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A FACET-ANALYTICAL APPROACH OF INTERPERSONAL BEHAVIOR¹

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The final solution of Foa's facet structure of interpersonal behavior came to a dead end, because several authors have represented the facet structure in their own manner, which is not in accordance with Foa's. One of the reasons for this unclarity of Foa's facet structure is the rather strange definition of the second facet: The object of behavior (the other – the self), which is not a behavioral, but more a perceptual differentiation. Also, his eight behavioral types are misleading in their definition. A solution for these problems will be to re-analyse the facet structure of interpersonal behavior. Starting-points for this are the psychopathological theories, the theory of Erikson in particular. A new facet structure is proposed and empirical support is given.

During the years 1955-1970 a number of schemata has been proposed for the classification of interpersonal behavior. Apart from the classical factor analytical approach, several studies (e.g. Leary, 1957; Schaefer, 1959; Lorr & Mc Nair, 1963, 1965; Becker & Krug, 1964; Stern, 1970) classify interpersonal behavior by means of the circumplex pattern, being a simple ordered structure of organisation of interpersonal behavior (Guttman, 1954). A third potentially very useful approach which gives a theoretical basis for the circumplex structure, is the facet-analytical approach (Guttman, 1958). It was introduced into the area of interpersonal behavior by Foa (1961, 1965). Facet-analysis is a systematic definition of variables within a specific research field in terms of facets, which leads to prediction of the empirical interrelationship among the variables.

Since 1970 almost nothing has been published about this research topic. This can lead to two conclusions: 1. a satisfactory solution was found for the classification of interpersonal behavior, or 2. no solution was forthcoming and the path simply came to a dead end.

The proposition of this paper is that the second conclusion is correct. A survey of some reviews (e.g. Carson, 1970; Rinn, 1965; Swensen, 1973) reveals that these authors interpret and represent the facet structure of Foa in their own way, which often is not in accordance with the opinion of Foa. Perhaps this means that the facet-analysis of Foa is not very clear, especially since Foa himself (1961, 1962, 1965, 1966) has been forced to modify his facet structure to fit the empirical

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facts. However, even his final solution (Foa, 1966) is not totally satisfying.

The purpose of this paper is to re-analyse the theoretical background of Foa's facet structure and to try to find a better solution to the problem of the facet structure of interpersonal behavior. Empirical support for the new facet analysis will also be given.

THE FACET STRUCTURE PROPOSED BY FOA

In his monograph, Foa (1966) proposes that the types of interpersonal behavior can be defined by the following facets :

- A. content of behavior : a_1 acceptance or giving and a_2 rejecting or taking away
- B. object of behavior : b_1 the other (non-actor) and b_2 the self (actor)
- C. mode of behavior : c_1 social or status and c_2 emotion or love.

Taking profiles over the elements of the facets yields eight behavioral types :

1. $a_1 b_1 c_1$: social acceptance of the other
2. $a_1 b_1 c_2$: emotional acceptance of the other
3. $a_1 b_2 c_2$: emotional acceptance of self
4. $a_1 b_2 c_1$: social acceptance of self
5. $a_2 b_2 c_1$: social rejection of self
6. $a_2 b_2 c_2$: emotional rejection of self
7. $a_2 b_1 c_2$: emotional rejection of the other
8. $a_2 b_1 c_1$: social rejection of the other

Foa hypothesized that the relationship among these eight interpersonal behavior variables will approximate the circumplex pattern, in which the ordering of the variables is : $a_1 b_1 c_1 - a_1 b_1 c_2 - a_1 b_2 c_2 - a_1 b_2 c_1 - a_2 b_2 c_1 - a_2 b_2 c_2 - a_2 b_1 c_2 - a_2 b_1 c_1$, in accordance with the contiguity principle (Foa, 1958). To explain his hypothesis and also his choice of the facets, he refers to sequence of the genetic development. This suggests that differentiation of rejection from acceptance will occur first and the differentiation of status from affect last, with the differentiation of other from self, as objects, occurring at some intermediate time.

To test his hypothesis he construed a questionnaire according to the facet design with a three-question Guttman scale for each variable. The interrelationship among these scales is of circumplexial order. Tab. 1 shows the intercorrelation-matrix.

