.--B-C GL)

Ss	1	2	3	4	5	6	7	8	9	10	11	12
1	1	7	15	11	9	5	13	3	16	4	14	2
	.5	10.0	3.0	6.6	1.8	8.6	3.0	3.6	2.0	.4	3.2	5.6
	.5	6.0	10.0	9.6	3.8	1.4	5.0	7.6	1.0	8.6	9.2	7.6
2	2	3	13	6	11	15	14	9	8	16	7	12
	5.0	2.3	7.0	.7	3.0	2.0	4.3	11.0	4.0	2.0	3.7	5.0
	2.0	4.3	1.0	5.3	3.0	1.0	8.0	0	3.0	3.0	.7	6.0
3	1	14	9	2	10	16	3	8	12	4	5	11
	5.2	9.0	1.0	1.0	2.0	8.0	6.2	1.0	7.0	1.0	7.2	13.0
	.2	1.0	7.0	12.0	9.0	9.0	5.2	1.0	5.0	7.0	7.2	12.0
4	9	8	14	12	7	15	10	13	4	6	16	11
	4.0	2.0	9.0	1.0	3.6	2.3	6.6	1.6	1.0	4.3	5.0	1.4
	5.0	0	4.0	0	2.6	12.3	5.6	7.6	6.0	1.3	4.0	14
5	3	11	10	8	1	6	9	12	14	5	4	15
	3.0	4.0	1.0	4.0	2.0	7.0	6.0	5.0	1.0	3.0	2.0	4.0
	2.0	3.0	1.0	8.0	1.0	10.0	3.0	4.0	4.0	1.0	5.0	6.0
6	5	12	1	10	15	3	13	6	2	14	8	11
	4.5	6.0	.3	0	.3	.5	3.2	3.2	1.2	10.7	5.0	1.0
	1.5	4.8	9.3	2.0	2.3	3.5	3.2	.2	6.5	13.7	3.0	2.0
7	5	16	13	7	9	10	2	4	12	14	15	11
	2.0	5.0	4.0	4.0	8.0	1.0	1.0	0	2.0	6.0	5.0	5.0
	2.0	1.0	1.0	4.0	2.0	5.0	0	7.0	9.0	1.0	5.0	1.0
8	7	.5	9	10	6	3	12	1	2	11	5	14
	.8	10.0	2.0	1.0	1.0	4.0	2.3	2.0	2.0	8.0	.5	6.0
	3.8	4.0	1.0	3.0	5.0	0	7.3	10.0	6.0	4.0	1.5	3.3

TABLE B-7—Continued

Ss	1	2	3	4	5	6	7	8	9	10	11	12
	1	3	15	7	4	10	16	8	11	13	2	9
9	0	6.0	9.0	5.0	2.0	9.0	2.0	5.0	4.0	3.0	0	3.0
	3.0	4.0	8.0	3.0	0	4.0	3.0	2.0	3.0	7.0	1.0	6.0
	15	12	4	8	6	16	10	3	13	9	1	5
10	10.0	6.0	7.1	1.0	13.0	8.5	5.8	10.0	1.8	2.0	7.0	4.0
	0	3.0	3.9	7.0	0	1.5	2.8	1.5	2.8	1.0	6.0	3.0
	15	6	7	13	10	1	14	16	3	9	2	5
11	0	.8	1.8	0	3.0	2.0	7.0	1.0	2.0	7.0	9.7	2.0
	2.0	.2	5.8	1.0	1.0	2.0	11.0	11.0	6.0	3.0	.7	2.0
	15	2	8	5	14	11	6	3	10	7	16	4
12	7.0	5.0	5.0	0	1.0	6.0	3.0	3.5	5.0	2.0	11.0	8.0
	5.0	3.0	3.0	1.0	5.0	6.0	8.0	2.5	8.0	6.0	6.0	9.0
	11	8	4	15	2	5	12	14	10	1	7	6
13	1.2	1.5	1.0	4.0	2.0	2.3	9.5	14.0	0	0	5.5	1.5
	.8	3.5	3.0	3.0	3.0	1.7	1.5	14.0	4.0	1.0	10.5	.5
	8	7	9	13	3	12	4	1	15	10	2	11
14	1.0	10.0	7.0	0	14.0	5.0	6.0	5.0	8.0	1.0	13.0	4.0
	0	9.0	7.0	2.0	12.0	5.0	11.0	3.0	4.0	4.0	11.0	2.0
	3	9	8	4	2	14	10	11	16	1	5	7
15	6.0	5.5	5.0	7.0	1.0	0	1.0	2.0	2.0	2.5	3.0	0
	1.0	4.5	4.0	7.0	13.0	2.0	12.0	7.0	6.0	10.5	5.0	13.0
	4	2	1	5	8	15	7	16	12	10	11	6
16	1.5	1.0	.4	3.6	3.5	4.0	4.0	3.5	5.5	6.0	3.0	2.0
	1.5	1.0	1.4	2.6	3.5	4.0	4.0	2.5	2.5	2.0	5.0	7.0
	4	5	14	7	3	16	6	12	11	2	9	10
17	4.0	4.5	2.0	5.0	6.0	1.5	5.0	12.0	9.0	2.0	0	13.0
	14.0	.5	9.0	1.0	1.0	5.5	1.0	14.0	3.0	0	13.0	8.0

