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Friedemann W. Nerdinger*

Organizational Culture of Participation: Development and Validation of a Measure**

This article specifies the concept of “Organizational Culture of Participation” (OCP) as that part of an organizational culture which is linked to employee participation. Three OCP-types are distinguished by the way participation is promoted and supported in an organizational culture: (1) leader promoted, (2) employee promoted, and (3) institution promoted OCPs – all types are considered to have different processes and outcomes of employee participation. The OCP concept’s relevance for research on employee participation and a first validation of this concept is described. For this we developed a measure of OCP and conducted an empirical study to analyze construct, discriminant and incremental validity. After presenting this study implications for future research and of practical relevance are derived.

Beteiligungskultur: Entwicklung und Validierung eines Messinstruments

Dieser Beitrag beschreibt das Konzept „Beteiligungskultur“ als den Teil einer Organisationskultur, der mit der Mitarbeiterbeteiligung in Verbindung steht. Drei Typen der Beteiligungskultur werden danach unterschieden, welche Gruppe im Unternehmen als Promotor der Beteiligung agiert: (1) führungsgetragene, (2) mitarbeitergetragene und (3) institutionsgetragene Beteiligungskulturen. Diese Typen sind durch unterschiedliche Prozesse und Wirkungen der Mitarbeiterbeteiligung charakterisiert. Die Bedeutung des Konzepts „Beteiligungskultur“ für die Forschung zur Mitarbeiterbeteiligung und eine erste Validierung dieses Konzepts werden in diesem Beitrag beschrieben. Dazu wurde ein Instrument zur Messung der Beteiligungskultur entwickelt und eine empirische Studie durchgeführt, um die Konstruktvalidität, die diskriminante und inkrementelle Validität zu ermitteln. Nach der Darstellung dieser Studie werden Implikationen für die zukünftige Forschung und die unternehmerische Praxis abgeleitet.

Key words: **Organizational Culture, Employee Participation,
Organizational Commitment, Innovative Behavior,
Psychological Ownership, Validation**

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Introduction

The current economic situation is characterized by continuous change. Frequently, organizations are facing a variety of changes, for instance in their social, economic, political, technological, and ecological environment (Kobi 2008). Not only do organizations have to identify these changes as quickly as possible, they have to react adequately to them as well. An organization's readiness for adapting inappropriate processes and structures as well as its flexibility and high strength in innovation are crucial for long-term success in extending and securing the company's market position. Here, loyal and motivated employees are required, who are willing to take charge of organizational matters and to invest their knowledge, skills and creative potential in their companies and their processes. We suppose that one way to induce and maintain high work motivation and a positive attitude towards the work and the organization is by employee participation. Material participation (financial participation in company's capital, profit or gain) and/or immaterial participation (participating in information, coordination, and decision processes) can help organizations to promote employees' motivation, attitude and performance, and therefore the organization's capacity for innovation, its performance and market position.

Current research of employee participation provides support for our supposition: Recent meta-analyses found evidence for moderately or small positive correlations on average, linking various aspects of material and immaterial participation on one hand to job performance, and satisfaction on the other (Wagner 1994, Wagner/LePine 1999, Wagner et al. 1997). By now, various comprehensive articles have been published, which, as a rule, found positive impacts of material and immaterial participation on employees' motivation, job performance, job satisfaction, organizational commitment, organizational citizenship behavior (Kruse/Blasi 1995; Wagner et al. 1997; Kaarsemaker 2006; Frey/Fischer 2007; Szabo 2007), and recently on psychological ownership as the feeling of possession towards the organization; or a part of it (Pierce/Rubinfeld/Morgan 1991; Pierce/Kostova/Dirks 2001; Van Dyne/Pierce 2004; Martins et al. 2007). Even the link between workers' material and immaterial participation and organizational productivity has been researched for a long time. The majority of these studies show positive, but mostly small productivity effects (Höge 2006; Stracke et al. 2007; Szabo 2007). However, some shortcomings in research of employee participation can be disclosed. Most studies focused on specific and single participation forms, e.g. solely participation in decision making, or combinations of few forms, for instance effects of profit sharing and decision making at the same time on performance. However, most companies use two or more instruments of participation simultaneously (McNabb/Whitfield 1999). Consequently, the complexity of the organization's participative system used in practice is not taken into adequate consideration in these studies. Furthermore, a number of studies turned up insignificant or even a negative relationship between participation and depended variables. For example, Kaarsemaker (2006) found such results in 20 out of 58 studies on the effects of financial participation that he examined. To sum it up: effects and processes of participation are still not researched conclusively. To further confuse the evidence, similar instruments of employee participation have been shown to have different effects in different companies.

