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THE MEASUREMENT OF FOUR SYSTEMS OF PERSONALITY
STRUCTURE VARYING IN LEVEL OF ABSTRACTNESS.
(SENTENCE COMPLETION METHOD)

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ABSTRACT

In this report four systems of personality structure varying in degree of abstractness have been briefly described in the framework of self theory. A more detailed description can be found in Harvey, Hunt, and Schroder (1961), Harvey and Schroder (1962), Schroder and Harvey (1962), Hunt (1961) and Schroder, Driver, and Streufert (1962). A manual for inferring system properties from sentence completion has been presented. This test can be scored reliably after considerable knowledge of the theoretical principles involved. A training and reliability sample of sentences together with recommended scores is provided in the Appendix for those interested in assessment for experimental purposes. The data provided in this report is of the "test-test relationship" variety. Several tests (including the F scale, dogmatism, rigidity, machiavellianism) which appear to have operations similar to the various systems, have been included and in general the results are consistent with the theoretical assumptions. These results increase our confidence in the sentence completion measures. Other tests such as intelligence, verbal fluidity and social desirability were also included. Construct validity involving behavioral experiments are not included in this report but will be presented in detail in a future publication (Schroder, Driver and Streufert, 1962). These studies include Streufert (1961, 1962), Driver (1962a, 1962b), Lawrence (1962), Janicki (1960), Brooks (1962), Davis (1962), Allen (1962). These studies show that when personality is viewed in these terms a systematic relationship exists between personality structure and social interaction.

This method of measuring personality structure is still relatively subjective and time consuming and difficult, but it is the most effective at this time. The results, of the test-test and behavioral variety, are sufficiently confirming to warrant more detailed work in the development of alternate methods of measurement.

Personality Structure

In personality theory we are conceiving of a system as the way in which its parts are organized when it is engaged in information processing. System properties will be defined in terms of the number of parts and the way the parts are interrelated. Various levels of personality structure will be described as points along a dimension of increasing integrative complexity or abstractness of system properties. Any set of interrelated parts can be considered as a functioning system. In a simple machine system these parts are mechanical units, in a group the parts can be viewed as persons who are organized in a particular way for decision making purposes. In some groups the organization is more simple, for example, each person remains in a fixed dominance-submissive relationship to other members, one member's role cannot be substituted for another and the relationship between parts or members remains constant over changing conditions. Other group structures are characterized by greater integrative complexity, for example, members can form many alternate relationship patterns, the various organizations overlap, generate more diversity or more kinds of information and yet can still interrelate so as to make decisions.

The distinction between parts and systems is a relative one. Parts can be considered as systems themselves. What is a part and what is a system depends upon one's purpose and level of analysis. In dealing with personality two classes of parts are distinguished (a) dimensions or concepts and (b) schemata or higher order programs which provide rules for combining dimensions. However, the concept or dimension can be considered as a system particularly if one's analysis was at the neurological level.

A dimension represents a system for organizing or grouping stimuli. In dealing with system properties it is always necessary to refer to a given range of stimuli, e.g., objects, people, attitudinal statements, etc. A population of objects (stimuli) may be organized with reference to various attributes. A set of people may be dimensionalized on the basis of skin color, shyness, or aggressiveness.

Two operational problems are associated with dimensions. The first involves the discovery of the number of relatively independent dimensions (readings or interpretations of stimuli) which simultaneously combine in some way in order to produce a judgment. This is a multi-dimensional scaling problem. A reaction to another person could be based on a single dimension, for example, the person could be categorized as "colored" and reacted to on that basis alone or the reaction could be based on a number of dimensions on which the person has been categorized. More complex rules for integration are required

if a number of dimensions are combined in perceiving an object. Measurement involves the development of techniques for calculating or inferring the number of dimensions involved in perception. The second problem involves measurement of the discrimination of a range of stimuli along a given dimension. For example, a color blind person fails to discriminate between various colors when he is asked to judge objects on the basis of the single attribute (dimension) of color. This is a linear scaling problem commonly referred to as psychophysical measurement. The term *differentiation* refers to the number of dimensions, and *discrimination* refers to a within-dimensional measurement.

Schema are rules or programs for combining dimensions. Such rules can be simple or complex. When a single dimension (e.g., skin color) is used as the sole basis for judgment, very simple integrative rules are required. When single dimensional instructions are given, e.g., "judge these stimuli on the basis of size" the effects of schema are minimized. However, most objects permit an observer to utilize a number of dimensions or attributes in perception. In everyday life, perception is not purposely restricted to a single dimension and in experiments general instructions can be given which encourage the subject to use any number of dimensions. For example, in multi-dimensional scaling the S is asked to judge the degree of similarity between pairs of stimuli (persons or objects). This judgment can then rest upon a single dimension or it can be multi-dimensional. Similarly, in most projective techniques a multi-dimensional orientation is encouraged. Whenever two or more dimensions simultaneously contribute to the perception of an object some rules for combination are required.

The fact that a person can categorize a stimulus on one dimension (power) under one set of conditions (at work) and on another dimension (intelligence) under another set of conditions (at home) does not indicate the presence of integrative schema. This represents an important methodological consideration, namely that the sheer number of ways a stimulus can be categorized is not synonymous with the integrative complexity of schema. While a number of dimensions are required for the possibility of developing more complex integrative rules (schema), the number of dimensions used for placing a given stimulus can be compartmentalized. The operational problem is to develop techniques for measuring the complexity of the rules used for combining dimensions.

System properties. System properties have been described as varying in their degree of abstractness (Harvey, Hunt, and Schroder, 1961; Harvey and Schroder, 1962; Schroder and Harvey, 1962). A total system is described in terms of the number of

dimensions available for "reading" a given stimulus or range of stimuli and the integrative complexity of the rules for combining such dimensions in order to generate new perceptions and judgments. A system which is characterized by a number of dimensions which are compartmentalized is more concrete while a system which contains more complex schema for integrating the parts is more abstract. Essentially, abstractness should be measured when degree of differentiation is held constant but in the natural world differentiation and integrative complexity are somewhat related in that small degrees of differentiation (small number of dimensions) require less complex schema for integration. More complex schema are possible with increasing degrees of differentiation, but increasing differentiation does not necessarily imply the presence of more complex schema. The degree of differentiation is not an operation for abstractness but it is necessary as a potential for the development of more abstract schema.

Dynamic or Functioning Referents for Different Systems of "Self-Other" Relationships

This section is based on an earlier unpublished report (Schroder and Hunt, 1962) which was jointly prepared as an operational basis for research in the areas of child development and social interaction. These descriptions of system properties were set down so that the terms were equally relevant for generating hypotheses about stages of development, which has been the focus of Dr. Hunt's work, and social interaction which is the focus of the research to be presented in this book.

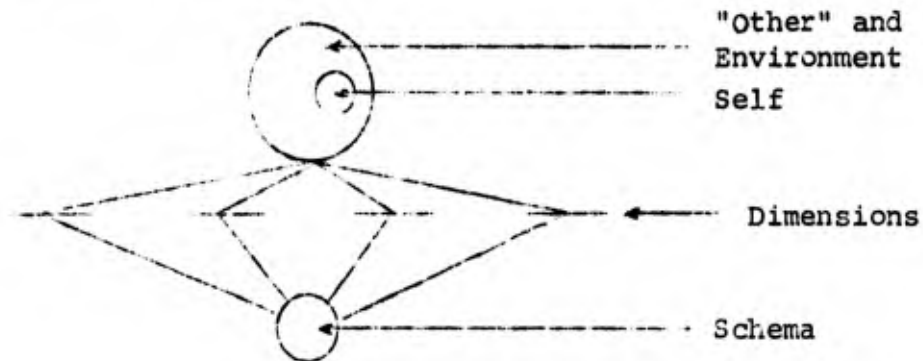
The problem in this task is to keep in mind the system properties at the nodal points selected and deduce the functioning characteristics which such a structure would generate in the area of "self-other" interaction. In focussing upon the content area of "self-other" interaction we have selected those concepts for "reading" self and other and the schema for integrating these as being most relevant. Such concepts and schema may not be relevant for other content areas, e.g., religion or mathematics. The question of the generalization of the abstractness of system properties across different content areas is an empirical one which may vary for different people and for different cultures.

A. Referents for Concrete System Properties (System I).

System I properties are characterized by undifferentiated and global schema which generate simple rules for categorizing stimuli and for articulating structure. In self-other terms the main referent is the lack of differentiation between schema for dimensionalizing stimuli relevant to the self and concepts which map aspects of the external world (environment

and "other"). Delineation of structure is the focus. Aspects of the world are viewed as absolute categories, or approaching situations in terms of relatively fixed roles and fixed role expectations. This absolutistic orientation is characterized in the figure below as a system in which the self is an undifferentiated part of other environmental forces.

Self Structure in System I



The main sub-referents include*

- (1) Compartmentalization: categorical, black-white thinking, fixed categories, overgeneralization through polarities, absolute value orientation.
- (2) Minimization of conflict: preservation of existing standards or existing relationships; avoidance of ambiguity, prescription to overcome doubt or uncertainty, minimization of alternatives.
- (3) Self definition in terms of external anchors, evaluative points defined by fixed categories.
- (4) Unilateral orientation.

B. Referents for System II Properties

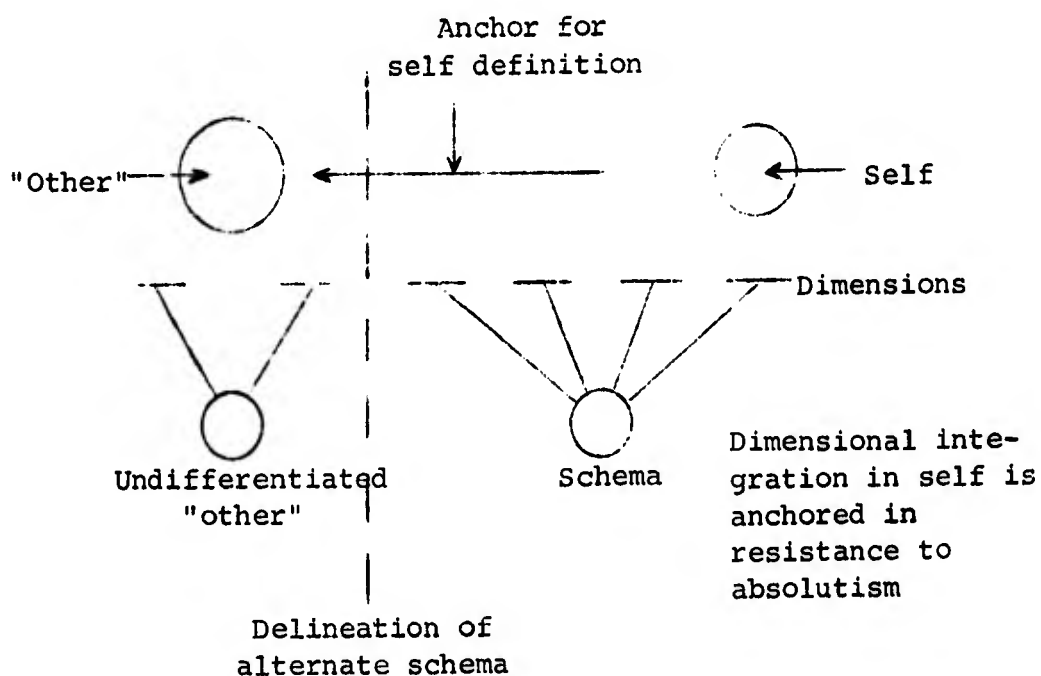
System II properties are characterized by the emergence of alternate schema for organizing dimensions, and a relatively primitive set of rules for integrating schema. Integrating rules are conditional so that what is "good" or "positive," etc. is not fixed but varies with conditions. But, within a given set of conditions interpretations are still fairly absolute as in System I. In a "self-other" context it is assumed that the most significant step in increasing abstract-

Note: The categories refer to resolutions (effects of inputs) or orientations (the way a person defines or structures his environment).

ness from System I is the delineation of schema for self and the differentiation of self from other.

The main referent for System II is the delineation of self anchoring schema from schema utilized for mapping others and the total environmental field. This implies a break with absolutism, a pushing against control or absolutism in any form. System II structure represents the emergence of conceptual schema within the self which are anchored in or developed against an undifferentiated other or field. That is, the dimensional structure of the environmental field or "others" is still bifurcated and categorical (as in System I) but new and unique dimensions and schema arise within the self. These conceptual structures need not be consistent or interdependently related. They are integrated only on the basis of all serving the adaptive function of delineating the self from global pressures. This conceptual structure may be diagrammed as follows:

Self Structure in System II



The main sub-referents include:

- (1) Absolutistic orientation to "other" in delineating the self. Differentiation of self from external standards; relevant dimensions based on the demarcation of self (self-not self); differentiation within self.

(2) Conflict experienced as the dependence of self standards upon external standards. Maximum conflict occurs when an external agent attempts to change the conceptual readings of a subject so as to bring them into consonance with his own. Conflict can be tolerated in self standards if both (apparently conflicting) schema delineate self from absolute control. The person "wards off" dependency or control (external) and "wards off" anything that conflicts with his own fragile conceptual anchors. It involves a "detached" orientation to others associated with less change in self as a result of external pressures.

(3) The self is experienced and defined in terms of how effectively "self" anchored concepts can be kept distinct from absolute or externally imposed concepts.

(4) A negatively independent orientation.

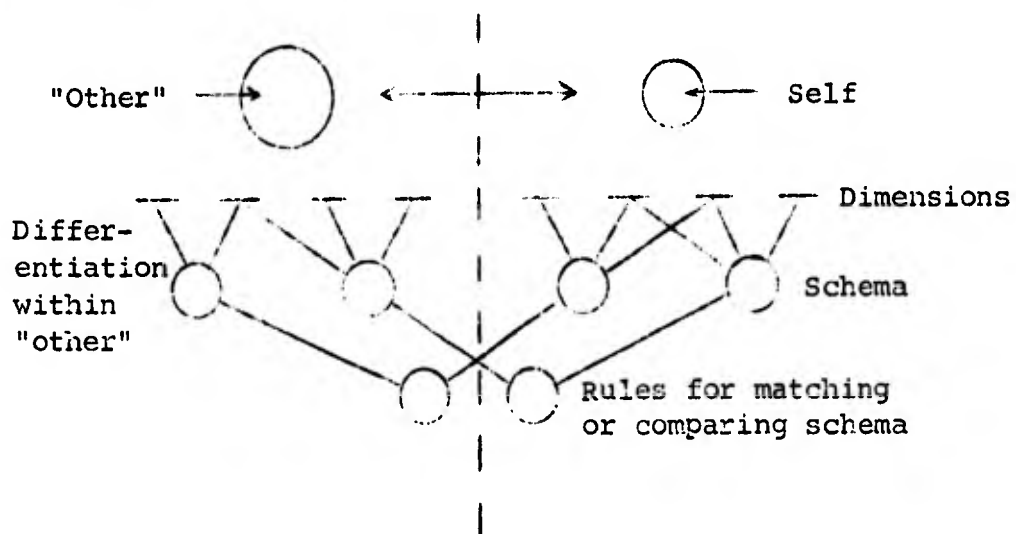
C. Referents for System III Properties

System III properties include relatively simple programs for "comparing" or matching alternate schema. System III properties assume the presence of differentiated schema, however, at this level both can be compared against a single anchor--both can function simultaneously. This simultaneous utilization of schema for information processing greatly facilitates the potential for the self or system to generate new dimensions in the absence of external pressures. At this point the rules only permit a few schema to be used at a time.