TABLE B-8. B-C GL ORIENTATIONS, SAMPLE II, WEEK 14

(1) A-B GL Ranking, (2) Perceived Agreement (B-C GL Est.—A-C GL)
(3) Accuracy of Estimates (B-C GL Est.—B-C GL)

Ss	1	2	3	4	5	6	7	8	9	10	11	12
	2	8	15	3	10	1	13	11	7	4	14	5
1	1.3	4.0	9.0	1.0	1.3	2.0	5.0	1.0	1.0	0	2.7	6.0
	2.7	2.0	14.0	1.0	2.3	6.0	4.0	5.0	1.0	2.0	3.7	1.0
	1	16	9	4	7	15	10	11	3	14	5	13
2	1.3	1.0	9.0	3.0	3.5	.8	3.3	3.0	4.5	5.0	1.5	6.5
	.7	4.0	0	3.0	1.5	1.8	3.3	5.0	1.5	5.0	3.5	6.5
	1	16	6	3	11	15	9	14	12	5	2	8
3	3.0	1.0	3.3	.3	10.0	2.0	3.0	9.0	0	2.3	2.0	1.0
	6.0	8.0	4.3	8.7	1.0	0	0	5.0	0	6.7	1.0	1.0
	13	9	12	7	11	16	6	10	8	3	15	14
4	11.7	1.0	2.0	2.0	5.0	9.0	.5	1.5	3.5	1.0	5.3	7.0
	5.7	0	8.0	2.0	2.0	0	5.5	3.5	5.5	2.0	8.3	7.0
	6	16	10	12	3	1	5	15	9	8	7	13
5	2.0	3.3	1.0	6.0	4.0	2.0	1.0	3.0	0	.5	4.0	2.3
	3.0	7.3	8.0	8.0	2.0	4.0	4.0	6.0	0	.5	3.0	7.3
	6	16	4	12	14	2	8	5	1	13	15	7
6	1.3	3.0	.7	4.0	2.0	0	7.0	.8	1.0	2.0	6.5	2.0
	3.3	0	13	0	1.0	1.0	11.0	2.2	4.0	1.0	2.5	3.0
	2	16	11	3	7	9	6	5	15	12	13	14
7	8.0	1.0	1.0	4.0	6.0	2.7	5.0	4.0	1.0	0	.4	2.0
	4.0	2.0	1.0	1.0	1.0	.7	1.0	5.0	11.0	0	4.4	1.0
	12	16	1	7	9	2	10	4	3	8	5	13
8	2.3	6.6	3.0	3.0	11.0	2.0	7.6	12.0	5.0	.6	9.0	3.4
	1.3	7.6	3.0	6.0	8.0	1.0	5.6	1.0	7.0	.6	8.0	1.4