This begs the question of what causes findings as diverse as these. A first hint may be offered by the tenet some practitioners hold; i.e. participation instruments will only work properly when they have grown to be an active component of company processes (e.g., Blauth 2007). Based on these observations, and on the fact that various studies have demonstrated interdependencies between participatory instruments (e.g. Nerdinger/Horsmann/Pundt 2003), we feel that focusing on a single instrument of participation and studying it in isolation is not enough. Research has to take a deeper look at the interdependencies of different participation instruments in use and at the degree to which participation is part of everyday company life. This can help to find out how the intended effects of participation can be induced sustainably and help organizations to succeed in processes of environmental changes. To theorize and investigate this phenomenon, we propose the concept of organizational culture of participation (OCP). This extends and refocuses the research of organizational culture and employee participation that, in principle, regards organizational culture as moderator in the relation of employee participation and attitudinal and behavioral effects (Miller 1988; Caramelli/Briole 2007; Szabo 2007). Using the term OCP, we refer to an aspect of organizational culture focusing on material and immaterial participation, encompassing both formal instruments and the way they are used in a company's routines. Seen that way, a company's system of participatory instruments is - in the sense of Schein's 3-level-model of organizational culture (Schein 1985) - the manifestation of values and basic assumptions at the artifact level. Depending on the values upon which participation rests, extant and outwardly similar participation instruments may meet with different degrees of acceptance in different companies, and thus generate different effects. In an explorative research project we identified and distinguished three types of OCP by the way participation is promoted and supported in an organizational culture: (1) leader promoted, (2) employee promoted, and (3) institution promoted OCPs (Pundt/Nerdinger 2006). This typology helps to understand participation processes and effects in organizations more comprehensively and may offer various starting points for targeted shaping of participation systems, estimations of participation potentials in companies, and strategies for organizational policies and efficient activities.

As basis for future research on OCP, the aim of this article is a first step towards validation of the OCP-concept. For this reason we first introduce this concept and the OCP-types in a more detailed manner and describe our newly developed OCP-measure. Then we derive hypotheses for different validation strategies in order to test them empirically.

The concept of Organizational Culture of Participation

We define Organizational Culture of Participation as the specific part of an organizational culture that is linked to employee participation and the participation system in an organization. Following Schein's 3-level-model of organizational culture (Schein 1985) an OCP embraces artifacts, values, and basic underlying assumptions that indicate the way to solve problems of external adaptation and internal integration (Schein 1985), that for instance can occur for an organization due to environmental changes, using means of employee participation. As an organization's culture influences its

members' attitudes, cognitions and behavior (Schein 1985), OCP basically affects the attitudes and cognitions of organizational members towards employee participation on information, processes and financial values as well as their behavior. For instance, it determines the extent to which managers use participative leadership techniques, how much employees use given possibilities for participation, or if and how intensively they demand further participation.

In our explorative study, we examined the OCP of several companies and identified only few differences in their spectrums of participative instruments used but notable differences in the way participation is promoted (for a description of the study see Pundt/Nerdinger 2006). A content analysis of interviews with managers, employees, employee representatives, and members of personnel departments of the examined companies revealed the promoter of employee participation to be a core criterion for distinguishing OCP-types (Pundt/Nerdinger 2006), and we found leaders, employees and institutions (e.g. works councils) as promoters. This leads us to the three OCP-types L (leader), E (employee) and I (institution). The idea of promoters of employee participation is conceptually related to the model of promoters in innovation processes from Witte (1973), which was later expanded by Hauschildt and Chakrabarti (1988). Promoters in innovation processes are persons who actively and intensively facilitate innovation processes (Witte 1973; Hauschildt/Salomo 2007). Promoters of participation are groups of organizational actors which show the greatest interest and engagement in supporting or even establishing employee participation. Promoters deal with and overcome resistances of "not-knowing," "not-wanting" and "not being allowed to" (Hauschildt/ Salomo 2007). Applied to employee participation, this implies that promoters, on the one hand, inform intensively about possibilities and (dis-)advantages of employee participation, seeking and creating ways for more intensive participation. On the other hand they work against motivational barriers of organizational members concerning expanding the system of participation. Promoters also reduce organizational and administrative barriers towards employee participation due to, for instance, complex organizational and hierarchical structures which easily raise questions of authority, which may hinder the realization of intended participation strategies.

Simultaneously the promoter can act as normative reference group (Merton 1959) concerning participation: Since normative reference groups influence individuals' behavior and attitudes and govern how individuals ought to behave (Merton 1959, Carmeli/Schaubroeck 2007), organizational members have to orientate themselves in matters of employee participation on the aims and norms of the promoters. Fundamental problems or questions about participation have to be solved in the sense of the promoter or by the promoters themselves. To act effectively and to be identifiable as employee participation promoter, the particular group needs resources. Such resources can, for instance, stem from the power of the position that leaders have, or from power by law, such as works councils in Germany usually have. Even the organizational culture can provide useful resources: A great emphasis on values like "employee autonomy" and "independent action and entrepreneurial thinking" or long traditions of strong influence of employees in shaping organizational processes and structure

can even provide the employees themselves with the power to act as promoter of employee participation.

We propose that the group of actors in an organization that promotes employee participation is an essential feature of OCPs. This feature corresponds with other characteristics of the particular OCP-type. Differences mainly arise from the specific aims of the promoter and the degree of congruence of the aims and actions with the employees' interests. Least congruence can be found in the case of leaders as promoters (type L), because for leaders, participation is connected with the threat of losing power in the organizations. Some incongruence should be found in the case of institutions as promoters (type I), because even institutions with employee representatives will hardly satisfy the interests of all staff members.

Table 1 shows the central criteria both to describe and distinguish the OCP-types.

