Organizational culture and individual values: evidence for a common structure[1]

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Abstract

Values are of particular importance in research on organizational culture and on person-organization fit. However, findings from social psychological and cross-cultural values research are only partly considered and integrated in organizational studies. The present paper tries to bridge this gap by highlighting some basic commonalities. We reconsider the O'Reilly, Chatman, and Caldwell's approach to 'organizational culture' by falling back on Schwartz' cross-cultural theory on universals in the content and structure of values. First, we sketch out assessment procedures and core ideas of both approaches. Then, we demonstrate their application using organizational data. Data analysis is accomplished by applying non-metric multidimensional scaling. Mapping both scale scores and items of the 'Organizational Culture Profile' (OCP) onto Schwartz' basic value dimensions reveals a clear two-dimensional structure of the OCP. These results are discussed with respect to a more efficient transfer of research findings, taking the relation between values and conflict styles as an example.

1 Introduction

Research on person-organization fit has paid considerable attention to *organizational culture* in the past, with 'culture' being conceived of as a set of cognitions that are shared by members of a social unit or organization. Central to these cognitions are *basic values* supposed to guide individual behavior. Consequently, the congruence between individual and organizational values is considered crucial for person-organization fit (e.g., Chatman, 1991; O'Reilly, Chatman, & Caldwell, 1991). This, in turn, has important implications for organizational culture and managing conflicts (resolving or encouraging) that arise.

Given the focal position of values in this context, it is somehow astonishing that there is no closer connection and exchange between organizational studies on the one hand and social psychological and cross-cultural values research on the other. The

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present paper intends to bridge this gap by highlighting some basic commonalities. This is accomplished by referring to two approaches which have been repeatedly applied in organizational and cross-cultural research: O'Reilly, Chatman, and Caldwell's (1991) Organizational Culture Profile (OCP) analysis and Schwartz' (1992) theory about universals in the content and structure of values. We begin with a discussion of these approaches for assessing (organizational) values and culture. Then, we demonstrate their application using organizational data. Finally, we indi-cate how future research may profit from merging findings about organizational culture and value structures, citing evidence from recent research on values and conflict styles for illustrative purposes.

2 Value Structures and Culture Profiles

In order to investigate person-organization fit, O'Reilly et al. (1991) developed an instrument that ”contains a set of value statements that can be used to idiographically assess both the extent to which certain values characterize a target organization and an individual's preference for that particular configuration of values” (p. 494). This instrument, called the *'Organizational Culture Profile'* (OCP), is a Q-Sort technique requiring subjects to sort 54 items into nine ordered categories. Depending on whether the characteristics of an organization or the value preferences of a specific individual are to be assessed, categories range from most to least characteristic or desirable, respectively. In case the profile of an organization's culture is to be developed, respondents which are sufficiently familiar with the target organization are asked to perform the sorting task. These respondents may pertain to separate groups, thus introducing different perspectives into the overall assessment. The extent to which the organization's values are shared can then be investigated by correlational procedures (cf. O'Reilly, Chatman & Caldwell, 1991).

Principal component analysis of data from a sample of M.B.A. students and new accountants (N=395) resulted in *eight factors* tentatively labeled innovation and risk taking (factor 1), attention to detail (factor 2), orientation toward outcomes or results (factor 3), aggressiveness and competitiveness (factor 4), supportiveness (factor 5), emphasis on growth and rewards (factor 6), a collaborative and team orientation (factor 7), and decisiveness (factor 8) (cf., O'Reilly et al., 1991, p. 502 for more detail). The OCP item set is reproduced in Table 1 (first column).

Since then, the OCP has been applied in a number of studies on organization and management, and the underlying *values taxonomy* has been further investigated and elaborated (Chatman & Jehn, 1994; Jehn, Chadwick & Thatcher, 1997; Howard, 1998). It seems quite reasonable, therefore, to ask whether and to what extent this approach can be linked to other psychological research into the taxonomical structure of values.

3 Schwartz' Theory on Universals in the Content and Structure of Values

Schwartz' (1992, 1994; Smith & Schwartz, 1997) theory on the structure of values seems particularly suited for answering this question. His cross-cultural studies, mainly accomplished with the 'Schwartz Value Survey' (SVS), have considerably influenced today's reasoning about values' structure in social and cross-cultural psychology. Probably more important, however, there is considerable evidence that the organization of values as postulated by his theory is found with other assessment in-

Table 1: OCP items and their a priori assignment to the basic value dimensions defined by Schwartz (1992).

