

E., and Overstreet, P. L. *The Vocational Maturity Grade Boys* (New York: Bureau of Publications, College, Columbia University, 1960).

C. F. *The Relationship of Self Perceptions to Real-Occupational Preference* (Washington, D. C.: Catholic of America Press, 1960).

, D. V., O'Hara, R. P., and Matthews, E. "Position and Careers: Elements of a Theory," *Harvard Studies Development, No. 8*, mimeo (Cambridge: Graduate Education, Harvard University, 1958).

E. P. "Some Practical Uses of Knowledge of the Concept in Counseling and Guidance," 14 *Educational Psychological Measurement* (1954), 120-127.

E. "The Relationship of Interests to Abilities and Intelligence Among First-Grade Children," 11 *Educational Psychological Measurement* (1951), 255-264.

-. "The Development of 'Vocational Interests': The Relation of Likes and Dislikes in Ten-Year-Old Children," *Journal of Genetic Psychology* (1955), 33-44.

R. "Self Concept, Occupational Role Expectation, and Change in College Major," 8 *Journal of Counseling Psychology* (1961), 164-169.

becky J. "The Relationship of Self Concept and Identification to Women's Vocational Interests," 6 *Journal of Counseling Psychology* (1959), 202-206.

G. "The Self Concept in Counseling," 5 *Journal of Counseling Psychology* (1958), 104-109.

-. "Vocational Choice Theory—An Editorial Comment," *Journal of Counseling Psychology* (1959), 94.

uth C. *The Self Concept* (Lincoln: University of Nebraska Press, 1961).

Toward making self-concept theory operational

by Donald E. Super

If self-concept theory is to provide a basis for sound research, and if theory and research are to provide conceptual and empirical tools for sound practice, the theoretical constructs with which it deals must be well defined, and these theoretical constructs must have operational definitions which make possible the collection of objectively treatable data. Evidence bearing on the theory can then be analyzed, to support or throw doubt on the theoretical formulations and on the tools which the working counselor may use in vocational appraisal and counseling.

It might have been appropriate to begin this series of essays on self concepts in vocational development with a definition. Instead, we began with historical questions and with the research literature, letting the definition of terms wait until it seemed essential. The time for definitions has now come.

Some definitions

No attempt will be made here to review the definitions of the terms "self" and "self concept" which have been used by the numerous writers on the subject, for this has been done by Allport (1943), Symonds (1951), Sarbin (1954), and Combs and Snygg (1959). Instead, the definitions accepted for use in this monograph will be stated.

The self is, as Sarbin (1954:244) defines it, what

the person is. What it is may change, as it interacts with its environment. The self is sometimes defined as the perceiver, sometimes as that which is perceived. The former definition ("ego" in Symonds' terminology) has utility for the explanation of behavior, its advocates viewing the perceiver as the organizer of percepts into the concepts which determine his behavior. The latter definition (the "self" according to Symonds) is useful for measurement purposes, as one must perceive the object in order to study it.

Self percepts are observed facts, the impressions of the raw materials of self which the individual receives via the several senses, including, for example, the feeling of the hardness of his own muscles conveyed by putting his hand on them and the hearing of the comments of friends on the muscularity of his biceps. Percepts take on meaning as they are related to other percepts, whether through generalization or through causal thinking: there are secondary percepts of similarity-difference, or connection-independence, and so forth, which give meaning to primary percepts. There are percepts which do not pertain to the self, save indirectly. These are percepts of others, of things, and of ideas; for example, of occupations. As percepts acquire meaning through association with other percepts they become lower-level or simple concepts, and as the percept and the meaning become firmly connected, percept and concept become functionally synonymous: the stimulus evokes the concept without any intervening process taking place. It may therefore be helpful to recognize two types of

Super, D. E., and Overstreet, P. L. *The Vocational Maturity of Ninth-Grade Boys* (New York: Bureau of Publications, Teachers College, Columbia University, 1960).

Tageson, C. F. *The Relationship of Self Perceptions to Realism of Vocational Preference* (Washington, D. C.: Catholic University of America Press, 1960).

Tiedeman, D. V., O'Hara, R. P., and Matthews, E. "Position Choices and Careers: Elements of a Theory," *Harvard Studies in Career Development*, No. 8, mimeo (Cambridge: Graduate School of Education, Harvard University, 1958).

Torrance, E. P. "Some Practical Uses of Knowledge of the Self Concept in Counseling and Guidance," 14 *Educational and Psychological Measurement* (1954), 120-127.

Tyler, L. E. "The Relationship of Interests to Abilities and Reputation Among First-Grade Children," 11 *Educational and Psychological Measurement* (1951), 255-264.

_____. "The Development of 'Vocational Interests': The Organization of Likes and Dislikes in Ten-Year-Old Children," 86 *Journal of Genetic Psychology* (1955), 33-44.

Warren, J. R. "Self Concept, Occupational Role Expectation, and Change in College Major," 8 *Journal of Counseling Psychology* (1961), 164-169.

White, Becky J. "The Relationship of Self Concept and Parental Identification to Women's Vocational Interests," 6 *Journal of Counseling Psychology* (1959), 202-206.

Wrenn, C. G. "The Self Concept in Counseling," 5 *Journal of Counseling Psychology* (1958), 104-109.

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The self is, as Sarbin (1954:244) defines it

self percepts, primary self percepts (the sensory impressions) and secondary or derived self percepts (simple concepts which function as percepts).

