THE MEANING OF ANOTHER PERSON'S PERSONALITY

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CONTENTS

PREFACE

The present work summarizes the following reports:

(i)   Kuusinen, J. Change in the factor structure of personality ratings according to the relevance of objects. *Reports from the Center for Educational Research,* No. 22, 1966. The University of Jyväskylä.

(ii)   Kuusinen, J. Yksilön suorittamien arviointien pysyvyys persoonallisuuden arvioinneissa (The stability of an individual structure of personality ratings). *Reports from the Center for Educational Research,* No. 23, 1966. The University of Jyväskylä.

(iii) Kuusinen, J. Correspondence between group and individual in the factor structure of personality ratings. *Reports from the Department of Psychology,* No. 88, 1969. The University of Jyväskylä.

(iv) Kuusinen, J. Persoonallisuuden piirrearviointien faktoreiden vastaavuus: eri analyysimallien tuottamien tulosten vertailua (The correspondence between the factors of personality ratings: a comparison of different models of analysis). *Reports from the Department of Psychology,* No. 92, 1969. The University of Jyväskylä.

(v)   Kuusinen, J. Persoonallisuuskäsitteisiin annetut assosiaatiot ja niiden rakenne (Associations and the structure of the associations given to personality concepts). *Psykologia,* 1969, No. 2, 93—116.

(vi) Kuusinen, J. Affective and denotative structures of personality ratings. *Journal of Personality and Social Psychology,* 1969, *12,* 181—188.

(vii) Kuusinen, J. Factorial invariance of personality ratings. *Scandinavian Journal of Psychology,* 1969, *10, 33—44.*

Thereafter, the reports will be referred to by (i) to (vii).

The purpose of the present work is to summarize these studies by giving them an explicit theoretical framework.

The studies comprised in this paper were carried out at the Institute for Educational Research (University of Jyväskylä), the Center for Comparative Psycholinguistics (University of Illinois), and the Department of Psychology (University of Jyväskylä).

INTRODUCTION

In psychology, meaning is conceived as an intervening variable which establishes relationships between signs and subsequent behavior associated with these signs. Charles E. Osgood has defined meaning as a non-observable response pattern which is elicited by a sign through the previous association of the sign and its referent in the organism's experience. Functionally, meaning is a representational mediation process; it is representational because it is part of the total behavior produced by the referent, and it is mediational because the self-stimulation (s_m) produced by the reaction (r_m) can become associated with various (visible or nonvisible) instrumental behaviors (Osgood, 1952, 1953, pp. 695—699; Osgood, Suci & Tannenbaum, 1957, pp. 5—9).

In the characterization of meaning, the properties of the mediation process ($r_m \ldots > s_m$) are most important. In Osgood's present thinking (Osgood, 1963, 1966a, 1968a, 1968b, 1969a) it is characterized as a multicomponential response pattern, which is composed of a bundle of simultaneous and independent response components. These components are assumed to function as a code, or, as a set of rules, by which an organism interprets signs and, on the other hand, expresses intentions. (Cf., Osgood, 1966a: »The total momentary pattern of components of r_m can be thought as a kind of code — a code which represents for the organism those differences among R_T's [the total response elicited by the significates] which make a difference with respect to responding appropriately to S's [signs] or things signified.»)

In the empirical study of meaning, the question of what are the components of the mediation response has been studied most. Since the meaning response is an invisible process within an organism, it can be observed only indirectly, by indexing the organism's visible behavior. With humans, their language is the most natural target of observation, since it is mainly language by which people report meanings, and since other indices, e.g., physiological measures, have proved unsatisfactory (Osgood et al., 1957, pp. 10—17).

The method Osgood developed for the measurement of meaning components through language is the semantic differential technique

(Osgood et al., 1957; Snider & Osgood, 1969). The technique was developed for the study of word meaning and it has been mainly used for that purpose. When used as an index of the meaning response elicited by words, the semantic differential data have repeatedly shown that the meaning response is mainly composed of three components. These components have been labeled as Evaluation, Potency, and Activity. Evaluation differentiates meanings in the direction of *good - bad, pleasant - unpleasant, light - dark;* Potency in the direction *strong - weak, large - small, heavy - light;* and Activity in the direction of *active - passive, fast - slow, agile - clumsy* (Osgood et al., 1957).

One important characteristic of the three meaning components is that they appear to be part of language universals, that is, the three components characterize the meaning of words in a language independent of the individual characteristics of the speakers of a language (Jakobovits, 1966; Miron & Osgood, 1966; Osgood, 1962, 1964). However, the three components appear as dominant and factorially pure only if the meanings of a heterogeneous sample of words are indexed by the semantic differential technique (Miron & Osgood, 1966, p. 818; Osgood et al., 1957, p. 325; Osgood, 1968b, p. 16). It is also evident that the three components do not discriminate words with different referents and that they do differentiate between signs which have the same significate (Osgood et al., 1957, p. 323). This evidence plus the fact that the three components are similar to Wundt's three dimensions of feeling (pleasantness, strain, and excitement), as well as to those of facial expressions (Osgood, 1966b), have led to the present interpretation of the three components, according to which the dimensions of Evaluation, Potency and Activity index only the affective components of the meaning response (Miron & Osgood, 1966, pp. 816—819; Osgood, 1962, 1964, 1968b, 1969b; Weinreich, 1958). (Cf., Osgood, 1969b: ». . . But this still leaves the question of why I refer to E-P-A as 'affective components' at all. It has nothing to do with the term 'connotation' . . ., but rather with the marked similarity of the E-P-A factors to the dimensions of feeling and emotion . . .»)