In System III the main referent would be the availability of conceptual processes for matching or comparing differentiated schema of self and other. Referents would include the delineation of dimensions and schema within specific "others" and the environmental field. The evolvment of differentiated schema within the self provides the necessary basis for the differentiation of dimensions within the "other." The emergence of schema for interpreting "others" which are independent of the "self" anchoring schema opens up the potential to (a) take other's intentions into account in such a way that these interpretations are differentiated from "own" intentions. (b) Engage in "strategy" type interactions in which independent interpretations of self and other are possible. The major conceptual "work" or the main adaptive orientation in System III personality structure is not only the delineation of "other" schema, but the matching and working out of interrelationships between self and other standards. This "matching" or "accomodating" orientation implies a sensitivity to relationships, concern about mismatching, and a continual structuring of the situation so as to keep interaction open between self and other. This structure may be schematically diagrammed

as follows:

Self Structure in System III

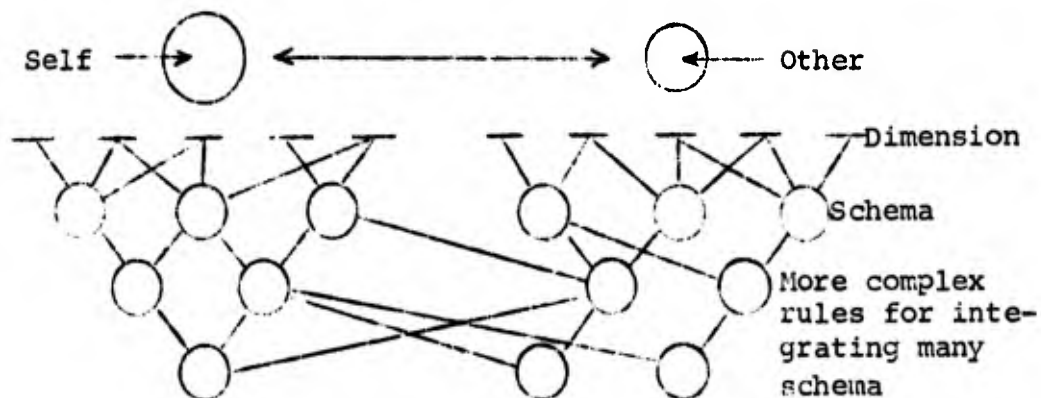


D. Referents for Abstract (System IV) Properties

System IV properties are characterized by the presence of rules for organizing schema. At this level the effects of differentiated schema are not simply compared, rather a number of schema can be ordered in terms of a higher order, superordinate principle or set of rules for exploring situations and generating information. While conditional aspects can be taken into account in a more precise manner, the integrating rules are more internal in the sense that rules exist for viewing a situation in a number of complex ways and for integrating such diverse perceptions into alternate judgments. The main referent is the salience of complex schema. The utilization of such standards includes evidence for the differentiation of the self from external standards, Differentiation within the self and within the external environment including "others" and the emergence of differentiated standards which are relevant to the self and others. Events are interpreted against differentiated "generalized" standards which generate alternate and conflicting evaluations. A consideration of alternate informational consequences is a step in the integrative process which leads to instrumental action. The delineation of generalized (encompassing self and other) but differentiated standards and exploring alternate informational consequences, is the focus. This orientation may be character-

ized in terms of the following diagram:

Self Structure in System IV



The main sub referents include:

(1) Integrative orientation. Conceptual functioning represent the generation of superordinate schema applicable to self and other. Events perceived in relationship to each other on a number of dimensions. A relativistic (as opposed to absolutistic) orientation, minimization of categorical thinking.

(2) "Optimal" level of conflict is highest compared to other systems. More ambiguity or more alternates can be tolerated and handled (interrelated) before the system begins to close to intake. Orientation is characterized by openness to conflict, resolutions involve the exploration of informational consequences, and a lower tendency to "ward off" alternatives, and by the preservation of conflict in order to generate new integrative schema.

(3) Self definition is ipsative, minimally anchored in fixed external standards, and maximally in terms of internal superordinate standards. Ties to objects (particularly others) are much more complex than the simple evaluative (good-bad) dimensions of System I.

(4) Interdependent, multi-dimensional orientation.

The Assessment of Personality Structure Through Sentence Completion

In the sentence completion method of measuring personality structure the subject is presented with a selected set of stems and asked to use each stem as a basis for completing one sentence and to write at least one additional sentence (see Appendix 1). The stems used in this test have been

selected in order to assess the abstractness of conceptual structure primarily in regard to interpersonal stimuli. The stems may be classified as follows: (a) Those which can imply the presence of alternatives (when I am in doubt....; confusion....; (b) those which can imply the imposition of external standards (rules....; parents....; (c) those which can imply interpersonal conflict (when I am criticized....; when a friend acts differently toward me....; when others criticize me it usually means....) and (d) one general interpersonal stem (this I believe about people....).

Ideally one should assess personality structure over a specified range of stimuli. For example, a person may exhibit differing conceptual structure in adapting to religious as opposed to interpersonal stimuli. The relationship between measures of personality structure within the same person across different content areas is an empirical problem which can be approached as more reliable and valid measures are developed. Since our interest has been focussed upon the relationship between personality structure and interpersonal interaction, we have used stems which reflect interpersonal content.

At this stage the stems selected and the manual for scoring completions are research methods and cannot be presented as standardized techniques. Research, (Driver, 1962; Streufert, 1961, 1962; Lawrence, 1962) offers sufficient construct validity for the theoretical variables to warrant more detailed work in test development in the future. However, at the present time stems have not been classified experimentally into different content or stimulus areas. Selection is primarily based on clinical and theoretical grounds. The age range with which we have worked is from 15 to 23, the manual is based on responses of males attending high school and male college undergraduates. The form of the test would need revising for younger children and our experience indicates that as the population increases in age and education (a graduate school male population) scoring becomes much more difficult. The present method is mainly relevant to high school and undergraduate male populations.

The importance of the above considerations is highlighted by our observations over a number of samples that different stems provide information which is more or less relevant to different personality systems. For example stems implying the presence of alternatives (when I am in doubt....) can be scored along a concrete-abstract dimension but provide less information about System II or System III properties. Stems which imply the imposition of external standards appear to provide most information for scoring along the concrete-abstract dimension and for System II properties and stems which imply interpersonal conflict can be scored for all manuals, the

concrete-abstract manual, the System II and the System III manual. These considerations will be reflected in the manual which will now be described.

Scoring Manuals

The scoring manuals for assessing personality structure are derived from the theoretical referents for each nodal system presented in the last section. These manuals simply present more specific operations for inferring structural properties from sentence completions recorded by subjects on each stem. While the theoretical referents represent ideal definitions of various systems of personality structure, the problem of explicating the steps for translating raw verbal responses into structural terms remains. The manual represents an initial attempt to bridge this gap.

In inferring structural properties as opposed to "need" "value" or "content" properties from verbal responses, the manual directs the rater to ask questions regarding the differentiation and integration of concepts which generate each completion. For example, the manual may instruct the rater to ask such questions as the following: to what extent can it be inferred that the completion was generated by a concept which was undifferentiated as to "self" and "other?" To what extent can it be inferred that the completion was generated by a concept which serves the adaptive function of self delineation? An affirmative rating of the first would indicate System I properties and the second System II properties.

The theoretical referents for the four nodal personality systems have been used to prepare four specific manuals for rating personality structure. Although each sentence could be scored independently using each of the four manuals we have found it more convenient and meaningful to ask the rater to take three steps. First, each sentence is scored along a 5 point concrete-abstract continuum. The operations for System I identify the first scale point and the operations for System IV identify the fifth point. The second scale point is defined as moderately low differentiation and integration and the fourth scale point as moderately high differentiation and integration. A score of zero is given for unscorable sentences in which information is insufficient to make a judgment. As indicated earlier systems of personality structure have been ordered in terms of their abstractness or integrative complexity. Consequently, from a theoretical viewpoint, it should be possible to dimensionalize personality systems in this manner. Such a dimensional rating based on a summation of all sentences provides a continuous measure which can be used for correlational purposes.

The second and third steps involve the scoring of selected completions using the System II and System III manual respectively. The system properties are scored on three-point scales. Again, completions which provide insufficient information for making a judgment are classified as unscorable. Completions which indicate an absence of System II or III properties are scored zero, and this rating is averaged in for determining overall scores.

This three step procedure somewhat simplifies a complex task for the rater. A further advantage of this procedure is that the System II and System III manuals can be scored independently and the score on the concrete-abstract dimension provides an added theoretical check on the placement of the systems. Theoretically, subjects scoring high on System II structure should also be placed around the moderately concrete position on the concrete-abstract dimension and subjects scoring high on System III structure should also be placed around the moderately abstract position on the concrete-abstract dimension. To the extent that the systems cannot be ordered in this way theoretical modification of the developmental hypothesis (Schroder and Hunt, 1962) and/or the ordering of integrative complexity would be necessary. While these systems can be useful for descriptive and predictive purposes outside the framework of developmental theory, they lose much of their integrative power if such relationships do not hold. This informational check cannot be considered critical for testing hypotheses about the positioning of Systems II and III along the concrete-abstract dimension, however, because when a rater becomes familiar with the theoretical referents he is aware, for example, that System II characteristics are hypothesized to be moderately concrete and this may influence his rating when using the concrete-abstract manual.

Essentially, the rater scores each completion using the four manuals. The System I and the System IV manuals are used simultaneously to rate the degree of structural complexity over all individuals. The scales can also be used for selecting discrete groups of subject according to the theoretical definitions. Subjects scoring low on the concrete-abstract scale over all stems typify System I properties, subjects scoring high over all stems typify System IV properties. Subjects remaining, with moderate scores on the concrete side of the concrete-abstract scale, who also score high over most items of the System II manual typify System II properties and subjects remaining with moderate score on the abstract side of the concrete-abstract dimension who also score high on the System III manual typify

System III properties. In selecting four system specific samples some subjects must be discarded. In the analysis reported in this report we have not utilized transitional systems of personality structure. Subjects scoring high on two systems are hypothesized to represent transitional or conflicting system properties. (Harvey, Hunt and Schroder, 1961). Initial research has been focussed upon an exploration of the utility of these structural concepts in the area of social interaction. To the extent that these concepts prove useful it becomes increasingly necessary to include transitional systems in future research.

Manuals for Inferring System Properties

A) The concrete-abstract manual

Four specific concrete-abstract manuals each based on the theoretical referents outlined in the last section, have been proposed for scoring the four major classes of stems.

(I) Manual for scoring the concreteness-abstractness of completions to stems which can imply the presence of ambiguity.

When I am in doubt....

Confusion....

System I

In concrete structure the focus is upon delineation of structure. (a) Ambiguity is viewed as an unpleasant state and interpreted as a flaw or weakness in functioning. Doubt and confusion are viewed as ambiguity or conflict which are directly described as negative states or negativity is indirectly attributed. Indirect attribution may be inferred when "doubt" as dissonance is quickly reduced, when the subject "closes" fast on one alternative (erase it, act quickly, never let doubt go unanswered, never act without reason). That is, the aim is fast and unambiguous resolution. (b) Also, when an S offers a prescription for overcoming conflict and achieving unambiguous

System IV

The focus is upon the delineation of alternatives. (a) System IV completions imply that there is more than one outcome (I look up all possible solutions, try to think of all choices and possibilities). Conflict and ambiguity are not viewed as negative events to be erased. (b) Alternate means of closing for action must imply different solutions (as opposed to concrete completions in which two means, for example, asking someone and using reference materials, both support each other in producing the same outcome). (c) The completion refers to the delineation of a goal which implies that instrumental action and solution are relative to an end. (Find out what is needed and mull over the relevant possibilities.) (d) Means and solutions are conditional

closure concrete structure is inferred. (Asking someone is the only way, the best action is a vigorous one, things are obvious if viewed with impartiality, reason is the only way to reach a decision). In these examples the focus is upon reaching a direct solution, upon achieving structure. (c) Related to such prescription is the implication that an absolute solution can be found. (Ask someone who knows the correct answer.) (d) Ambiguity is viewed as an absolute component of the field over which the S has no control. It arises when one is ignorant, when there is diversity, when there is a person who does not structure his world and does not know what to expect. Reference to conformity or asking for advice are unscorable when they occur in the absence of other System I operations.

with regard to the situation in System IV completions. (The larger the problem the greater the variety of alternative means explored. Instrumental activity to explore alternatives (opposed to reducing conflict) is more prevalent in abstract completions since ambiguity is perceived less absolutistically.

Reference to "thinking out" in the absence of the other operations is unscorable as it may or may not imply to the generation of alternatives. Similarly a simple reference to goal delineation is unscorable (find out what I doubt) if no further operation is implied. Any reference to the need for fast simple closure is not scored System IV, even if accompanied by other abstract operations.

Examples from Stem A: When I am in doubt...

	Score	
Concrete	1	I either ask whoever is around what to do or I forget about it. If I find I don't know something I ask someone who does, otherwise I just don't think about what I doubt. Doubt is not a good thing.
	2	When I am in doubt about something I usually go ahead and make a decision one way or the other and then learn from my mistake. I very seldom ask for advice.
	3	I am in doubt very often. When I am then there are more ways of doing things and it confuses me. I like to know what to do and sometimes someone will tell me what is the best thing to do. Sometimes I learn from my doubt.

	Score	
Concrete	4	I usually ask those who may know more. Often I get an answer that helps me make up my mind what to do. If there would be no doubt we would not learn new things.
Abstract	5	This happens to me all the time. Most questions have many answers and which is the best one depends on the situation. When I am in doubt I think about the consequences of the possible ways of doing it and then try the one that seems best. Some of the time I made the best decision.

(II) Manual for scoring the concreteness-abstractness of completions to stems which can imply the imposition of external standards.

Rules....

System I

Concrete completions imply the imposition of external standards which provide structured anchors for experience and their absence produces a state of anomie. (a) Rules and parental roles are absolute, preserve structure and are not subject to alternate interpretations (the role is fixed, it is a duty and implies a responsibility, e.g., material care, must be reacted to in a fixed way, must always be followed), variation in interpretation is equivalent to transgression. (b) Are viewed as the imposition of external control, they are unilaterally (less internally anchored, relativistic or functional), focused upon specific things parents do, for example give advice, care for, feed, build character, etc. (c) Rules and parental roles reduce conflict and ambiguity within and between

Parents....

System IV

Abstract completions imply that rules and parental roles are the products of complex interactions, they develop and are subject to alternative interpretations at one time and over time. Rules and parental roles are minimally absolute and maximally conditional and functional, are subject to change, are a means rather than an end: Note: This does not imply transgression - see (d) below. (b) They are viewed dynamically - as a product of social consequences (more internally anchored as a means-ends process). Completions focus on interactions between parents and child in terms of common dimensions which encompass both (that is, not compartmentalized in terms of child vs. parent). Such dimensions are anchored in interaction or the effects of training practices. (c) Rules are viewed as broad guide lines, but are subject to alternate interpretations under changing conditions. (d) In reacting to rules and

people (clarify situations, preserve order, reduce doubt).

(d) In reacting to rules and parental roles as absolutes they are viewed in terms of compliance or transgression. Rules are transgressed if they are "bad." (e) Rules and parental roles are compartmentalized (are made for some people but not for others, are all good or all bad, are only rules if they are obeyed).

Completions stating that rules and parents are essential, that they are necessary in a variety of situations and that they are to be followed in the absence of amplifying structural operations do not provide sufficient information for inferring concrete system properties.

parents in an abstract manner, completions express minimal sensitization to compliance or transgression. (Conformity is viewed in degrees, as conditional and in reference to intentions. (e) Rules and parents are both differentiated in terms of their function and purpose, in terms of their differential effects under different conditions (are functional, under changing conditions fewer are obeyed, each has to be dealt with individually).

Completions implying negativity are scored more concrete if the negativity is absolute. Neither compliance nor transgression are operations for concreteness-abstractness in the absence of information regarding the adaptive function served by the source.

Examples from Stem C: Rules....

		Score
Concrete	1	Rules are to be observed or not to be observed. Some are necessary and others are not. Certain rules are very important, like the ten commandments. Other rules don't even apply to you.
	2	Rules govern society and are necessary for organized groups. They regulate and control the behavior of any group and are necessary. Without rules there would be no organization. People would be more free without them, but chaos would result.
	3	Rules are made for the good of everyone concerned. The phrase "rules are made to be broken" is not a good one. Rules should be changed when they do not apply. Rules help us live a civilized life.

	Score	
	4	Rules are good only when they do what they are meant to do. Sometimes they are outdated and harmful. Like the rule about smoking around school. Other rules help us. People should think first whether breaking a rule will hurt someone before they break it.
Abstract	5	Rules are made to protect the weak from the strong and the few from the many. Rules have a purpose. Rules are to be broken only when breaking them does not have adverse effects upon their purpose, so chaos is avoided. Rules should be made to allow much freedom and still protect.

(III) Manual for scoring the concreteness-abstractness of completions to stems which can imply interpersonal conflict.

When I am criticized.... When a friend acts differently towards me When others criticize me it usually means....