Self concepts are self percepts which have acquired meaning and which have been related to other self percepts. A self concept is the individual's picture of himself, the perceived self with accrued meanings. Since the person cannot ascribe meanings to himself in a vacuum, the concept of self is generally a picture of the self in some role, some situation, in a position, performing some set of functions, or in some web of relationships.

Self concepts differ in level of complexity. Complexity is one of several metadimensions of the self concept. Lower-level or *simple self concepts* are derived from one or a small number of related self percepts which have acquired meaning, with the result that a simple stimulus evokes a concept. Simple self concepts are organized into higher-level or *complex self concepts* through abstraction and generalization. In their most complex form, they are organized around some status or role. Thus the self percepts of hardness and the concepts of muscle and arm are associated and organized into a simple concept of self as strong, and this in turn is combined with other simple self concepts such as agility and endurance; situational determinants may then cause the individual to organize these several simple self concepts into the complex concept of self as a skier or diver. The complex self concept is organized within the framework of a role. Another person may conceive of himself as thoughtful and analytical; these and other

simple self concepts may be organized in the role self concept of philosopher or researcher. He may do the same with concepts of others, organizing simple concepts of, for example, friends who happen to be accountants, into a complex role concept of the occupation accountant. It may be of some importance that, as the above illustrations imply, role concepts may involve *functional roles*, roles in which the individual engages in tasks and performs functions which may not involve other persons, as in the case of a skier. Or, they may denote *social roles*, roles in which the important components are the expectations of and relationships with other persons, as in the case of the salesman or lawyer.

Complex concepts being organizations of simple concepts (themselves percepts with accrued meanings), they constitute frameworks into which new percepts are fitted as judgments of relevance are made by the perceiver; they provide a perceptual set which predisposes the individual to attend to certain classes of stimuli and to organize them in certain ways when perceived. Self concepts therefore tend to be self-perpetuating and are relatively enduring. As they are used by the individual they are confirmed, elaborated upon, modified, and revised. When these processes are engaged in incidentally or without awareness of possible connections between simple concepts (as when a boy sees himself as a future lawyer without putting into words that it is because he enjoys debating, operating with two distinct simple concepts rather than with one complex self concept) they may, perhaps, best be designated as sim-

ple concept utilization. But when they are deliberately they may be described as concept utilization or as hypothesis testing, the determination of the relevance or adequacy of a concept, as this term is used by the Peppas Super (1957), and others in counseling.

The self-concept system is made up of self concepts, the pictures which the individual has of himself in different roles and in different situations. Thus it should be noted that the self concept is not written as though there is just one: each person has a number of self-concept systems at any point in time. A self-concept system may be well or poorly organized. Therefore proper to refer to the self-concept system as the concept of self as fireman, wage earner, or citizen; the self-concept system is inclusive, the self concept more specific.

The vocational self concept is a term which has been defined in the literature, although it has not been used in writing on vocational development for many years. In one possible meaning it is synonymous with vocational preference, being the summation and translation of self-concepts into occupational terms. Or, it may be used to denote the various self-concepts which are believed to be relevant to vocational development, which are, in other words, transference of vocational preference. There appears to be no advantage, other than an expository one, in using the term vocational self concept as a synonym for preference: this making clear of the

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 but one self-concept system at any point in time. This
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tional preferences may be sufficiently important to
 justify this meaning. On the other hand, there is real
 advantage in having a term which denotes aspects of
 the self which are related to a vocational preference.
 The term vocational self concept as used here denotes
 the constellation of self attributes which the individual
 considers vocationally relevant; these may or may not
 have been translated into a vocational preference.

In view of the several different terms which it has
 been helpful to use in describing the individual's
 picture of himself, some of them standard in the lan-
 guage of psychology and sociology but some of them
 refined beyond previous usage, it may help to sum-
 marize these several definitions in outline form. This
 is done in Table 1.

Table 1. Definitions of self terms

Self percept

Primary self percept: unmodified or raw impression
 of an aspect of the self.

Secondary self percept: simple self concept which has
 come to function as a percept.

Self concept

Simple self concept: organized, related percepts with
 accrued meaning.

Complex self concept: abstraction from and general-
 ization of simple self concepts, generally organized
 in a role framework.

Self-concept system

The constellation, more or less well organized, of all
 of the self concepts.

*Table 1. Definitions of self terms (cont'd)**Vocational self concept*

The constellation of self attributes considered by the individual to be vocationally relevant, whether or not they have been translated into a vocational preference.

Awareness of self concepts. The awareness of self concepts has been referred to, and has occasionally been a problem to writers on the subject. If self concepts are defined, as by Combs and Snygg (1959), as constructs inferred from behavior (in which case they become the observer's concept of the subject's self-concept), the person observed may be either aware or unaware of them; if, on the other hand, they are defined as self pictures, what a self-observing person believes himself to be, self concepts must by definition be objects of awareness—the term concept is, in fact, defined by English and English (1958) as “any object of awareness together with its significance or meaning; anything that one can think about that can be distinguished from other things.” It is difficult to see how an object of awareness can be perceived without the perceiver being somewhat aware of it. The self concept as defined here cannot exist without the individual himself being aware of it: continuity of the self concept through periods of minimal self awareness is provided by perceptual set.