Since from words, for instance, we know what are their referents, the multicomponential meaning response has to contain more specific knowledge of meaning than the three affective components exhibit. That the semantic differential type technique can be used also to index other components of meaning, is evidenced by the concept-scale interaction effect (usually called denotative confounding) in some applications of the semantic differential. Concept-scale inter-

action is due to the fact that the scales are in those cases measuring other than the affective components of meaning. This finding has been utilized for studying the meaning of some homogeneous sets of objects: for instance, Accurso (1967) has studied the meaning of music (music differential), Tanaka, May and Iwamatsu (1967) have studied the meaning of political concepts (political differential), and Triandis (1964) the meaning of interpersonal behaviors (behavioral differential). In all of these studies the basic idea is to use as the indices of meaning words which are relevant descriptors of the phenomena, and which, presumably, index other than the affective components. (The author is aware that the question of what aspects of meaning a semantic differential type technique measures is highly problematic, as indicated in (vi) and by Miron, 1969, Nordenstreng, 1969, pp. 19—25, and Osgood, 1969b. However, the issue is not discussed here, since this is a summary report of the empirical works and thinking done in the past.)

The meaning response that is elicited by another person's personality can be studied in an analogous way by a technique which can then be called the personality differential technique. This response is functionally identical with Osgood's general meaning response, but in this case, the response is seen in relation to a special class of stimuli, namely, the other persons. The present work is a study of the characteristics of such meaning response. As a starting point was a variation of personality differential which was developed by Ware (Miron & Osgood, 1966; Osgood, 1962), who designed a semantic differential type of technique for the rating of personality by taking the personality descriptors from Allport and Odbert's (1936) study of trait words. Factor analyses from the ratings of personality concepts, such as »my mother», »my father», »my spouse», »friend», »myself», etc., showed that the meaning response elicited by these concepts (and indexed by the given scales) was composed of eight components, which were identified as Morality, Excitability, Toughness, Sociability, Uniqueness, Tangibility, Rationality, and Urbanity.

Problems of the present work

In the present work, only some of the problems connected with the meaning response elicited by another person, have been studied. They were the following:
1. The replicability of Ware's components of the personality meaning response (i).

2. The invariance of the meaning components as a function of differences between the objects of perception (i and iv).

3. The invariance of the meaning components within an individual (ii).

4. The invariance of the meaning components between individuals (iii and iv).

In all of the problems 1 to 4 the question of the invariance of the meaning components was under study. The first problem studied was whether the same components appear irrespective of the language and culture of the subjects; second, the problem of invariance of the components over different object categories was studied; third, it was asked whether the components are invariant over time within an individual, and fourth, it was studied whether the components of the meaning response elicited by another person are invariant over different individuals. In the fifth problem a more basic question of the nature of the meaning components was asked:

5. The Finnish implicit theory of personality (v and vi). The study was made in order to find out what are the words denoting personality characteristic in the Finnish language and what is the structure of such words.

In the following, only summaries of the different studies will be given, since they have been described in detail in (i) to (vii).

PROBLEM 1: The replicability of Ware's components of the personality meaning response (i)

PROBLEM 2: The invariance of the meaning components as a function of differences between the objects of perception (i)

In (i), five factor analyses from Ware's (Osgood, 1962) personality differential scales, added with nine typical semantic differential scales, were reported. In all of the analyses, six factors could be interpreted. The data were ratings given by a group of subjects to different groups of concepts by using the given 33 scales. Four of the six factors were common to all analyses, with the percentage of total variance varying from 74.6 to 82.9. Five factors were common to four analyses (per cent of total variance from 79.2 to 86.6). These five factors were interpreted as follows:

1. Rationality. The scales with high loadings on the factor were *rational - irrational, logical - intuitive, deliberate - casual, tangible - intangible.*

2. Toughness. The high loading scales were *tough - tender, insensitive - sensitive, rugged - delicate, proud - humble, immoral - moral, disreputable - reputable, bad - good.*

3. Sociability; *gregarious - self-contained, sociable - solitary, extroverted - introverted.*

4. Uniqueness; *unique - typical, unusual - usual, individualistic - regular.*

5. Physical Activity; *agile - clumsy, flexible - rigid.*

In addition, there was the factor of Physical Potency (*big - small, strong - weak*) which was common to three analyses.

In the study, the objects of ratings were in five categories, which were relevant to the scales in different degrees (fellow students, well-known persons and personality concepts, photographs of male faces, handwriting samples with neutral content, a category of irrelevant concepts, such as words denoting furniture, color, shapes, materials, etc.). Analyses were carried out separately for the five categories.

An interesting feature of the results is that the factor structure of the scales remains highly invariant despite the marked differences in the characteristics of the objects. The only explanation of the results is that the structure of the scales is built in the subjects' minds as a generalized conceptual structure of personality (see vii), since otherwise it would be difficult to understand how a meaningful structure of the scales emerges even when the actual objects of ratings do not possess the traits signified by the rating scales.