Items	**a priori classification**
1. Flexibility	
2. Adaptability	
3. Stability	conservation
4. Predictability	conservation
5. Being innovative	openness
6. Being quick to take advantage of opportunities	self-enhancement
7. A willingness to experiment	openness
8. Risk tasking	openness
9. Being careful	conservation
10. Autonomy	openness
11. Being rule oriented	conservation
12. Being analytical	
13. Paying attention to detail	[conservation][2]
14. Being precise	[conservation]
15. Being team oriented	self-transcendence
16. Sharing information freely	self-transcendence
17. Emphasizing a single culture throughout the organization	conservation
18. Being people oriented	self-transcendence
19. Fairness	self-transcendence
20. Respect for the individual's right	self-transcendence
21. Tolerance	self-transcendence
22. Informality	
23. Being easy going	
24. Being calm	
25. Being supportive	self-transcendence
26. Being aggressive	self-enhancement

(table continues)

[2] Assignments in brackets proposed by Schwartz (personal communication, October 10, 1998).

(continued)

Items	**a priori classification**
27. Decisiveness	self-enhancement
28. Action orientation	
29. Taking initiative	self-enhancement
30. Being reflective	
31. Achievement orientation	self-enhancement
32. Being demanding	self-enhancement
33. Taking individual responsibility	
34. Having high expectations for performance	self-enhancement
35. Opportunities for professional growth	self-enhancement
36. High pay for good performance	self-enhancement
37. Security of employment	conservation
38. Offers praise for good performance	[self-transcendence]
39. Low level of conflict	
40. Confronting conflict directly	self-enhancement
41. Developing friends at work	self-transcendence
42. Fitting in	conservation
43. Working in collaboration with others	self-transcendence
44. Enthusiasm for the job	[openness]
45. Working long hours	self-enhancement
46. Not being constrained by many rules	openness
47. An emphasis on quality	self-enhancement
48. Being distinctive-different from others	openness
49. Having a good reputation	
50. Being socially responsible	[self-transcendence]
51. Being results oriented	self-enhancement
52. Having a clear guiding philosophy	conservation
53. Being competitive	self-enhancement
54. Being highly organized	

struments, too. Thus, former research using the 'Rokeach Value Survey' (RVS) yielded a configuration which is quite similar to that postulated by Schwartz (cf. Schwartz & Bilsky, 1987, 1990). Further though indirect evidence exists that data collected with Allport and Vernon's (1931) 'Study of Values' closely match his model (cf. Bilsky & Schwartz, 1994). Finally, more recent studies with both a newly developed instrument, the 'Portraits Questionnaire' (PQ; Schwartz, Melech, Lehmann, Burgess, Harris & Owens, 2001; Bubeck, 1999), as well as McClelland's (1991) 'Personal Values Questionnaire' (PVQ), Kilmann's (1975) 'Insight Test' (KIT), and Morris' (1956) 'Ways to Live' as operationalized by Dempsey and Dukes (1966) provided additional support to the applicability of Schwartz' theory (cf. Bilsky & Koch, 2000).

In his current approach, Schwartz (1992) builds and elaborates on an earlier version of the values theory (Schwartz & Bilsky, 1987, 1990) which contends that, aside from some formal features, the focal content aspect of a value is the *type of goal* or *motivational concern* that it expresses. Starting from eight distinct motivational types

of values, Schwartz extended the former approach due to additional comprehensive and scrupulous analyses of literature as well as empirical evidence from a multitude of cross-cultural studies. One significant feature of this approach is that it does not confine itself to the mere distinction of value types. Rather, the theory specifies a set of *dynamic relations* among these types by referring to mutual compatibilities and conflicts in the pursuit of the respective goals. Finally and most importantly for the present analysis, examination of the aforementioned compatibilities and conflicts among value types led Schwartz to suggest a simpler way to describe value structures: In accordance with both theory and data, the relation among value types can be summarized in terms of a *two-dimensional bipolar structure*.

The first of these dimensions is called 'openness to change versus conservation' and ”arrays values in terms of the extent to which they motivate people to follow their own intellectual and emotional interests in unpredictable and uncertain directions versus to preserve the status quo and the certainty it provides in relationships with close others, institutions, and traditions” (Schwartz, 1992, p. 43). The second, 'self-enhancement versus self-transcendence', groups them ”in terms of the extent to which they motivate people to enhance their own personal interests ... versus the extent to which they motivate people to transcend selfish concerns and promote the welfare of others ...” (p. 42ff). Figure 1 represents the theoretical model validated by Schwartz on the basis of more than 200 samples from some 60 different countries[3]. It serves as the conceptual basis for our subsequent analysis.