System I

Concrete completions are characterized by an over-generalized value orientation. The "conflict" is evaluated against absolute truth or falsity. The resolution achieves structure or consonance and resolves ambiguity.

(a) Conflict is viewed categorically. The focus is upon the degree to which it fits or does not fit an absolute category held by the S. Reactions and feelings are anchored in who is right and who is wrong. (b) The resolution reduces conflict and rules out alternatives. The criticism is totally accepted if "good" or constructive and totally rejected if "bad" or unconstructive. Reaction is bifurcated, and the outcome is viewed as a win-lose situation. The completion im-

System IV

Abstract completions view criticism or disagreement as the presentation of alternative information which is then considered regardless of judgment as to its truth or falsity. Exploration involves the utilization of more than a single frame of reference.

(a) Criticism is viewed as the delineation of alternatives. Completions represent the consideration of criticism as information evaluated against superordinate dimensions in turn. It represents an alternate view. (b) Completions express an acceptance of alternatives and the use of exploratory action before making a decision. Criticism is assimilated. (c) Since the outcome of the consideration of the alternatives is internally anchored, there is a minimum of generalization of positive or negative characteristics to the source. Mild negative self feelings may be expressed, but

plies that the S avoids the criticism or plans to avoid it in the future. (c) Over-generalized reaction. A negative reaction to criticism generalizes to all aspects of the situation including the source. That is, negativity is attributed when criticism is unconstructive and the source is viewed as having control of S when criticism is constructive. Completions simply expressing negative self feeling, or willingness to improve in the absence of information for inferring concrete system properties are unscorable.

must be accompanied by other operations to be scored System IV. Focus is upon articulating the meaning and relevance of the difference in the absence of immediate conformity or rejection.

Completions which express a willingness to change - or correct the self, cannot be scored abstract unless the information is sufficient to indicate that the change is not simple compliance.

Examples from Stem E: When I am criticized....

	Score	
Concrete	1	I feel guilty. If I know I am in the wrong I try very hard to correct my faults and strive not to let it happen again. However, if I feel I am right, I speak up and tell them and keep it exactly my own way.
	2	I am usually wrong. Sometimes it is because someone else has a different opinion. But one of us has a better answer. Criticism can help to find the answer that is best for what we want to do.
	3	I don't know what to do. I feel it is not right to criticize. Some people just feel differently about things and it is not right to criticize them for it. I don't know if it is good that people feel differently, but they do and they should not be criticized for it.
	4	It is probably because we do not understand why the other one is thinking or acting the way he is. After explaining our viewpoints, we can probably compromise.
Abstract	5	When I am criticized on any subject by someone who's opinion I value, I try to ask myself what advantages his viewpont has over mine. Sometimes both views have their advantages and it is better to combine them. Criticism usually helps me to learn better ways to deal with others.

(IV) Manual for scoring the concreteness or abstractness of completions to the general interpersonal stem.

This I believe about people....

System I

In concrete completions "people" are categorized into an absolute type or role which is bifurcated. (a) Overgeneralization of categories. Completions fit all people into a class. Exceptions are minimized. (b) General categories generate bifurcated judgments. People are viewed as good vs. bad and right vs. wrong in a value polarity. (c) Characteristics are absolute and externally anchored. Categories are fixed and cannot be modified by people. People can only modify the means of achieving such characteristics; people need control, to be taught correct attitudes, governed or led. (d) Intolerance of differences from self; description expressed as difference from self. Completion represents a presentation of how people "ought" to be. A general absence of personal interactive concern, of conditional effects and of diversity.

Characteristics can be positive or negative and still be scored System I.

System IV

In abstract completions "people" are conceptualized in diverse but integrative ways. Completions express the availability of alternate concepts for evaluations and superordinate schemas for integrative purposes, e.g., dynamic explanations. (a) Absence of overgeneralization. Completion expresses alternate evaluative dimensions for judgment. (Are of many kinds, may be viewed in many different ways.) (b) Completions express a tolerance of diversity within and between people. (c) Utilization of superordinate schemas for integrative purposes. Diversity or difference is accounted for or understood as complex effects of biological, environmental and training factors. (d) People are not viewed as controlling or interfering and in order to achieve the highest score of abstractness, concern is not solely directed toward differentiating within other people (differentiating from System III). Completions are superordinate to these concerns, viewing people and self along similar functional dimensions. A mere listing of characteristics provide insufficient information for scoring on the abstract side of this dimension.

Examples from Stem H: This I believe about people....

	Score	
Concrete	1	Some are good and some are bad. Some are friendly and some are ugly. This can not be helped but we should try to correct it as much as possible. People are self centered and do anything for themselves and very little for others. This is just human behavior.
	2	All people have their own ways of doing things. Most people are good but some are bad. If they are not good they have been taught not to be good. I like people sometimes, but sometimes I wish they would leave me alone.
	3	Most people are nice, particularly if they are students. I don't like it if people are not nice to each other. Some are not so nice only because people have not been nice to them. People should not always criticize and try to see why others do what they do.
	4	I think that people are very different. They have different ideas and you can find out their ideas and learn from it. You can be nice to them and help them think out their ideas too. One should tolerate the ideas of others because they come from different experiences.
Abstract	5	Some people do some things better, others do other things better. I think that nearly all can make a contribution to the world. They have been raised differently, they know and like different things, and I can learn from them. I don't think it is wise to judge people only by their actions. They usually have a good reason for doing things.

(B) The System II manual

This manual is used to rate the degree to which completions are generated by a System II personality structure. The manual is based on the theoretical referents presented above. Ratings are made on a scale extending from zero through 3. A rating of zero indicates that the completion has no System II properties and a rating of 3 indicates dependable and clear System II properties. A response which is unscorable is not scored and is not included in calculating the mean score. Stems which appear most appropriate for providing information about System II properties are: When I am criticized.....; When a friend acts differently toward me.....;

When others criticize me it usually means....; Rules....; and Parents....

When inferring System II properties, there is a strong tendency for a beginning scorer to rely on the content of the response. Negativistic completions are then given a high rating on the System II manual. However, negative reactions are not generated by System II structure alone. The rater should become familiar with the structural operations and ask the questions specified in the manual. To be scored System II the rater must be able to infer that dissonance or conflict is not anchored in discrepancies within absolute structure, in what is right and wrong (System I), but rather, in an inability to keep the self delineated and in the avoidance of dependency, control, or interference of any kind. In System II structure self worth is dependent upon the ability to keep the self delineated. If this referent is not present, regardless of the affect expressed, a score of zero is appropriate. When a judgment is made to the effect that this major System II referent is present its degree is rated on the three point scale.

Manual for Inferring the Presence of System II Properties

In the following descriptions the word "source" is used generally to refer to the rule, the parent, or person or friend criticizing the subject.

The main operation to be inferred for scoring System II is self delineation. This may be expressed in many ways.

(a) The completion implies the imposition of control or indicates that the source is interpreted as influencing, interfering or attempting to place S in a dependent role which is viewed as control. The source is viewed as restrictive (rules confine, criticism is an attempt on the part of the source to show superiority). If the source is viewed as preventing external control this is also a referent for System II, e.g., without rules the powerful people would control. (b) The completion implies a lack of differentiation within the source or "other." A lack of differentiation within rules or parents; criticism is interpreted categorically as an absolute against which S delineates or defines himself. (This referent should be contrasted with a System IV referent where the interpretation refers to criticism as an alternate opinion.) Completions imply differentiation of the self but a lack of differentiation within any source viewed as a potential agent of control. The "other" is still bifurcated as in System I. Parents are perceived categorically and the source acts globally.

If perceived as real or potential control the resolution implies a "pushing against" the source. (c) Completions

express the imputation of malevolence toward the source and suspiciousness of all control. Resolutions express a "machievellian" attitude, e.g., by figuring loopholes, one can avoid obeying rules; rules or other forms of control are brought about by a few self interested people; love is controlling. (d) This same resolution may be expressed as the externalization of blame. (e) A further resolution is non-commitment or avoidance. For example, I do not give it a second thought or he can do as he pleases.

System II resolutions which attribute negative intent to the source are consequently unlikely to include instrumental or exploratory action. (f) When the source is perceived as controlling, completions can involve source deprecation. When System II properties are present and the source is viewed as controlling there is a corresponding lack of acceptance of criticism. However, to be scored System II the negation must be anchored in the avoidance of control and not simply in perceiving the source as presenting a discrepancy from an absolute belief (System I).

Examples from Stem C: Rules....

Score

- 0 Rules are good for us because they help us to live without conflict. Rules should not be broken.
- 1 Rules are made by different people who are not always present when the rules are being used. In general I think rules are not good because too many situations pop up concerning them. At this time rules however are necessary because society has grown up using them and they wouldn't know how to act without them.
- 2 Rules have a purpose but they are generally too strict and allow no personal freedom. I think that one should not have to obey rules that one does not think are good.
- 3 Rules are made by those in control, and they don't care about those who are supposed to obey the rules. I hate rules. If they are reasonable, it would be all right, but they are not. I would like to make my own rules. The rules in this school are very unfair and I am glad to get out this year. Then I can make my own rules.

Examples from Stem E: When I am criticized....

Score

- 0 I pay close attention to what the person is saying. There is usually a good reason for the criticism.
- 1 If I am criticized for a good reason I don't think too much about it. Maybe I improve myself. But if I am criticized for no reason at all I can get very angry. I like to be criticized when I have it coming to me.

Score

- 2 Most of the time I take it the opposite of how it is supposed to be taken. If it is given to me by someone I better listen to or else, I listen. Otherwise I pay no attention and shrug it off.
- 3 I hate for people to criticize me. I think that people should be allowed to make up their own mind about what they want to do or say without being criticized for it. People are much too critical. When I get criticized I get very annoyed. If they just want to be critical I wish they would leave me alone.

(C) System III manual

This manual is used for inferring System III properties from sentence completions. As with the System II manual it is derived from the referents described above and is scored independently of other manuals. The scoring system is the same as for the System II manual where a score of zero is given for completions in which no System III properties can be inferred and a rating of 1, 2, or 3 is given for completions which express System III properties, depending upon their clarity and strength.

The main difficulty in inferring System III properties is the tendency to use socially accommodating or conformity content as a basis for judgment. As in the earlier two manuals the aim is to provide theoretical and operational referents which are anchored in structural characteristics. While it is difficult to be unbiased by the content of a response the intent of the manual is to instruct the rater to ask structural questions and reach a judgment on this basis. The personality structure described as possessing System III properties is characterized by the presence of differentiated concepts or dimensions for perceiving within and between self and others.

This potential, compared to System II properties, permits the person to perceive others intentions and needs independently of his own, to take on and explore roles and perceive the self from another person's frame of reference. Structurally, the presence of such differentiated systems of concepts should be inferred in order to rate the presence of System III properties.

While the integrative principle of "matching" self and other standards is one of the main consequences of this structure, the mere presence of compliance or conformity is insufficient evidence to assume the presence of System III properties. Such responses could equally emerge from System I properties. The main decision for the rater using the

System III manual is to differentiate between accomodation anchored in absolutism (System I compliance in a categorical sense) and accomodation anchored in a "matching" or a "mutual responsibility" sense (System III). The following manual attempts to explicate some of the operations for this purpose.

The four stems which appear to provide most information about System III properties are: When I am criticized....; When a friend acts differently toward me....; When others criticize me it usually means....; and This I believe about people....

Manual for Inferring the Presence of System III Properties

In a system specific sense dissonance in System III is centrally anchored in relationships. Conflict is experienced as a crisis in keeping interaction open which is central to self definition. (a) Criticism is interpreted as rejection by the source. To be scored System III the resolution must be associated with explicit or implicit self blame or a search for and consideration of reasons in order to differentiate it from System I. (b) One of the main operations is the focus upon the source or "other." The source is differentiated, is not perceived categorically as good or bad. This differentiation is expressed as an effort to "understand" the source. The completion expresses the delineation of dimensions within the source. Differentiation between and within a particular source is apparent. (c) The resolution aims to keep interaction open. Resolutions are more complex than those generated by System I and System II properties. This increasing complexity is expressed through a concern with the cause of the criticism or conflict. It includes a delineation of reasons, there is an absence of fast closure as expected in more concrete systems. Excuses may be made to accomodate the source's behavior. (d) Completions may include the avoidance of exhibition of negative feelings toward the source in order to keep interaction open and maximize the potential for matching standards of self and source. (e) Disagreement or criticism is interpreted as kidding or help, although this operation alone is a weak referent.

Another major operation is the implicit or explicit presence of internal causation and self blame. This implies a consideration of alternative reasons, include self as a possible cause and acts to keep interaction open. Since self deprecation alone could indicate System I properties, completions scored System III should include evidence about "looking inward for a reason" and cleaning up misunderstandings. Acceptance of the source can be maintained even though negative self feeling persists.

Some negativity toward the source may be expressed via System III structure. However, these completions should include some evidence regarding the differentiation of reasons, openness to self blame, or other resolutions aimed at keeping interaction open as a basis for self definition before judging System III structure.

Examples from Stem E: When I am criticized....

Score

- 0 When I am criticized I have done something for which I deserve criticism. The criticism is meant to improve me. Sometimes I get mad. But I should listen to the criticism.
- 1 I usually have done something that the other person does not like. Our views may be different. Criticism may be useful for improvement.
- 2 I don't like to be criticized. I think that criticism is unnecessary. It shows that one person does not understand the other. It is usually possible to compromise. I don't criticize anyone because I think I can find out why a person acts as he does if I just try.
- 3 It means that the other person has a point to make that I will listen to. Sometimes we can exchange our views and and come to an agreement. Criticism is good when it is constructive and when you can talk things over, but it is not good when it is just meant to hurt others. People should understand each other's feelings.

Examples from Stem H: This I believe about people....

Score

- 0 I don't like people too much. They don't give you peace when you want it. People should keep their noses in their own business. They always want to interfere with what you want to do.
- 1 They can consist of many different characters and in order to get along with them you have to adopt various kinds of personality to become friends with them.
- 2 People think all sorts of things and one can talk to them about it. It is good to have people around when you want to have someone to talk to. You can ask them what they think and sometimes they can help you find things out. I like for people to be nice to each other.
- 3 People don't realize how much effect they have on each other. When one gets mad then the other one does too and then they blame each other for it. People should try to understand the other's emotions and then they would be more satisfied with life.

Scores Derived from the Three Manuals

Eight of the stems in the sentence completion test presented in Appendix 1 are relevant for the data to be presented. Most other stems in the test appear to be less useful for our purposes with the possible exception of "after an argument...." which can be used effectively for scoring System II properties. All eight stems are scored using the concrete-abstract manual, five are scored using the System II manual and four using the System III manual. Although it would be ideal to have all stems scored with all manuals insuring comparability of the range of stimuli covered by each manual, at this stage of test development, we favor restricting the use of the manuals to those stems which appear to provide sufficient and relevant information. If we were to use the present System III manual on stems implying ambiguity, for example, many completions would be unscorable. Perhaps a more explicit development of the manual or a search for stems which could be scored using all manuals will overcome this problem in the future. Only the three stems implying interpersonal conflict have been scored on all three manuals (see Table 1).

The ratings assigned to each scorable response are averaged in order to arrive at a score for each system. Assuming all responses are scorable the overall concrete-abstract score is the mean of eight ratings each based on a 5-point scale. The lower the mean score the more concrete the system properties. This is a continuous measure and can be used for correlational purposes. However in most samples, the distribution is skewed toward the concrete end, that is, a greater proportion of the subjects, in our high school, college and graduate student populations have more concrete personality organizations. A typical distribution of scores on the concrete-abstract manual is presented in Table 2.

Comparability of System Specific Scores

Ratings on the concrete-abstract manual can be converted into System I and System IV scores so that they are comparable to the 4-point scales (0, 1, 2, 3) used with the System II and System III manuals. In converting into the System I manual, scores of 4 or 5 on the concrete-abstract dimension are assigned a value of zero (an absence of concrete properties) a score of 3, 2, 1 on the concrete-abstract dimension become scores of 1, 2, and 3 respectively on the System I manual as shown in Table 3. The same conversion with directions reversed can be made to develop a specific System IV score.