In (iii), a factor analysis from the same set of 33 rating scales is reported. The data consist of ratings of one another given by 39 subjects (18 girls and 21 boys) in a secondary school class. Seven factors were interpreted from the scale intercorrelations. Similar data were collected in two other school classes, one in a boys' school and the other in a girls' school. The average age of the subjects was 17 years. Largely the same factors were identified in all sets of data. The coefficients of congruence (Harman, 1960, p. 257) between the corresponding factors in the three analyses were the following (A = Girl school, B = Co-educational, C = Boy school):

		B	C
Uniqueness	A	.763	.856
	B		.855

		B	C
Toughness	A	.641	.788
	B		.599

		B	C
Expressive Dominance	A	.834	.889
	B		.741

		B	C
Rationality	A	.740	.724
	B		.867

		B	C
Sociability	A	.740	.724
	B		.867

Conclusions

All the analyses consistently showed that the meaning response elicited by another person's personality and indexed by a given set of scales can be described in terms of 6 to 7 factors. The most invariant factors, which appeared in all of the eight analyses, were Rationality, Sociability, Uniqueness, and Toughness. These dimensions appeared also in Ware's data (Osgood, 1962), but considering the results as a whole, the present results do not replicate Ware's findings. An essential difference between the two results is that in the present work there are systematically fewer factors and that the variance is more unequally distributed among the factors than in Ware's data.

Among the reasons to the differences are: the effect of the language barrier on the translation of the scales, differences in the objects rated and in the number of scales used, and of course, differences in the language and culture of the subjects. Therefore, it is somewhat problematic to speculate on the reasons for the differences, and all the more so since Ware's results have not been replicated with data comparable to the original. As such the results show that the structure of the personality meaning response as reported by Osgood (1962) is not replicable with Finnish subjects.

When one takes into account that the factor structures were not rotated to be maximally similar to each other, which procedure was shown to increase the similarity of the structures in (iv), the differences between the objects of ratings have little influence on the components of the personality meaning response. Instead, the meaning response may be sensitive to situational characteristics. The appear-

ance of the Expressive Dominance factor as a descriptor of the personalities of students in a school class indicates that a meaning component highly relevant to the specific environment of persons may emerge as an important component in the response elicited by another person's personality.

PROBLEM 3: The invariance of the meaning components within an individual (ii)

A 16-year-old male subject rated personality concepts three times at intervals of one week by using the same set of 33 scales as in the previous studies. In each of the sessions a different set of 36 personality concepts was used drawn from the categories of classmates, well-known persons, nationalities, professions, races, and person-concepts. Seven factors were interpreted in each of the three analyses, explaining 67.8, 69.3, and 67.5 per cent of the total variance, respectively.

All seven factors interpreted in the first analysis were also found in the third one. The analysis of the second session yielded five overlapping factors with the first and the third sessions, which explained 57.7 per cent of the total variance. The factors were Rationality, Evaluation, Sociability, Uniqueness, and Toughness. Other factors in the analyses appeared as different variants of Activity and Potency dimensions of typical semantic differential data.

It is venturesome to draw conclusions from a study based on a single subject. In the absence of other evidence, one may tentatively conclude that the components of the meaning response elicited by another person's personality are invariant within an individual.

PROBLEM 4: The invariance of the meaning components between individuals (iii and iv)

The affective components of meaning, as indexed by the semantic differential technique, have often been criticized on the grounds that individuals differ from each other in their use of scales and, consequently, the components are not valid when considered from an in-

dividual viewpoint; in an individual, the meaning response may be composed of different components, or, the scales may index the same components differently (cf., Bannister & Mair, 1968, pp. 121—134; Scott, 1963, p. 270; Wiggins & Fishbein, 1969). The same critique is highly relevant when the components of the personality meaning response are considered. The problem was studied by comparing the factor structures of the 33 rating scales derived from an individual's responses to the factor structure of the same scales derived from the group's responses.

The data were ratings of one another's personalities, given by a group of 39 pupils (18 girls and 21 boys) in a co-educational school class. The same set of 33 scales was used as in the previous studies. In the study, two kinds of factor structures of the scales were compared. One was the group structure, which represents an average factor structure of the scales across individuals, and the other was the individual structure, which shows how the rating scales relate to each other in an individual's ratings. Twelve individual structures were separately compared to the group structure by using the methods developed by Ahmavaara (1954) and Mustonen (1966).

The group structure indicated that the components of meaning, elicited by another person's personality, are:

1. Uniqueness; the high loading scales were *unique - typical, unusual - usual, individualistic - regular, unpredictable - predictable.*

2. Toughness; *sensitive - insensitive, emotional - unemotional, delicate - rugged, tender - tough.*

3. Expressive Dominance; *proud - humble, sophisticated - naive, excitable - calm, capricious - steady.*

4. Rationality; *deliberate - casual, rational - irrational, logical - intuitive.*

5. Sociability; *happy - unhappy, light - gloomy, extroverted - introverted, solitary - sociable.*

6. Physical Potency; *strong - weak, big - small.*

7. Dynamism; *agile - clumsy, wholesome - unwholesome, flexible - rigid, strong - weak.*

In the comparison of the individual and group structures, the Uniqueness factor appeared in nine cases, Toughness in ten, Expressive Dominance in nine, Rationality in nine, Sociability in nine, Physical Potency in seven, and Dynamism in five individual structures (here, the data from (iv), which changed the results somewhat from those in (iii), have been taken into account).

When one takes the individual structures as a whole, there were two such structures in which all of the factors could be interpreted

as factors corresponding to those of the group. In one case, there were six corresponding factors (factors 1, 2, 3, 5, 6, 7, of the group), in three cases there were five corresponding factors (1, 2, 3, 4, 5; 1, 2, 3, 5, 7; 1, 3, 4, 5, 6, of the group), in five individual cases there were four corresponding factors (1, 2, 5, 6; 2, 3, 4, 6; 1, 2, 5, 7; 1, 2, 4, 5, of the group), and in one individual's structure, there were three factors corresponding to those of the group (factors 3, 4, and 6 of the group structure).