4 Mapping the Organizational Culture Profile onto Schwartz’ Value Dimensions

4.1 Conceptual and methodological approach

The objective of our study is to investigate the extent to which the items of the OCP can be mapped on the two bipolar dimensions theoretically founded in Schwartz' (1992) cross-cultural theory of the structure of values. We hypothesize that, following the definition of these dimensions, it is possible to assign most if not all of the OCP items to the respective poles of these basic value dimensions *a priori* to empirical analysis (see Table 1). The adequacy of this assignment can then be tested empirically by appropriate data analysis techniques.

Data analyzed for testing our hypothesis originate from a quasi-experimental study of eighty-eight work teams, formerly published by Jehn, Chadwick, and Thatcher (1997) on the effects of value congruence, individual demographic dissimilarity, and conflict on workgroup outcome. In that study, the OCP served as an assessment instrument for measuring value congruence. The OCP consists of 54 items regarding

[3] personal communication (October 10, 1998).

workplace values which employees sorted into 9 categories („most unimportant" to „most important"). The specific items are listed in Table 1.

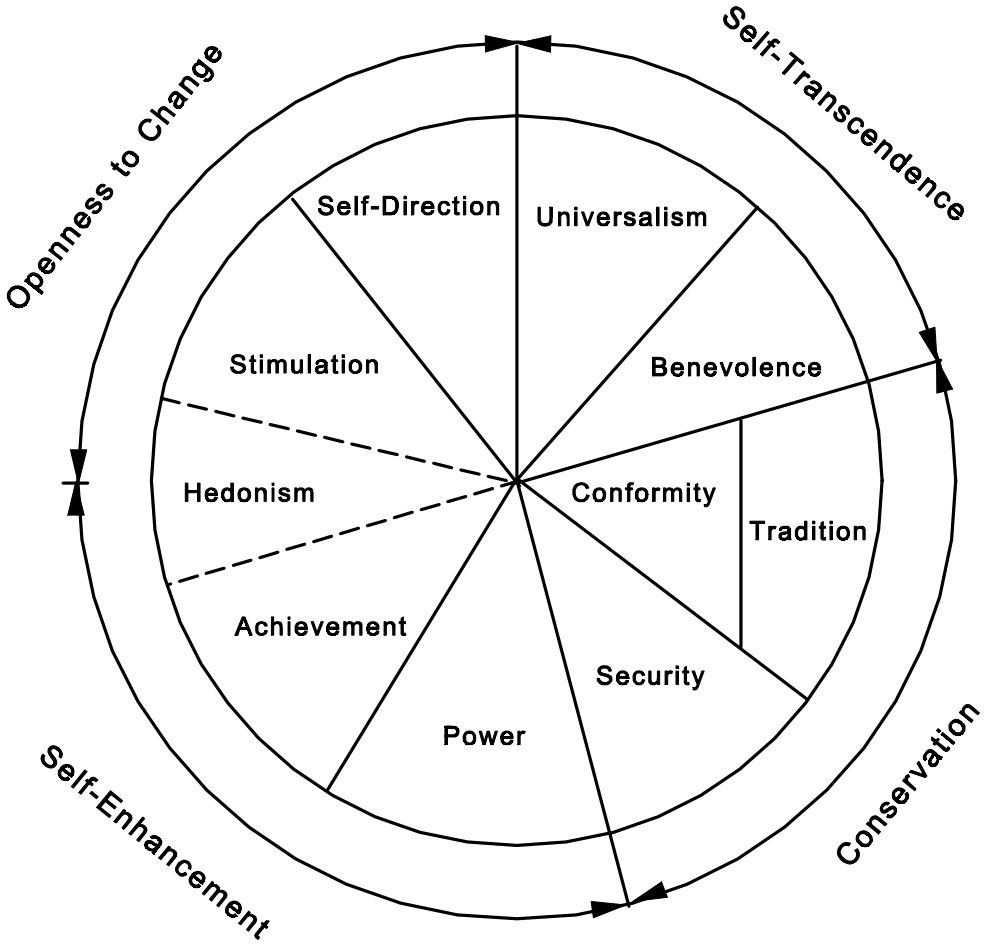


Figure 1: Theoretical model of relations among motivational value types and two basic bipolar value dimensions according to Schwartz (1992).