Table 1: Characterization of the types of Organizational Culture of Participation

	OCP-type		
	L	I	E
Normative reference group regarding participation	leaders	institutions	employees
Importance of the value „Employee autonomy“ in the company	fairly low	unclear, diffuse	fairly high
Extent of employee participation	clearly demarcated by leaders on a regular basis	extensive, may be limited by institutions in particular situations	very extensive, no clear limitations
Intention for limiting the scope of employee participation	participation is used on a case-by-case basis, when leaders think it optimal and adequate; for securing power and influence of leaders	protecting employees from negative effects exerted by „excessive“ participation	no intention for limiting
Acceptance of employee participation	fairly low	fairly low	fairly high
Negative or indifferent attitude towards participation	will occur	will occur	unlikely to occur
Dynamics of the participative systems	depending on leaders' interests; likely to be rigid	depending on interests of the institutions' members; likely to be rigid	employees regularly scrutinize systems, constructive criticism and optimization is allowed; likely to be dynamic

The OCP-types outlined here are to be understood as ideal types. In practice most companies may have each of the three potential promoter groups sharing in implementing the idea of employee participation. However, on the basis of results of our exploratory research we suppose that usually one promoter is predominant.

Measuring Organizational Culture of Participation

Several instruments for assessing organizational culture have been developed and used in various empirical studies. Depending on the question of research and available resources, there is a wide spectrum of methodical approaches used. For instance, indi-

vidual or group interview techniques, questionnaires, group discussions, observations, or analysis of documents (Schein 1985; for an overview see Sackmann 2006a).

Despite the wealth of organizational culture assessment instruments, we could not find an adequate instrument for measuring OCP. Therefore we developed a specific measure that allowed us to assign the OCP of an organization to one of the three identified types.

For this purpose we formulated eight items as beginnings of sentences that had to be completed by respondents to a full statement by choosing one of three given endings that best describe the situation in his or her organization.

All eight items describe different short cases that may occur in an organization and that are critical for OCP-assessment. Each of the three given ways of how the critical situation may be resolved is typical for one of the three OCP-types (e.g., If a leader wants to evade employee participation in our company, (a) there would be conflicts with employee representatives; (b) there would be conflicts with employees; (c) she/he would get away with it; please select (a), (b) or (c); see appendix for the instrument). The responses of one person can be aggregated by summing over all eight items how often the respondent chose the alternative ending for each of the three OCP-types. Respondents' OCP then can be assigned to that OCP type they had chosen most frequently.

Validation strategies and hypotheses

To validate the OCP measure, on the one hand it is important to show significant correlation with other constructs that should occur from theoretical considerations (criterion validity) and on the other hand to show that there are no significant correlations with variables that should be unrelated to OCP (discriminant validity). Since the core of OCP is the anchoring of employee participation in the organizational culture and the way participation is used in everyday life, this concept overcomes the limitations of current studies, i.e. only to focus on effects of one or some few means of employee participation. Studying employee participation with the OCP-concept should improve the degree of explained effects of participation in comparison with variables only focusing on participation instruments. To show the explanative power of the OCP-concept, incremental validity is also considered.

Criterion Validity

Since OCP is an aspect of corporate culture and should affect perceptions, cognitions, and behavior of employees, there should be correlations between the three OCP-types and variables that are related to OCP based on theoretical considerations. Since the core element of OCP is employee participation, variables that are usually examined as dependent variables in research of material and immaterial participation may be appropriate validation criteria.

Effects of participation at the individual level on *organizational commitment* has been investigated extensively. The majority of empirical studies show positive effects of participation on organizational commitment (for an overview, see Kaarsemaker 2006). Organizational Commitment is generally understood to be the degree to which individuals feel bonded with or tied to their organization or its parts (van Dick 2004).

Meyer and Allen (1997) distinguish three forms of organizational commitment: affective, normative and continuance commitment. Each type is characterized by a specific mind-set of the individual committing himself.

Following Meyer and Herscovitch (2001), individuals commit themselves *affectively* to their organization when (1) an employee is heavily involved in actions that serve the organization's interests; (2) when the individual and the organization have shared values, to the extent that the individual realizes the value-relevance of associating with the organization or pursuing actions in the organization's interest; and (3) when the individual obtains information about his or her identity from executing those particular actions. Organizations of type-E afford their employees many opportunities to develop affective commitment via all of those three mechanisms: Extensive participation, with employees actively using and developing the participation instruments leads to high involvement of employees, whereas limitations in using participation means that there are no real possibilities for employees to develop and optimize the participation system in type L and I occur.

Furthermore, members of type-E organizations agree that "employee autonomy" is valued beyond measure. Assuming that employees also value this as individuals, they will share values with their organizations to a higher degree. This assumption is corroborated by high degrees of acceptance and the absence of negative or indifferent attitudes to participation in type-E organizations. By contrast, employees share less values with their organization regarding "employee autonomy" in type L and I. This is because this value is assessed to have fairly low, or unclear and diffuse importance in such organizations, and negative or indifferent attitudes of employees towards participation occur. Finally, type-E-OCPs widely practicing and accepting participation in with high employee involvement allow employees to easily see their influence on and their contributions to organizational success. Thus they supply employees with lots of information relevant to derive their identities. Members of type L and type I organizations can derive less identity relevant information, because of the fairly restricted degree of participation in type L and, compared with type E, extensive but limited, codified and predictable participation in type I. In sum, we arrive at the following hypothesis:

H1a: Affective commitment will be stronger in type E than in type I and L.