Conclusions

Again, one has to consider the fact that originally the group structure and the individual structures were not rotated to be maximally similar to each other (cf., (iii), and Kuusinen, 1967). For four individuals, this was done later in (iv), since the author wanted to know whether the similarity between the group and individual structures could thus be increased. The method which was used has been developed by Mustonen (1966). In all four cases the correspondence between the structures increased. Therefore, it is highly probable that the results, which have been reported in Kuusinen (1967) and in (iii) and (vii), underestimate the similarity between the group and the individual structures.

In each comparison between the group and the individual structure an attempt was made to explain the differences which were found in factors or in the factor composition of single scales, by considering the psychological information (sosiometric data, personality ratings) that was available from the individuals. However, in all cases this proved unsatisfactory in the sense that the individual variation in the structures did not show any consistent trends across individuals having similar psychological characteristics. The differences between the group and individual structures remained as an uninterpretable idiosyncratic variation. Since this was the case, and since the individual structures were as a whole similar to the group structure, one may conclude that the components of the personality meaning response, as revealed by the group structure, also represent those of the individuals. However, since there were differences between the structures and since comparisons between individuals were made only in four cases in (iv), this conclusion has to be weakened by saying that between individuals the components of the personality meaning response appear similar rather than dissimilar to each other.

PROBLEM 5: The Finnish implicit theory of personality
(v and vi)

In all of the previous studies the meaning response elicited by another person's personality was indexed by words chosen and given to the subjects by the experimenter. Factor analysis, which was subsequently used to reveal the components of the meaning response, is, however, totally dependent on the observations that form the basis of it. Therefore, the evaluation of the »truth» of the results is based on how »true» are the observations. This problem becomes critical when one tries to give answers to the question of what are the components of the meaning response elicited by another person's personality.

One of the most desirable requirements in a psychological experiment is that the situation be meaningful to the subject (Brunswik, 1956). That is, the subject's responses in the situation should represent those which he himself experiences as important, meaningful, and relevant to the situation. In the present studies, representative indicators of the meaning response apparently are those words, which the subjects characteristically use in their descriptions of another person's personality (Bannister & Mair, 1968, pp. 98—99; Todd & Rappoport, 1964). In evaluating how well the meaning response has been characterized by the results reported here, one must first evaluate the representativeness of the scales as indices of this response. It is evident that the question of representativeness remains unanswered, since it is not known how the scales relate to the population of words which the subjects use in their descriptions of other people, or, to the population of such words in the Finnish language in general.

To find an answer, an estimation was made of words used by Finnish subjects to describe personality characteristics. After this, a new estimation of the components of the personality meaning response was carried out. The strategy of the study was adapted from the cross-cultural study of the affective meaning systems (Jakobovits, 1966; Miron & Osgood, 1966; Osgood, 1962, 1964). In fact, the study is part of that international research effort.

Method

The elicitation of words denoting personality. An estimation of the words used for describing other persons was done by the qualifier

elicitation technique developed by the Center for Comparative Psycho-linguistics at the University of Illinois (Miron & Osgood, 1966; Osgood, 1964). This method is based on an analysis of adjectival word associations given as responses to a set of nouns. Here, the nouns used as stimuli, were 30 concepts, selected on intuitive grounds to represent some common areas of personality concepts. The subjects who took part in the qualifier elicitation were a heterogeneous sample of 60 native Finns, living in an urbanized environment and of middle-class socio-economic status. The subjects gave about 8000 qualifiers (tokens) of which about 1400 were different types as responses to the stimuli.

The purpose of the qualifier elicitation procedure was to select a representative sample from the population of words describing personality in the Finnish language. Here, the best estimate of the population is of course the words given as responses to the stimuli by the subjects. As criteria in sampling, the procedure uses the frequency of a word, its diversity (that is, to how many stimuli a response is given) and its independence of usage. The first criterion is used because it has been shown to be in direct relation to the amount of experience that a subject has had with a word (and its referent, the so-called »spew hypothesis» of Underwood & Schultz, 1960, Ch. 6). The second criterion selects those words which best apply to description of all stimuli, or, are most general in usage, and the third criterion gives those words which represent the different meanings of the words in the population. The statistics used were the H-index (Osgood & Sebeok, 1965, pp. 38—44; Shannon & Weaver, 1949), which simultaneously indexes both the frequency and the diversity of a word, and the phi-coefficient (e.g., Hays, 1963, p. 604). (It is not clear without empirical evidence how well these words and the dimensions derived from them, represent all of the words included in the population. The author has undertaken a search for such evidence.)

The study of the components of the meaning response. The elicitation procedure gave a sample of words from which the rating scales were formed to get data for factor analysis. The scales were formed by eliciting opposites to the words in the sample (about 70 words). A given word was accepted as an opposite if at least 70 % of the subjects (50 students) gave it as a response. All in all, 30 scales which were based on the qualifier elicitation procedure and which represented the most frequent, diverse and independent words used to index the personality meaning response in the Finnish language, could be found by this procedure. To these 30 scales, 12

typical semantic differential scales were added, as well as 16 scales from Ware's factors plus a single *familiar - unfamiliar* scale. It is to be noted that the added scales, in fact, do not violate the subjects' spontaneous responses to the stimuli, since almost without an exception the words of the added scales appear as identical or synonymous and with high frequency and diversity in the list of the elicited qualifiers.

A sample of 100 subjects, comparable to that of the elicitation phase, rated the personality concepts also used in the elicitation.