Data analysis is accomplished by means of nonmetric multidimensional scaling (MDS; Borg & Groenen, 1997; Shye, 1994). This analytic procedure has been successfully applied as a *confirmatory approach* of theory testing in a large number of studies, e.g. on values structure, during the past two and a half decades (e.g., Elizur, Borg, Hunt & Beck, 1991; Levy, 1990; Schwartz & Bilsky, 1987; further examples of theory testing by means of MDS may be found in Borg & Shye, 1995; Canter, 1985; Dancer, 1990; Guttman & Greenbaum, 1998). It represents the empirical relations (e.g., correlations) between variables as distances in a low-dimensional space such that a closer relationship (i.e., higher correlation) corresponds to a smaller distance between the respective variable points. On condition that there is a *theory* that suggests an a priori classification of items into conceptually homogeneous categories, we expect these variables to form *coherent regions* when applying MDS to *empirical data*. In other words, we formulate theoretically grounded *regional hypotheses* about

the structure of the variables under study. The *empirical test* of whether these hypotheses hold or not is carried out by inserting boundary lines according to the a priori classifications. Thus, boundaries are expected to clearly separate theoretically different variables from one another. While (nonrandom) enclosures of items in conceptually different regions violate the theoretical assumption of regional homogeneity, bends or curves of the boundaries are of no importance as long as partitioning of space follows some general rules specified by *facet theory* (Borg & Shye, 1995; see also Levy, 1985, for prototypes of regional hypotheses).

It should be noted that regions are not necessarily clusters that can be identified by empty space around them. Rather, ”regional hypotheses are generally for a space that in principle has points everywhere. This means that some variables in one region may correlate less with other variables of the same region than they do with variables from other regions” (Levy, 1985 p. 76). To put it differently, regional hypotheses relate to *populations of items* that can be distinguished from each other only on conceptual grounds. Consequently, when using MDS in a confirmatory way, partitioning of space can only be achieved by referring to a theory-based a priori classification of items.

4.2 A priori classification of OCP-items

Starting from these general assumptions, all 54 items of the Organizational Culture Profile were scrutinized with respect to a possible relation to the basic value dimensions. This task was accomplished by the first author and two of his collaborators who were well acquainted with Schwartz' values theory but did neither know the OCP and research related to it, nor the aim of this study. Classifications were carried out in a 'conservative' way by closely referring to Schwartz' definitions (see Schwartz, 1992, and Schwartz & Sagiv, 1995, for a detailed specification of values and value structure) and leaving items unclassified in case of doubt. The results of this procedure are summarized in Table 1 (second column). Note that the *regional hypotheses* to be tested by multidimensional scaling analysis are specified by this a priori classification of items.

4.3 Data analysis and results

Data from the Jehn et al. (1997) study were analyzed in two steps, using SYSTAT for Windows, Version 5. First, an overall MDS was conducted, based on the intercorrelations of the *nine OCP scale scores* computed by Jehn and her colleagues (1997; Table 1, p. 297). Their value taxonomy is essentially the same as that proposed by O'Reilly et al. (1991); however, one deviation should be noted: 'Innovation' as identified by O'Reilly and his colleagues is now represented by two complementary scales called 'stability' and 'innovation'.

A two-dimensional MDS was chosen for representing the OCP scale scores, using Guttman's loss function (coefficient of alienation, *K*). The respective Shepard dia-

gram[4] did not point to any anomalies (degenerate solution). Scaling resulted in a coefficient of alienation $K = .15$ which is appropriate (cf. Borg & Groenen, 1997) for this type of analysis (proportion of variance $RSQ = .88$)[5]. Figure 2 summarizes the results of the MDS.