Three mechanisms are instrumental in forming normative commitment (Meyer/Herscovitch 2001): (1) reciprocity, which sets in if an individual, having enjoyed certain advantages due to the membership in the organization, feels a strong desire to repay these advantages; (2) a psychological contract which means that an individual considers acting in the organization's interests as a component of his or her psychological contract with the organization; and (3) the socialization of the individual, which implies that an individual will have stronger feelings of normative commitment towards the organization, if he or she perceived acting in the interests of an employer as a norm for appropriate behavior. Our line of argument will exclude the third effect, as we were unable to ascertain to which extent the culture of participation that a person was socialized in coincided with a norm not to desert the organization. As type-E organizations grant their employees many opportunities for participating and

even for changing the participatory system, accepting and rewarding employees who invest themselves in company processes, employees are likely to feel obliged to reciprocate, thereby forming normative commitment. The high level of culture strength will prevent a gap forming between employee expectations towards participation and its actual form, thus precluding that normative commitment arises from an over-fulfillment of the psychological contract on the part of the organization. In sum, we can expect a high level of normative commitment in type-E companies.

In type-L organizations participation is limited and demarcated case-by-case. We may assume that employees experience hardly any advantage from participating and, consequently, they probably feel no need to reciprocate. Employees in a type-L OCP, who are characterized by strong agreement on values, are not likely to expect anything in terms of content and extent of participation beyond that which is extended by their supervisors. As such, it is irrelevant to their psychological contract, too. In sum, there is little evidence indicating that type-L cultures will be conducive to the formation of normative commitment.

In type I, participation is extensive and only occasionally restricted. This lets employees involve themselves and have access to codified, non-arbitrary channels of influence. As such, employees do receive advantages in their company. However, it is to be assumed that they are more likely to attribute the fact that they have these advantages to the effort of the participative institution, rather than the management or the company per se. In that case, normative commitment towards the company (rather than the institution) via reciprocity is not to be expected. Type-I companies are characterized by low culture strength, and are ambiguous as to the value they place on participation. Therefore, expectations that employees have regarding intensity and content of participation may be either exceeded or disappointed. As the case may be, this will result in more or less normative commitment. In sum, theoretical considerations do not allow a prediction as to the level of normative commitment in type-I organizations, but in comparison with type E some aspects of the OCP may hinder forming of normative commitment. Consequently, our hypothesis is:

H1b: Normative commitment will be stronger in type E than in type I and L.

Continuance commitment develops if an individual invests in the organization or places so-called side-bets, the stakes of which would be lost if the employee were to leave the organization (Moser 1996). Furthermore, continuance commitment may also arise from a lack of alternatives (Meyer/Herscovitch 2001). We cannot compare the 'lack of alternatives' mechanism between OCP types, as we were unable to survey the alternatives employees perceive, and their evaluation compared to the employees' current company. As supervisors in type-L organizations extend participation ad hoc and with an eye to their own interests, opportunities for employees to invest either their knowledge and skills or their capital will be constrained, as will be the continuance commitment arising from such investments. Following the gist of the argument above, the fact that opportunities for participation - albeit greater than in type L - are restricted to superficial, less intensive forms in type-I organizations, will lead to a fairly low level of continuance commitment. Opportunities for participating in the company and investing both financially and immaterially are greatest in type-E organizations. Therefore,

they should generate a higher level of continuance commitment. This leads us to our last hypothesis on organizational commitment.

H1c: Continuance commitment will be stronger in type E than in types I and L.

Psychological ownership (PO) has recently been pointed out as a decisive mental state of employees for material and immaterial participation systems to be effective, thus rendering it a good variable for construct validation (Kaarsemaker 2006, Martins et al. 2007, Van Dyne/Pierce 2004). Psychological ownership is defined as a „state of mind [...] in which individuals feel as though the target of ownership (material and immaterial in nature) or a piece of it is ‘theirs’ (i.e., ‘It is MINE!’)” (Pierce/Kostova/Dirks 2001, 299). At this construct’s core is a feeling of (co-)owning an object as well as some form of psychological attachment to this object. In this case, “feel as though it is theirs” denotes a complex psychological state, encompassing intellectual perception, thoughts, beliefs, awareness and emotions (Pierce/Kostova/Dirks 2001). Experiencing PO will cause individuals to protect their object, to improve it, to increase its value and to seek more information about it. If employees form PO towards their organization, behaviors affected by it are quite advantageous. That is the reason why we examined employees’ PO towards their organization in greater detail. Pierce et al. (2001) set out three mechanisms of how PO arises, which are (1) controlling the target, (2) coming to intimately know the target, and (3) investing one’s self into the target.

Controlling the target. This central aspect of the PO phenomenon addresses the power to exercise property rights; i.e. to govern, use, employ, and change the object, or to exert some other form of influence over it. Empirical findings support this, demonstrating that employees experiencing a greater degree of influence have higher PO towards their organization (Martins et al. 2007; Kaarsemaker 2006; Pierce/O’Driscoll/Coghlan 2004). Applied to our case, this means that an employee is more likely to develop PO towards his company if he makes use of a great number of opportunities for influencing it. In type-E organizations, such opportunities for participation and consequently for influencing the organization will typically be very comprehensive. Specifically, they will exceed those in type-I organizations with codified participation limited on a case-by-case basis; or in type L-organization where participation depends on the manager’s goodwill and interest, which is bound to coincide with severely restricted participation opportunities.