To give the variable scores a single meaning, from unfavorable (low acceptance or high rejection) to favorable (high acceptance or low rejection) to the interpersonal relation, Foa reversed the scores of the rejection variables. This explains the positive correlation coefficient between acceptance and rejection : It just means that the more frequent the acceptance the less frequent the rejection (Foa, 1966, p. 7).

type	1	2	3	4	5	6	7	8
1	—	.65	.27	.24	.06	.20	.35	.45
2	.65	—	.28	.16	.09	.20	.36	.40
3	.27	.28	—	.52	.28	.17	.01	.07
4	.24	.16	.52	—	.31	.17	-.11	-.01
5	.06	.09	.28	.31	—	.39	.18	.24
6	.20	.20	.17	.17	.39	—	.34	.35
7	.35	.36	.01	-.11	.18	.34	—	.53
8	.45	.40	.07	-.01	.24	.35	.53	—

TAB. I. AN EXAMPLE OF BEHAVIORAL CIRCUMPLEX (Foa, 1966, p. 7)

DISCUSSION OF FOA'S STRUCTURE

1. Foa introduces new definitions for interpersonal behaviors, while he does not give the correspondent classical variable names. These can only be derived from his items, which make any misinterpretation of his facet structure quite easy.

2. His genetic explanation of the facets is not very extensively founded. The first differentiation which he makes between accepting and rejecting very early in the child's life, is generally accepted by developmental psychologists and is similar to Erikson's (1963) first stage of ego development: trust versus distrust. The second differentiation, between actors (self-others), is rather strange. Although this differentiation is very important in children's development it is used more for the analysis of the perceptual structure in the development of the interpersonal relations. It does not give direct information about the behavioral differentiation of this stage. By referring again to Erikson's epigenesis, a more approximated differentiation can be made between autonomy versus doubt and shame, or between strong and weak, as positions in the interpersonal relation. Foa's third differentiation is rather well explained and is a good representation of the typical behavioral differentiation, which is given by developmental psychologists. However, while in the previous differentiations the elements are clearly bipolar, the question is open whether this bipolarity remains true for these elements. Erikson's differentiation of the third phase - initiative versus guilt - shows a certain agreement.

3. The definition of his eight behavioral types is unclear and misleading. Acceptance of self and rejection of others are, according to Foa, totally different qua facet equality. However, it can be argued that there is still an equality between these two definitions. Both represent a strong position in interpersonal relations, while acceptance of the other and rejection of self represent a weak position.

A solution for these problems is a re-definition of the second facet,

which is not a behavioral facet and leads to confusion. A new facet-approach can be proposed as follows :

- A. direction of behavior : a_1 approach or acceptance and a_2 avoidance or rejection
- B. position of behavior : b_1 strong or dominant and b_2 weak or dependent
- C. mode of behavior : c_1 social or status and c_2 emotion or love.

This facet structure implicitly agrees with the theory of Erikson and of most psycho-analytical authors, who distinguish in the development of the child three stages : the oral, anal, and phallic phase. It agrees

1. acceptance of the relation in a strong and social manner		
social acceptance of self		dominance – leadership
2. acceptance of the relation in a strong and emotional manner		
emotional acceptance of self		sociability – affection
3. acceptance of the relation in a weak and emotional manner		
emotional acceptance of the other		nurturance – agreeableness
4. acceptance of the relation in a weak and social manner		
social acceptance of the other		deference – dependency
5. rejection of the relation in a weak and social manner		
social rejection of self		abasement – inferiority
6. rejection of the relation in a weak and emotional manner		
emotional rejection of self		detachment – mistrust
7. rejection of the relation in a strong and emotional manner		
emotional rejection of the other		hostility – aggression
8. rejection of the relation in a strong and social manner		
social rejection of the other		autonomy – competition

TAB. 2. THE NEW FACET STRUCTURE IN COMPARISON WITH THAT OF FOA AND THE CLASSICAL VARIABLE NAMES

also with the three fundamental interpersonal relationship orientations of Schutz (1958) : inclusion, control and affection. To test the hypothesis of the circumplexical structure of these variables no technical and misleading reversion of scores is necessary.

In Tab. 2 the new facet structure is compared with that of Foa. Also the correspondent classical variable names are given.

EMPIRICAL FINDINGS IN SUPPORT OF THE NEW FACET STRUCTURE

INSTRUMENT

In accordance with the facet structure a questionnaire was constructed to measure the eight interpersonal variables. Starting from a large itempool and after several revisions, a definitive version of the instru-

ment, consisting of eight scales of ten items was obtained (V.I.R.-Vragenlijst Interpersoonlijke Relaties, Vertommen & Rochette, 1979). The reliability of the scales was satisfactory (mean internal consistency by K.R. 20 was .83; mean test-retest with 14 days interval was .86). The scales have high correlations with similar scales of other instruments (e.g. Barrett-Lennard, 1962; Laing, Phillipson and Lee, 1966; Schutz, 1958; Edwards, 1959) and were predictive to psychiatric disorders and occupational groups.

The questionnaire has different forms for different relations (father, mother, partner, and the others in general). Within each form the eight scales must be answered concerning four questions: how am I really in relation to x, how do I want to be in relation to x, how is x really in relation to me and how do I want x to be in relation to me. In this paper only the form: How am I really in relation to the others in general, is discussed.