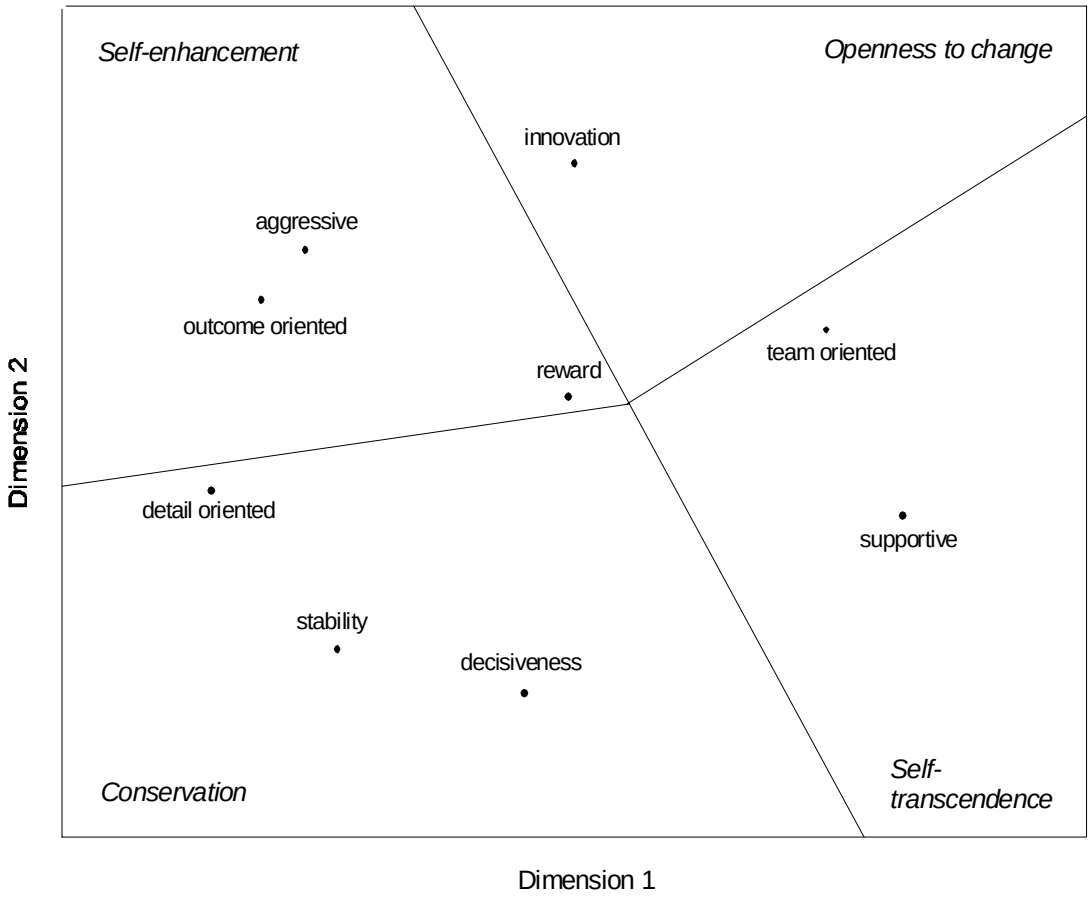


Figure 2: Two-dimensional MDS of the nine OCP-scale scores reported by Jehn et al. (1997).

Second, the correlation matrix of all *54 OCP-items* (N= 337) was submitted to the same analytic procedure. Because of the more extensive data set both a two- and a three-dimensional solution were chosen for representing the data.

Again, the Shepard diagrams were unobtrusive. Coefficients of alienation for the two- and three-dimensional MDS amounted to $K = .25$ ($RSQ = .70$) and $K = .17$ (RSQ

[4] Shepard diagrams plot distances between points in the MDS against observed (dis-) similarities.

[5] Using Kruskal's method instead, scaling resulted in a stress coefficient (form 1) $S = .12$ ($RSQ = .89$); the MDS plot of OCP scale scores looked essentially the same as Guttman's solution and is not reproduced, therefore.

= .79), respectively[6]. As usual in confirmatory MDS (Borg & Shye, 1995; Canter, 1985), partition lines were drawn according to our a priori classification of the OCP-items (see Table 1). Figure 3 shows that only three out of 54 items (i.e., 46, 50, and 52; in italics) resulted as misfits with respect to our regional hypotheses in the two-dimensional MDS. Furthermore, inspection of the three-dimensional MDS revealed that the projection of items on dimensions 1x2 perfectly corresponds to the two-dimensional solution. Thus, the more parsimonious configuration is accepted as an adequate representation of the basic structure of OCP-items as predicted by our regional hypothesis, despite its somewhat higher coefficient of alienation (see Borg & Groenen, 1997, for a detailed discussion of measures of fit).