Coming to intimately know the target. An individual’s PO increases with his knowledge concerning its object. In our case, this applies when employees have a living and active relationship with their organization and are very familiar with their company, and know a lot about its organizational details and associate themselves with it. Employees who have internalized their companies are likely to form a strong sense of PO towards it. Frequent interaction and an active relationship between employee and organization is a prerequisite for this. Type-E organizations with their comprehensive participation opportunities offer their employees more intensive interactions. Here, employees can gain substantial knowledge about the organization and its processes. We can assume that employees will come to know the organization much more intimately than in type-I or type-L organizations with their limited participation opportunities.

Investing the self into the target. Expending parts of the self, e.g. exertion, energy, knowledge, and ideas may generate PO, particularly if the expenditure has resulted in a palpable result. In our case, employees may invest themselves and their effort in organizational projects, in work groups, to name two examples, thereby forming or bolstering their PO. When applying this to organizational cultures of participation, it is obvious that comprehensive participation opportunities in type-E organizations with a high degree of acceptance of employees for the participation system lead employees to invest themselves intensively into the organization. Type-L's lack of emphasis on 'independence' as a corporate value and the restricted participation opportunities, as well as type-I's case-by-case limitation of employee participation may afford employees some chances to invest their skills, ideas and knowledge, but not to the degree of type-E organizations. In the latter, employee participation is a defining part of the culture, even to the degree that participation becomes the everyday norm, rather than the exception. In sum, most chances for employee PO to arise can be identified in type-E organizations. So we derive the following hypothesis:

H2: Employees in type-E organizations will display a degree of PO that is greater than that occurring in type-I and in type-L organizations.

Pursuing the hypothesis from the starting point of our research of employee participation that OCP can foster organizational innovativeness and help organizations facing varieties of change processes to succeed, we consequently have to suppose that OCP is correlated with innovative behavior. Enhancing innovation is one of the most busy and recognized fields for the application of modern organizational psychology (Rank/Pace/Frese 2004; Guldin 2007). Most scientists and decision-makers agree that innovation is very relevant to individuals, organizations, and society as a whole (Shavina 2003). Setting aside major technological breakthroughs, smaller initiatives pursued by employees are also seen as meaningful contributions to innovation (Gebert 2002).

Based on Rank et al. (2004), we distinguish three forms of employee innovative behaviors: employee creativity which means the generation of novel and useful ideas, voice behavior which means speaking up with suggestions for change (cf. Van Dyne/LePine 1998) and innovation which is the implementation of new products or processes (cf. the construct taking charge as defined by Morrison/Phelps 1999). We are using this concept in order to pursue the hypothesis that different components of innovative behavior may be subject to the influence of different factors. In the following section, we discuss the degree to which employees engage in innovative behaviors in the three types of OCP.

Type-E OCPs usually lack boundaries or restrictions imposed upon employee participation, being very permissive of creativity. Employees tend to be very independent and assertive about participating, so there is no need to constantly encourage them to involve themselves. Participation in the sense of involving themselves in the companies proceeding is the norm rather than the exception (employees are the relevant normative reference group), so voice behavior is not likely to be frowned upon. Members of the type-E organizations are accustomed to question its states and procedures, including the participative system, turning this sort of constructive criticism

into a source of new ideas. Lastly, type-E OCPs are more likely to actively support the implementation of new ideas, rather than obstructing them.

In type-L OCPs, participation is hemmed in by well-defined and explicit borders, limiting the 'arena' in which participation is given free reign. Those borders are bound to restrict 'true' creativity. As employees only get involved when leaders tell them to (leaders forming the normative reference group), the former are likely to be less independent. There are few incentives for and limited acceptance of employees participating in decision-making, curtailing voice behavior and producing an attitude of indifference towards participation. Ideas are only put into practice after leaders direct employees to it, which is not likely to engender 'taking charge'.

In type-I OCPs as for type-L, creativity is restricted by borders, in this case imposed by the institution supporting participation. Employees are likely to be indifferent towards engaging in voice behavior and involving themselves in developing their jobs and their organization, as they see that as the institution's task, not theirs. Type-I cultures are also more likely to produce conflicts revolving around the participative system, the existence of which hampers generating ideas (Krause 2004). These considerations lead us to the following hypothesis:

- H3: Employees in type-E organizations are more likely to engage in innovative behaviors than employees in type-L or type-I organizations.

Discriminant validity

Since organizational culture as a pattern of shared assumptions and values of all organizational members is an aspect of organizations and thus located at the organizational level and not at individual level, OCP should be unrelated to status characteristics of organizational members; like age, tenure, position in the organization, or sex. Applied on our supposed three type concept of OCP there should be no systematic differences between OCP-type and the members' status characteristics and demographic data. Hence, our hypothesis is:

- H4: There are no significant differences in age, tenure, position in the organization and sex of employees between the three OCP-types.

Incremental validity

Previous research of employee participation usually aimed to explain the effects of single participation instruments or combinations of few participation means. By contrast, the OCP-concept proposed here focuses not on particular participation instruments and should better explain effects of employee participation than variables that only focus on specific participation instruments. As such the importance and value of our supposed OCP-construct for research and practice may only be established once the explanative advantage of this concept compared to other concepts in research is proven. To demonstrate incremental validity, we compare the OCP-construct with the variable "influence in decision-making", which has often been measured in empirical studies in participation research (see Heller 1998). As dependent variables we take the criterion variables affective, normative and continuance commitment, psychological

ownership and employee creativity, voice behavior, and taking charge presented in the analysis of criterion validity above. Our hypotheses are:

H5a: OCP can explain variance of affective, normative and continuance commitment beyond influence in decision-making.