Results

Five factors could be interpreted from the data. They explained 90.0 % of the total variance of the ratings. Three of the factors represented typical affective components of meaning: Evaluation explained 53.3 per cent of total variance, Potency 8.5 %, and Activity 11.5 per cent of the total variance. In sum, the affective components explained 72.2 per cent of the total variance. Two other components, Self-confidence and Tolerance, shared the remaining 17.8 per cent of the total variance.

The result indicated that the affective components play a dominant role in our perceptions of other people. The components of meaning response elicited by another person's personality seem to be largely the same as the components elicited by concepts-in-general. Other students of personality ratings have also found that the factors from verbal descriptions of personality could be interpreted as topical variants of Osgood's three dimensions of affective meaning (Hallworth, 1965a, 1965b; Peterson, 1965).

Intuitively, the result and its interpretation seem valid, since another person apparently elicits a meaning response in the perceiver which is coded by using the affective components. Intuitively, it is also conceivable that the meaning response includes other components by means of which we identify the behaviors of another person more specifically than can be done by using only the affective components. The present empirical result, however, conflicts with this intuitively arrived at hypothesis, since only two other non-affective components were revealed in the meaning response.

Above it was observed that the factors of personality ratings can be readily conceived as variants of the affective components of meaning. Also, Allport and Odbert (1936) in their classic study of trait

names noted that most personality traits share evaluative connotations. Similarly, the social desirability factor in verbal judgments of personality has been suggested by some authors to be a special case of Osgood's Evaluation factor (Ford & Meisels, 1965). Since it seems highly probable that affective coding is a characteristic implicit in all or most judgments of personality, it is no wonder that in factor analysis the affective components are dominant. It is the very purpose of factor analysis to reveal those dimensions of the data where the common variance is largest. However, if there are other components in the meaning response, then the elimination of the shared affective components before factor analysis might reveal what they are. By following this logic, the data was re-analyzed by first eliminating the affective responses from the ratings by partialling out the 12 semantic differential scales from the intercorrelations of other scales, and then factoring the remaining matrix of intercorrelations.

The factorization gave six interpretable dimensions, which explained 85.7 per cent of the total variance. The factors were identified to index the following components of the meaning response: Trustworthiness (19.3 per cent of total variance), Self-confidence (18.7 %), Rationality (15.6 %), Uniqueness (11.9 %), Tolerance (11.7 %), and Sociability (8.3 %). In addition to the differences in the interpretation of factors between the unpartialled and partialled structure, there existed a notable difference between them in the distribution of variance over the separate components. In the unpartialled data, the first factor accounted for 52.2 % of the total variance, more than all of the remaining factors together. In contrast, in the partialled analysis, the variance was nearly evenly distributed over the separate dimensions, so that all of the factors contributed significantly to the total variance of ratings.

Conclusions

The findings indicate that the meaning response elicited by another person's personality is largely the same in its componential structure as the meaning response of verbal symbols in general. In addition, the meaning response was shown to include other components, which, however, cannot be revealed by the usual procedures, since the affective components dominate the others in the factor analysis. By first eliminating the affective components, six other components were revealed. They indicate that in the perception of other people, dis-

criminations are made according to whether a person is: a) trustworthy or untrustworthy, honest or dishonest, faitful or unfaithful (Trustworthiness factor); b) selfish or unselfish, unyielding or yielding, self-confident or insecure, tough or tender (Self-confidence factor); c) rational or irrational, logical or intuitive, wise or stupid (Rationality factor); d) usual or unusual, predictable or unpredictable, individualistic or regular (Uniqueness factor); e) has sense of humor — does not have sense of humor, broadminded or narrowminded, tolerant or intolerant (Tolerance factor); and f) solitary or sociable, self-contained or gregarious, impolite or polite, and ugly or beautiful (Sociability factor).

DISCUSSION AND SUMMARY

In the present work, the personality meaning response has been defined as signifying a mental process within a person, through which one can understand those responses in a person which another person elicits. These responses include such behaviors as recognition (greetings, for instance), various instrumental acts (aggressive behavior, escape), and more or less visible emotional reactions like blushing or changes in hormonal activity. Theoretically, this process is the same as Osgood's multicomponential representational mediation response (Osgood, 1952, 1953, 1963, 1966a, 1968a, 1969a). It can hardly be denied that Osgood's theory is the only serious effort which tries to achieve an understanding of meaning as a psychological phenomenon. Osgood's theory has been mainly used to describe how we understand and create verbal messages. The mental functions by which we decode the behavioral messages from other persons as persons and how we create such messages ourselves can be seen as identical to such psycholinguistic processes. Therefore it has been assumed that the meaning of another person is functionally the same as Osgood's representational mediation response.

The purpose of the present work was to learn what are the characteristics of such a meaning response. In order to be able to give an appropriate interpretation to the results one must look at some of the obvious limitations in the design of the studies.

It was previously noted that the only satisfactory index of meaning with humans is the language they use. In this work, single words denoting personality traits, or rather, scales formed from these words, werc uscd as indiccs of mcaning. However, the language used by

people in their communication of ideas is not composed of words, but of sentences whose meaning is not deducible from individual words that are included in the sentences. It is therefore inevitable that by indexing meaning by using single words, the amount of possible distinctions that a natural language is able to register, is reduced. Consequently, the present results may underestimate a person's potential ability to discriminate meaning.

