

Defining, Measuring, and Comparing Organisational Cultures

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La littérature portant sur la culture des organisations souffre d'un manque manifeste d'enquêtes extensives débouchant sur des études comparatives. Afin de rendre plus comparables les cultures organisationnelles, nous proposons une définition et une série de dimensions. La culture organisationnelle renverrait aux perceptions communes des pratiques de travail dans le cadre des unités constitutives des organisations. A l'examen d'études empiriques, les cinq dimensions suivantes nous sont apparues: autonomie, orientation externe, coordination interdépartementale, orientation vers les ressources humaines et orientation vers le développement. L'utilisation de cette définition et de ces dimensions générales devrait faciliter la comparaison des cultures organisationnelles et l'accumulation de résultats.

Within the body of organisation culture literature, there is a conspicuous absence of large-scale studies reporting on comparative studies. In order to increase comparability of organisational cultures we propose a definition and a set of dimensions. Organisational culture is defined as shared perceptions of organisational work practices within organisational units. On the basis of empirical studies we discerned the following five dimensions: autonomy, external orientation, interdepartmental coordination, human resource orientation, and improvement orientation. Use of this definition and a set of such generic dimensions would facilitate the comparison of organisational cultures and the accumulation of research findings.

INTRODUCTION

In recent decades, organisational culture has become a popular construct. Yet, many authors have criticised the lightheartedness (even in terms of

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“fashions” and “fads”) with which it has been studied. Despite the continued use of the organisational culture construct in practice, in management academia attention to the construct is waning. An important reason is that the construct is left unclear. The focus of the present article is on further specifying the construct in order to enable better organisational culture comparisons. The essay is structured around the following three issues: (1) defining organisational culture; (2) measuring organisational culture; and (3) relevant theory for more systematic comparisons among cultures. We conclude with a research agenda for comparative research on organisational cultures.

DEFINING ORGANISATIONAL CULTURE

Organisational culture forms the glue that holds the organisation together and stimulates employees to commit to the organisation and to perform. Literature on how to operationalise this “glue” is fairly rare. In order to stimulate empirical, comparative research on organisational cultures, we provide our own operational definition of the construct of organisational culture. Our definition is based on experiences with ten studies in which organisational cultures were measured quantitatively (Wilderom, Van den Berg, Glunk, & Maslowski, 2001).

We define organisational culture as shared perceptions of organisational work practices within organisational units that may differ from other organisational units. Organisational work practices are the central part of this definition. The definition is a shortened version of Kostova’s (1999, p. 309) definition: “particular ways of conducting organizational functions that have evolved over time . . . [These] practices reflect the shared knowledge and competence of the organization.”

Many researchers such as Hibbard (1998) and White (1998) have focused on values in defining organisational culture. Whereas values are important elements of organisational culture, research has demonstrated that organisations showed more differences in practices than in values (Hofstede, 2001, p. 394). Opposite results were found among national cultures. Hofstede explained these results by the fact that values are acquired in one’s early life and mainly in the family. This supports the view that organisational culture can better be defined by organisational practices. Values are typically not directly visible for employees, but we assume that organisational values are expressed, in part, in organisational practices. Therefore, they can be derived from the existing practices within an organisation, department, or work unit. In our past research (Wilderom & Van den Berg, 1999), we measured organisational practices and values by asking for the extent to which the practices are present or should be present, and we also found that organisations differed more strongly on practices than on values. Therefore, we did not include organisational values explicitly in our definition.

Given the original emphasis on shared values, the idea of organisational *culture strength* arose: in a strong organisational culture, employees would have the same set of values, i.e. ideas on how a particular organisation should operate. This view was strongly influenced by Peters and Waterman (1982) who argued that the best companies were characterised by values to which employees were strongly committed. Many researchers and consultants assume that successful cultures have employees with similar basic organisational values and assumptions (see, for example, Hibbard, 1998; White, 1998). Academic evidence is limited to a few studies; Denison (1990), Calori and Sarnin (1991), Gordon and DiTomaso (1992), and Kotter and Heskett (1992) report a relationship between a strong organisational culture and organisational performance. However, Brown (1998), O'Reilly and Chatman (1996), and Wilderom, Glunk, and Maslowski (2000) have reviewed these studies critically. They showed that these empirical studies lacked a clear connection between conceptual and operational definitions of organisational culture strength. Moreover, culture strength, as reflected in most operationalisations of the construct, indicates only the degree of employee *consensus*. Such consensus information does not indicate the level of organisational culture on several dimensions (see, for example, Reed & DeFillippi, 1990). Thus, the culture strength variable is considered to be too limited to measure or understand a phenomenon as complex as organisational culture (Kotter & Heskett, 1992; Kunda, 1992; Saffold, 1988; Schein, 1985, 1992).