The assessment of self concepts

The definition of self concepts as objects of the indi-

vidual's awareness requires that self concepts be assessed by some method of self report. As Wylie (1961) has pointed out, if one does not use self reports, if the individual does not in some way tell how he sees himself, there is no way of knowing whether the individual is aware of and uses the self concept, there is no way of knowing whether the self concept exists. Even scores on adjective checklists or personality or interest inventories cannot be viewed as direct expressions of the individual's higher-level formulation of his self concept, for such instruments tell one whether or not the subject's simple self concepts resemble those of persons in the norm group, for example, but they do not tell whether or not the subject himself has organized these self percepts into a concept of himself as bricklayer or engineer—it is the scoring key and its constructor who organize the concepts. The typical correlation of interest inventory scores and self-ratings of .50 (for example, Berdie, 1950) is evidence of the fact that *self-organized* and *other-organized* simple self concepts are related but by no means identical.

The self as conceiver of the self. It has been suggested by James Mowry, in a Career Pattern Study seminar paper, that the scores on theory-based inventories are more likely to resemble self concepts than are scores of empirically-derived inventories. The argument is based on Meehl's (1945) observation that the self-descriptive statements in logically constructed inventories have more face validity than do those in empirically derived instruments.* Mowry names the Kuder Preference Record as a logically

derived inventory, the Strong Vocational Interest Blank as an empirically constructed device, and Berdie's (1950) study as evidence in support of the suggestion: the Kuder scores were more highly related with self-estimates of interest than were the Strong. The fact that the Strong appears to have more predictive validity than the Kuder (Kuder, 1960) may therefore be evidence of the utility of inferring self concepts as do Combs and Snygg (1959: 440-442), and using the inferred rather than the reported self concept. But a more justifiable conclusion would be that it is desirable to use inferences concerning personality structure as well as self reports. Inferred self concepts (for example, Strong's self-concept) may be most valid for predicting occupation or interest in (Strong, 1955); self reports may be significant as another kind of information: for example, self reports may give better predictions of the occupations in which the subject will attempt to engage in.

Hilgard (1949: 377-378), like Combs and Snygg, calls attention to the pitfalls of self-observation. He suggests that there is a “need for a more informed self concept, one which will make use of all the information . . . the inferred self.” The subject may be unwilling or unable to report accurately about himself. Unwillingness to report is primarily a data collection

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1. Definitions of self terms (cont'd)

Personal self concept

Constellation of self attributes considered by the individual to be vocationally relevant, whether or not they have been translated into a vocational preference.

Awareness of self concepts. The awareness of self concepts has been referred to, and has occasionally been a problem to writers on the subject. If self concepts are defined, as by Combs and Snygg (1959), as concepts inferred from behavior (in which case they become the observer's concept of the subject's self concept), the person observed may be either aware or unaware of them; if, on the other hand, self concepts are defined as self pictures, what a self-observing person believes himself to be, self concepts must by definition be objects of awareness—the term self concept, defined by English and English (1958) as "the object of awareness together with its significance; anything that one can think about and be distinguished from other things." It is difficult to see how an object of awareness can be perceived without the perceiver being somewhat aware of it. The self concept as defined here cannot exist unless the individual himself being aware of it: construction of the self concept through periods of minimal awareness is provided by perceptual set.

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administration problem and is discussed below; ability to report on the self is a more theoretical issue. Inability to describe the self as one sees it suggests that the self is not seen clearly, or that the subject lacks the words for accurate description of the self as seen.

Self concepts may exist at varying levels of awareness, Combs and Snygg (1959: 440), Rogers (1951: 501), and Hilgard (1949: 379). In this case, level of awareness or clarity is one important characteristic of self concepts which should be operationally defined and studied: it is the purpose of part of this essay to consider these problems of operational definition and measurement.

Insofar as one postulates unconscious self concepts one must consider self reports inadequate as sources of data on self concepts: one cannot report that of which one is not aware. Wylie (1961: 18) argues that to include material of which the subject is not aware in the self concept, is to abandon the phenomenological approach; a self concept involves awareness by definition—the self is the object of the self's awareness, despite the apparent logical difficulty involved in treating the self as both subject and object (*I can cut myself*). When the data organized into a concept of a person are not all obtained *from* the object of awareness, when an observer *other* than the object of awareness does the synthesizing of the data, the concept is no longer a *self* concept, but an *inferred* self, an outsider's concept. The subject is no longer seen from his own standpoint. Whereas the assessment of *personality* must take into account nonphenomenal data, the assessment of *self concepts*,

must, as Wylie points out, rely on self reports and on self reports only.

The accuracy of self reports. In relying on self reports as sources of self concept data, it is important to distinguish between the problem of construct validity and the problem of predictive validity. If self reports are being used only to predict behavior, their accuracy as reflections of the self concept is not an important issue—what matters is the fact of relationship between the report (accurate or distorted) and the criterion behavior. But if the interest is in describing or understanding the subject's self concept, the accuracy of his self report is clearly central. Practical predictive validity, the usefulness of a type of tool or data, is demonstrated by simple predictor-criterion correlations. Congruent predictive validity depends upon the development of instruments which are relevant to a theory and upon the prediction by these instruments of criteria specified by the theory. Accuracy of self reports is essential to using self-report data in the study of self concepts. Our interest is in congruent predictive validity.

Eight variables affecting the accuracy of self reports were identified by Wylie (1961: 27-36) in her review of the literature on the self concept. These are: social desirability of the characteristics; content, related to social desirability; anonymity; rapport; instrument form, affecting response sets, and so forth; open endedness; set; response availability or vocabulary. The earlier list of Combs and Snygg (1959: 440-442) includes six differently named variables which resemble Wylie's. Loevinger (1958, 1959)

stresses the importance of the sophistication or conventionality of the subject, as affecting defenses against revealing the true self: this seems similar to social desirability. These are familiar problems of psychometrics.