A crucial restriction of the present results as a source of knowledge from the personality meaning response is that only so called personality traits were used as indices of the response. Therefore, the design of the experiments fails to take into account various situational determinants of the meaning process. When speaking of a meaning response elicited by another person, one automatically associates it with real situations, where people are in actual social interaction with each other. In real life, however, not only the perceived personality characteristics of other persons, but also such factors as age, sex, occupation or profession, social status, other person's attitudes, interests, beliefs, political ideology, etc., operate on the kind of impression another person elicits. It would be unrealistic to exclude these factors from the considerations of what the meaning response elicited by another person is (cf., Heider, 1958).[1]

Also, in real life, the psychological climate of the situation has its effects on the kind of personality meaning response elicited. For instance, one may think that the motivational state of the perceiver influences what traits in another person he sees as important for the attainment of his goals. Rommetveit (1960) speaks of the instrumental relevance of traits for a perceiver, whereby he means that a person may be — consciously or unconsciously — differentially tuned to other person's characteristics. This means that depending on the requirements of a person's purpose, the personality meaning response can vary, say, to the salience of its components.

It is also accepted that the personality meaning response is a whole, that is, our impression of a person, although composed of different parts, still is a total response whose relation to its parts may be functionally quite complex. Asch's (1946) classic experiments serve as good examples, as well as those studies of person perception which specifically study the properties of that function which relates the

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[1] Further complications to an attempt to understand the personality meaning response is added by the fact that the stimulus of the response is hardly known in the experiments, i.e., what it is in another person that serves as a stimulus (or stimuli) to perception. See e.g., Heider's (1958, Ch. 2) discussion of the problem.

total impression from a person to its determinants (Anderson, 1962, 1965a, 1965b; Anderson & Norman, 1964; Cline, 1964; Himmelfarb & Senn, 1969).

The aim of this discussion as related to other problems of person perception is to underline that the present study on the components of the personality meaning response gives only limited information on the psychological processes which operate when such response is elicited. It is therefore evident that the present results can be better understood if they are integrated with some general frame of reference which describes the phenomena of person perception. Recently, Warr and Knapper (1968) have presented an analysis of the perception of people and events which suits this purpose quite well.

According to Warr and Knapper, when we perceive another person, the input from him can be divided into: 1) attributive process, whereby the perceiver attributes certain characteristics to the other person; attributive judgments are either episodic (judgments of overt and covert facts), or dispositional (judgments of overt and covert characteristics); 2) expectancy process, which includes the expectancies related to the attributive judgments, e.g., the organized beliefs that people have as to how personality traits are related to each other in other persons, and; 3) the affective component which consists of the emotional reactions to other people and their behavior.

The three processes form the information input from a person. The output, which can also be identified as the personality meaning response, has the same processes as attributive, expectancy and affective responses. Between the input and output a complex processing unit is in operation. As most relevant to this discussion, the processing unit contains a selector which selects the input both in terms of the present stimulus person information and the stored information from the stimulus. The latter kind of information is conceptualized as being a part of the perceiver's memory, i.e., it consists of the past interpretations of the stimulus person plus the affective reactions that go with them (for details, see Warr and Knapper, 1968, Ch. 1).

The present work can be integrated into Warr and Knapper's model if it is observed that, to be able to rate the given concepts meaningfully, the subjects had to rely on their earlier dispositional judgments of the stimuli. Therefore, another way to look at the components of the personality meaning response in this work, is to conceive them as part of that generalized stimulus person information which the subjects carry in their minds and which is retrieved whenever a judgment of another person is made. If may be noted that it is just this stored knowledge from other persons which Bruner and Tagiuri

(1954) labeled »the implicit theory of personality». The author feels that by giving this more specific definition to the components of the personality meaning response one may better see what the present findings tell about person perception.

The most important theoretical contribution of the present work to our understanding of the phenomena of person perception is that here the »implicit theory of personality» is conceptualized in behavior theoretical terms. The perception of other people is here seen as a decoding process that is functionally similar to Osgood's multicomponential representational mediation response.

The main empirical result regarding the structure of the meaning response comes from (vi). It shows that the affective components of meaning are the most dominant dimensions in person perception — so dominant indeed that they are an obstacle to the appearance of other components in a usual factor analysis of the data. The finding suggests that the knowledge which is stored from other persons is largely affectively coded and that it is the affective dimensions along which we carve up our interpersonal world. The result can be seen to validate Osgood's notion that basically the affective meaning components reflect the organism's most significant interactions with its environment (Miron & Osgood, 1966, p. 819), since there can hardly be any doubt that, of all classes of environmental variables, »other people» constitutes the one most fundamental to our well-being and survival — both biologically and psychologically. (Cf., Osgood, 1969b: ». . . In my opinion, it is the innateness of the emotional reaction system of the human animal that underlies the universality of the affective E-P-A components of meaning. . . . Organisms . . . which were unable to represent for themselves the good versus bad implications of the signs of things . . . the strong versus weak of things . . . and the quick versus slow of things . . . would have little chance of survival. In the human species these »gut» reactions to things appear as the affective meaning system (the E-P-A components of the total meaning), and it is these components which provide us with what might most appropriately be called the »feeling tones» of concepts as part of their total meaning.»)

Another finding from this study (vi) is that by removing the affective components from the subject's responses we can find other components which appear to be free from affective judgments. The result suggests that the meaning components may operate in hierarchical fashion when perceptions of other people are made or when information concerning a person is retrieved from memory. It seems at least plausible that in the decoding of information concerning other

people the affective components are given more weight than the others. Although the affective components are not as dominant in the other studies due to a special scale selection, a dominant evaluative factor appears also in them, and, for instance, in (i) the unrotated principal components were clearly interpretable as being similar to Evaluation, Potency and Activity.