Our culture focus is on perceptions of organisational work practices, rather than on their objective occurrence. That is, through the eyes of the members of a working group, one assesses the patterns of regular work behaviors. This part of the definition emphasises the idea that organisational culture is, in essence, a perceptual yet organisational phenomenon. It is observed or registered by individual employees. The inclusion of organisational work practices does not neglect the employees' points of view. Capturing the perceptions of a representative sample of employees may often *not* be convenient (see, for example, Calori & Sarnin, 1991), but should be part of any assessment of an organisation's culture.

By defining organisational culture as shared perceptions of organisational practices, the concept is similar to organisational climate, which has been typically conceived as employees' perceptions of observable practices and procedures (Denison, 1996, p. 622). Denison (1996) indicated that both culture and climate studies focus on the internal social psychological environment as a holistic, collectively defined context and that there is a high overlap between the dimensions used. Traditionally, organisational culture studies were qualitative and founded on social constructionism, while organisational climate studies were quantitative and routed in Lewinian field theory (see Denison, 1996). However, Denison (1996) reported that these differences are disappearing in more recent studies. Also, Parker, Baltes, Young,

Huff, Altmann, Lacost, and Roberts (2003, p. 389) noticed in their meta-analysis a “considerable confusion regarding the constructs of . . . organisational climate, and organisational culture . . .”. Therefore, we do not stress the distinction between organisational culture and climate. However, an important distinguishing feature is that climate relates to the evaluation of a current state of affairs and culture relates to the registration of actual work behaviors (Denison, 1996). It may be wise to carry out both types of assessment at the same time (see Ashkanasy, Wilderom, & Peterson, 2000).

Previous researchers have examined culture at various levels of analysis: from national culture to group-level culture. First, it was strongly tied to the national culture. Second, the construct was used to describe excellent organisations. Third, subcultures have been discerned within organisations. Fourth, culture has been studied at the team level (for example, Glission & James, 2002). We believe that company-wide cultures can only be assessed accurately through team-level assessments. In order to capture the degree of sharing about daily work practices within one organisation, one cannot but assess the smallest meaningful workplace grouping, often teams. Within each team a certain degree of “shared perceptions” about their organisational work practices can be established. How to compare these “shared perceptions” of one group to another meaningful comparison group is the key question that clearly remains. We will focus on this measurement issue below.

MEASURING ORGANISATIONAL CULTURES

Organisational culture studies have used various dimensions of organisational culture. However, for the development of scientific knowledge the results should be comparable. In the foregoing, we have stated that for the purpose of developing comparative organisation culture questionnaires one may better focus on the degree of sharing certain aspects of employees’ day-to-day organisational work practices. Selection or specification of these aspects or “culture domains” has, in general, not yet been well legitimised. For instance, within single studies, some practices are deemed “best” organisational practices, and others are not (Calori & Sarnin, 1991; Hofstede, Neuijen, Ohayv, & Sanders, 1990; Marcoulides & Heck, 1993; Petty, Beadles, Lowery, Chapman, & Connell, 1995). The dimensions of organisational culture must cover the broad scope of the culture construct, and they must refer to the dynamics of work groups. Convergence on the dimensions is very much needed and may stimulate research, as is the case in the development of the Big Five personality traits (see Barrick & Mount, 1991). Moreover, to the best of our knowledge, none of the organisational culture studies has explicitly derived organisational work practices from a compatible conceptual definition of organisational culture.