To be discouraged by the problems of accuracy of self report, and to dismiss the method as a new edition of out-dated introspectionism as do Combs and Snygg (1959) and Hilgard (1949) appears to do self reporting an injustice. Irrelevant variables are to be controlled, not treated as a cause for despair, especially when they are just as likely to plague work with other methods: for example, projective methods can hardly be said to be free of them, as Masling (1960) and Patterson (1957) have stated.

The importance of a method designed to measure a psychological construct should be judged, at least in part, by its congruent predictive validity, or by what light it throws on the construct. That self reports do not always agree with what is known about a person through other methods is a reflection on self reports only if the theory which makes use of the reports requires such agreement. Some groups of people do not answer certain items in those self-descriptive inventories in the way in which one would expect them to on the basis of known characteristics and item content (Meehl, 1945; Super, 1949). But the fact that these groups consistently answer these items in ways which differentiate them from other groups is important and shows the probable accuracy of report of these lower-level self concepts as concepts. The fact that they do not agree with the facts

as perceived by others is also important, but it does not minimize the importance of these self concepts for understanding how an individual sees himself and for ascertaining the relationship between self concepts and behavior.

The dimensions and metadimensions of self concepts

Although the focus in this section is on the dimensions of the self-concept system, it will help to deal at first, and occasionally after the inquiry is launched, with operational definitions, with specific characteristics or qualities, and with measures. Only in dealing with concrete problems do some issues become clear. Then, having clarified these issues, we will be in a better position to examine the methods of measurement.

The common operational definitions of self concepts are either self descriptive or self evaluative. One of the confusing characteristics of the self concept literature is that sometimes one, sometimes the other, definition is used as though it were the only definition. Adjective checklists provide a good illustration, for always in the case of the Bills Index of Adjustment and Values (IAV), and sometimes in the case of the Gough Adjective Checklist (ACL), the measure obtained from the list of adjectives marked as applying to the self is a self-acceptance or positive-negative self-attitude score. In such work a self concept is defined as the sum of the positive-negative self descriptions or as the sum of the agreements and disagreements of adjectives used to describe the per-

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as perceived by others is also important, but it does not minimize the importance of these self concepts for understanding how an individual sees himself and for ascertaining the relationship between self concepts and behavior.

The dimensions and metadimensions of self concepts

Although the focus in this section is on the dimensions of the self-concept system, it will help to deal at first, and occasionally after the inquiry is launched, with operational definitions, with specific characteristics or qualities, and with measures. Only in dealing with concrete problems do some issues become clear. Then, having clarified these issues, we will be in a better position to examine the methods of measurement.

The common operational definitions of self concepts are either self descriptive or self evaluative. One of the confusing characteristics of the self concept literature is that sometimes one, sometimes the other, definition is used as though it were the only definition. Adjective checklists provide a good illustration, for always in the case of the Bills Index of Adjustment and Values (IAV), and sometimes in the case of the Gough Adjective Checklist (ACL), the measure obtained from the list of adjectives marked as applying to the self is a self-acceptance or positive-negative self-attitude score. In such work a self concept is defined as the sum of the positive-negative self descriptions or as the sum of the agreements and disagreements of adjectives used to describe the per-

ceived and the ideal selves. But in other research and writing, some of that with the Gough ACL, for example, clusters of traits attributed to the self have been analyzed so as to provide lists of characteristics peculiar to the groups of persons in question. Self evaluations such as those derived from the Bills IAV deal with attitudes toward and feelings about the self; self descriptions which yield trait scores on the Gough ACL deal with behavior tendencies; both are important in studying personality, but for different purposes. The purposes, and the appropriateness of the means for those purposes, need to be made clear.

When the objective is the study of adjustment, when a general measure of adjustment is desired, feeling tone is important. A self-evaluative definition of the self concept is then likely to be most important, and a self-esteem or self-acceptance measure may be useful.

When, on the other hand, the focus is on vocational development, and the objective is to describe the vocational self concept, the definition must be in self-descriptive terms and the measures must involve a variety of attributes. In the descriptive approach we ask, for example, what are the traits which engineers attribute to themselves? We may then ask, how do an individual's self perceptions match those of engineers? This is the approach which has been used with considerable success in the measurement of interests by Strong (1943). Less success has been achieved in the measurement of personality traits (Super, 1949), but it is noteworthy that some of the more technically advanced personality inventories

such as those in the Guilford-Zimmerman Temperament Survey (see for example, Kelly and Fiske, 1951) have shown rather more promise. With better technical methods, and with the new meaning given to self descriptions by self-concept theory, personality and interest inventories acquire a new usefulness. It is assumed, not that the individual describes himself as he actually is, but as he sees himself. The psychologist asks, what vocational behaviors characterize people who perceive themselves in certain ways, and he ascertains the relationships between self concepts and criterion behavior.

The dimensions of the self concept which must be studied, if we are to know that which the individual translates into a vocational self concept, are clearly the dimensions of personality, the traits which people attribute to others and to themselves. Trait lists are numerous and varied, as Allport (1937) showed nearly a generation ago. Since then, some order and meaning has been introduced into this chaos by the researches of Guilford (1959), Eysenck (1953), and Cattell (1950); the lists have become better organized, more meaningful, briefer, and perhaps in due course they will become more similar. Osgood (1957) has developed a rationale for selecting traits to be used in self reports for the study of semantic differentials; Leary (1957) has another in his Interpersonal Checklist; and Kelly (1955) has developed the role repertory method which uses the individual's own construct system as a source of traits.