TABLE B-8—Continued

Ss	1	2	3	4	5	6	7	8	9	10	11	12
	1	2	15	7	3	11	16	6	8	13	4	9
9	2.5	2.0	9.0	4.0	6.0	2.0	1.5	7.0	3.5	6.5	6.0	1.0
	1.5	2.0	2.0	2.0	2.0	1.0	4.5	1.0	.5	3.5	2.0	9.0
	12	10	8	15	1	13	7	2	9	14	5	6
10	4.0	.5	3.0	.5	3.0	3.3	4.0	6.0	3.7	5.0	2.3	.3
	5.0	1.5	5.0	5.5	2.0	.3	1.0	4.0	2.3	7.0	5.7	1.3
	9	6	7	13	12	1	10	16	2	11	4	3
11	0	5.0	13.0	0	10.0	1.0	7.0	7.0	1.0	0	3.0	9.0
	3.0	5.0	11.0	1.0	4.0	4.0	10.0	10.0	3.0	3.0	7.0	11.0
	14	3	6	9	8	12	11	2	16	5	13	7
12	2.0	3.5	5	6.0	1.3	1.0	1.5	1.0	3.0	2.4	3.5	.7
	2.0	2.5	.5	8.0	4.7	1.0	7.5	1.0	0	6.4	1.5	5.7
	9	11	2	15	1	4	13	10	12	6	5	8
13	2.0	1.0	0	8.0	2.0	1.0	3.5	14.0	.5	2.7	4.0	3.0
	1.0	0	1.0	3.0	1.0	6.0	2.5	6.0	2.5	3.3	1.0	0
	7	5	2	14	6	16	10	3	15	8	4	12
14	1.0	8.0	6.0	8.0	12.0	4.0	4.0	11.0	9.0	2.0	10.0	0
	3.0	7.0	11.0	1.0	14.0	3.0	8.0	7.0	6.0	4.0	15.0	0
	13	2	12	9	4	10	8	7	14	16	5	1.0
15	1.0	4.0	2.0	1.0	3.0	7.0	3.0	7.0	1.3	6.0	1.0	8.0
	1.0	6.0	5.0	4.0	3.0	6.0	9.0	9.0	.3	2.0	0	1.0
	8	1	3	7	11	9	5	15	6	14	13	2
16	3.0	2.0	3.5	6.0	2.0	2.0	3.0	.5	2.0	1.0	4.5	2.5
	2.0	4.0	3.5	1.0	2.0	1.0	4.0	.5	1.0	5.0	8.5	3.5
	2	6	16	10	5	4	7	13	9	1	12	14
17	1.5	1.5	8.0	3.6	2.5	3.3	2.5	6.6	4.0	1.0	11.0	9.0
	6.5	3.5	0	.4	1.5	1.3	2.5	4.6	6.0	1.0	2.0	0

TABLE B-9. B-C GL ORIENTATIONS, SAMPLE III, WEEK 4

(1) A-B GL Ranking, (2) Perceived Agreement (B-C GL Est.—A-C GL)
(3) Accuracy of Estimates (B-C GL Est.—B-C GL)

Ss	1	2	3	4	5	6	7	8	9	10	11	12
	8	16	10	7	4	6	9	14	1	13	2	15
1	1.0	13.0	3.0	0	3.0	1.5	1.7	15.0	6.0	6.0	1.0	7.5
	7.0	15.0	3.0	11.0	2.0	1.5	6.7	13.0	11.0	10.0	1.0	4.5
	8	15	12	6	3	7	9	13	16	14	10	4
2	1.0	5.0	4.0	3.0	.3	5.0	2.0	2.3	8.2	1.0	6.7	1.0
	0	4.0	7.0	3.0	4.3	4.0	3.0	5.3	1.8	3.0	2.7	0
	6	14	11	5	4	9	2	7	13	3	15	8
3	1.0	9.0	3.0	1.0	0	6.0	8.0	1.0	3.0	2.0	0	1.0
	5.0	0	2.0	0	3.0	0	2.0	1.0	3.0	1.0	2	2.0
	3	15	14	10	4	11	5	12	6	16	9	13
4	1.0	5.0	1.7	4.0	4.0	1.0	9.0	5.0	7.0	1.5	10.0	3.0
	1.0	2.0	2.3	5.0	4.0	2.0	5.0	4.0	4.0	.5	5.0	9.0
	2	7	16	9	8	12	1	15	5	11	3	6
5	4.0	9.0	0	7.0	1.0	2.5	0	10.0	3.0	2.0	0	0
	4.0	0	9.0	3.0	4.0	1.5	2.0	4.0	0	8.0	4.0	4.0
	1	15	10	4	2	12	3	8	5	13	11	6
6	5	1.7	.7	5.0	.3	6.0	1.7	4.3	2.3	1.0	7.3	.3
	1.5	6.7	2.3	7.0	1.0	5.0	1.7	1.0	.7	3.0	5.7	3.3
	1	13	6	4	2	11	10	14	5	9	3	16
7	1.7	4.5	4.0	5.3	.5	2.5	8.0	6.0	0	7.0	6.0	9.0
	3.3	1.5	0	.7	11.5	3.5	1.0	4.0	1.0	6.0	2.0	9.0
	14	11	2	7	16	13	5	1	4	9	12	6
8	6.0	12.3	8.4	4.8	10.0	7.9	11.4	2.3	6.0	6.2	10.0	.1
	5.0	2.7	7.4	9.8	5.0	6.9	7.4	2.3	3.0	8.2	7.0	11.1