In (i) to (iv) some other features of the personality meaning response were illuminated. Most important, the results in (i) show that there is a strong expectancy process, as suggested by Warr and Knapper, in the judgments of personality. That is, if a person is seen as, say, rational, then the person is expected to possess some other traits, such as tangibility, predictability, objectivity, and calmness, for instance. It is primarily the expectancies of the trait relationships which account for the invariance of the meaning components over situations, where, in some cases, the objects of perception do not objectively possess the traits for which ratings are required.

The absence of marked individual differences in the structure of the meaning response is one of the main findings of the present work, especially since the question has been raised whether a semantic differential type technique is valid in indexing individual cognitions (Scott, 1963, p. 270; Wiggins & Fishbein, 1969). The present results can be applied only to subjects whose characteristics place them within the normal range of individual variation, and no claim is here made as to the validity of the results for abnormal individuals, in whom gross deviations in cognitive functioning are known to exist. Also, the validity of the results is weakened by the fact that the design did not fulfil the requirements of a representative design (Brunswik, 1956) since the scales were given to the subjects and not elicited from them. Although there is evidence to the effect that the given versus own categories of personality ratings do not contrast as much as one is prone to think (Jaeckle, 1965; Tripodi & Bieri, 1963; Weksel, 1964), the present results need further validation from studies where the comparison between individuals is made on the basis of truly individual data.

Finally, it remains to be asked what are the components of the meaning response, as elicited by another person's personality. The present work indicates that people mostly store information from other persons that can be coded in terms of Osgood's affective meaning system. In most general terms, one can interpret this finding by saying that another person is perceived either as good or bad, strong or weak, and either passive or active. In addition, all of the studies gave evidence to the effect that another person is seen as rational or irrational

(Rationality factor), sociable or unsociable (Sociability), and usual or unusual (Uniqueness). In (vi) it was indicated that in addition to these, another person is perceived as dependable or undependable (Trustworthiness), self-confident or insecure (Self-confidence) and either as tolerant or intolerant (Tolerance factor). As all of these components are based on an indigenous scale selection, they can be conceived as best representing the ordinary man's categories of person perception.

The other studies, (i) to (iv), indicate that, when using a given set of rating scales, the subjects also perceive differences between other persons in traits denoting toughness versus tenderness of character. The component of Dynamism, which is a common combination of Activity and Potency in personality rating data, appears in (iii), and in a special situation, like that of a classroom, a special combination of traits may be a relevant component in differentiating other persons (cf., Expressive Dominance factor). As minor components from studies (i) to (iv) emerge factors like Physical Potency and Physical Activity which indicate that physical characteristics, too, serve as a basis for discriminations between other people.

This work is part of a research project, in which the meaning of another person's personality is studied across different language and culture groups. In a cross-cultural study, one is usually interested in what is culturally unique as opposed to that which is universal. The present findings show that »the implicit theory of personality» as found in Finnish subjects includes two kind of components, affective and non-affective. As regards cross-cultural comparisons, it seems conceivable that the affective components are culturally universal and that the non-affective components are culturally more unique. In future research, the most intriquing question is, how unique are the implicit theories of personality entertained by people in different cultures.

REFERENCES

Accurso, R. Development of a music differential. Unpublished master's thesis, University of Illinois, 1967.

Ahmavaara, Y. Transformation analysis of factorial data. *Annales Academiae Scientiarum Fennicae, B 88, 2.* Helsinki, 1954.

Allport, G. W. & Odbert, H. S. Trait-names: a psycho-lexical study. *Psychological Monographs,* 1936, *47,* No. 1.

Anderson, N. H. Application of an additive model to impression formation. *Science,* 1962, *138,* 817—818.

Anderson, N. H. Averaging versus adding as a stimulus-combination rule in impression formation. *Journal of Experimental Psychology,* 1965, *70,* 394 —400. (a)

Anderson, N. H. Primacy effects in personality impression formation using a generalized order effect paradigm. *Journal of Personality and Social Psychology,* 1965, *2,* 1—9. (b)

Anderson, N. H. & Norman, A. Order effects in impression formation in four classes of stimuli. *Journal of Abnormal and Social Psychology,* 1964, *69,* 467 —471.

Asch, S. E. Forming impressions of personality. *Journal of Abnormal and Social Psychology,* 1946, *41,* 258—290.

Bannister, D. & Mair, J. M. M. *The evaluation of personal constructs.* London: The Academic Press, 1968.

Bruner, J. S. & Tagiuri, R. The perception of people. In G. Lindzey (Ed.), *Handbook of social psychology.* Vol. 2. *Special fields and applications.* Cambridge: Addison-Wesley, 1954. Pp. 634—654.

Brunswik, E. *Perception and the representative design of psychological experiments.* Berkeley: University of California Press, 1956.

Cline, V. B. Interpersonal perception. In B. A. Maher (Ed.), *Progress in experimental personality research.* Vol. 1. New York: Academic Press, 1964.

Ford, L. H. Jr. & Meisels, M. Social desirability and the semantic differential. *Educational and Psychological Measurement,* 1965, *25* (2): 465—475.

Hallworth, H. J. Dimensions of personality and meaning. *British Journal of Social and Clinical Psychology,* 1965, *4,* 161—168. (a)

Hallworth, H. J. The dimensions of personality among children of school age. *The British Journal of Mathematical and Statistical Psychology, 18* (1): 45 —56. (b)

Harman, H. H. *Modern factor analysis.* Chicago: University of Chicago Press, 1960.

Hays, W. L. *Statistics for psychologist.* New York: Rinehart, and Winston, 1963.