There is little to be gained here by adding to the discussion of the structure of personality as revealed

by traits, although self concepts must be studied in these terms. But there are other dimensions of the self concept which are not included in the various trait lists, most of which are only occasionally given passing mention, almost all of which have not been investigated, and a number of which seem likely to be central in the understanding of vocational development. These are the dimensions of the dimensions, that is, the *metadimensions*, of self concepts.

The *metadimensions* of the self concepts are the characteristics of the traits which people attribute to themselves. These traits may be examined to ascertain what they have in common despite their differing content, that is, to describe their feeling tone, structure, and adequacy. One of the metadimensions of feeling tone has aroused such widespread interest that it has already been discussed: it is that of self esteem or self acceptance. Another, neglected by most adjective checklists, is that of the amount of affect or emotional investment in each of the self-attributed character-

Table 2. *Metadimensions of self concepts and self-concept systems*

<i>Self concepts</i>	<i>Self-concept systems</i>
1. Self esteem	1. Structure
2. Clarity	2. Scope
3. Abstraction	3. Harmony
4. Refinement	4. Flexibility
5. Certainty	5. Idiosyncrasy
6. Stability	6. Regnancy
7. Realism	

istics, called regnancy. A review of the literature, for example, Wylie, 1961: 104-107, 110-114, 275 (Combs and Snygg, 1959) suggests four or five dimensions, and logical analysis suggests some more which have not previously been considered. Some, it should be noted, refer to self concepts, others to self-concept systems, that is, organizations of self concepts. These are listed in Table 2, and are discussed in the paragraphs which follow.

It is suggested that the distinctions between dimensions and metadimensions, and between self concepts and self-concept systems, are of fundamental importance for the pursuit of systematic and fruitful research in self-concept theory and measurement. Of the lack of clarity and definitiveness in this research seems to be due to insufficient definition of that which was being studied, and of failure to relate it to its components in a theoretical system. The framework outlined here will undoubtedly be modified as research results accumulate, but in the meantime should serve as a helpful starting point in planning research and in organizing results.

Metadimensions of self concepts. The distinctive characteristic of the metadimensions of self concepts is that they can all be used to describe characteristics of any single dimension of self concepts, rather than characteristics of the system of dimensions. It is possible, for example, to assess the amount of self concept associated with any one trait ("I am anxious or heartily wish I were not"), the degree of self concept characterizing any one trait ("I am sort of friendly or the abstraction of a self description ("I like

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Self-esteem, the first metadimension of a self con-
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 struct, and has been the subject of much research.

Clarity of self concept has occasionally been men-
 tioned in the literature. Combs and Snygg (1959:
 125-126), for example, describe clarity in terms of
 the figure-ground relationship, and state that the self
 concept is clear when the perceptions are in figure;
 clarity is sharpness or degree of awareness of an at-
 tribute or role. But Combs and Snygg do not define
 figure and ground concretely, they merely illustrate:
 is the self the figure, and are others ground, clarity
 being the degree to which the self is differentiated
 from others? But then one who sees himself as re-
 sembling certain others would by definition have an
 unclear self concept, whereas he might actually see
 himself very clearly as like others. The differentiation
 must then be between one attribute and other attri-
 butes, a recognition by the observer of the essential
 qualities of traits. It requires, on the part of the sub-
 ject, a vocabulary sufficient for self description. Clar-
 ity is a basic metadimension, for if the self concept
 is vague, abstraction, structure, and so forth, can
 not well be judged.

This definition of clarity of self concept as aware-
 ness of the nature of attributes helps in the considera-
 tion of methods of judging and hence of measuring
 self-concept clarity. In a scrutiny of interviews with
 eighth and ninth-grade boys, subjects of the Career
 Pattern Study, it was noticed that many boys had
 difficulty responding to the question, "What kind of

person are you?" This was true even though the question was asked in the fourth of a series of interviews and the boys were used to discussing their activities and interests with the interviewers. They seemed not to have formulated self concepts, not accustomed to putting the concepts into words, and often responded with the statement that they were "average." When told that most people are, but that no two people are exactly alike, they agreed, and when asked in what ways they were different from others they were able, in varying degrees, to state some ways in which they differed from others. This material can presumably be analyzed to assess degree of differentiation from others or idiosyncrasy, a metadimension which seems to be distinguishable from clarity. It may be possible to analyze this type of interview material, and to devise measures of self-concept clarity based on the specificity or sharpness of definition of adjectives volunteered in self descriptions, or on the ease with which they are produced by the subject, as indicated by some such measure as the ratio of self-descriptive terms to other subject words or to interviewer words.

It would be highly desirable to devise a method of measuring clarity which is not dependent on interview material. Kelly's role-repertory technique provides a method of eliciting spontaneous self descriptions which may lend itself to this purpose: adjectives used can be analyzed singly for their specificity or sharpness of definition as rated by judges, and the sum of the specificity ratings of the self-descriptive terms used can be obtained as a measure of the clarity

of self concepts. The development of a basis for rating would present something of a problem, but might be handled by the familiar scaling device of developing a manual in which sample self descriptions are used to illustrate the points on the scale.