When system specific groups are required for experimental purposes certain cut off points must be defined in order to insure comparability of samples from experiment to experiment. Theoretically System I individuals are defined as those scoring

TABLE I

Stems Used in Each Manual

Stems utilized	Manual used for scoring		
	Concrete Abstract	System II	System III
When I am in doubt....	X		
Confusion....	X		
Rules....	X	X	
Parents....	X	X	
When I am criticized....	X	X	X
When a friend acts differently toward me....	X	X	X
When others criticize me it usually means....	X	X	X
This I believe about people....	X		X
Total stems used for each Manual	8	5	4

TABLE II

Distribution of Concrete-Abstract, System II and System III Scores

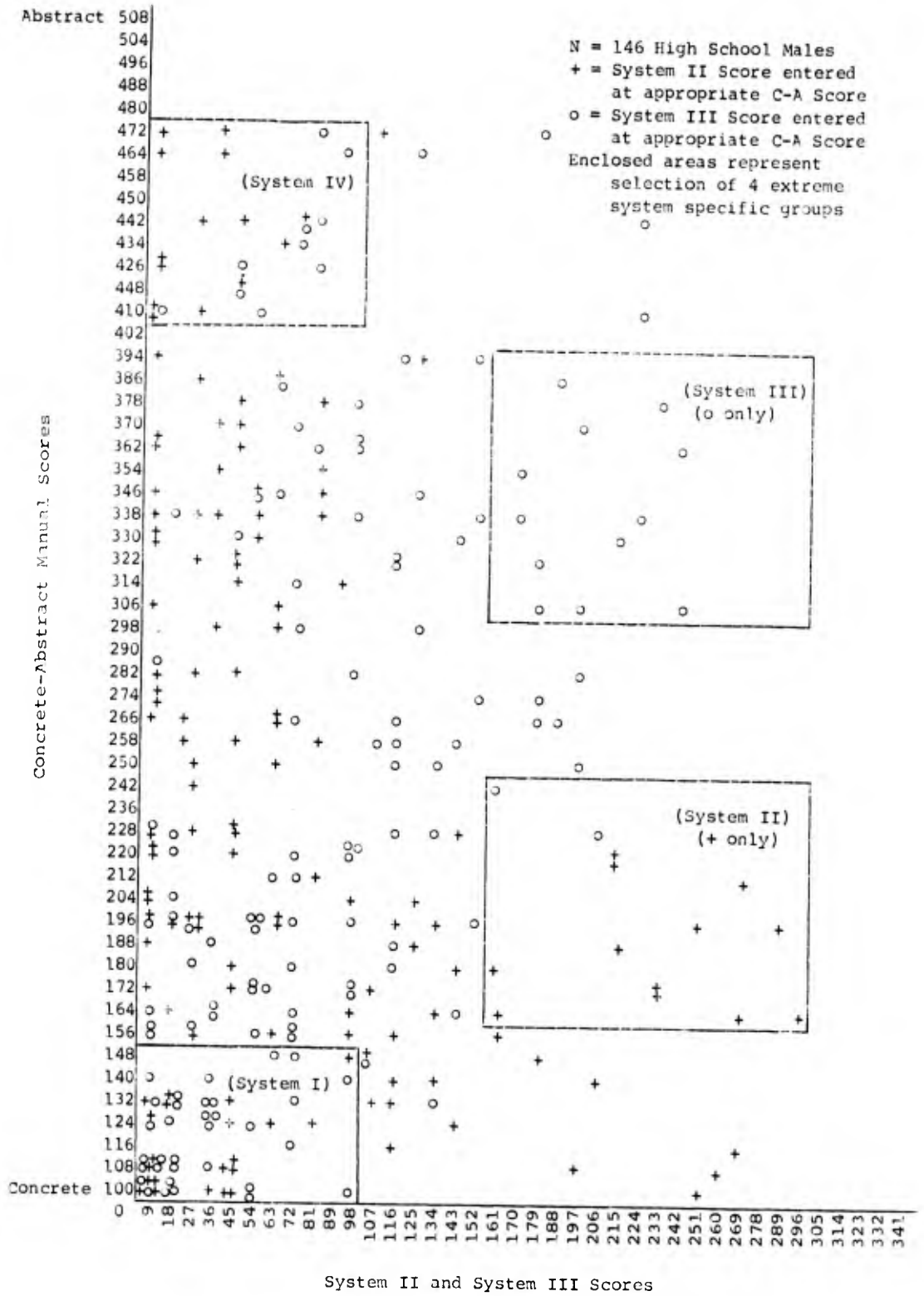


TABLE III

Conversion of Concrete-Abstract Scores into Specific
System I and System IV Scores which are Comparable
to the System II and System III Score Ranges.

Concrete-abstract scores	1	2	3	4	5
Conversion into a specific System I score range	3	2	1	0	
Conversion into a specific System IV score range		0	1	2	3

low (1-2 range) on the concrete-abstract manual and low (0-1) on the System II and System III manuals. To be selected as typifying System II properties subjects must score high on the System II manual and medium to low (1.5-2.5) on the concrete-abstract manual; System III subjects are defined as those scoring medium to medium high on the concrete-abstract manual (3-4) and high on the System III manual, and System IV subjects as those scoring high (4-5) on the concrete-abstract manual and medium to low on the System II and System III manuals (see squares in Table 2).

The distribution of System II and System III scores over the concrete-abstract dimension for a typical sample from our work is presented in Table 2. This table indicates that subjects scoring high on the System II manual are more concrete than subjects scoring high on the System III manual, as would be expected. Such a distribution, then, permits the selection of system specific groups as suggested above. The squares on Table 2 demonstrate the selection of four system specific groups of subjects. This selection does not include transitional groups.

System specific scores are highly skewed and do not lend themselves to correlational analysis over a broad range of subjects. For example, only approximately one third of the subjects in our samples register a score on the System II manual at all. While a high score indicates the presence of System II properties specifically, low or zero scores are non specific. Subjects scoring low on the System II manual could be high on any other manual so that a low score on a given system has no specific meaning by itself.

Although transitional systems of personality organization have not been used extensively, in the data to be presented, the scoring system has been designed to permit the selection of specific groups for experimental purposes. Theoretically, level I transition systems, would be defined by a score pattern characterized by high scores on both the System I and System II manuals and low scores on the System III manual. Similarly, level II transitional systems would be defined by a score pattern characterized by high scores on the System II and System III manual and low scores on the remaining manuals. Level III transitional systems would be characterized by high scores on the System III manual and on the concrete-abstract manual.

When the four nodal systems are used for selecting subjects, which is the typical case in our work to date, there is an inevitable loss of subjects who do not fit into these systems because they are characterized by transitional properties. Further, to the extent that the theoretical model is not a good fit of reality, a higher proportion of subjects

will be discarded. Both problems would be accentuated by noisy and inefficient measuring techniques. The first problem can be overcome by utilizing more system specific groups in future experimentation. The second problem can only be approached by carrying out experiments based on theoretical expectations and modifying or changing the theoretical model when indicated.

Sample Identification

One of the most persistent problems in psychology has been the lack of standard techniques for identifying the nature of a sample. It is extremely unlikely that two small samples drawn from two different countries, two different universities, or indeed, drawn by two experimenters from the same college or high school are comparable with respect to the distribution of scores across system of personality structure. For example, in our limited experience the concrete-abstract scores of all juniors and seniors attending an eastern and mid western high school of equivalent social class were by no means comparable. In one school the scores were more abstract and over twice as many subjects could be placed in the System III and System IV groups. Since research indicates that experimental results systematically vary as a function of personality structure, the results of an experiment at High School No. 1 could not be expected to replicate the results of the same experiment carried out at High School No. 2. This problem is magnified in cross cultural investigations.

When social functioning is viewed as the outcome of an interaction between personality structure and environmental or stimulus conditions it becomes necessary to explicate in detail the nature of the subjects used as well as the conditions operating at the time of observation. In this way it will be possible for one experimenter in a different locality or laboratory to replicate the findings of another in such a way that the results can be meaningfully compared. Unless cut off points and all relevant organismic scores of samples, (no matter how large or small) are presented, comparative analyses between studies will fail to inform us as to whether differences are due to systematic sample variations or simple unreliability.

Reliability Training

The basic requirement for reliable scoring is a thorough understanding of theoretical concepts and their interaction. The manual can merely direct the rater to some of the structural indicators. Most of the time the rater is required to use his general theoretical knowledge to translate raw verbal responses into inferred structural concepts. In order to provide experience in inferring structural properties a

reliability sample (Appendix 2) has been prepared. The reliability sample presents 40 subjects' responses to all eight stems. The completions have been scored by three raters on all three manuals. The scores of all three raters on all stems are presented in a separate table (Appendix 3). When a trainee's rating substantially agree with those presented in the tables, it is assumed that he has learned to use the manual effectively.

Relationships within the Sentence Completion Test

Table 4 presents data relevant to a number of questions about the sentence completion measures of personality structure. The correlations are based on a sample of 40 high school male subjects, which were scored by the three raters. With an N of 40 correlations of .26 and .36 are significant at the .05 and .01 level, respectively. The correlations are based on the final scores presented in Appendix 4. The correlations obtained using this sample are generally equivalent to those obtained using other samples (see Table 5). Some of the main implications of this table will be briefly considered.

(1) Internal consistency: This question has been approached in three ways:

(a) The degree to which scores on each individual stem contribute to total scores based on each manual. Observation of the data indicates that for all three manuals (concrete-abstract, System II and System III) the correlations between individual stem scores and total manual scores range between approximately .6 and .8, except in one case. Stem F (When a friend acts differently toward me....) does not appear to be effective for the concrete-abstract (or System I and System IV) manual. In all other cases the correlations support the procedure of using the mean scores as indicators of system scores.

(b) Another estimate of internal consistency is provided by the correlation of .65 between roughly equivalent halves of the stems making up the concrete-abstract manual scores. This is probably an underestimate because the test does not permit the selection of equivalent halves across stem groups. While there are two stems in both the "ambiguity" and "external imposition" groups there are three "interpersonal conflict" stems and only one "general interpersonal" stem. To the extent that system properties vary over different content areas, such mismatching in creating halves would depress the split half reliability estimate. As will be shown below, the lower correlations between different "groups" of stems supports the contention that the split half reliability of .65 is to some extent an underestimation. The problem of selecting equivalent halves and the small number of stems involved in the System II and III manuals argues against the use of the split half method in these cases.

TABLE 5

Correlations between Sentence Completion Measures of Personality Structure and Other Tests

	Sentence Completion Measures SCM				Situational Interpretation Test (Objective) SIT				Other Test Scores							
	C-A I (SC) 2	II (SC) 3	III (SC) 4	IV (SC) 5	I (SIT) 6	II (SIT) 7	III (SIT) 8	IV (SIT) 9	F 10	Dog 11	Rig 12	D+R 13	Mach 14	Mach+ 15	A-S 16	
C-A(SC)	-	-85	03	58	87	-18	-21	-06	39	-34	-13	-08	-16	-12	-17	16
I(SC)		-	-05	-50	-69	25	14	-01	-31	22	03	07	09	+01	05	-16
II(SC)			-	-09	00	-09	33	-19	-11	03	08	-07	02	+31	20	01
III(SC)				-	49	-29	-18	11	31	-12	-01	12	01	-14	-18	04
IV(SC)				-	-	-14	-23	-13	43	-40	-22	-02	-20	-21	-28	08
I(SIT)					-	-	-07	-36	-45	02	-02	-05	-05	+06	12	01
II(SIT)							-	-42	-56	27	18	05	17	+27	15	-10
III(SIT)								-	-08	07	11	07	11	-23	-02	03
IV(SIT)									-	-33	-25	-07	-22	-16	-27	09
F										-	56	41	60	+04	40	-16
Dog											-	37	87	-08	22	-15
Rig												-	73	-20	10	-12
D+R													-	-17	+20	-19
Mach														-	+68	+11
Mach+															-	02
A-S																

N = 147
r .13 = p .05
r .19 = p .01

10 F Scale Score
11 Dog. Dogmatism Scale Score
12 Rig. Rigidity Scale Score
13 D+R Sum of Dogmatism and Rigidity Scores
14 Mach Machiavellian Scale Score
15 Mach+ Score on Machiavellian items only
16 A-S Ascendence-Submission Score

1 C-A(SC) Concrete-Abstract Manual Score
2 I(SC) System I Sentence Completion Score
3 II(SC) System II Sentence Completion Score
4 III(SC) System III Sentence Completion Score
5 IV(SC) System IV Sentence Completion Score
6 I(SIT) System I Situational Interpretation Test Score
7 II(SIT) System II Situational Interpretation Test Score
8 III(SIT) System III Situational Interpretation Test Score
9 IV(SIT) System IV Situational Interpretation Test Score

(c) A third approach to the problem of internal consistency is through the intercorrelations between "groups" of stems within each manual. The group based on the single interpersonal stem was not used in this analysis. However, the correlations between scores based on stems implying ambiguity, external imposition and interpersonal conflict in the concrete-abstract manual are .46, .34, and .55. While this suggests least generalization across concrete-abstract scores based on ambiguity and interpersonal conflict stems the correlations are sufficient to warrant summation of scores based on different classes of stems in order to arrive at a more general score. This same assumption is upheld in the System II manual where a correlation of .57 was obtained between System II scores on "external imposition" and "interpersonal conflict" stems.

(2) Inter rater reliability: As indicated above all sentence completions were scored by three independent raters using each manual. On all three manuals the intercorrelations between scores based on the three raters range from .70 to .98 indicating that the manuals can be used reliably by different raters. In all cases the correlations between the two most experienced raters (R1 and R2) range from .93 to .97. These figures indicate that considerable experience is required to obtain high level reliability. The final scores in Appendix 4 recommended for the sentences presented in Appendix 2 are primarily based on the scores given by R1 and R2. These were also the scores used for the computations in Table 4.

(3) Inter-system relationships: In general we would expect increasing positive correlations between systems more similar in abstractness and increasing negativity of correlations between systems highly dissimilar in abstractness. This general pattern holds for Systems I, III, and IV. For example, the correlations between System I and System II scores are slightly positive (.08) between System I and System III scores moderately negative (-.64) and between System I and System IV scores highly negative (-.77). System III scores are moderately negatively related to System I (-.64) slightly negatively related to System II and positively related to System IV (.74). Similarly System IV scores are most negatively related to System I (-.77) slightly negatively related to System II (-.16) and positively related to System III (.74). System II correlations are all relatively low and fail to follow the expected pattern in which System II should be most negatively related to System IV. Actually the data indicates that System II scores have a positive but zero order relationship to System I (.08) a slightly negative relationship to System III (-.32) and a very low negative relationship to System IV (-.16).

Obviously the gross and subjective nature of the present scoring system does not permit precise predictions regarding inter-system relationships. The intervals between referents are not consistent and this method cannot provide a precise procedure for insuring this. However, the results do suggest that as systems of personality become more different in abstractness the more negatively they relate and vice versa. Some modifications in the conception and/or scoring of System II appears to be indicated.

(4) Relationships between structural measures and some typical test variables: Four of the main variables which can effect test responses and which may reduce the validity of the main measures are IQ, verbal fluency, the set to hold strong attitudes, and social desirability. Three of these variables, verbal fluency (length of completion), attitude set (the tendency to hold strong attitudes) and social desirability (the tendency to respond in a more socially desirable way) are not clear cut operations for system specific functioning.

For example, the tendency to write long completions is not a referent for the abstractness of personality structure. To the extent that the scoring is effected by this variable the validity of system scores is reduced. The "extreme rating" score is an estimate of how strongly a person believes in a number of fairly central attitudes. Again the scoring should not reflect how strongly a person believes in certain things. A concrete and an abstract person can both hold strong attitudes (although when a concrete person holds a strong attitude he would be expected to discriminate stimuli within the attitude less). Similarly, the tendency to respond in a socially desirable way should be present in all levels of personality structure. From the structural viewpoint the process of responding in a socially desirable way should differ and have different adaptive consequences and significances for different systems. System II functioning being anchored in self delineation could represent an exception because the test of social desirability does not include items which represent this form of independence as desirable. None of the correlations between system measures and these three variables reach significance although the tendency for a negative correlation between System II measures and social desirability is present.

Intelligence, measured via group administration of the Otis is significantly related to abstractness of personality structure. The correlation between the concrete-abstract dimension and intelligence is .57, System I is negatively related (-.37) System II and intelligence are essentially unrelated (.03) System III is positively related (.30) and System IV is more highly and positively related (.53).