Of course, the organisational work practice dimensions we have chosen approximate some of the culture domains found in previous organisation culture studies. In Table 1, we show the dimensions of a number of the most important organisational culture models. Other dimensions could be added as well, such as those from the GLOBE study (Dickson, Aditya, & Chhokar, 2000). Similar dimensions are presented on the same row. The actual measures of organisational culture may vary, but the dimensions of organisational culture should correspond to the content presented in Table 1. On the basis of a literature review and several empirical studies (Wilderom et al., 2001), we propose the following set of distinct dimensions: (1) autonomy, (2) external orientation, (3) interdepartmental coordination, (4) human resource orientation, and (5) improvement orientation. The first dimension, autonomy, is task related. It pertains to the degree to which employees have decision latitude at the job level. The second dimension, external orientation, is included because all organisational units operate in an external environment. The open-systems theory and many publications on culture emphasise that a group's external orientation is very much a part of its internal functioning (Hofstede, 2001). Third, we include perceptions of interdepartmental coordination since horizontal differentiation may raise barriers to productive inter-group communication. Fourth, in many articles, one finds human resource content as an explicit part of the organisational culture construct (see, for example, Gordon, 1990; Gordon & DiTomaso, 1992; Marcoulides & Heck, 1993; Quinn, 1988). Finally, Rousseau (1990) argued that the degree of improvement orientation among personnel reflects an organisation's ambition level, and that at least a positive inclination towards organisational improvement is required. This fifth dimension was chosen in order to include the degree of proactivity that is intended to achieve ever better organisational results.

In order to measure these dimensions quantitatively, we constructed a questionnaire and carried out factor analyses at individual and organisational levels in various organisational settings. The largest study was performed within one of the biggest financial institutions in the Netherlands with a sample of 1,509 respondents from 58 local banking firms. Factor analyses on organisational practices items yielded at the organisational and the individual level the five intended dimensions (Wilderom & Van den Berg, 1999). Thus, these results supported the dimensions presented in Table 1. However, in factor analyses on corresponding value items the five dimensions could not be found. The findings confirm that organisational culture can better be measured with organisational practices.

In addition to using a well-balanced set of more-or-less standard dimensions for organisational work practices, such as those described above, one may also identify unique elements of organisational culture. These unique elements may help to better understand and then move an organisation's culture in a new direction. Many authors have used qualitative descriptions

TABLE 1
A Comparison of Our Organisational Culture Dimensions With Those of Four Other Studies

<i>Organisational culture dimensions in several studies grouped with respect to similarity</i>					<i>Correspondence with presented organisational culture dimensions</i>				
<i>Van Muijen et al. (1999)</i>	<i>Hofstede, Neuijen, Ohayv & Sanders (1990)</i>	<i>O'Reilly, Chatman & Caldwell (1991)</i>	<i>Gordon & DiTomaso (1992)</i>	<i>Denison & Mishra (1995)</i>	<i>Autonomy</i>	<i>External orientation</i>	<i>Inter-departmental coordination</i>	<i>Human resource orientation</i>	<i>Improvement orientation</i>
Goal orientation	Process vs. results oriented	Results oriented	Action oriented		- ^a	+	-	+	+
Support orientation	Employee vs. job oriented	People oriented			+	-	-	++	-
	Parochial vs. professional	Team oriented	Fairness of rewards	Involvement	+	-	+	+	+
	Open vs. closed system	Aggressive vs. easy going	Integration/communication Development/promotion from within		-	+	+	+	-
Rules orientation	Loose vs. tight control	Detail oriented Stability	Accountability Systematic decision making	Consistency	++	-	-	-	-
Innovation orientation	Normative vs. pragmatic	Innovation oriented	Innovation/risk taking	Adaptability	+	+	-	-	++
			Clarity of strategy/ shared goals	Mission	-	+	-	-	+

^a - = hardly any correspondence, + = some correspondence, and ++ = much correspondence.

of organisations as mere indicators of organisational culture. However, in order to compare organisational cultures in a fashion that allows accumulation of findings across cultures, we stress that academic organisational culture research be based on quantifiable data. Therefore, methods involving questionnaires, archived materials, observation schemes, and even field experimentation are fit to be used. This does not mean that qualitative organisational culture data have no added value. In particular, before and after using organisational culture questionnaires, interviews may be used to formulate the items in accordance with a particular setting and to better interpret the words and expressions used. Also, in-depth group or individual interviews are useful for the discovery of unique characteristics of a culture. They could involve, for example, work, organisational, and professional values, or events that have emotional significance for most of the employees or for influential employees. Such data might also be used to better interpret the quantitative data on a given work unit. However, it is obvious that for the generic purpose of comparing organisational or unit cultures the use of qualitative data only will not suffice.