Clarity of the self concept is a metadimension which may be expected to increase with age and to be related to intelligence and to adjustment, but these relationships are still to be ascertained. The nature of experiences which contribute to self-concept clarity is a subject which should be investigated, including counseling as an experience. Clarity may be related to having a vocational preference, to the consistency of vocational preferences, to ease of vocational decision making.

Abstraction is a metadimension which has been considered in work on the development of self concepts, and which increases with age. It is the ability to describe oneself in abstract or general rather than only in concrete or specific terms. In order to describe oneself as "friendly" one must first have some simple, more concrete concepts of the self such as those of "resident greeting a new neighbor," "man arriving at his office," and "commuter talking with fellow commuters on the station platform," and generalize from these. The role repertory technique may provide a suitable method of obtaining data for the measurement of abstraction: the self-descriptive terms are elicited without limiting or suggesting responses, as in semistructured interviews, and the terms can be scored for degree of abstractness according to a scale, the development of

which should not be difficult. Abstraction is presumably related to intelligence as well as to age; it should be related to vocational maturity and to vocational adjustment, for perception of relationships among the self percepts should help in organizing new percepts of self and of occupation and in drawing conclusions from them.

Refinement of the self concepts may be defined as the degree of elaboration of the traits which the individual ascribes to himself (a characteristic which is easily confused with volubility). It differs from scope in that the latter denotes the variety of traits, the former refers to the richness of the detail with which the traits are delineated. Thus two persons may report that they are "studious, quiet, and inclined to prefer a few close friends to many acquaintances," but when given equal opportunity one of them may describe the trait "quietness" in greater detail than the other, stating, for example, that he tends to be quiet in larger groups, but that once he gets started he is very talkative, and that with just one or two friends he is really something of a talker. Refinement would seem to be related to insight, and may therefore have the same kind of bearing on vocational development as scope. The content analysis of semistructured interviews would seem to be the most likely method of obtaining relevant data, for the subject must have opportunity for elaboration; perhaps the constructs used in a role repertory test could be analyzed for complexity, but it seems probable that needed data would be minimal.

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which the subject attributes traits to himself, his conviction as to the kind of person he is. This metadimension may be confused with clarity, and its measures are probably contaminated with general self-confidence. It seems likely, nevertheless, to be an important metadimension, for the certainty a person has of his description of himself probably affects his ability to make choices and to pursue actions designed to implement them. Self concept certainty can be judged by the analysis of interview material, and by obtaining ratings of the assurance with which the subject ascribes each trait to himself in responding to a checklist.

Stability of the self concepts denotes the consistency over time of the self-descriptions, of the traits which a person ascribes to himself. It seems likely that a person who consistently sees himself in a certain light has a more adequate basis for decision making than does one whose picture of himself changes from time to time. He is likely to find choice making easier and the results of his decisions more rewarding. Stability can refer, as can many other metadimensions, to lower or to higher-level self concepts, and Strong (1943) has shown that, at least for interest items, the former are less stable than the latter (several items combined are more reliable than one item alone). This very stability or instability of the secondary percepts which make up the concepts is a metadimension worthy of study, and adjective checklists lend themselves well to such measures, provided retesting is possible and contamination can be avoided.

Realism of the self concepts denotes the degree of agreement between the individual's picture of himself and external, objective evidence of his status on the characteristics in question. Studies of the accuracy of self-estimates as shown by agreement of self-estimates and test scores or peer ratings are a commonly encountered illustration of this metadimension. It is only partly phenomenological, as the individual's percept of himself is compared with data seen and organized by an outside agent. O'Hara and Tiedeman (1959) found that realism tends to increase with age in adolescence, but that rates of increase and degrees of realism vary with the type of attribute studied. Super and Overstreet (1960) found no appreciable relationship among various measures of realism in ninth-grade boys or between these and other psychological characteristics, suggesting that realism of the vocational self concept, is not yet a meaningful variable at age 14. It may become useful later. If so, when does realism emerge? What causes this emergence? What is the relationship of realism to stability of vocational preference, persistence in training, and establishment in an occupation? The methods of measuring realism consist of self ratings compared with objective test or other-rating scores, they rely therefore on checklists such as might be built into the role repertory technique to insure self rating on appropriate dimensions.

Metadimensions of the self-concept system. The distinction between the metadimensions of self concepts and of the self-concept system, we have seen, lies in the fact that the former apply to any single

dimension or trait, whereas the latter apply to the constellation of dimensions or traits which make up the self-concept system. It is possible, for example, to describe structure only in terms of a number of dimensions (in this context, the deviation of each trait score from the individual's own mean); to describe scope only in terms of number and variety of dimensions used in self description; and to assess harmony only in terms of the congruence of these same traits. It seems likely, also, that one metadimension may be used to characterize another, as is noted below in the discussion of flexibility.

Structure refers to the degree to which self concepts are internally differentiated, that is, the degree to which some attributes are considered very descriptive of the self while others are perceived as not descriptive of the self. Structure is differentiated from clarity: structure denotes the jaggedness of the profile of traits (as on the Kuder Preference Record or the Allport-Vernon-Lindzey Study of Values), whereas clarity denotes the sharpness of awareness of the trait as shown by ability to put it into words. Structure deals with internal differences in the profile of traits, but clarity refers to the perception of a single attribute (which may be combined with perception of other attributes to yield a total score or rating).