Since intelligence measures include some items which measure the ability to differentiate and integrate and since more abstract functioning should increase the potential to learn from experience the obtained general order relationships between intelligence and abstractness would be expected. However, many "achievement" type items on intelligence tests (e.g., verbal scales) can be handled equally well by concrete and abstract individuals. If intelligence test items were constructed on the basis of the theoretical considerations presented earlier, then, intelligence and abstractness would be equivalent. At present most intelligence estimates are based on a range of tests. Some of these sub tests could be answered in a superior way by a subject characterized by highly concrete structure following unilateral training. To the extent that intelligence estimates are based on achievement scores (verbal, number, etc.) a high order relationship to abstractness cannot be expected.

(5) Relationship between sentence completion measures of personality structure and other test scores: Table 5 presents correlations (N = 147 high school males) between sentence completion measures of personality structure, measures of personality structure based on the forced choice situational interpretation test and other tests which appear to have a similar operational or theoretical basis.

The Situation Interpretation Test

Although this type of test has been modified in various ways (Schroder and Hunt, 1959) the essential features are (a) S is placed in a hypothetical state of interpersonal conflict or dissonance (b) the type of dissonance is varied through the manipulation of the source and message and (c) S is forced to choose one resolution from two alternatives. Each alternative represents a resolution which is assumed to be characteristic of a given system of personality organization. (d) The frequency with which S selects resolutions characteristic of the four systems represents his score on System I, System II, System III, and System IV respectively.

Initially S is asked to select two small groups or committees composed of persons of his own sex (not athletic teams) in which he has played an active part. He should know the group members fairly well and the group should have some goal and engage in decision making. After writing in the names of the two groups in spaces provided after A and B he is asked to select three members from each group and enter their initials opposite the numbers provided. This format permits of many variations of source selection. He could be asked to select those he likes most, likes least, leaders, etc. In the forms used for the studies to be reported we encouraged

S to select three sources over a range excluding the leader and the least important members of the group. The aim was to arrive at a generalized view of the resolutions S selects over a variety of sources in the hypothetical situation provided. When longer forms of the test are used differences in resolution patterns can be calculated as a function of source variation.

In the test situation S is asked to imagine one of the persons he selects (e.g., person #2) criticizing him while they are together with other group members in the relevant group (e.g., Group A). Six system specific resolutions were written for each of the four systems. These were modifications of sentence completions to the stem "When I am criticized...." The six resolutions for System I would be scored highly concrete on the System I sentence completion manual, similarly the six System II resolutions should receive a high score on the System II manual, and so on. After imagining the "criticism" situation presented, S reads a series of pairs or resolutions. In each pair the resolutions represent different systems. That is, on each item S is asked to rate the extent to which each statement is like the view he would hold. The statement or resolution pairs are presented in a balanced design so that each statement and each system are paired in a counter-balanced fashion. The number of times S rates a particular set of resolutions, e.g., System I, higher than resolutions based on other systems is recorded as the score on that system.

The following statements represent an example from each of the four systems. (1) It would be justified and acceptable if he had the proper authority (System I). (2) Even if he is the right authority it does not mean that I have to pay attention to his views (System II). (3) It is more important to preserve good feelings than to disagree about who is right or wrong (System III). (4) Correct or not, such criticism on various issues is the best way for better understanding to emerge (System IV). Each test item consists of the presentation of a pair of such items. The test consisted of 36 pairs. Each S received a score from 0 to 18 on each of the four systems of personality organization. The first two groups of measures (sentence completion measures and situation interpretation test measures) yield scores for each of the four systems being considered.

The correlations between measures of systems of personality structure based on the sentence completion test are similar to those reported for the smaller sample in Table 4. The relationships between sentence completion measures (SC) of each system and measures based on the situational interpretation test (SIT) are theoretically consistent but relatively low. For example, the obtained correlation between System I (SC) scores

and System I (SIT) scores are significantly positively related, and System I (SC) scores are significantly negatively related to System IV (SIT) scores. System scores based on the SC and SIT tests are significant for System I, II, and IV (.25, .33 and .43 respectively) but fail to reach significance for System III. In several experiments carried out in this laboratory, System III (SIT) scores have proved unsatisfactory.

The general conclusion is that the present form of the SIT test can be used for gross screening purposes for System I, II, and IV or preferably for simply selecting extreme groups of more concrete and more abstract subjects which was the procedure used by Driver (1962). The relationship between the SIT measures and the F ("authoritarian personality") scale and dogmatism tend to support this conclusion, since System IV (SIT) scores are significantly negatively related to "F" and dogmatism scores. The correlations indicate that abstract subjects score lower on the F and dogmatism scales but System I (SIT) subjects do not necessarily score high on these scales. The correlation patterns between system scores and the remaining tests in Table 5 indicate that system scores based on SC and SIT are similar but those correlations based on SC measures are not only higher but more meaningful theoretically.

The remaining tests are:

(a) The F scale (1950). The scores used in Table 5 were based on the original 30 item test uncorrected for response set (although the reverse form of the F scale (Jackson and Messick, 1957) was also included in the study. The tendency to use black-white ratings (less discrimination within a dimension) is considered to be an additional operation for concrete personality structure. Therefore, the content of F items uncorrected for response set should be more highly correlated with concrete personality structure.

The content of the "F" items was designed to measure, in an indirect way, tendencies toward prejudice (presumably to any minority group) and predisposition toward a fascistic outlook. A host of studies have shown consistent significant relationships between F scores and measures of ethnocentrism, anti-semitism, anti-negro feelings, conservatism, and intolerance for ambiguity.

However, as Rokeach (1960) has more recently shown, authoritarian (intolerant) thinking is not necessarily tied to any particular content or ideology. A person can be "authoritarian" in regard to leftist or liberal ideology, to a particular philosophy or scientific theory as well as he can to conservative and rightist philosophies. In presenting our operation for concrete structure we have attempted to avoid the implication that some ideologies or some theories are

concrete. Rather, any theory or view can be used (in an adaptive sense) in a more concrete or abstract way. The same view can serve a concrete adaptive function for one person and a more abstract adaptive function for another. This does not mean that persons with more concrete personality structure may tend to prefer or hold a particular ideology more than abstract persons in a particular culture. The relationship between content and structure of attitude may vary from group to group and can be understood via a knowledge of the socio-cultural conditions (training, environment) in which the attitude content was learned.

Following Rokeach, we assume that many liberal authoritarian subjects will not agree with several F scale items and consequently will score lower. Such individuals may be more concrete but would not be selected by the F scale. This problem, together with the variety of test errors associated with objective tests of this kind would be expected to depress the correlations between the F scale and measures of concreteness and abstractness. However, apart from these problems, the theoretical similarity between the "authoritarian personality" and the concreteness of personality structure as defined here would be expected to be reflected in a systematic manner in the data.

Table 5 indicates a significant negative correlation (-.34) between F scale scores and scores based on the concrete-abstract manual. Subjects scoring high on the F scale tend to be more concrete. System I (SC) scores are significantly positively (.22) correlated with F scores, System II and III (SC) scores are insignificantly related and System IV (SC) scores are significantly negatively related to F scores (-.40).

(b) Dogmatism and rigidity tests. Dogmatism or closedness of a belief system is operationally defined by Rokeach (1960) as the degree to which what is disbelieved is rejected, the degree to which the disbelief system is undifferentiated; and the degree to which the disbelief system is undifferentiated compared to the belief system. A number of items have been generated in constructing the dogmatism scale. These items involve objective and indirect measures of (1) the accentuation of the differences between the belief and the disbelief system (2) the coexistence of contradictions within the belief system (e.g., even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups). (3) The lack of differentiation within the disbelief system, (4) the degree to which the person sees man as alone, and helpless, (5) fear of the future, a feeling of urgency in making decisions and the compulsive repetition of ideas and arguments, (6) need for

martyrdom, (7) conflict within the self (8) defense against inadequacy, (9) belief in positive and negative authority, (10) belief in the cause (e.g., a man who does not believe in some great cause has not really lived), (11) intolerance toward a renegade and the disbeliever, (12) the tendency to make party-line change (e.g., it is often desirable to reserve judgment about what's going on until one has had a chance to hear the opinions of those one respects), (13) the avoidance of facts incongruent with one's belief system, and (14) the extent to which the belief-disbelief system is organized around the past or future.

Many of the above operations are similar to those presented for the concreteness of personality structure over a given stimulus range (belief area). For example, the accentuation of differences between belief and disbelief and the existence of contradictions which would be expected to increase with compartmentalized or primitively integrated systems. However, there are problems involved in using such a general objective measure as this scale as an indicator of concreteness as measured by the SC measure.

First, this test asks the subject questions about his beliefs and ideology and many questions have a "political" overtone. Closedness in such an area may or may not generalize very much to the interpersonal area. Second, the test rests on the assumption that a person with a closed belief system will agree with ideal definitions of the operations for closed belief systems (the test items). The same assumption is present in the situational interpretation test. In the dogmatism test, for example, a person with a closed belief system should agree with the item, "It is only natural that a person would have a much better acquaintance with ideas he believes than with ideas he opposes." While it may in fact be true that a person has little acquaintance with ideas he opposes he may still believe that he knows everything about those opposite ideas and disagree with the item.

Third, the items in the dogmatism test do not necessarily avoid agreement and disagreement with content. To the extent that items measure extent of agreement with content they may fail to measure the structure of the attitude generating the agreement or disagreement. For example, a person could be dogmatic and closed and believe that "the United States and Russia have just about everything in common." If he did he would disagree with the item "the United States and Russia have just about nothing in common" and would receive a corresponding "lower" score on dogmatism. This problem shows how difficult it is to avoid the impact of content in structural measurement when using tests like the F and dogmatism scales and the situational interpretation test.

Fourth, the items do not all refer to closedness in System I from our point of view. While this was not Rokeach's intention, it is clear from a survey of the test items that some could represent increasing closedness in System II (e.g., Most people just don't give a damn for others) and System III (Fundamentally the world we live in is a fairly lonesome place, or My hardest battles are with myself). This being the case we would primarily expect a negative relationship between System IV (by definition not closed) and dogmatism.

The correlations in Table 5 indicate a low order but significant negative relationship between System IV (SC and SIT) scores and dogmatism. In the absence of more detailed work it is difficult to pinpoint the reasons for zero order relationship to System I in regard to sentence completions or situational interpretation measures. While the points raised above would be expected to depress the relationship, the present results indicate that the F scale scores are more systematically related to the concrete-abstract dimension than are dogmatism scores. It should also be pointed out that using another sample of eastern college males the relationship between System I and System IV scores and dogmatism scores was significant and higher (+.25 and -.40 respectively).

Rokeach suggests that dogmatism leads to difficulties in the synthesizing phase of thinking and rigidity (Gough and Sanford, 1952) in the analytic phase of thinking. Consequently subjects scoring high on both dogmatism and rigidity might be expected to be more concrete than those scoring high on dogmatism alone. The data relevant to rigidity and a summation of rigidity and dogmatism scores are presented in Table 5 but the combined score fails to elevate the correlation with concreteness-abstractness.

(c) The machiavellian scale. This scale consists of two classes of items (1) ten items expressing a machiavellian attitude toward other people. For example, "Anyone who completely trusts anyone else is asking for trouble." Agreement with these items should indicate an avoidance of control and a distrusting attitude toward others and would be expected to relate to System II personality structure. (2) Ten items expressing an absolute belief in the "goodness" or honesty of others. For example, "Most people are basically good and kind." The machiavellian score used in this analysis was the sum of the "A" type or machiavellian items minus the sum of the "B" type items. A high score indicates a machiavellian attitude. The sum of the "A" type or machiavellian items was also included as a separate score and is referred to as the Mach + Score.

The correlations presented in Table 5 show that the machiavellian score is significantly related to System II scores derived from both the sentence completion and situational interpretation tests. The same relationships are still present but somewhat depressed for the mach + scores. In most cases the machiavellian scores are significantly negatively related to System III and System IV personality structure scores.

(d) Ascendence-submission scales (Guilford, and Zimmerman, 1956). From this theoretical point of view the directness or "outgoingness" of expression is a "within system" dimension. The degree of ascendence is a consequence of the rewards or supports the environment provides for ascendent behavior generated by any system. The nature or adaptive significance of ascendent behavior would be expected to vary between systems. For example, ascendence in System I is characterized as dominance, in System II as a more direct expression of the avoidance of control, in System III as a more active pursuit of the delineation of standards in others and in System IV as the generation of increasing amounts of information about an environment.

As expected the data in Table 5 indicates that system scores are essentially unrelated to general ascendence. Presumably, groups of high and low ascendent subjects can be selected within each system - a technique which has been used as a basis for subject selection in a number of experiments.

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Appendix 1

The first page of the sentence completion test included the following instructions.

Do not turn this page until you are given the signal.

On the following pages you will be asked to complete certain sentences.

On each page you will find the beginning of a sentence and your task is to complete it.

For example: I like....

When you are given the signal turn to Page 1. You will be given 90 seconds for each sentence. After 75 seconds, we will say "Finish the sentence," and at 90 seconds we will ask you to turn to Page 2. Make sure you complete your last sentence. There are 11 pages in all. On each page write at least two sentences. That is, complete the sentence and then write at least one further sentence.

Write sentences as quickly but as clearly as possible.

The following pages of the test contained a single stem in the order given below.

- Page 1. Parents....
- Page 2. When I am criticized....
- Page 3. A leader....
- Page 4. When I am in doubt....
- Page 5. This I believe about myself....
- Page 6. Rules....
- Page 7. When a friend acts differently toward me....
- Page 8. This I believe about people....
- Page 9. After an argument....
- Page 10. Confusion....
- Page 11. When others criticize me it usually means....

Appendix 2

Reliability Sample

Stem A

When I am in doubt

1. I usually go to someone who knows the correct answer to my question. When I am in doubt about school material I go to an authoritative reference book.
2. I either try to solve my problem on my own and if at first this does not work I attempt to get advice from the source most applicable. I then often adapt it to myself as I think it should be.
3. I usually confer with a close friend. People have many doubts of which no one can answer but themselves, some cannot be answered at all.
4. I sometimes look it up or ask someone who I feel will give me the correct answer in as little as possible detail.
5. I do several things. It depends what I am in doubt about. If it is something important then I would probably ask to find out the correct answer. If it is something that doesn't make much difference, then I would probably take my own judgment
6. I have been told to ask someone who knows the information for it. When this is sometimes impossible, I refer to encyclopedias or some other expert source such as that.
7. I usually try to think in my mind the reason why I am in doubt. There has to be a reason and in order to find the answer you have to know what makes you in doubt.
8. I try to do what I think is right. I try to do something that is for my benefit alone.
9. I usually toy with the idea and then move on. I usually become disgusted if it is something that is very simple.
10. It is my practice to search for the roots of my skepticism or ignorance. I feel one should attempt to question and in turn endeavor to discover the answer to said questions.
11. I endeavor to consider all the possibilities known to me, ask the advice of others who I feel may benefit my decision, and then most important I decide myself.
12. I try to ask someone who has more knowledge of the situation. But sometimes have to sit down and think the situation out.
13. I drive slowly around town trying to reason things out. I find this very relaxing and the answer to my problem usually comes easily; try it sometime.
14. I sometimes figure something out right away. But whenever a particularly hard problem or deep doubt I confer with my friends or parents.
15. I am in doubt a lot of times and have decided the only thing to do is just try to think it out as best I can. Or if it involves someone else talk it out with them.
16. I always try to find some person who can help me.
17. I try to think things through. I weigh all the fors and againsts in my mind and if I still come up with indecision I try to get help. I will ask someone like my parents or teachers who I feel will have better judgment than my own.