TABLE B-9--Continued

Ss	1	2	3	4	5	6	7	8	9	10	11	12
	14	5	10	1	13	3	11	9	12	8	2	7
9	4.0	8.0	3.0	1.0	0	0	1.0	9.0	5.0	6.0	6.0	0
	1.0	4.0	3.0	1.0	4.0	5.0	2.0	1.0	6.0	3.0	2.0	2.0
	10	1	14	3	13	9	12	11	16	2	8	15
10	3.0	8.0	8.0	4.2	5.5	7.0	0	4.2	.5	6.0	4.0	6.4
	7.0	2.0	1.0	4.2	3.5	5.0	3.0	4.8	.5	1.0	5.0	.6
	3	15	6	5	2	16	11	7	13	14.0	12	4
11	3.0	5.0	3.0	2.0	2.0	11.0	13.0	1.0	10.0	11.0	9.0	0
	9.0	6.0	4.0	3.0	0	7.0	13.0	11.0	11.0	12.0	2.0	1.0
	14	13	10	15	6	1	9	7	2	16	5	11
12	11.0	2.0	3.0	11.0	6.0	4.0	1.0	2.0	3.0	10.0	3.5	10.0
	0	2.0	9.0	4.0	0	1.0	5.0	9.0	5.0	3.0	1.5	1.0
	14	5	9	16	3	4	6	2	13	15	8	1
13	6.5	3.0	8.0	3.0	3.0	3.3	10.3	1.5	1.5	2.0	1.0	1.0
	3.5	3.0	2.0	10.0	4.0	3.3	1.0	.5	9.5	3.0	5.0	1.0
	14	10	15	8	7	2	4	3	6	12	13	11
14	9.0	6.0	4.0	7.0	2.5	4.3	0	0	4.0	4.0	1.0	1.0
	7.0	3.0	1.0	7.0	6.0	.3	5.0	2.0	3.0	0	3.0	13.0
	10	6	11	16	12	5	13	3	8	4	9	2
15	0	4.3	8.0	3.0	1.3	3.0	14.0	7.7	3.0	2.0	0	5.7
	1.0	9.3	7.0	3.0	9.7	1.0	4.0	8.7	9.0	2.0	10.0	1.3
	14	15	11	12	16	13	1	3	10	5	7	9
16	2.0	3.0	7.0	0	5.3	1.5	8.0	7.2	4.0	3.5	6.5	1.5
	2.0	2.0	6.0	0	.3	1.5	3.0	6.8	3.0	2.5	3.5	3.5
	3	14	12	8	10	6	13	15	5	2	7	11
17	5.3	2.0	0	12.5	1.0	1.0	6.0	10.0	4.0	8.0	4.0	2.0
	.3	2.0	9.0	1.5	4.0	1.0	12.0	9.0	3.0	4.0	3.0	6.0

TABLE B-10. B-C GL ORIENTATIONS, SAMPLE III, WEEK 12

(1) A-B GL Ranking, (2) Perceived Agreement (B-C GL Est.—A-C GL)
(3) Accuracy of Estimates (B-C GL Est.—B-C GL)