5 Discussion and Perspectives

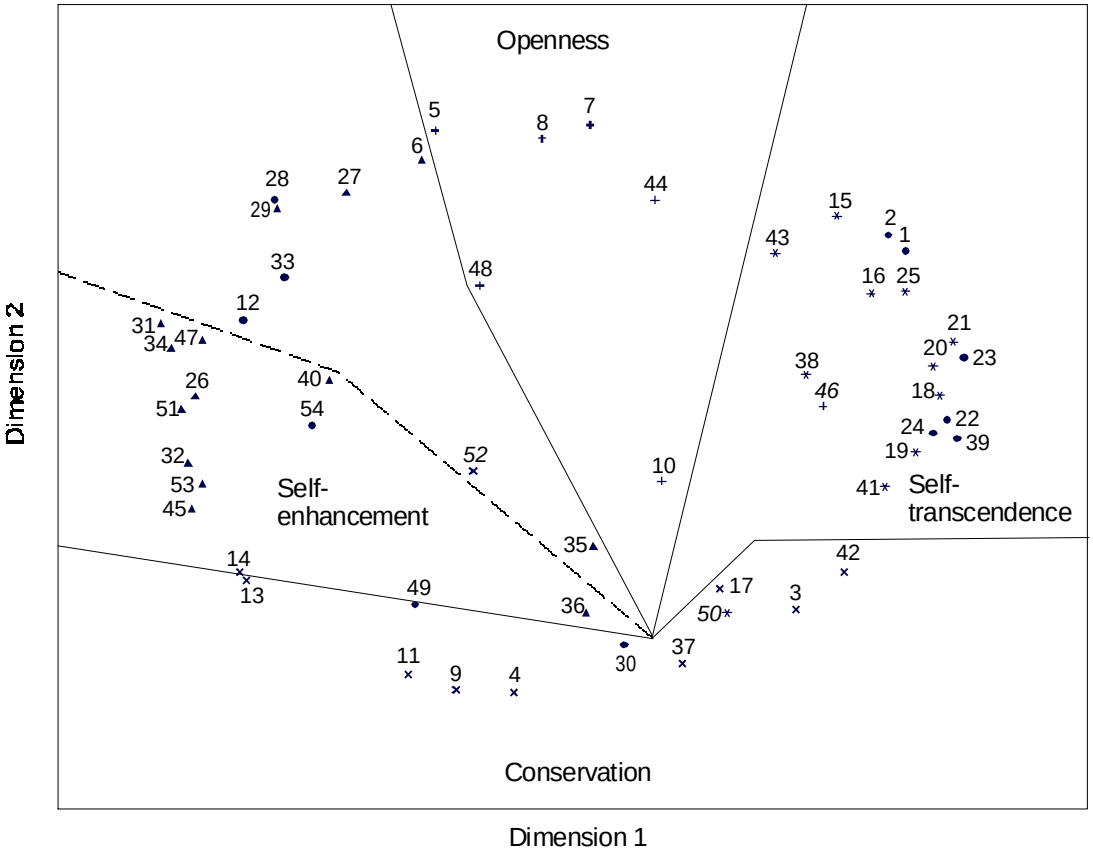
Our descriptive attempt to map the nine OCP-*scale scores* in multidimensional space resulted in a parsimonious two-dimensional configuration that seems intuitively plausible (Figure 2): *Aggressiveness* and *outcome orientation* have features in common that are closely linked to power and achievement, i.e., self-enhancement in terms of Schwartz. Consequently, their placement opposite to *team orientation* and *supportiveness* (i.e., self-transcendence) is in line with Schwartz' values theory. The same applies to finding *innovation* (openness to change) opposed to *stability* and *detail orientation* (conservation). *Decisiveness* is made up of very different components (marker items are: predictability, decisiveness, low levels of conflict); so its placement and that of *reward* which is another complex aggregate of different items (professional growth, high pay for good performance, fitting in) do not violate theoretical expectations.

Our attempt to map the OCP-scale scores on Schwartz' (1992) basic value dimensions is validated by data from Howard (1998, p.239). In his validation study of the *competing values model*, Howard used value statements which were either directly taken from or closely related to the OCP. Reanalyzing the interscale correlations reported in his study (Table 1, p. 241) by means of nonmetric MDS (using SYSTAT for Windows, Version 8) results in a two-dimensional solution (K = .12; RSQ = .95) which clearly supports our interpretation. The respective plot is reproduced in Figure 4.

While this first (post festum) attempt of mapping the results of principal components analysis in two-dimensional space seems appealing with respect to the resulting configuration of value scale scores, our *confirmatory approach* which is based on regional hypotheses that predict the location of *individual items* in space is theoretically even more convincing and straightforward. All in all, our hypotheses specified by the a priori classification of the OCP-items were clearly confirmed by the data reanalyzed in this study (Figure 3). Whether the few remaining misfits observed in

[6] Kruskal's method resulted in stress coefficients S = .23 (RSQ = .69) and S = .16 (RSQ = .78), respectively. The plots of the OCP items looked the same as in the Guttman analysis.

this sample should be attributed to a lack of reliability or to systematic reasons cannot be answered by a single study. The answer to this question must, therefore, be left to further research.



A priori classification of OCP-items
+ = openness to change ✹ = self-transcendence ● = unclassified
X = conservation ▲ = self-enhancement
Empirical classification: mismatches in italics

Figure 3: Two-dimensional MDS of 54 OCP-items; boundary curves according to a priori assignment of items to the basic value dimensions defined by Schwartz (1992).