18. When I am in doubt I try to seek someone to advise me. It depends upon the problem as to whom I seek advice from first. My parents are about the best source of advice for most situations that I am in doubt about.
19. I usually try to find out why I'm in doubt. When in doubt I hope to be understood.
20. I try to find some person I know I can confide in with all honesty and faith. I tell him what I am in doubt about and try to work out the correct solution. I am in doubt the right thing to do sometimes so I ask advice.
21. I have a feeling of inferiority. However, I try my best to seek out the best answer to the problem or situation in question.
22. I consult an authoritative person or think both sides of the situation out and choose the best; or get advice.
23. I go over and over the problem until I have solved it or until time runs out.
I get nervous about the time I have remaining.
24. I usually think about the problem a lot until I'm sure I've got the best answer for my problem whatever it may be.
25. When I am in doubt, I wonder about myself.
When I am in doubt I go for help.
When I am in doubt I try to assure myself before giving up.
When I am in doubt I go to my parents for their advice.
26. When I am in doubt about something I usually go along with someone else about the subject I am in doubt about.
27. I'm uncomfortable. I feel confused and it is hard for me to make a decisive decision. I usually welcome help from anyone who will give me their opinion.
28. When I am in doubt the first thing I try to do is find out what I am in doubt about.
29. about something, I ask my friends to give me some advice.
30. about a certain subject I try to find out definite information to do research so as to help me form a definite opinion so I will no longer be in doubt.
31. I try to seek advice from an outsider who may by what he says straighten me out. I sometimes consult my parents when I'm in doubt.
32. I go to someone who I can trust and who can give me the best advice available. It is sometimes very hard to find a person who is of this type.
33. about a decision I try and think about the different sides of the problem. Then I try to do what I feel is the best thing to do.
34. I usually try to figure out things my own self but if in doubt I talk with a qualified person who can help me and if a person isn't available I use my best judgment.
35. I am right and I am not doing no wrong I am not in doubt. Sometimes I am in doubt and I like for someone to tell me that I am doing wrong or right, but I am not always in doubt about everything I do.

36. I get depressed when I am in doubt of something. It worries me so that I am thinking of it all of the time.

37. I always analyze my problem and try to see if such a doubt exists. I try to see what can be done about my doubt. I do my best to figure out my doubt.

38. When I am in doubt I guess.

When I am in doubt on a test it wastes time.

When I am in doubt I look around the room I am in.

When I am in doubt, someone who tells me the right thing is a good guy.

39. I should, but not necessarily do, consider the information available which causes the doubt and think over it critically. Thus I get the best answer for the doubt.

40. I consult my parents, close friends, and other loved ones. They express how they feel, I combine all my information and hope I have decided correctly.

Stem B

Confusion

1. is felt by most people throughout their lives. Confusion possibly could be avoided in many cases if a person would think before they act.
2. is quite apparent when people are hurried and made to do things which they are unable to fully complete.
3. is constantly a problem. I am a very poor person when it comes to making decisions. I get confused and then I try to pass the problem of making the decision to someone else.
4. is a wonderful thing in athletics especially when the other team is in this state. When in this state it is usually the best time to score.
5. is confusing. And so is this test. When someone is confused, they evidently don't know what they are doing. I don't get confused very often because I wouldn't be doing something unless I knew what I was doing.
6. when people are in a quandary on what to do. If they are on 47th Street and are supposed to be on 45th Street some people are confused on how to get to their original destination and are confused.
7. Is something which some but few people are in a state of most of the time. They don't know if they are coming or going and it leads to a whole life of confusion. The only way it can be straightened out is by the person justly trying to.
8. This forms the better part of many people's lives. It results from not taking time to stop and think about what is bothering them.
9. is a state where bedlum takes place. There is no clear cut path to folow in either thinking or actions.
10. is a principal facet of the world of conflict in which we live. Each of us finds it in our lives, but it does not trouble most, for man can usually cope with confusion and restore some semblance of order.
11. is natural in our society (dynamic and large). It is the wise man who can distinguish clearly what he is after and set out to achieve it.
12. People know this state all too well. Most people are in a state of confusion most of the time. You have to hurry, hurry, all the time and everything gets messed up.
13. I am often confused. That is because of the many different ways people think I should act. You can't please all of them. So I try to please the majority.
14. is what people cause by doing something the wrong way. Some confusion is uncalled for, but some can't be helped.
15. The state of mind that I am usually in. I can't stand to have things around me confused. Everything has its place and that's where it should be.

16. makes the people ask for help. Makes the people think carefully about the problem that produced it.
17. Is my best attribute. I become confused quite easily and usually manage to let some of it rub off. Simple things need deep explaining or else it leaves a doubt in my mind. If I don't have a complete understanding of something I may later become confused.
18. Confusion is a word which describes the world we live in today. With everyone running a rat race against the other confusion is everywhere and you just can't get away from it.
19. is most confusing. But if we didn't have confusion we would be most confused.
20. is a terrible state to be in. You need someone to help you out when you are confused. It can be very miserable to be confused and undecided. It can upset a person very much. It sometimes causes the person involved to do funny and different things.
21. always leaves me frustrated. Because I do not have the ability to bring about order, I feel inadequate.
22. Is mass chaos, or singular confusion, usually concerns a group of people.
23. is when a person cannot make up his mind. Makes a person do
24. is a very hard time or period. You kind of feel helpless to do and think about what you are confused about. You can try to work out your problem or whatever it is.
25. Confusion is my way of life.
Confusion causes a lot of unnecessary troubles.
Confusion can be straightened out.
26. When I am confused about something I am mixed up.
27. is when I don't know which way to turn or what to do next. I hate to be confused. I am always uncomfortable when I am confused.
28. Confusion is something I don't do very much except with myself.
Confusion is a hard thing to do.
Confusion creates problems right and wrong.
29. is something I often find myself in. I get confused when I have to choose between going different places with different people.
30. I feel confusion when I become loaded down with too much to do in too short a time. I feel confusion and experience frustration.
31. is typical of people. I don't believe a day goes by when someone is not confused by something. If not I don't believe he or she is human.

32. I don't like to be confused because most of the time when I get confused the people who understand laugh at me because I don't understand. Lots of times I get confused and everyone else knows what's going on but me so I keep quiet.
33. is something that really bothers me. I will sit and think about a problem and try to decide what is the best thing to do. This is very confusing to me.
34. I hate this worse than anything. When I am in a state of confusion it is miserable. Your mind doesn't actually know what's right and what's wrong. The only thing you can do is sit down and figure it out in a calm and sensible way.
35. I usually get confused about things that usually don't concern me. And I think that something is wrong that really isn't. And I get all confused about everything.
36. As when you are mixed up about something. You are not sure what to do.
37. Is sometimes quite upsetting especially when you don't know what a person is talking about therefore you get confused. Sometimes you never get what you were confused about.
38. Confusion is caused by old ladies.
Confusion is noisy.
Confusion brings about panic.
Confusion gives me a feeling of joy.
Confusion on the part of a leader makes me feel happy.
39. is a quality which every person is involved at one time. In myself it is caused by two or more statements which seem to conflict with my thoughts and understanding.
40. Confusion is when you don't really know what to do. Usually it's because of too many choices to be made other times because of noise or something like that.

Stem C

Rules

1. have a purpose. Someone has taken time to think out ways for people to live together harmoniously. Laws are necessary and are not to be broken.
2. are a necessary part of civilization or orderly living with others. They should however be flexible and able to be adapted to the situations arising.
3. sometimes make me sick. Some of them are good and we need them but there are many which I believe unnecessary. People should be able to govern themselves in some respects. Sometimes rules get in the way of feelings.
4. are sometimes good for you if they give you liberty and do not reflect on your freedom.
5. especially in this school are ridiculous. It never used to be this way. Three years ago we had a wonderful principal. Now, our present one is trying to turn this school into a military institution or the like. It is very disturbing to many kids.
6. are very good when they are followed. There is one rule I think everyone should follow and that is the Golden Rule. If this one rule was followed very strictly, there would be no use for other rules.
7. are put into games and government to be put to use and are for your safety and well-being. They should be obeyed and if obeyed they will bring lasting results toward happiness.
8. are generally for the benefit of the majority, but when they are entirely opposed to the minority, they are unfair. They are necessary to mankind.
9. are necessary to keep a free society such as ours in tow. However, I don't always feel they are fair or necessary. My belief that laws are important,
10. are necessities of civilization, and I deeply respect them. It is my belief that laws are important, but I find that in many instances wording of these statutes is overly complex.
11. are essential in a society such as ours (dynamic and large). They are for the good of the majority.
12. can be good or bad. Most of them are good but not always to obey. Sometimes good rules can be enforced badly and mess everything up.
13. I make my own about everything I do. Of course you need your formal rules (the law) and rules of conduct. But as for what I should do with my spare time I make my own rules.
14. are made to be followed, there is a reason for every rule or the rule wouldn't be made. Some rules are to protect us from harm, some rules are a precaution.

15. They are out of it. Rules cannot be held to all the time and they shouldn't be. No one set of rules can govern any one situation.
16. They have been made with the purpose that the people obey them.
Without rules we were unable to live in society.
17. are objects made for the best of all concerned. If someone should think a rule is silly and therefore break it, they should sit down and think, "just why was this rule made up. If I break it, who will be hurt. It might even be for my own good, so it would be silly to break it."
18. Rules must be made in many cases for many things to run smoothly. There has to be limitations to almost anything but in almost any set of rules there is usually an exception to the rules.
19. should be carried out at all times. Rules are a way of living. Without rules this would be a pretty mixed up world. Rules are a way of guiding a person along. They help out very much.
20. are a needed guidepost in this world today. Without rules our world and its people would be at a loss. People may say rules are "for the birds" now, but later they will be thankful that they have such rules to keep them from going astray. Rules are needed in every phase of life and I believe that they are present.
21. are made so that there will be less conflict among people. Rules are necessary in a modern civilization like ours.
22. Are made for people to follow. Rules are not made for everyone only those that need them. People are supposed to abide by rules.
23. are to be broken and not broken, a little of each under certain situations are for our benefit. Keep people from becoming a mob.
24. they are sometimes good sometimes bad. Sometimes reasonable and sometimes not. They are good when I agree and bad usually if I disagree. But all in all they are necessary.
25. rules that are given at school are sometimes very strict. Rules try to help others in a right pattern. Rules are very necessary at times.
26. I think everyone should obey rules. If there were no rules there wouldn't be a world to live in because everyone would be dead.
27. are things we must abide by whether we want to or not. They are made for the good of everybody - supposedly.
28. rules are given to people to be obeyed. Rules are given to people so they are not in doubt about one another. Rules are not supposed to be disobeyed. Rules are fine.

29. are important in this day and age. A person has to learn to follow them too. If he doesn't, he usually doesn't get very far in this world. There are rules in almost everything you do.
30. are made for the good of all. Rules are to help us; not to hinder us. After inquiry, we can discover that most rules are made for a definite purpose.
31. are made for peoples' benefit. I doubt if there has ever been one rule made that hasn't had a good reason behind it (for someone's well being). A rule maker is a rule breaker.
32. are things that I think everybody should have in every situation because without rules where would we be now. I think rules are a very important part of our life.
33. are not always easy to follow. Some rules are unfair and I don't always go by them. But the ones I feel are for my own good I try to follow.
34. I do not always believe in abiding by rules especially if society has made them. I think for myself and don't always think what society says is right. It's what you believe is what counts.
35. I just don't like rules because there are so many of them that you can't keep track of them and I just can't obey them all sometimes I remember them before I do something wrong.
36. Rules are something I feel you are told to do because if you don't it will usually destroy something or upset the running of something; as a school or office.
37. there are rules in just about everything there is to do. There are rules in education, traffic, laws, society, games, conduct, library and etc.
38. rules are made to be broken. Rules give us standards. Rules are misunderstood in many cases. Rules cause us to have mental problems. Rules get me in trouble. Rules we live by are set up by our
39. are made to regulate our actions but not necessarily our thoughts. In order for rules to be made, a standard must be set according to what society thinks and by what society calls for.
40. Rules are made to be followed. They are a set of regulations set up for a group of people to follow - if people don't like them they should have the power to change them.

Stem D

Parents

1. are very helpful. They guide and direct the paths of their young. They have a great influence over the outcome of their children's lives.
2. are very necessary in the upbringing of children. Although they often make mistakes and are somewhat forceful in their demands they are helpful.
3. are wonderful people. They help you when you need them and they give you the love you require. Parents must worry a lot about irresponsible children.
4. The parents are the life blood of America today. Being through a war as mine was I can gain very much from them.
5. are a wonderful thing to have. Many people would be lost without them. However they are a hindrance to some people when in growing up they cannot pull away from them. Parents are not respected as much today as they should be.
6. are very good advisors. At times things they say are not agreed upon easily, but usually teenagers find that what their parents say are for their own good. Since parents are older, they have the experience to know what is best.
7. Parents are the most important people in our lives because they teach us to live life correctly and to make good of it. They teach us to have responsibility and to learn to treat others with respect.
8. are the primary factor in our lives. They give us our basic outlook on life.
9. are the reason for my existence. They brought me into the world. They provide for me and love me.
10. are interesting individuals. These curious necessities are both unique and admirable. Parents give comfort and aid without being oppressive.
11. are responsible for giving their children a good mind and body. They should set an example for their development.
12. always think they're right even when they aren't and they won't take any simple criticism or let you prove your point. They think kids are stupid like small animals.
13. I don't live with mine because we don't get along. I know its all my fault but I pay my own way so I'll do as I please. I have never gotten into any serious trouble or missed a day of school since.
14. are to guide us and teach us right from wrong. Parents try to make life easy for us by teaching us what they know. Parents love and care for us.
15. If they would remember how it was when they were kids, things would be a lot better off. But they don't. They just yell at you when you make a mistake and won't listen to anything you have to say.

16. Parents are a great help for teen-agers. Without them we are lost in this world.
17. have a great responsibility in raising their children properly. Often children will resent their parents for punishment and lack of freedom, but the parents love their children and do everything for their own good.
18. Parents to me are people who are valuable guides. Parents show us love which we should give in return. They are the biggest influence on any child and their habits are transferred to you whether good or bad.
19. are people who bring up their children. They look over them and provide for them. They also help them become better Americans. Not all parents understand children but they try their best.
20. Parents keep families together. They are the guiding light in raising their young. They teach what they think is right and what is wrong. They influence the beliefs and actions of their children and help them to grow up right.
21. are to be respected. Because they have had the experiences we have not had, we should obey their commands.
22. are sometimes reasonable, sometimes they are not. In my case most unreasonable most of the time. It is a waste of valuable time trying to talk to them.
23. are nice to be with. Are our guardians and protectors. Have a tendency to let us enjoy ourselves.
24. They are very nice people usually and are very helpful. They are very difficult sometimes.
25. Parents can be generous sometimes.
Parents are the ones that help us through our troubles.
Parents can see our troubles.
Parents like to help others.
26. I like my parents very well, my father is a very good father, he tries to give me everything I want if reasonable. My mother is the same, she gives me the money she earns to go to a show, or ball game.
27. Parents are people who guide us and teach us to do what is right. They try to make good stable citizens out of their children.
28. Parents are people to comfort you.
Parents are people to take care of you.
Parents are people to understand you.
29. are responsible for rearing their children properly. They see to it that they are brought up with adequate care.
30. I like my parents very much. I think I am very fortunate as my parents are so very understanding. Many people I know have very serious problems with their parents because their parents are not understanding.

31. in most cases are generous. Parents are the backbone of our society. Some day most of us will be parents.
32. I think that my parents are very useful and I don't know what people would do that don't have parents. Parents to me are the most important thing in the world. I wouldn't even be here without my parents.
33. are very changeable. Some of them are very moody also. My parents are not too strict, but at times they are unfair. Most parents are understanding, but not all.
34. I have nothing against my parents except for the fact that they could understand me if they tried. I try to always see their point of view and recently I have been able to do this with
35. My parents are very strict on me and I just don't like it. They sometimes let me do what I want but most of the times they say no to me and it makes me very mad. And I beg them until they let me do it. But sometimes I like them and listen to them.
36. I feel parents are people who worry and are very concerned about you at all times. They are at times (a lot of the time) in bad moods and can get very cross.
37. are unpredictable at times but they can also be very understanding. Parents are worry-warts about the hours you get in from a date and what may happen to you when you are on a date.
38. Parents are often ugly.
Parents like to stay up late.
Parents eat much more than I do.
Parents spend a lot of money for everything.
39. are those individuals who regulate our actions from the time of birth until the time that they die. In the interim they give children advice, guidance, security, regulation, and recognition for achievements. My own parents have been excellent in these qualities.
40. Parents try to help you in the best ways they know how. They try to help from personal experiences. This help is many times very, very significant to us and other times we don't agree with them.