METHODS AND RESULTS

To test the value of the new facet structure two methods are used: 1. inspection of the intercorrelation matrix and 2. a nonmetric multi-dimensional scaling method.

On the basis of the proposed facet structure of the variables the intercorrelation matrix can be predicted. The facet structure (Tab. 2) shows a circular order, i.e. an order without beginning nor end, and only one facet differs from one variable to another. In the empirical results higher correlations should be found near the main diagonal; moving away from this diagonal the coefficients should decrease and then increase again (Guttman, 1954). Referring to Stern (1970, p. 66-67) and Lorr & McNair (1963) the criterium for a circumplex structure for personality variables which are bipolar in the conceptualisation can be made more concrete: a circumplex matrix is characterised by high positive correlations along the main diagonal that decrease across successive minor diagonals and reach zero at the $n/4$ th variable from the starting point, then become increasingly negative toward the $n/2$ nd variable, move back towards

scales	1	2	3	4	5	6	7	8
1	(.81)	.23	.13	.01	-.32	.11	.23	.42
2	.23	(.81)	.57	.15	-.30	-.30	-.12	.22
3	.13	.57	(.87)	.15	-.02	-.13	-.14	.12
4	.01	.15	.15	(.84)	.34	.16	.19	-.17
5	-.32	-.36	-.02	.34	(.84)	.41	.19	-.17
6	.11	-.30	-.13	.16	.41	(.79)	.55	.14
7	.23	-.12	-.14	.19	.19	.55	(.83)	.31
8	.42	.22	.12	-.17	-.29	.14	.31	(.81)

TAB. 3. INTERCORRELATIONMATRIX OF V.I.R., FORM ME - TO - OTHERS (N = 869)

scales	1	2	3	4	5	6	7	8
1								
2	1.14							
3	1.38	.35						
4	1.87	1.47	1.21					
5	2.19	2.14	1.94	.79				
6	1.60	2.01	1.95	1.23	.87			
7	1.29	1.85	1.86	1.37	1.18	.35		
8	.27	1.33	1.54	1.83	2.06	1.04	1.07	

TAB. 4. DISTANCE BETWEEN THE VARIABLES OF V.I.R., FORM ME - TO - OTHERS (N = 869)

scales	I	II
1	+.78	+.61
2	+.96	-.51
3	+.73	-.76
4	-.48	-.76
5	-1.18	-.38
6	-.82	+.42
7	-.52	+.61
8	+.54	+.76
mean	.00	.00
sigma	.78	.62

TAB. 5. FINAL CONFIGURATION ON MINISSA-I IN A TWO-DIMENSIONAL SPACE

zero for the $n/4$ th variable from the end of the sequence, and finally reach high positive values in the off-diagonal corner of the matrix.

Tab. 3 gives the intercorrelation matrix of the V.I.R., form ME - to - others on the real level, for a group of 869 subjects, representative of the Flemish adult population between 18-65 years.

The correlations between the variables of Tab. 3 suggest clearly the circumplex structure of the variables. However, the increases or decreases are not monotone. The fact that the circumplex structure is not ideally obtained, can be ascribed to the imperfect reliability of the scales (given in Table 3 on the main diagonal) and to the different impact of the three facets on the correlations between the variables. It is possible that the first facet has a greater impact on the correlations than the two others.

The circumplex structure can be tested further with a nonmetrical multidimensional scaling method. This method is connected to the basic assumptions of the order analysis. The correlation between the variables can be conceived as a measure of distance; the higher the correlation between two variables, the closer they are situated in the n -dimensional space.

If the circumplex structure of variables is present in the empirical material, the variables must be circularly situated in a two-dimensional space. To test this, the method of Lingoes & Roskam - MINISSA I - (1973) is used.

Tab. 4 shows the distances between the variables using the correlations of Tab. 3, whereas in Tab. 5 the final configuration in a two-dimensional space is given. The stress function of this solution is .029. In Fig. 1 the two-dimensional solution is represented graphically.

Tab. 5 and Fig. 1 show evidence for the circumplex structure of the variables of the V.I.R., and the order is in accordance with the facet-analytical approach to the variables. However, the results of the nonmetric multidimensional method show imperfections. The variables are not equally spaced, the smallest distances being between variable 1 and 8, 3 and 2, and 6 and 7. Further research can provide more information concerning these constellations.