To determine the appropriate level of measurement, the items should be formulated in a way that makes aggregation at several levels possible. A questionnaire may have the following sort of wording in a heading: "To what extent do the following behaviors occur within your immediate work environment?" This referent, after all, pertains to the work environment the employees know most about. And since we ask employees to be the "spokespersons" for their cultures, they are better asked about something they have most knowledge about. If there is enough agreement at a higher level, then that higher aggregation level might be used. The appropriate statistics for assessing perceptual agreement are the ICC(1) and the ICC(2). James (1982) reported that the ICC(1) has a median of approximately 0.12 in climate studies. If no agreement can be found, a lower level of aggregation is to be used, such as a team or a department, and the term subculture might become applicable. For example, Barley, Meyer, and Gash (1988) studied cultural differences within organisations through the construct of subcultures. If no aggregation is possible even at the lowest group level, then the scores could be analysed at the individual level (DiMaggio, 1997). In case an organisation or work unit lacks the required intra-class correlation on the perceived organisational work practices, a fragmented or non-unified type of work-group culture is discerned.

TOWARDS A DYNAMIC ORGANISATIONAL CULTURE THEORY

Defining and measuring organisational cultures for the dual purposes of comparison and accumulation of organisational knowledge suggests a static

approach. However, organisational culture may serve different functions in subsequent phases of development. Therefore, a dynamic theory on the development of organisational cultures is indispensable. To the best of our knowledge, no single theory fully explains the rise and decline of organisational cultures even though the current organisational change literature (see e.g. Amis, Slack, & Hinings, 2002) may help. Hence disparate theoretical and empirical notions and experiences may be used to advance the study of organisational culture, and to work towards the development of an organisational culture (change) theory (see DiMaggio, 1997).

In the initial phase, an organisation's founder largely defines its culture (Schein, 1983; Siehl, 1985). Founders are the origin of the values and the behaviors that characterise an organisation. For the purpose of describing the phase of maintaining organisational culture, Schneider's (1987) theory is useful (see also Schneider, Goldstein, & Smith, 1995). Schneider explains the endurance of an organisational culture using the so-called ASA model, consisting of the processes of attraction, selection, and attrition. This means that certain types of applicants are attracted to a specific organisation; at the same time, the organisation is inclined to select applicants who seem to fit into the organisation; and employees who do not fit will choose to leave. In this way organisational cultures reinforce themselves.

Organisation culture change conceptions (e.g. Hatch, 2000) are of importance as well. Yet, very few empirical comparisons of various instances of organisational culture change have been made. And here the tail-is-wagging-the-dog metaphor applies. Because clarity and consensus about how to assess or compare various organisational cultures are missing, no empirical facts have been established on this score. At the same time, because we still know so little about comparing organisational cultures, getting to know how various (types and levels of) organisational cultures actually change is hampered.

In accordance with the resource-based theory of the firm (Barney, 1991), the decline of an organisational culture can be explained by the fact that it is no longer competitive. Penrose (1959), the "mother" of the resource-based theory of the firm, regards a firm as a collection of productive resources: the organisation is "to create cohesion between the firm's—in particular, human—resources" (in Pitelis & Wahl, 1998, p. 256). This theory has been further developed by Barney (1986) who stated that only if a firm's culture is relatively rare, imperfectly imitable, non-substitutable, and valuable, will it lead to high or sustainable firm performance. However, he does not help answer the key or crucial question: what makes an organisation's culture valuable?

To date, very few *empirical* resource-based studies focusing on organisational culture have been carried out. Although not explicitly contributing to the emerging theory, Hansen and Wernerfelt (1989) reported that: "organizational factors explain about twice as much variance in profit rates as

economic factors" (p. 399). They conclude that the intangible attributes of a firm (in their terms, "the building of an effective, directed human organization" (Hansen & Wernerfelt, 1989, p. 409)) are crucial to its performance. In our view, employees' perceptions about daily organisational work practices within each organisational work unit are part of the intangible attributes of an organisation that matters. Exactly how organisational culture forms a part of all the possible important intangible attributes may vary from organisational unit to organisational unit, or even among national cultures. What is important to us is that a large part of these "intangible attributes" are human and can therefore be captured, in part, by assessing human perceptions about the daily work practices (e.g. DiMaggio, 1997).