Ss	1	2	3	4	5	6	7	8	9	10	11	12
	5	16	7	12	2	9	6	14	4	10	1	15
1	.8	0	5.0	2.5	1.7	2.1	1.8	3.1	2.0	.5	3.0	3.9
	2.8	2.0	6.0	10.5	.3	1.1	.8	3.1	5.0	9.5	2.0	.1
	5	14	8	11	3	10	9	16	15	13	6	1
2	.3	3.8	3.3	2.2	6.0	8.5	1.2	4.0	1.8	4.5	8.0	.5
	1.3	1.2	3.3	3.2	1.0	5.5	3.2	2.0	3.2	4.5	1.0	1.5
	5	16	12	11	2	13	1	10	4	6	7	8
3	2.0	1.0	6.0	2.0	9.0	2.0	2.2	5.0	4.0	5.0	.8	3.0
	4.0	5.0	4.0	1.0	5.0	5.0	7.8	1.0	3.0	3.0	.8	1.0
	6	14	10	7	8	12	4	15	9	16	11	13
4	1.0	0	7.5	4.0	2.0	.5	3.0	4.7	3.0	2.0	3.0	.8
	1.0	1.0	.5	4.0	2.0	4.5	2.0	2.7	5.0	0	4.0	4.8
	5	1	13	12	9	11	2	14	7	15	3	4
5	0	6.5	.3	5.0	4.0	3.0	7.5	7.0	2.9	1.9	3.0	2.0
	1.0	1.5	5.7	2.0	3.0	2.0	.5	4.0	1.9	2.9	1.0	3.0
	1	16	14	4	2	13	3	9	6	10	12	7
6	2.0	3.8	2.0	3.3	.2	5.6	.5	2.3	1.0	2.0	10.0	.7
	0	4.8	3.0	1.3	4.2	5.6	.5	2.3	6.0	3.0	0	.3
	1	8	9	11	3	14	16	13	10	6	5	15
7	2.0	3.0	.5	0	11.0	8.5	5.0	1.2	2.4	4.5	1.5	3.5
	0	2.0	6.5	1.0	1.0	5.5	1.0	2.2	1.6	5.5	2.5	3.5
	13	8	2	3	16	12	4	6	7	1	9	10
8	6.0	5.0	9.0	11.0	2.0	4.7	12.0	6.3	1.2	6.0	1.3	2.3
	9.0	4.0	1.0	8.0	6.0	7.7	5.0	2.3	3.2	5.0	1.3	10.3

TABLE B-10—Continued

Ss	1	2	3	4	5	6	7	8	9	10	11	12
	12	8	10	4	14	2	9	11	13	5	1	7
9	2.8	6.0	.5	1.7	2.0	3.0	.1	9.0	1.5	6.0	1.3	1.0
	.2	6.0	.5	1.7	4.0	3.0	1.1	7.0	1.5	2.0	.7	0
	14	4	12	1	15	5	10	13	16	9	11	6
10	1.8	2.4	.5	3.4	.6	3.0	.7	7.4	4.8	1.0	4.4	4.8
	6.2	1.5	5.5	4.4	3.4	11.0	1.7	.4	3.2	2.0	.6	.2
	2	10	8	5	4	16	6	7	15	14	11	3
11	5.0	2.0	1.0	2.0	1.0	8.0	10.0	2.0	2.0	9.0	2.0	0
	3.0	2.0	1.0	12.0	2.0	0	6.0	1.0	8.0	7.0	6.0	2.0
	11	10	16	12	5	1	7	4	2	15	8	13
12	7.0	2.0	14.0	5.0	7.0	0	7.0	2.3	2.0	11.0	4.0	4.3
	1.0	1.0	4.5	5.0	5.0	2.0	4.0	5.7	3.0	1.0	2.0	1.7
	16	4	8	13	2	3	12	5	10	11	9	1
13	1.6	1.0	3.8	0	3.5	4.5	6.4	2.0	1.0	4.8	1.0	3.5
	2.4	4.0	3.8	5.0	4.5	4.5	1.6	5.0	12.0	7.8	2.0	4.5
	9	15	14	3	5	2	4	16	11	8	13	16
14	8.0	5.0	3.0	2.0	5.0	6.0	9.0	3.0	1.0	1.0	3.0	8.0
	1.0	2.0	0	6.0	2.0	6.0	2.0	1.0	5.0	2.0	3.0	1.0
	1	12	5	16	10	8	15	3	4	7	13	2
15	1.3	2.4	8.0	8.8	6.0	2.7	9.8	5.6	7.8	10.3	5.0	2.3
	1.3	3.4	10.0	4.8	7.0	4.3	4.8	1.6	3.8	3.3	6.0	2.3
	16	10	9	7	11	14	1	8	6	3	5	13
16	.5	7.3	5.0	0	3.5	6.0	2.3	1.0	1.3	1.5	1.0	3.0
	7.5	3.3	0	0	2.5	2.0	3.6	8.0	2.7	.5	3.0	3.0
	1	16	10	7	12	8	9	6	11	2	13	14
17	4.2	7.0	6.0	1.0	1.0	2.8	0	1.0	5.0	1.0	2.0	10.0
	4.2	6.0	8.0	7.0	4.0	2.2	10.0	3.0	9.0	5.0	2.0	9.0

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