H5b: OCP can explain variance of psychological ownership beyond influence in decision-making.

H5c: OCP can explain variance of employee creativity, voice behavior and taking charge beyond influence in decision-making.

Method

Sample

Our sample included employees from companies active in a variety of industries in Germany ($N=229$, 103 male, 126 female) and was an ad-hoc sample. On average, their age was 35.9 years ($sd = 10.7$ years), and they had been working for their respective companies for 8.0 years ($sd = 7.1$ years). The sample included 26 blue collar and 166 white collar employees, 28 middle managers and 8 top managers, with one missing value. 77.9% of the sample were employed by companies with a staff of less than 1,000.

Instruments

Organizational Culture of Participation was assessed by our newly developed scale. Following the described way to assign each respondent's OCP to one of the three types 192 individuals (83.3 %) could be assigned unambiguously. The remaining 37 persons could not be assigned beyond doubt, as they had chosen two types with the same frequency. Table 2 shows the distribution over the three types.

Table 2: Assignment of respondents to OCP types

	Frequency	%
Type L	100	43.7
Type I	25	10.9
Type E	67	29.3
not assigned	37	16.2

Organizational commitment was measured by the German COBB by Felfe et al. (2004). This instrument is divided into three subscales for affective, normative and continuance commitment. Affective commitment was measured by 5 items (e.g., I am proud to be a member of this organization; 1 = strongly disagree, 5 = strongly agree). Cronbach's Alpha for this scale was .85. Normative commitment was measured by 4 items, although the original scale consisted of 5 items (e.g., I wouldn't leave my organization now, because I feel obligated to some people here; 1 = strongly disagree, 5 = strongly agree). Item 4 of the original scale for measuring normative commitment was excluded because internal consistency would have been only .68, otherwise. Using the four-item-scale, Cronbach's Alpha was .75. Continuance commitment was measured by 4 items (e.g., There would be too many disadvantages for me, if I left the or-

ganization now; 1 = strongly disagree, 5 = strongly agree). Cronbach's Alpha for this scale was .68.

Psychological ownership was operationalized according to Van Dyne and Pierce (2004), using 7 scale items (e.g., This is MY organization; 1 = strongly disagree, 5 = strongly agree) that were translated to German and amended by an instruction text from Van Dyne and Pierce (2004). Cronbach's Alpha for this scale was .88.

Innovative behavior: Employee creativity was measured by a German scale based on three items by Pundt and Schyns (2005) (e.g., I have good ideas, which could be useful for the organization; 1 = strongly disagree, 5 = strongly agree). Cronbach's Alpha for this scale was .77. Voice behavior was measured by a German version of four items according to Van Dyne and LePine (1998) (e.g., I make proposals to improve things here in my organization; 1 = strongly disagree, 5 = strongly agree). Cronbach's Alpha for this scale was .86. Taking charge was measured by a German version of four items according to Morrison and Phelps (1999) (e.g., I actively seek for opportunities to implement good ideas in this organization; 1 = strongly disagree, 5 = strongly agree). Cronbach's Alpha for this scale was .88.

Influence in decision-making was measured by a one-item scale with an adapted German version of the influence and power continuum from authoritative to participative (IPC) (Heller 1998, Franke/Winterstein 1996). Respondents were asked to evaluate how much their line manager let them participate in decisions that directly concern them ranging from 1 = "My line manager makes decisions without asking me for relevant information, my options etc.", to 5 = "I have equal rights and influence in decision making" ($M = 3.05$, $SD = 1.15$).

Procedure

A standardized questionnaire was compiled including the scales set below. The questionnaire was prepared both as a written (paper-and-pencil) and as an online version. Questionnaires were distributed physically or as a URL in a snowball scheme starting from students and their acquaintances and relatives to various people working in organizations. The survey took place in December 2006. Returned paper questionnaires were typed in and combined with their online counterparts into a common data set, processed with SPSS.

Results

Table 3 provides the descriptive statistics and the inter-correlations of all variables investigated in this study (except for organizational culture of participation, because OCP is assessed on a nominal scale).

Testing the hypotheses, we first conducted a multivariate analysis of variances. This analysis showed that there is a multivariate effect of OCP on the dependent variables investigated in this study ($\Lambda = .784$, $F_{16, 356} = 2.89$, $p < .001$). The results of the analyses for every hypothesis are provided in table 4.

In our first set of hypotheses we assumed significant differences between the three types of organizational culture of participation in the different forms of organizational commitment. As may be seen in table 4, there are significant differences in affective ($F_{2,185} = 14.47$, $p < .001$) and normative commitment ($F_{2,185} = 8.16$, $p <$

.001) between the three types of organizational culture of participation, whereas there is no difference between the types of OCP in continuance commitment ($F_{2,185} = .11$, $p = .90$). The post hoc comparison by the Scheffé procedure showed that affective commitment is stronger in type E than in types L and I, which is in line with hypothesis 1a. Normative commitment is stronger in type E than in types L and I, which is consistent with hypothesis 1b. Contrary to hypothesis 1c, no significant difference between type E and the other types could be found. Therefore, hypotheses 1a and 1b are confirmed whereas hypothesis 1c must be rejected.