FUTURE RESEARCH

The thesis of this paper is that large-scale organisational culture comparisons would benefit our understanding of organisational cultures. In this essay we have set out a way in which academic researchers could go about comparing organisational cultures, both within organisations and across organisations. We are now at a point where we can begin to outline the necessary empirical research. First, we would like to further develop and establish the basic dimensions of organisational culture, since they would enable research findings to be compared and integrated. In the same vein, the results of conceptually driven factor analyses with organisational culture data might lead to consensus on basic dimensions and their definitions. The results of our initial attempt are presented in Table 1, in which we put forward several dimensions. Consensus on organisational culture domains would thus be desirable. We would like to stress in this paper that these domains should be rooted in observable and reportable behaviors. These domains might be linked as well to related phenomena such as organisational or group climate, identity, and symbolic gesturing.

Second, it would help comparative organisational culture researchers if more research were conducted on the nomological network of the construct of organisational culture in the subsequent phases of development. Not only should the convergent and discriminant validity of the construct be investigated in empirical research, but conceptual analyses might also help to better distinguish organisational culture from related constructs. Earlier, we referred to the differences and the similarities with national culture. Another construct that is closely related to organisational culture is leadership style. Most of the existing organisation culture literature shows a blurring of these two constructs; leadership content is often included in the published operational definitions of organisational culture (Marcoulides & Heck, 1993; Ashkanasy, Broadfoot, & Falkus, 2000). Two important differences between the constructs are: (1) leadership denotes behavior displayed by one

or only a few individuals, while culture is a collective behavioral phenomenon; and (2) leadership involves a *potentially one-sided* dependency relationship. Note, also, that two leadership aspects are *shared* with those of culture: “a social process defined through interaction” as well as “a process of defining reality” (Smircich & Morgan, 1982, p. 259). This conceptual overlap may explain the frequent blurring of the two phenomena. Quantitative as well as qualitative assessments of an organisational unit’s culture should take this two-sides-of-the-same-coin distinction into consideration (Schein, 1985). Other related constructs are organisational climate, coordination, and commitment. Discussions on similarities and differences between organisational culture and climate, in particular (see e.g. Denison, 1996; Schneider, 1990; Schneider, Salvaggio, & Subirats, 2002), have not yet resulted in their operational consequences. In other words, only when both overlapping constructs are operationalised together for the purpose of comparing organisational cultures, their true (own) faces will shine through.

Third, in order to establish the relative importance of the culture construct it is necessary to continue investigations on the effects of organisational culture on objective organisational performance, productivity, and the effectiveness of change programs. Therefore, large-scale, multi-organisational studies are needed. To investigate causal relationships among these variables, longitudinal studies should be performed. An ideal and needed design would thus include the measurement of dependent and independent variables at several points over time, so that changes in organisational cultures can be related to changes in outcome criteria. Since in such studies variables may refer to different levels of measurement, a multilevel approach is required. We very much agree with DiMaggio’s (1997) point that “the challenge is to integrate the micro perspectives on culture . . . with analyses of cultural change in larger collectivities over longer stretches of time” (p. 280).

Fourth, more creative approaches to organisational culture are needed. Videotaping ongoing group practices, for instance, is technically possible, but has not yet been carried out. In leadership studies this method is currently being used successfully (see, for example, Van der Weide & Wilderom, in press). Such new methods are time-consuming, but essential in this field in order to counteract the numerous relatively simplistic cross-sectional questionnaire studies that have dominated the organisational culture field (see Schein, 2000). In other words, efforts to assess organisational cultures in a comparative fashion do not need to rely on the traditional quantitative methods only. In order to obtain a similar “Big Five” of organisational culture we would thus need more varied research approaches.

This paper hopes to stimulate discussion on comparing various organisational cultures within and across various organisations. For that purpose, it provides a reconceptualisation of the construct of organisational culture.

It argues for a particular way of defining and measuring organisational culture in order to allow for more scholarly, cumulative comparative organisational culture research.

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