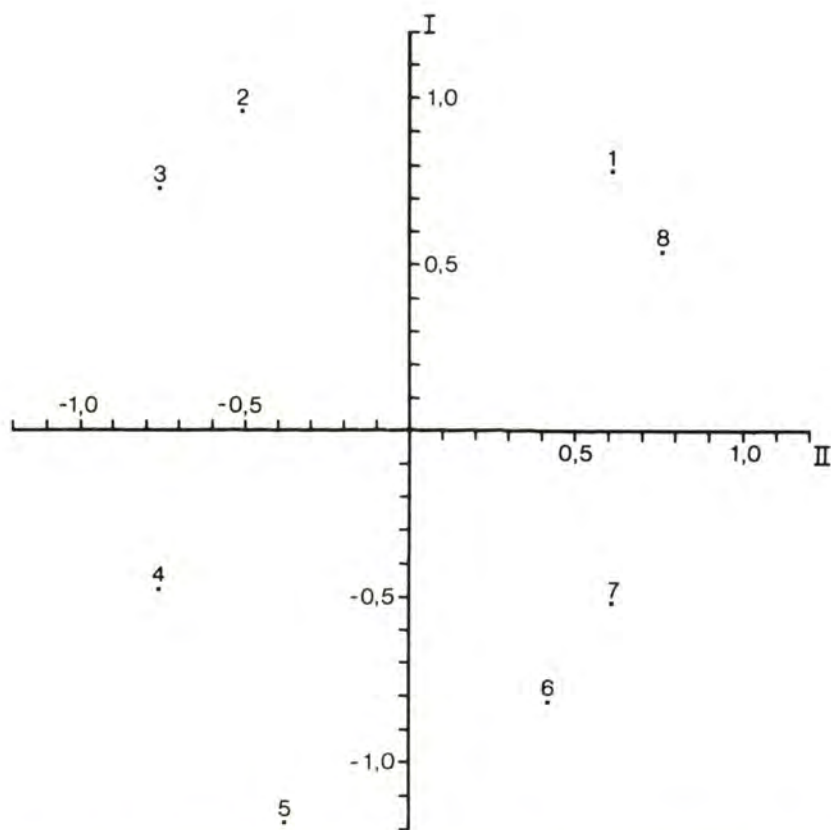


FIG. 1. GRAPHIC REPRESENTATION OF THE VARIABLES OF V.I.R. IN A TWO-DIMENSIONAL SPACE

The facet-analytical approach to interpersonal behavior has the great advantage that it gives order and theoretical insight in the many attempts at classification of interpersonal behavior. This is especially important because the solution of Foa's facet structure is not totally satisfying. In 1965 Lorr & McNair (p. 828-829) mentioned the imperfections of Foa's theory:

The facet model represents an ingenious beginning. However, it has certain defects which require discussion. The 'profiles' or types are defined in abstract inferential language (...) and are not especially helpful in identifying the actual interpersonal behaviors involved (...). Also circular sequence is attained by unusual scoring (...). With conventional scoring the correlations between accepting and rejecting behaviors are negative (...). Finally it would appear that the number of the facets required to explain known interpersonal interactions established in the present study should be greater than three.

Except for the final critique – for which no evidence is given – the described defects are accurate. During the construction of the questionnaire (v.i.r.) the same difficulties were encountered as indicated by Lorr & McNair.

The reason for Foa's unusual scoring method is his obvious dependence on the facet theory of Guttman, applied to intelligence and skills, a field in which there are no bipolarities and where facets are present or absent. The correlation matrix consists then only of positive or zero correlations. Explaining negative correlations requires an unusual scoring method or a modified theory of facets. This modification is necessary for a good theory of interpersonal behaviors. Bipolarities in behavior are here clearly present and any theory which ignores this fact becomes impossible and unclear. Indeed, most researchers find matrices with negative correlations, and where these are not present, as in La Forge & Suczek (1955), indications are given (Rinn, 1965, p. 458) that it is due to a response bias. A modified vision of facets is required to give insight into interpersonal behaviors. Foa provides it in his facet analysis and gives bipolar facets (e.g. accepting versus rejecting), but adapts his correlation matrix to the usual form of those of intelligence or skills.

More modification is required concerning the facets themselves. An adequate approach for finding the primary facets of interpersonal relations is given in the psychopathological theories, the theory of Erikson – among others – being a good example. In his developmental approach he describes the basic stages of ego development, whereby the first three stages are the most important. The nuclear conflicts for the ego at each developmental stage give a dimension to the personality structure and to the relation of one person to another. Working further on Erikson's approach, a good solution for the facet structure of interpersonal behavior was found, which is supported by empirical findings. It indirectly supports the theory of psychoanalytical

writers about the genetically founded basic dimensions of interpersonal behavior and the theory of Schutz about the three fundamental interpersonal relationship orientations.

Further research is required to find the reasons for the less-than-ideal circumplex structure of the results. So far, unequal influence of the facets upon the interpersonal variables is hypothesized as one possible reason.

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