Table 3: Descriptive statistics and intercorrelations between variables used in this study

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. Age	35.94	10.66										
2. Tenure	8.02	7.13	.71**									
3. Number of Employees	10938.56	54143.89	-.03	.05								
4. Affective Commitment	3.26	.95	.31**	.30**	-.08							
5. Continuance Commitment	2.99	.97	.48**	.45**	-.02	.41**						
6. Normative Commitment	2.50	.93	.24**	.25**	-.01	.62**	.38**					
7. Psychological Ownership	2.41	.94	.28**	.25**	-.07	.59**	.19**	.41**				
8. Employee Creativity	3.41	.93	.19**	.12§	.03	.22**	-.01	.17*	.22**			
9. Voice Behavior	3.53	.92	.22**	.15*	.01	.35**	.08	.24**	.25**	.75**		
10. Taking Charge	3.19	.95	.25**	.13§	-.09	.43**	.07	.32**	.36**	.77**	.81**	
11. Influence in decision-making	3.05	1.15	.15**	.09	-.02	.44**	.11	.28**	.36**	.25**	.38**	.39**

§ $p < .10$ * $p < .05$ ** $p < .01$

Table 4: Results of the MANOVA comparing Type L, Type I and Type E

	Means (Standard deviation)			$F_{2, 185}$
	Type L	Type I	Type E	
Affective commitment	3.03 (.99)	2.72 (.87)	3.67 (.76)	14.47**
Normative commitment	2.32 (.94)	2.12 (.74)	2.83 (.84)	8.16**
Continuance commitment	2.94 (1.05)	3.02 (.95)	3.02 (.97)	.11
Psychological ownership	2.28 (1.01)	2.07 (.73)	2.60 (.90)	3.64*
Employee creativity	3.29 (1.01)	3.19 (1.16)	3.60 (.71)	2.12
Voice behavior	3.40 (.97)	3.32 (1.09)	3.84 (.68)	4.93**
Taking charge	3.01 (.93)	2.78 (1.05)	3.61 (.80)	10.22**

* $p < .05$ ** $p < .01$

In hypothesis 2 we predicted a higher degree of psychological ownership in type-E organizations than in type-L and type-I organizations. As can be seen in table 3 there is a significant difference between the types of organizational culture of participation ($F_{2,185} = 3.64$, $p = .03$). Contrary to our hypothesis, no single difference between the types turned out to be significant in the post hoc comparison. At least, psychological ownership in type E is marginally stronger than in type I ($p = .06$). However, as this is not what we assumed, hypothesis 2 must be rejected.

In hypothesis 3, we predicted a higher incidence of innovative behaviors. Such as employee creativity, voice behavior, and taking charge in type E than in the other types of OCP. Our results show that this is true for voice behavior ($F_{2,185} = 4.93$, $p < .01$) and taking charge ($F_{2,185} = 10.22$, $p < .001$). There is also a higher degree of employee creativity in type E than in the other types of OCP, but the difference is not significant ($F_{2,185} = 2.12$, $p > .10$). Therefore, hypothesis 3 was confirmed only partially.

In hypothesis 4 we predicted no significant differences in status characteristics and demographic data between the OCP-types. Concerning age and tenure as metric variables, we conducted an ANOVA that revealed no significant differences in age of respondents between the three OCP-types ($F_{2, 189} = .49$, $p = .61$). We detected similar results for tenure ($F_{2,187} = 2.94$, $p = .06$). Then we conducted Pearson chi-squared tests for sex and position in organization as nominal variables and found no significant differences for sex ($\chi^2 = 2.96$, $p = .23$) but significant differences for the variable position in organization ($\chi^2 = 12.79$, $p = .05$).

In the last set of hypotheses we predicted improved explained variances of the three forms of organizational commitment, psychological ownership and the three subscales of innovative behavior by OCP compared with influence in decision-making. For support of the hypotheses the R-squared of the dependent variables explained by influence of decision making will have to increase significantly if OCP as independent variable is included in the hierarchical linear regression. This analysis will be appropriate only if there is variance of dependent variables explained by OCP. As the results in table 3 show in case of continuance commitment and employee creativity there is no explained variance, so that we conducted the hierarchical linear regression analysis for the remaining dependent variables. The variance of affective commitment explained by influence in decision-making was $R^2 = .217$. Including OCP in the regression model in a second step R^2 increased significantly up to $.245$ ($p = .01$). Significant increases of R^2 we got for normative commitment (variance explained by influence of decision-making $R^2 = .100$, with OCP included $R^2 = .123$, $p = .03$) and taking charge (variance explained by influence of decision-making $R^2 = .160$, with OCP included $R^2 = .189$, $p = .01$). No significant R^2 -increases has resulted for psychological ownership (variance explained by influence of decision-making $R^2 = .134$, with OCP included $R^2 = .136$, $p = .46$) and voice behavior (variance explained by influence of decision-making $R^2 = .154$, with OCP included $R^2 = .163$, $p = .17$; we omit β -weights of the regression analysis because they cannot be interpreted reasonably).

Discussion and conclusion

Results show that our hypotheses have been confirmed in general. We found evidence validating the OCP-construct. OCP is well correlated with most criteria we chose for validation analysis in this study. Despite no significant correlations to continuous commitment and employee creativity the OCP construct is theoretically and empirically embedded in related constructs that are considered as effects of an OCP on the individual level, at the level of members of the organizations. Similarly, the OCP-construct can be discriminated from variables that should be not related to OCP, like status characteristics and demographic data of employees. This is important to show

that OCP is a variable at organizational and not at individual level. Furthermore we could show OCP's incremental validity. Compared with a widely used measure of participation OCP seems to provide additional explanatory power for variance of affective and normative commitment and taking charge as dependent variables, but not for psychological ownership and voice behavior.