The successful mapping of both OCP-scale scores and OCP-items on the Schwartz taxonomy of values which has been developed in a completely different context and by means of different assessment instruments opens new perspectives for future research. We illustrate this by sketching out three promising fields for further studies.

First, provided the validity of our findings, it might be worthwhile looking for a more fine-grained *subpartitioning of OCP items* that preserves the basic two-dimensional structure and at the same time allows more subtle predictions about the dynamic relation of these subpartitions. Thus, items 6, 12, 27, 28, 29, 33, and 52 may belong in a wedge which forms a finer partition (separated by a broken line in Figure 3) within the global self-enhancement region distinguished in our analysis. This

wedge includes a set of items that measure a mix of achievement and *self-direction* (autonomy) value types (see Figure 1) rather than the more self-enhancing lower part of this region. According to Schwartz[7] this kind of mix results when there are neither 'stimulus' nor 'hedonism' items in the values instrument applied.

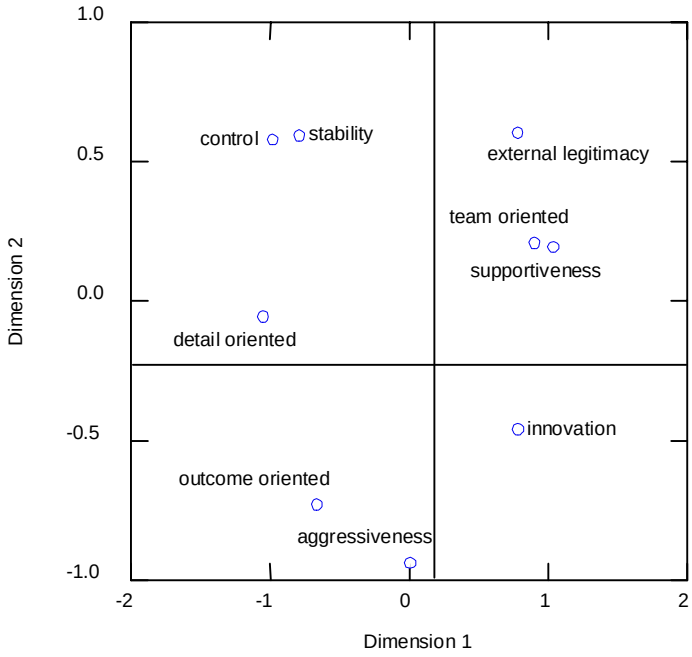


Figure 4: Two-dimensional MDS of the nine Cultural Value Dimensions reported by Howard (1998).

Second, knowing that value indicators from different research fields, e.g. OCP- and SVS-scores, can be mapped on the same underlying basic dimensions allows us to systematically *extrapolate findings*. We will briefly illustrate this by falling back on a recent study on the relation between individual values and conflict styles. In this study (Bilsky & Wülker, 2000), comparing Schwartz' (1992) basic values taxonomy and Rahim's (1992; Bilsky & Rahim, 1999) model of conflict styles suggested a moderate connection between Schwartz' dimension of self-enhancement versus self-transcendence and Rahim's distributive dimension (dominating versus obliging). Thus, self-enhancement (achievement and power) in the values model and dominating (high concern for self and low concern for others) in Rahim's dual concern model seem to overlap considerably in meaning. However, the opposing poles of the respective dimensions, self-transcendence and obliging (i.e., low concern for self and high concern for others) do not perfectly match with respect to common features. This is so because an obliging conflict style is not only characterized by an orientation to-

[7] personal communication (October 10, 1998).

wards self-transcendence in terms of Schwartz' theory, i.e., benevolence and universalism, but towards conformity and security values as well. These latter values are typical representatives of the conservation pole of the second basic values dimension.

Similar considerations are suggested with respect to the interrelation between the other basic dimensions of values and conflict styles, i.e. with respect to the link between openness to change versus conservation and the integrative dimension. An integrating conflict style (i.e., problem solving; cf. Rahim, 1992), for instance, presupposes a basic readiness to transcend a purely selfish orientation and implies universalism and benevolence in addition to an orientation towards innovation and experimentation (i.e., openness to change). An avoiding style on the other hand (which is also labeled 'suppression'; Rahim, 1992, p. 25) is associated with withdrawal from a threatening situation and a passive attitude favoring the status quo, i.e., an attitude which is opposed to self-direction and stimulation. However, the connection between an avoiding style and the conservation pole of the values structure seems to be less pronounced. Figure 5 gives a synopsis of these preliminary considerations about the values-conflict style relationship.