Stem E

When I am criticized

1. I try to take it objectively. It makes me stop and think about the problem. I ask myself if I have done my best. If not I try to improve what I am criticized about.
2. I normally slightly resent the criticism at first but try to inspect it and apply to myself to decide for myself if it is correct and true.
3. I usually feel like crying but I hate to act like such a baby. My parents very seldom criticize me. Some criticism I appreciate but too much is discouraging.
4. I take it with a good slant because through criticism I can become a better person in this world of today.
5. It makes me mad, sometimes. If I am criticized by someone who I am very fond of it makes me quite mad but if it is someone I don't care much about then it doesn't make too much difference to me. Parents' criticism are often hard to take.
6. I do not usually take it on good humor. Although sometimes constructive criticism is usually very good, I do not always think that the criticizer knows what he is talking about.
7. I take my criticism with the understanding it will help me to improve the mistakes I have committed. It also makes me realize that I always can make room for improvement.
8. I try to rationalize whether I was right or wrong. I try to examine if it was an abnormal thing.
9. I usually become angry but only for a moment when I realize that they are telling me for my own good. I try to accept criticism with an open mind.
10. I at first wish to rebel violently, but I instead relax and weigh the consequences. It is my opinion that one should be able to evaluate good criticism and use it.
11. I at first get mad but then if I recognize the criticism as a legitimate one, I probably will try to learn something from it. It may depend on the person.
12. I try to accept the criticism but get mad when some teacher or parent criticizes and don't know what they are talking about.
13. I listen to what the person says and try to validate it for what it is worth. Most of the time it makes good sense, because they are trying to help me.
14. I sometimes get very angry. Sometimes I can see the point in criticism though, when it is for my own good, I try to take advantage of
15. I don't mind if it is constructive criticism but when it's just tearing me down without giving me a chance to justify it I don't like it.
16. I try to find if the critic is saying something bad or good. And if it is something bad in me I try to change it. I never put myself against these persons.

17. on my part I am very thankful. Often times I cannot see my own errors because I have been too engrossed with my work at the time. An outsider can judge and help me correct the errors. When I am criticized for something I have done in everyday life, I usually have my feelings hurt but I know it is for my own good.
18. When I am criticized I try to take the criticism and think about it and value it for what it is worth. It's not that I don't like to be told my faults but most criticisms hurt my feelings.
19. I feel that I'm not right or maybe the person or persons who criticize me are not right. I have a talk with that person to see what's right or wrong. To be criticized is to be questioned about something.
20. I at first feel that it is unfair and I know what I am doing but later I realize that the person criticizing me was right and I am thankful for his advice as to what is right and I realize that he is just trying to better my actions. I really appreciate it in the long run.
21. I experience a feeling of rebellion against the person who has criticized me. However, I do try to correct the thing I was criticized for.
22. It has little or no effect on me. I don't mind constructive criticism but destructive criticism I loathe. I ignore destructive criticism.
23. I have a tendency to get angry for a moment at the criticism.
24. I get very mad sometimes if I don't think it is due me. I like criticism when it is helpful. It is not always in good taste to criticize.
25. When I am criticized I sometimes get very mad. When I am criticized I try to see my faults. When I am criticized I correct my mistakes.
26. I don't like to be criticized about anything. When I do something I think is right I think it is right and I don't want to be criticized.
27. I usually try to stand up for myself, although, I know what was said was true. I am offended but I soon get over this as other things begin to be discussed.
28. When I am criticized it means that I am wrong. But also I feel like I am in the right. When I am criticized I usually look out for bad points.
29. I feel bad about it. I want to try and improve the things I am criticized about.

30. I am happy to find my faults or mistakes on a certain subject. Many times I find my feelings hurt, but most often the criticism is very helpful to me.
31. At first I tend to show disapproval toward the one criticizing me. Then I study the situation and see if I deserve to be criticized then if I feel I have been treated justly I let it drag.
32. When I am criticized I like to be criticized on good things but I don't usually like to be criticized in any way. I don't think that it is right for people to criticize other people.
33. I feel a little hurt. But then I try and change some little thing about me so people won't criticize me.
34. I usually try to understand why I was criticized and see for myself if I was doing something wrong. If I honestly don't believe that I was at fault I pass the criticism off and forget about it.
35. It makes me very mad because I know what I am doing is right and people have so much to say about what I am doing and it just gets me to think that people are always telling me what to do when I am doing right.
36. I feel unwanted. I feel as if not only that person is criticizing me but everyone else present at the time. I don't feel it is right to criticize a person in an angry tone of voice.
37. I sometimes resent the things I am criticized for but by the same token I appreciate someone correcting my mistakes. I don't mind being criticized for my mistakes.
38. When I am criticized I dislike that person for a moment. When I am criticized it makes me feel embarrassed. When I am criticized I turn red.
39. I often try to take the criticism into account to develop my personality and characteristics. Whether the information be intended to be constructive or not, it will affect my character.
40. I try to accept criticism. Sometimes it helps me to better myself other times it does not effect me because the people who criticize I don't like very well.

Stem F

When a friend acts differently toward me

1. I try to find the root or cause of this reaction toward me. If it is something I can remedy I will do my best to correct the situation.
2. I attempt to find out if something is wrong either by asking them directly or by asking another close friend of theirs who is mutual to both of us.
3. I immediately believe I have done something to make them mad. I am usually quick to apologize. I couldn't stand to lose a real friend.
4. I say is there something wrong with you or me. And then I begin to wonder what is wrong but not to the point of worrying.
5. I don't think too much about it. It depends on in what different way they act. If they act like they hate me I would probably wonder what was wrong or think they were in a bad mood. If they act like they like me more than usual, I might think they want something.
6. I would like to know the reason. If the reason is a good one I will ask their advice on how to correct it. If the reason is not a good one I will tell my friends so and ask why they were acting the way they were.
7. I seem to try to go along with the argument or state of his being because if he wanted to act this way he should be treated as so. But if he realizes that he is doing wrong he will understand.
8. I try to rationalize whether it was my actions or theirs that prompted this reaction. If it was mine, I try to make up for it.
9. I worry and I try to find out why the change for better or worse. I don't let anyone else know of my search however.
10. I am inclined to return the feelings which are projected toward me. But when a friendship is vital, I often attempt to discover the underlying reasons for the change.
11. I first wonder what is wrong with him. However, I should try to look at it from his viewpoint and see what it is I am doing to make him so act.
12. I try to find out why or say to hell with him. If I find out it is my fault I try to remedy the situation.
13. I try to figure out why. I want to know if it is something he has heard or I have done. This is the way I value myself.
14. I wonder what I have done to make them mad at me. I also wonder whether he is a good friend or not when I find out if his reason for being mad is a poor one.

15. I forget them unless I consider them really true friends, then I try to talk it out. But I don't really believe I have any true friends for there is no one that I feel I can really confide in.

16. I try to find out what was the cause which made him act in that way.

It shows me that maybe I have done something wrong.

17. I become confused and search my mind why. Have I done something to hurt the friend's feelings? Did I tear down what she saw in me in the first place? Usually if it's a good friend I try to talk to her and straighten things out.

18. When a friend acts differently toward me I try to find out why she is acting this way. Usually my feelings are hurt and it bothers me until I find out what the difficulty is.

19. It makes me feel like I have done something wrong. So I go to the person and find out what the trouble is. In some cases it may be one big misunderstanding.

20. I try to make the best of it and try to get things on a normal basis again. It makes me wonder if I have done something wrong to offend my friend or whether he is just not feeling "up to par" at that time. I just go on in a normal way and see how things turn out.

21. I wonder what I have done to provoke this change in attitude. I wonder if she will get over this attitude.

22. It doesn't bother me at all, unless it's a real good friend. In some cases I welcome this.

23. I get a little angry with him for a moment, but anger wears off.

I will do the same to him at a later date under similar circumstances.

24. I wonder what I did or what is the matter with them, I mean if they are ill or worried or just mad.

25. When a friend acts differently toward me, I become very perturbed at them.

When a friend acts differently toward me, I try to find out why.

When a friend acts differently toward me, I ignore it.

26. I think he is not really a friend of mine.

27. I am concerned. I wonder what I did to offend them. This worries me. I do not want my friends to be mad at me.

28. When a friend acts differently toward me I think there is something wrong with him. I think he might be sick. I think he might be mad at someone.

29. I want to know why. I feel that I must have done something wrong, and I want to correct it. The indifference makes me feel bad.

30. I feel I have done something to offend him. I try to speak to him about his actions and attitudes, and discover exactly what I have done to make him act differently toward me.
31. I sometimes wonder if I have done something to offend him. Or maybe he has just had a bad day. But in either case I try to find out what is behind it and get it straightened out.
32. When one of my friends does this I naturally want to know why they act different that is only natural. When I find out I go and see if I can clear up what is wrong and find out why.
33. I wonder if I have said or done something to offend them. I try and find out what is the matter and then get it straightened out.
34. I usually figure out that it is something I have done. If I don't know what it is I have a talk with this person to see what the trouble is.
35. I usually just ignore them I forget them for a while and I go out and find a new friend. I usually don't get mad at a friend. I let them get mad at me first. I don't speak to them for a while and they forget all about the trouble.
36. I am in doubt as if he or she still likes me. I try extra hard to be friendly and hope they will get over acting this way toward me.
37. I am confused and hurt especially if I become to like him very much. This I'm referring to is my best friend.
38. I want to dislike him for a while. I feel unwanted.
I feel I should do something to him.
I want him to bit a
39. than previous actions, I have to consider what personality traits I am sure of that he has and what new traits he is exhibiting. This thought is unconscious but is without a doubt occurring.
40. I wonder if I have done something wrong or hurt his feelings in some way and do my best to smooth over any trouble between us, so we may again be friends.

Stem G

When others criticize me it usually means

1. that I have some fault that they do not like. If people care enough about someone to criticize them. The person should take it constructively.
2. that in some way or another I do not meet with their standards of doing things. I attempt to decide whether it is I or they who would obtain the best results with their advice and whether or not to accept it.
3. I have done something so terribly wrong that they cannot just let it go. Very seldom am I criticized when I don't deserve it. The criticism is not always bad.
4. that I should have done something other than what I did. I should take this in a learned value.
5. that I am wrong. If 2 or more criticize me on the same issue it must mean that it is me that is wrong because 2 people wouldn't see the same thing unless it was really true. Therefore, I would probably be wrong.
6. that they think I have done something that they don't think is right. However, it can also mean that they would like to help me by giving constructive criticism. This kind of criticism is very helpful if given as such, and not given as just tearing down someone.
7. that I have room to improve my mistakes and should act accordingly. I know that I can't become perfect but I can make room for improvement.
8. that they have found faults in the way I do things, and that I should try to correct my faults. There also is the possibility that they are wrong about me.
9. they are looking out for my interests. They want to improve me and my ways.
10. that I have done or said something that does not meet with their standards. It is either I, who must correct my fault or he, who must adjust his standard of values.
11. This can't be generalized. It depends on the individual and type of criticism. If sincere, it must mean that I have a defect or fault which they wish to make known to me. If not, it is for their own enjoyment.
12. they are jealous or there is something really wrong with me. I am either oblivious to their criticizing or accept it and try to make myself better.
13. they are trying to help me. Sometimes they are just trying to relieve their own guilt about something.
14. that I have done something that they disagree with. I criticize others when they do something I don't like, it doesn't necessarily have to be wrong either.

15. that I am wrong or deserve it. I feel bad about it and act hostile towards the person criticizing me.
16. that maybe I have done something wrong. That I am out of the society;s rules.
17. I'm wrong. My feelings are hurt but still I try to take the advice and change. Many times I ignore it. I'm very hard headed.
18. When others criticize me it ususly means they have a pretty constructive reason for doing so in their opinion even though others may not think the same way.
19. one thing. I'm wrong or they are wrong and we must find out what's troubling. Some people criticize too much.
20. that they are actually trying to help me. They usually don't mean to hurt you but are just trying to put a point across. At first it may make me angry, but I soon realize they were right and tend to agree with them.
21. I have not done something according to the wishes of another.
22. they are joking, jealous or have a serious point. Something they have nothing else to do. To some people criticizing is second nature. So I ignore all but constructive criticism.
23. that one of us has got to be wrong. That I had better correct or they had better do likewise.
24. I have done something that I shouldn't have done or I have not done something well enough or as good as I could.
25. When others criticize me it usually means I really made a mess of something. When others criticize me it usully means I must correct myself in their way of manner.
26. I am wrong, or I am right but they don't want to admit it.
27. They do not like what I am doing and wish for me to change my ways. Criticism is hard to take.
28. When others criticize me it usually means I've done something wrong. Then I try to find out what it was. If I can ask someone who criticized what I did wrong. Then I try to correct it.
29. that I have done something wrong. Something that doesn't measure up to what they had expected of me.
30. I have done something incorrectly or not quite as well as I could have done it.
31. that I have done something to deserve the criticism or they are just mad and are taking their spite out on me. In either case I try to find out what is the matter.
32. I like to find out why they do this and try to find out if it is good or bad. I don't like to be criticized at all even if it is good because I don't know what to say.
33. there is something about me people don't like. I usually try and find out what it is.

34. there is something that they do not approve of, of which I am doing. If I don't agree with them I don't change for them.
35. trouble because I go right into a rage when someone talks about me and tells me I don't do something right or I don't look right it really makes me mad; because they just don't have no right.
36. They don't like something I am doing or have done. They feel I am doing it wrong.
37. they don't seem to appreciate me or something. Seems like all they have to complain about is something unusual that I've done.
38. I have goofed.
I have done something to displease them.
The thing I did was not really too bad but should be watched.
The person who does it is mad.
39. that their feelings toward me have been altered in some way. They are either trying to be constructive or trying to destroy a part of me. This may cause me to have feelings of hatred toward them for the moment.
40. If they mean anything to me I try to correct my error. If they don't mean anything to me I usually laugh it off as a joke, depending on who said it.

STEM H

This I believe about people

1. People were put on this earth for a specific purpose. Each of us should try to discover our intended purpose and fulfill it.
2. They are basically helpful and outgoing to someone in definite need. If they learn better to understand one another they will be much friendlier.
3. they are essentially alike. Many of them would hate to admit this. Some people spend their whole lives trying to prove how they are not of the mass but I believe they are.
4. that you cannot judge a person by his looks or dress. When I meet a person either I am disgusted or pleased.
5. People are wonderful, all kinds, and types. Everywhere I have been from California to Chicago, people are alike. There are the same types of people all over the world I believe. People are terribly interesting to study.
6. they are a very complicated thing to understand. For instance, the American people fought England because they were meddling and we didn't like it. Now, in present day, we are meddling in other countries' business and can't understand why they don't like it.
7. People are creatures who have set goals to live up to and should be obliged to make them. They are very important with the way of life is on earth and follow them.
8. People are generally very kind, decent, and clean living. But there are always a few that cannot follow rules.
9. People are on a whole very kind and good as set by our standards. However, I become provoked at them if they don't meet my qualifications.
10. of our troubled world. The human being is troubled, complex but miraculous. Man is a mysterious combination of discontentment and wonder.
11. They are easily influenced. They don't learn from their mistakes. They don't learn from the past.
12. They live in a world of too much competition. It drives them batty trying to get ahead or keeping up with the Jones.
13. Basically they are all good. Some just aren't mature enough to live in the adult world. Everybody these days has an equal chance.
14. You can't judge them all by the actions of one. There are some bad people and good people. I think however that there is more good than bad.
15. They are fine if they mind their own business and let me mind mine. But sometimes I wish they would all evaporate and leave me alone. But at other times I feel that I have to have someone around or I would go crazy.

16. Some people only think about themselves, without worrying what is happening to others. Others the only things that they care is what others do.
17. People can act in as many or more ways than anyone can think of. I get strange thrills out of some stranger smiling at me. I feel all is good in the world but many people react differently. This only life and how very dull it would be if everyone were somewhat alike. The world is filled with different types of people and all should be appreciated for their individual feelings.
18. People are funny. They do some of the most idiotic things. They are very changeable and are capable of crushing others by mere words. Their many behaviors is something that could never be written down in a book.
19. People are funny! People are funny indeed. You can sit and study a person and find him or her very funny. People do the most strange things. People are most funny when they don't realize you are watching them.
20. I believe that people are living for themselves and are looking out only for themselves. We need our fellowman in this world in order to have a leader and followers. People make up an interesting place. The difference is sometimes amusing of the different types of people.
21. People are not interested in the welfare of the underprivileged. They feel these people are in this situation because they have no desire to better themselves.
22. Some people are nice, some not so nice. Some people are smart, some followers. Some people are dumb, some are smart. Some are in between all of these.
23. They are good under certain situations and terrible at other times. Are able to rule a country like the U. S.
24. Some are good some are no good. Most however are very nice and kind. However, a lot of them are lazy and would rather watch T.V. than read or do something helpful to them.
25. This I believe about people, that there are some who are pretty nice.
This I believe about people, that they try to help us when they are needed.
26. People are all mixed up, they think they are never wrong about something but are always wrong about some things and right about other things.
27. They are of many different personalities, shapes, and sizes. They, as a group, can do unfair injustice to one person or a minority. They are self-centered and greedy.
28. This I believe about people they are an odd lot. Not only in ways and beliefs. I think every person feels this way in one way or another.