Structure might be measured by obtaining self ratings of traits on a five or seven-point scale, and computing the deviation from his own mean for each subject. This could be done with a Bills or Osgood type of adjective checklist, or with Kelly's role repertory technique. An unstructured self concept

may be due to lack of clarity, for if the traits are not clear the profile can hardly seem jagged, but it may also be due to a tendency to describe the self generally at the same point on the scale regardless of the attribute in question. When a subject has a flat profile on an interest, values, or personality inventory, the psychologist usually asks himself whether the flatness of profile is due to lack of the potential necessary for self differentiation, to lack of experiences which might have produced internal differences, or to a test administration problem such as lack of understanding. If experience is the explanation, what are the experiences which lead to the development of a structured self concept? Does greater structure provide a better basis for vocational choices than lack of structure? Are these choices more stable, is vocational decision making easier, is the self concept is more highly structured?

Scope denotes the number, variety, and complexity of attributes which the individual perceives in himself. A person who has had many different kinds of experiences and who has reflected upon their significance for himself is likely to have many different self percepts, and to have organized them into a variety of more or less related self concepts, whereas a person whose experience is limited or who has not evaluated his experiences is likely to ascribe a limited number and variety of attributes to himself. The scope of the self-concept system seems likely to be related to intelligence and to adjustment, and to have a bearing on the realism of vocational preference, the timing of vocational choice, and the speed

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establishment in a regular adult occupation. For example, a limited self-concept system may be associated with difficulty in making a vocational choice, moderate breadth of scope may be associated with ease of decision making because it provides guidelines for choice, and great breadth may be associated with delay in decision making due to the complexity of the variables to be considered. Scope may be measured by means of adjective checklists as well as by content analysis of interviews, the role repertory technique presumably providing the best means of ascertaining economically the number or variety of traits ascribed to the self.

Flexibility of the self concepts is defined as the ease with which the individual assimilates new data into his self picture, modifying it in the light of the new percepts. The concept of flexibility-rigidity is a familiar one in the psychology of personality, and the modifiability of the metadimension of self esteem has been the subject of study by Rogers and Dymond (1954) and by others. This suggests that one metadimension may be applied to another. Flexibility may be a determinant of realism; its relationship to stability may be worthy of study; it seems likely to have some effect on the outcomes of exploratory behavior and even on its initiation; and it should be related to speed of establishment in regular adult occupation. Flexibility measures seem likely to be difficult to differentiate from stability measures; perhaps the difference lies not in the nature of the checklist, but in the definition or creation of the experiences to which the individual is subjected between testings.

Thus, instability would be defined as change when change is not appropriate, while flexibility would be change when change is called for by the situation.

Harmony of the self concepts might also be termed congruence or internal consistency of the self-concept system. Lecky (1945) made much use of this construct, as have other later writers on the self system. Harmony is considered to be related to adjustment, to lack of conflict, to personality integration. It therefore seems likely that it may be related to ability to formulate a vocational preference, that is, to see oneself in an occupational role. It may also be related to vocational adjustment. Is translating an internally consistent and harmonious system of self concepts into an occupational preference easier than finding an appropriate role for a conflicted self-concept system? Is implementing a harmonious self-concept system easier than implementing unintegrated ideas of the self? McQuitty (1953) has attempted to develop a measure of internal harmony with Strong's Vocational Interest Blank, as has Trehub (1959) with the Edwards Personal Preference Schedule, but little other work has been done in the measurement of consistency of the self attributes. The method could be adapted to any of the adjective checklists currently in use, and to the content analysis of interviews.

Idiosyncrasy of the self concepts denotes a self-concept system in which a person sees himself in terms which are quite different from those in which he sees other persons, or from those in which others describe themselves, depending upon the use of a

phenomenal or nonphenomenal reference point. Many interest and personality inventories and tests of incomplete sentences have atypicality scales, with varying rationales, but always with an external reference point: the verification scale of the Kuder Preference Record is an illustration. There may be advantages in using a phenomenal reference point, in order to better understand the individual's self concept as he sees it, contrasted with others as he also sees them. The self attributes in interviews or in checklists can readily be analyzed to compare them with the traits attributed to others, yielding an idiosyncrasy score. Again, the role repertory technique seems likely to be the most sensitive of the checklists.

Regnancy is similar to prepotency in Maslow's (1954) need hierarchy: a regnant self concept is one which plays an especially important part in the self-concept system and in the determination of behavior. Regnancy might also be called investment, for a regnant self concept is one which is defended or maintained despite conflicting self concepts or contradictory percepts. The regnancy of self concepts can be ascertained by means of interview analysis, and by ratings or by ranking of their importance by the subject after he has checked the degree to which they characterize him on an adjective checklist.

Conclusions

The classification of self concept definitions as dimensions and as metadimensions, the identification of three types of metadimensions (feeling tone, structure, and adequacy), and of two classes (those ap-

plying to self concepts and those describing the self concept system), the definition of each of the 1. metadimensions which constitute these categories and the operations which appear to make possible the measurement of these metadimensions, should pave the way for the formulation and testing of meaningful hypotheses concerning self concepts and vocational development. It should now be possible to refine the operational definitions of the self concept to construct and try out measures of the metadimensions, and to use these measures in studies of self concept formation in relation to the development of vocational preferences. A poorly formed self concept seems likely not to be readily translatable. It should also be possible to use these measures in studies of the making of vocational decisions, the implementation of these choices, and adjustment to work activities and working conditions. These constructs, these instruments, and the accumulating knowledge which they will make possible, should do a great deal to put the person back at the center of the process of vocational guidance. They should make an important contribution to self actualization in an age of pressure for conformity.