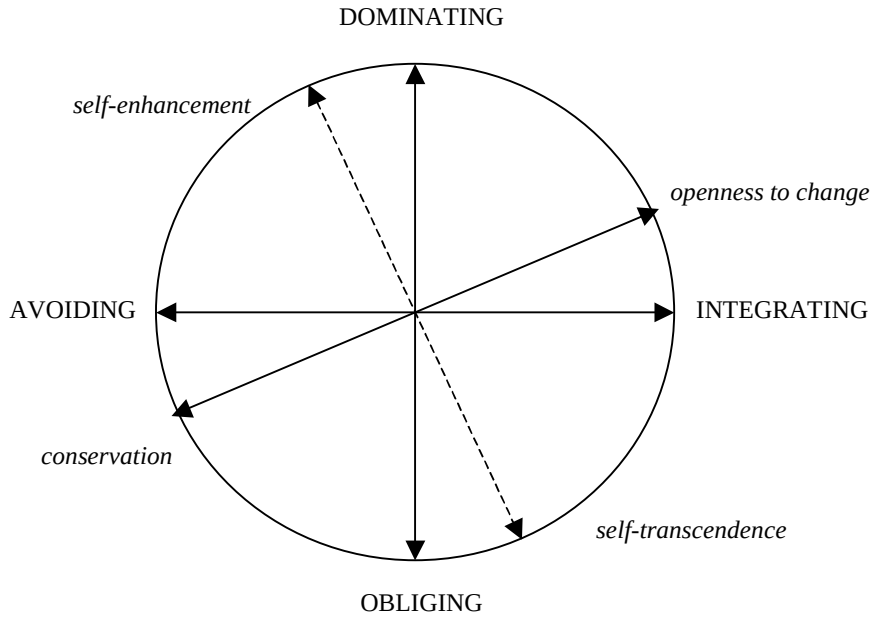


Figure 5: Hypothesized relation of basic value types (Schwartz, 1992) and conflict styles (Rahim, 1992).

Results from our study, using the Schwartz Value Survey (SVS) and the Rahim Organizational Conflict Inventory (ROCI-II) as measures, essentially support the hypothesized relationships: Correlations computed for a sample of $N = 205$ German students are only low to moderate, their overall pattern, however, fits the assumptions outlined above (Bilsky & Wülker, 2000). The respective results of this study are summarized in Table 2 (see also Kozan & Ergin, 1999, for similar considerations).

Now, given the common basic structure of values, it should be possible to deliberately speculate about comparable relations between OCP-value scores and conflict styles. Knowing that correlations between an external variable (e.g., a particular conflict style) and variables organized in the form of a circumplex (e.g., value scores; see Figures 2 and 4) - under ideal circumstances - exhibit a sinusoid pattern when 'walking' around the circle (Bilsky & Peters, 1999; Schwartz & Huismans, 1995), may further help to refine hypothesis building.

Third, in addition to this general issue more specific questions need further clarification. Thus, organizations that over-emphasize certain value types (e.g. self-enhancement) or foster adherence to them in an indiscriminate way (e.g. conservation) are likely to run into special *types of conflict* (cf. Jehn, 1997, for different types of conflict). Furthermore, provided that the preferences for value types and for modes of conflict handling go hand-in-hand, a one-sided stress on certain values may suggest an unbalanced or rigid - and therefore dysfunctional - *use of conflict styles* (Rahim, 1992). A rigid use of conflict styles, however, may not only fail to reduce but even increase the respective problem.

Table 2: Pearson correlations between conflict styles (Rahim, 1992) and value scores (Schwartz & Sagiv, 1995) from a sample of N=205 students (Bilsky & Wülker, 2000).

SVS	**Conflict Styles**			
scale score	integrating	obliging	avoiding	dominating
power	-.149*			.412***
achievement				.315***
hedonism		.159*		
stimulation		.161*	-.109	
self-direction	.110		-.216**	
universalism	.269***	.215**		-.208**
benevolence	.201**	.156*		
tradition		.233**		
conformity		.193**		
security				.117

* p<.05; ** p<.01; *** p<.001; correlations <.10 are omitted

The present paper tried to sketch out, how findings from conceptually related, with respect to their use and application, however, mainly independent fields of work may be brought together. Integration of theories and findings is a must if we don't want to

get lost within the manifold, increasingly specialized domains of research. More specifically, in view of the results outlined before, we think that it should pay off to take findings from management and from cross-cultural value studies into account when planning future research, whether on the impact of organizational culture on interpersonal behavior in general, or, for instance, on interpersonal and intraorganizational conflict in particular. Of course, the study presented here is only a first tentative step towards integrating findings. However, as our results seem quite promising, further steps in the same direction seem warranted.

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