Heider, F. *The psychology of interpersonal relations.* New York: John Wiley & Sons, Inc., 1958.

Himmelfarb, S. & Senn, D. J. Forming impressions of social class: two tests

of an averaging model. *Journal of Personality and Social Psychology,* 1969, *12,* 38—51.

Jaeckle, W. R. A comparison of responses made to personal and public constructs. *Dissertation Abstracts,* 1965, *26,* 2860.

Jakobovits, L. A. Comparative psycholinguistics in the study of cultures. *International Journal of Psychology,* 1966, *1,* 15—37.

Kuusinen, J. Ryhmän ja yksilön välinen vastaavuus persoonallisuuden piirteistä suoritettujen arviointien faktorirakenteissa (Correspondence between group and individual in the factor structure of personality ratings). Unpublished licentiate thesis, University of Jyväskylä, 1967.

Miron, M. S. What it is that is being differentiated by the semantic differential. *Journal of Personality and Social Psychology,* 1969, *12,* 189—193.

Miron, M. S. & Osgood, C. E. Language behavior: the multivariate structure of qualification. In R. B. Cattel (Ed.), *Handbook of multivariate experimental psychology.* Chicago: Rand McNally, 1966. Pp. 790—819.

Mustonen, S. Symmetrinen transformaatioanalyysi (Symmetrical transformation analysis). *Reports from the Social Research Institute for Alcohol Studies,* 1966, No. 24. Helsinki.

Nordenstreng, K. Toward quantification of meaning: an evaluation of the semantic differential technique. *Annales Academiae Scientiarum Fennicae, B 161, 2.* Helsinki, 1969.

Osgood, C. E. The nature and measurement of meaning. *Psychological Bulletin,* 1952, *49,* 197—237.

Osgood, C. E. *Method and theory of experimental psychology.* New York: Oxford University Press, 1953.

Osgood, C. E. Studies on the generality of affective meaning systems. *American Psychologist,* 1962, *17,* 10—28.

Osgood, C. E. On understanding and creating sentences. *American Psychologist,* 1963, *18,* 735—751.

Osgood, C. E. Semantic differential technique in the comparative study of cultures. *American Anthropologist,* 1964, *66* (3): 171—200.

Osgood, C. E. Meaning cannot be r_m? *Journal of Verbal Learning and Verbal Behavior,* 1966, *5,* 402—407. (a)

Osgood, C. E. Dimensionality of the semantic space for communication via facial expressions. *Scandinavian Journal of Psychology,* 1966, *7,* 1—30. (b)

Osgood, C. E. Toward wedding of insufficiences. In T. R. Dixon & D. L. Horton (Eds.), *Verbal behavior and general behavior theory.* Englewood Cliffs: Prentice-Hall, Inc., 1968. Pp. 495—519. (a)

Osgood, C. E. Interpersonal verbs and interpersonal behavior. Technical Report No. 64 (68—9), November, 1968, Institute of Communications Research, University of Illinois, Contract NR 177—472, Nonr 1834 (36), Office of Naval Research. (b)

Osgood, C. E. Is neo-behaviorism up a blind alley? Unpublished manuscript, University of Illinois, 1969. (a)

Osgood, C. E. On the whys and wherefores of E, P, and A. *Journal of Personality and Social Psychology,* 1969, *12,* 194—199. (b)

Osgood, C. E. & Sebeok, T. A. *Psycholinguistics.* Bloomington: Indiana University Press, 1965.

Osgood, C. E., Suci, G. & Tannenbaum, P. *The measurement of meaning.* Urbana: University of Illinois Press, 1957.

Peterson, D. R. Scope and generality of verbally defined personality factors. *Psychological Review,* 1965, *72,* 48—59.

Rommetveit, R. *Selectivity, intuition and halo effects in social perception.* Oslo, Oslo University Press, 1960.

Scott, W. A. Measuring cognitive structure. In O. Harvey (Ed.), *Motivation and social interaction.* New York: The Ronald Press Company, 1963. Pp. 266—288.

Shannon, C. E. & Weaver, W. *The mathematical theory of communication.* Urbana: University of Illinois Press, 1949.

Snider, J. G. & Osgood, C. E. (Eds.). *Semantic differential technique.* Chicago: Aldine Publishing Company, 1969.

Tanaka, Y., May, W. & Iwamatsu, Y. Psycholinguistic studies on the cross-cultural generality in cognitive interaction. Unpublished manuscript, University of Illinois, 1967.

Todd, F. J. & Rappoport, L. A cognitive structure approach to person perception: a comparison of two models. *Journal of Abnormal and Social Psychology,* 1964, *68,* 469—478.

Triandis, H. Exploratory factor analysis of the behavioral components of social attitude. *Journal of Abnormal and Social Psychology,* 1964, *68,* 420—430.

Tripodi, T. & Bieri, J. Cognitive complexity as a function of own and provided constructs. *Psychological Reports,* 1963, *13,* 23.

Underwood, B. J. & Schultz, R. W. *Meaningfulness and verbal learning.* New York: Lippincott, 1960.

Warr, P. B. & Knapper, C. *The perception of people and events.* London: John Wiley & Sons, 1968.

Weinreich, U. Travels through semantic space. *Word,* 1958, *14,* 346—366.

Weksel, W. A multidimensional approach to social perception. *Dissertation Abstracts,* 1964, *24,* 5589.

Wiggins, N. & Fishbein, M. Dimensions of semantic space: a problem of individual differences. In J. G. Snider & C. E. Osgood (Eds.), *Semantic differential technique.* Chicago: Aldine Publishing Company, 1969. Pp. 183—193.