Bibliography

Allport, G. W. *Personality* (New York: Holt, Rinehart Winston, Inc., 1937).

———. "The Ego in Contemporary Psychology," 50 *Psychological Review* (1943), 451-478.

us, instability would be defined as change when change is not appropriate, while flexibility would be change when change is called for by the situation.

Harmony of the self concepts might also be termed congruence or internal consistency of the self-concept system. Lecky (1945) made much use of this concept, as have other later writers on the self system. Harmony is considered to be related to adjustment, lack of conflict, to personality integration. It therefore seems likely that it may be related to ability to formulate a vocational preference, that is, to see oneself in an occupational role. It may also be related to vocational adjustment. Is translating an internally consistent and harmonious system of self concepts to an occupational preference easier than finding an appropriate role for a conflicted self-concept system? Is implementing a harmonious self-concept system easier than implementing unintegrated ideas of the self? McQuitty (1953) has attempted to develop a measure of internal harmony with Strong's Vocational Interest Blank, as has Trehub (1959) in the Edwards Personal Preference Schedule, but the other work has been done in the measurement of consistency of the self attributes. The method could be adapted to any of the adjective checklists currently in use, and to the content analysis of interviews.

Idiosyncrasy of the self concepts denotes a self-concept system in which a person sees himself in terms which are quite different from those in which he sees other persons, or from those in which others describe themselves, depending upon the use of a

phenomenal or nonphenomenal reference point. Many interest and personality inventories and tests of incomplete sentences have atypicality scales, with varying rationales, but always with an external reference point: the verification scale of the Kuder Preference Record is an illustration. There may be advantages in using a phenomenal reference point, in order to better understand the individual's self concept as he sees it, contrasted with others as he also sees them. The self attributes in interviews or in checklists can readily be analyzed to compare them with the traits attributed to others, yielding an idiosyncrasy score. Again, the role repertory technique seems likely to be the most sensitive of the checklists.

Regnancy is similar to prepotency in Maslow's (1954) need hierarchy: a regnant self concept is one which plays an especially important part in the self-concept system and in the determination of behavior. Regnancy might also be called investment, for a regnant self concept is one which is defended or maintained despite conflicting self concepts or contradictory percepts. The regnancy of self concepts can be ascertained by means of interview analysis, and by ratings or by ranking of their importance by the subject after he has checked the degree to which they characterize him on an adjective checklist.

Conclusions

The classification of self concept definitions as dimensions and as metadimensions, the identification of three types of metadimensions (feeling tone, structure, and adequacy), and of two classes (those ap-

plying to self concepts and those describing the self-concept system), the definition of each of the 13 metadimensions which constitute these categories, and the operations which appear to make possible the measurement of these metadimensions, should pave the way for the formulation and testing of meaningful hypotheses concerning self concepts and vocational development. It should now be possible to refine the operational definitions of the self concept, to construct and try out measures of the metadimensions, and to use these measures in studies of self-concept formation in relation to the development of vocational preferences. A poorly formed self concept seems likely not to be readily translatable. It should also be possible to use these measures in studies of the making of vocational decisions, the implementing of these choices, and adjustment to work activities and working conditions. These constructs, these instruments, and the accumulating knowledge which they will make possible, should do a great deal to put the person back at the center of the process of vocational guidance. They should make an important contribution to self actualization in an age of pressure for conformity.

Bibliography

- Allport, G. W. *Personality* (New York: Holt, Rinehart & Winston, Inc., 1937).
- . "The Ego in Contemporary Psychology," 50 *Psychological Review* (1943), 451-478.

Berdie, R. F. "Scores on the Strong Vocational Interest Blank and the Kuder Preference Record in Relation to Self-Ratings," 34 *Journal of Applied Psychology* (1950), 42-49.

Cattell, R. B. *Personality, a Systematic, Theoretical, and Factorial Study* (New York: McGraw-Hill Book Co., Inc., 1960).

Combs, A. W., and Snygg, D. *Individual Behavior* (New York: Harper and Bros., 1959).

English, H. B., and English, Ava C. *A Comprehensive Dictionary of Psychological and Psychoanalytical Terms* (New York: Longmans, Green & Co., 1958).

Eysenck, H. J. *The Structure of Human Personality* (New York: John Wiley and Sons, Inc., 1953).

Guilford, J. P. *Personality* (New York: McGraw-Hill Book Co., Inc., 1959).

Hilgard, E. R. "Human Motives," 4 *American Psychologist* (1949), 374-382.

Kelly, E. L., and Fiske, D. W. *The Prediction of Performance in Clinical Psychology* (Ann Arbor, Mich.: University of Michigan Press, 1951).

Kelly, G. A. *The Psychology of Personal Constructs* (New York: W. W. Norton, Inc., 1955).

Leary, T. *Interpersonal Diagnosis of Personality* (New York: The Ronald Press, 1957).

Lecky, P. *Self-Consistency* (New York: Island Press, 1945), reprinted.

Loevinger, Jane. "A Theory of Test Response," *Proceedings, 1958 Invitational Conference on Testing Problems* (Princeton: Educational Testing Service, 1959), 36-47.

Loevinger, Jane, and Ossorio, A. G. "Evaluation of Therapy by Self-Report: A Paradox," 13 *American Psychologist* (1958), 366.