29. People are good to have around sometimes when you are lonely. Some are your close friends; some are not.
30. All people have qualities. Some people may possess more talent or have more ability than others; but they do have quality. I believe all people have their good and bad points.
31. that they are unpredictable. You can never tell from day to day how they will react to a situation possibly different each day. Some people are cruel and some are kind.
32. I like people very much. I like all different types of them also. People are the most important part of my life. If there weren't people around I would probably go crazy.
33. No two people are alike. They all have different faults. Maybe some of their faults are the same, but not all.
34. I believe people are usually conformist as a whole and I dislike this very much. I am whole heartedly sold on the individualist! Why conform to other people's ideas if you don't believe in them.
35. I believe people are sometimes stuck up. And sometimes I believe some people can get along without other people in this world. I know I can. Some people get on my nerves.
36. They are all or most of them out for themselves. Some of them don't even have time for you. Others are as friendly and nice as they can be. They want to be recognized.
37. People are evil, kind, generous, thoughtful, polite, spiteful, emotional, thoughtless. People are self-centered.
38. I believe all people are friendly.
I believe all people should be of the same church
I believe all people want to have a God.
I believe all people live to earn money.
I believe all people should marry.
39. that they are regulators and although being a regulator myself, I am regulated by what they say. Also people are my life-long companions which helps form my characteristics and personality.
40. People are all different but it takes all kinds to make the world. If people would really try they could get along together very well, but there are some people who don't really try.

Appendix 3

Scores Based on the Concrete-Abstract Manual
for Three Independent Raters

S#	Stem A	Stem B	Stem C	Stem D	Stem E	Stem F	Stem G	Stem H
	1*2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3
1	1 1 1	2 1 1	2 1 1	3 3 1	3 3 4	4 4 4	3 3 3	1 1 1
2	5 5 4	3 3 3	5 5 4	4 5 3	3 3 2	3 3 3	4 4 4	4 4 4
3	4 4 4	2 2 1	2 4 3	2 2 4	1 1 -	1 1 1	1 1 1	1 1 2
4	1 1 1	- - -	1 1 -	- - 2	3 3 2	2 2 2	2 2 1	1 1 1
5	3 3 4	1 1 1	3 3 3	2 2 2	1 1 2	2 3 2	1 1 1	3 3 3
6	1 1 1	- - -	1 1 2	3 2 2	1 1 1	1 1 3	3 2 2	- - 3
7	4 4 4	2 2 2	3 1 1	1 1 1	3 3 3	- 1 1	3 3 -	1 1 1
8	3 2 2	1 1 1	3 2 -	1 1 1	1 1 1	3 3 4	1 1 1	1 1 1
9	3 2 -	1 1 1	3 3 2	2 2 1	3 2 2	3 3 -	3 3 1	2 2 2
10	5 5 1	3 3 5	2 - 1	- 4 5	3 3 4	3 3 -	1 1 1	4 4 3
11	5 4 4	2 2 3	- 3 4	2 1 1	3 3 1	4 4 4	2 2 2	1 1 1
12	- - -	- 1 2	3 3 4	2 2 2	2 2 -	2 2 3	2 2 1	2 2 -
13	3 2 2	2 2 2	3 3 4	- - 2	3 3 3	- 3 4	2 2 1	3 2 -
14	3 - 4	1 1 2	2 1 1	1 1 1	2 2 -	1 1 1	2 2 4	3 3 4
15	4 3 2	1 1 1	2 1 4	2 2 1	1 1 1	1 1 1	1 1 1	2 2 2
16	- 1 1	- - -	1 1 1	- - -	1 1 2	- - -	1 1 1	1 1 -
17	4 3 -	1 1 -	4 4 5	3 3 4	3 3 3	3 3 4	2 2 1	5 5 5
18	2 2 4	1 1 1	2 2 -	3 3 5	3 3 4	- - 3	3 2 3	3 3 4
19	4 2 -	- - -	1 1 1	1 1 1	1 1 1	3 3 2	1 1 1	1 1 -
20	1 1 2	2 2 1	1 1 2	1 1 1	1 1 1	4 3 2	1 1 3	1 2 2
21	1 1 -	1 1 1	1 1 2	1 1 1	2 2 3	- 1 1	- - -	1 1 2
22	4 3 2	- - -	2 2 1	2 2 2	1 1 1	2 2 -	1 1 -	2 2 5
23	3 3 3	- - -	3 3 4	- - 2	- 1 -	1 1 1	1 1 1	1 1 2
24	3 3 2	- 1 4	2 2 2	3 3 2	2 2 1	3 3 2	2 2 1	2 2 3
25	1 1 -	1 1 2	1 1 1	- - 2	2 1 -	2 1 1	1 1 1	3 3 3
26	- 1 -	- 1 -	1 1 1	- 1 -	1 1 1	1 1 1	1 1 1	1 1 1
27	1 2 1	2 1 1	2 2 1	1 1 1	2 1 3	3 2 3	2 1 -	3 2 2
28	4 3 4	- - -	1 1 1	1 1 1	1 1 1	2 2 1	3 3 2	1 1 -
29	- - -	- - 1	1 1 1	1 1 1	- - -	- 1 1	2 2 1	- 1 2
30	2 1 1	- - -	3 4 4	- 2 4	3 3 4	2 2 1	2 2 3	4 4 4
31	2 2 2	3 3 3	3 2 2	- - 1	2 2 3	3 3 -	2 2 3	3 3 3
32	1 2 1	3 3 1	1 2 1	- 2 1	2 2 1	3 3 1	1 1 2	4 2 -
33	4 3 4	- - 4	2 2 3	2 2 3	1 1 -	3 3 -	2 2 3	2 2 5
34	4 4 4	1 1 2	3 3 4	3 3 3	2 2 2	3 3 4	3 2 2	2 2 2
35	1 1 1	- - -	2 2 3	1 1 3	1 1 1	1 1 2	1 1 2	2 2 -
36	1 - 1	- - -	1 2 -	- 2 -	3 1 -	1 2 3	- 2 2	2 2 1
37	4 4 4	- - -	- - -	- 2 2	3 2 2	- - -	- 1 1	- - -
38	1 1 1	- - -	2 2 -	- - -	2 2 -	1 1 1	- - -	1 1 1
39	4 4 4	3 3 2	5 5 5	3 3 3	5 5 5	3 3 3	2 3 1	5 5 5
40	5 5 5	3 - 2	5 4 4	4 4 4	4 4 3	3 3 4	2 3 3	4 4 3

*The numbers 1, 2 and 3 represent three independent raters.

Scores Based on the System II Manual
for Three Independent Raters

Subject No.	Stem C			Stem D			Stem E			Stem F			Stem G		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	1	2	2	0	0	0	0	0	0	0	0	0
3	3	3	3	0	0	0	1	1	0	0	0	0	0	0	0
4	2	2	2	0	0	0	0	0	0	0	0	1	0	0	0
5	2	2	2	1	1	2	2	2	3	3	2	2	0	0	0
6	0	0	0	0	0	1	2	2	3	0	0	0	0	1	1
7	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
8	0	0	0	0	0	0	0	0	1	0	0	0	1	1	2
9	1	1	2	0	0	0	1	1	0	0	0	0	0	0	0
10	0	0	1	0	0	0	1	2	2	1	1	1	0	0	1
11	0	0	1	0	0	0	2	2	2	1	1	0	0	1	1
12	2	2	3	3	3	3	2	3	3	1	1	1	1	1	0
13	2	2	3	3	3	3	0	0	0	0	0	0	1	1	1
14	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1
15	3	3	3	2	2	2	2	2	2	2	2	1	1	2	2
16	0	0	0	0	0	0	2	1	0	0	0	0	-	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
18	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	1	1	1	0	0	0	0	0	-
22	0	1	2	2	2	3	3	3	3	2	2	-	2	2	3
23	2	2	0	0	0	0	2	1	1	2	2	0	0	0	1
24	1	1	3	0	1	1	2	2	1	-	0	0	0	0	0
25	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0
26	0	0	0	0	0	0	0	1	2	1	0	0	1	1	1
27	0	1	1	0	0	0	0	0	0	0	0	0	0	0	-
28	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0
29	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	1	1	0	0	0	÷	0	1	2
32	0	0	0	0	0	0	2	1	1	0	0	0	1	0	0
33	2	2	2	1	1	2	0	0	0	0	0	0	0	0	0
34	3	3	3	1	1	2	2	2	2	0	0	0	1	1	2
35	3	3	2	2	2	2	2	2	2	2	2	3	3	3	3
36	1	1	0	1	1	-	1	1	0	0	0	0	0	0	0
37	0	0	0	1	1	-	0	0	0	0	0	-	1	0	0
38	1	1	2	0	0	0	1	1	0	1	1	2	0	0	-
39	0	0	1	0	0	0	0	1	0	1	0	0	1	1	0
40	0	1	2	0	0	1	0	0	2	0	0	0	0	0	0

* The numbers 1, 2 and 3 represent three independent raters.

Scores Based on the System III Manual
for Three Independent Raters

Subject No.	Stem E	Stem F	Stem G	Stem H
	1*2 3	1 2 3	1 2 3	1 2 3
1	2 2 2	2 2 0	1 1 2	0 0 0
2	2 2 0	2 2 2	2 1 2	3 3 3
3	0 1 2	0 0 0	0 0 0	0 0 0
4	2 1 0	0 0 0	0 0 0	0 0 0
5	0 0 1	0 0 0	0 0 0	0 0 0
6	0 0 0	0 0 2	1 1 0	0 0 0
7	1 1 1	1 1 0	0 0 -	0 0 0
8	0 0 0	1 1 2	0 0 0	0 0 0
9	2 2 1	1 1 0	0 0 1	0 0 0
10	1 1 0	1 2 0	0 0 0	0 0 0
11	1 1 1	2 2 2	1 1 2	0 0 0
12	0 0 0	0 1 1	0 0 0	0 0 0
13	2 2 3	0 0 2	0 0 0	1 1 0
14	0 0 1	0 0 0	0 0 0	1 1 0
15	0 0 0	0 0 0	0 0 0	0 0 1
16	0 0 3	1 1 0	0 0 0	0 0 2
17	3 3 2	1 2 3	0 0 0	3 2 2
18	2 2 2	1 1 2	1 1 0	1 1 2
19	0 0 0	0 0 0	0 0 0	0 0 0
20	0 1 2	2 1 0	1 1 2	0 0 0
21	1 1 0	1 1 0	0 0 -	0 0 1
22	0 0 0	0 0 -	0 0 1	2 2 1
23	0 0 -	0 0 0	0 0 0	0 0 0
24	1 1 0	0 0 0	0 0 0	1 1 0
25	1 1 0	0 0 0	0 0 0	1 1 3
26	0 0 0	0 0 0	0 0 0	0 0 0
27	0 0 1	1 1 2	0 0 -	1 0 0
28	0 0 0	0 0 0	0 0 2	0 0 -
29	1 1 1	0 0 2	0 0 0	2 2 2
30	3 3 -	2 2 2	0 0 0	2 2 0
31	0 0 2	2 2 1	1 1 0	1 1 1
32	0 0 0	2 1 0	0 1 2	2 3 2
33	1 1 3	1 1 1	1 1 1	1 1 0
34	0 0 0	2 2 2	1 1 0	0 0 0
35	0 0 0	0 0 0	0 0 0	0 0 1
36	1 1 -	1 1 2	0 0 0	1 1 2
37	0 0 2	0 0 -	0 0 0	0 0 -
38	0 0 1	0 0 0	0 0 1	0 0 0
39	1 1 0	3 2 1	0 0 0	2 1 0
40	2 2 1	1 1 2	1 1 2	3 3 3

* The numbers 1, 2 and 3 represent three independent raters.

Appendix 4

Final Scores⁽¹⁾ for the Three Manuals
on all Relevant Stems (2)

S#	Stem A		Stem B		Stem C		Stem D		Stem E			Stem F		Stem G			Stem H			
	A	B	A	B	A	B	A	B	A	B	C	A	B	C	A	B	C	A	B	C
	C-A	C-A	C-A	II	C-A	II	C-A	II	C-A	II	III	C-A	II	III	C-A	II	III	C-A	III	
1	1	1	1	0	3	0	3	0	2	4	0	2	3	0	1	1	0			
2	5	3	5	0	4	2	3	0	2	3	0	2	4	0	2	4	3			
3	4	2	3	3	2	0	1	1	1	1	0	0	1	0	0	1	0			
4	1	-	1	2	-	0	3	0	1	2	0	0	2	0	0	1	0			
5	3	1	3	2	2	1	1	2	0	2	2	0	1	0	0	3	0			
6	1	-	1	0	2	0	1	2	0	1	0	0	2	0	1	-	0			
7	4	2	2	0	1	0	3	0	1	1	1	1	3	0	0	1	0			
8	2	1	2	0	1	0	1	0	0	3	0	1	1	1	0	1	0			
9	2	1	3	1	2	0	2	1	2	3	0	1	2	0	0	2	0			
10	5	4	2	0	4	0	3	2	1	3	1	2	1	0	0	4	0			
11	4	2	3	0	1	0	3	2	1	4	1	2	2	1	1	1	0			
12	-	-	3	2	2	3	2	3	0	2	1	1	2	1	0	2	0			
13	2	2	3	2	-	3	3	0	2	3	0	0	2	1	0	2	1			
14	3	1	1	0	1	0	2	1	0	1	0	0	3	0	0	3	1			
15	3	1	2	3	2	2	1	2	0	1	2	0	1	2	0	2	0			
16	1	-	1	0	-	0	1	1	0	-	0	1	1	0	0	1	0			
17	4	1	4	0	3	0	3	0	3	3	0	2	2	1	0	5	2			
18	2	1	2	1	3	0	3	0	2	-	0	1	3	0	1	3	2			
19	2	-	1	0	1	0	1	0	0	3	0	0	1	0	0	1	0			
20	1	2	1	0	1	0	1	0	0	3	0	1	1	0	1	2	0			
21	1	1	1	0	1	0	2	1	1	1	0	1	-	0	0	1	0			
22	3	-	2	1	2	2	1	3	0	2	2	0	1	2	0	3	2			
23	3	-	3	2	-	0	-	1	0	1	2	0	1	0	0	1	0			
24	3	-	2	1	3	1	2	2	1	3	0	0	2	0	0	2	1			
25	1	1	1	0	-	0	2	1	1	1	1	0	1	0	0	3	1			
26	-	-	1	0	-	0	1	1	0	1	0	0	1	1	0	1	0			
27	1	1	2	1	1	0	2	0	0	3	0	1	2	0	0	2	0			
28	4	-	1	0	1	0	1	0	0	2	1	0	3	0	0	1	0			
29	-	-	1	0	1	0	-	0	1	1	0	0	2	0	0	2	2			
30	1	-	4	0	-	0	3	0	3	2	0	2	2	0	0	4	2			
31	2	3	2	0	-	0	2	1	0	3	0	2	2	1	1	3	1			
32	1	2	1	0	1	0	2	1	0	3	0	1	1	0	1	3	2			
33	4	-	2	2	2	1	1	0	1	3	0	1	2	0	1	2	1			
34	4	1	3	3	3	1	2	2	0	3	0	2	2	1	1	2	0			
35	1	-	2	3	1	2	1	2	0	1	2	0	1	3	0	2	0			
36	1	-	2	1	-	1	1	1	1	2	0	1	2	0	0	2	1			
37	4	-	-	0	2	1	2	0	0	-	0	0	1	1	0	-	0			
38	1	-	2	1	-	0	2	1	0	1	1	0	-	0	0	1	0			
39	4	3	5	0	3	0	5	0	1	3	0	2	2	1	0	5	2			
40	5	2	4	1	4	0	4	1	2	3	0	1	3	0	1	4	3			

(1) Final scores were estimated from a reconsideration of items on which the raters expressed disagreement (See Appendix 4).

(2) A dash (-) indicates an unscorable response and a zero indicates the lack of a system specific referent.

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