Implications for theory

Further theoretical developments should take into consideration the following aspects: Firstly, organizational culture of participation as a concept deserves more attention in organizational behavior research, and should be integrated into existing theoretical frameworks; it proved to be a valid construct with some power explaining effects beyond existing variables, constructs and participation instruments in research. Further constructs, particularly effects of OCP on an organizational level should expand the construct validation and provide evidence for the hypothesized positive effects of OCP on organizations' innovativeness, flexibility and power to deal with environmental changes. Appropriate measure and indices have to be chosen which ideally, would be independent from individual perception and assessment and are therefore impartial. The issue guiding these efforts should be to explain how differences between the types develop and to identify mechanisms by which this aspect of culture affects experience and behavior in organizations.

Secondly, the OCP concept offers a way of dealing more systematically with practitioners' demands to integrate employee participation into their everyday routine and make it part of their work life. Specific processes and actors' behavior in the three OCP-types that may occur and that facilitate or hinder employee participation have to be examined more closely to provide strategies for controlling and dealing with participation adequately. The concept proposed in this paper addresses these very issues, without claiming to be the only valid avenue of research into this field. However, our concept may constitute a first foray into the topic, which will have to prove its scientific merit in further research.

Thirdly, organizational cultures of participation may shed light on why participation instruments work in some cases, producing the desired effects, and fail to do so in others. Preliminary findings indicate for instance that OCP might explain differences in forms of material participation and idea management (Horsmann et al. 2007; Pundt et al. 2007). For instance, effective idea management in type E depends on employees' efforts and initiative and needs no additional motivation of employees by leaders. In type-L organizations effective idea management mainly requires leaders' efforts and power to motivate employees to produce new ideas. And in type-I organizations the institution's efforts are crucial for a successful idea management (Horsmann et al. 2007). Antecedents, processes and structures of effective participation seem to differ in the OCP-type. For instance, the fairly low acceptance of employee participation in OCP-types I and L may hinder the intended effects when using or implementing particular participation forms in these organizations. In contrast, the same participation forms may have the intended effects in type-E organizations because of high acceptance of employee participation and no cynical and negative attitudes towards it as characteristics of this OCP-type. Future research on the effects of participation in-

struments should take into account OCP as a context factor (see Johns 2006). The principal issues to be addressed are: Which participation instruments work in which types of OCP? What has to be done in each type for certain participation instruments to have the effects that are aimed for?

Limitations and future research

As our data were surveyed in a cross-sectional design, they do not offer any insight on causal relationships. Furthermore, all variables were surveyed at the individual level. This causes two problems: Firstly, single source bias may inflate the relationships found in the data. Secondly, culture is by its nature a collective phenomenon and hence a construct situated at a higher level of analysis than individual experience and behavior. Based on the data available, we were unable to ascertain whether there is agreement at a higher level between persons from one company. Future studies should therefore be designed and built on a multi-level model structures (Klein & Kozlowski 2000) and should examine empirically the OCP of a number of organizations and their employees' perceptions, attitudes and work behaviors of their employees.

Another limitation of our study concerns the little number of cases in OCP-type I with 25 respondents in contrast to types L and E. This impacted our analysis, particularly the discriminant validity analysis of OCP and respondents positions in the organization, where we found significant correlations in contrast to our hypothesis. A closer look at the cross table of position in organization and OCP-types gave us a first hint for reasons of the unexpected result. In all combinations of position and OCP-type we found cases, with the single exception of a combination of middle management and OCP-type I, i.e. there were no respondent with OCP-type I in positions on the middle management. In contrast, there were 10 cases in type L and 11 in type E. Further studies have to clarify if this relatively low incidence of OCP-type I organizations of compared with types L and E is a characteristic of our sample or occurring systematically.

The last limitation to be discussed here concerns our way of surveying OCP: measuring it by means of decision items resulted in a loss of data for individuals that could not be assigned unambiguously. The use of Likert scales might offer a remedy for this. Further validity and reliability analyses of the OCP-measure are needed. One step to validate the measure is to estimate the face or a priory validity by letting people assign each ending of the eight items to the three OCP-types. Reliability could be appraised as test-retest reliability by estimating the OCP in two occasions by same people.

Implications for practice

Research on organizational culture of participation is just at the beginning. Consequently, implications or recommendations for practical action are by necessity skating on thin ice. Only after completing and expanding the theoretical and empirical basis of OCP-research may we formulate strategies for individuals, leaders and institutions. Such strategies may aim at goal-oriented shaping of the participation system and at applying actions in organizations which take into account the three types of OCP. Nevertheless, the following implications can be drawn from our results.

First, we observed that organizational culture of participation obviously has some consequences for individual work experience and behavior. Employees report a higher degree of positive aspects like affective commitment, psychological ownership, and innovative behavior in type-E organizations. However, one should not conclude that building up type-E organizations is the best thing to do in every case. We say this because type-E cultures may have negative side-effects accompanying the positive effects set out above. For example, too strong psychological ownership of employees may hinder necessary change processes in organizations because employees could feel this as an attack on “their” territory and on the object they feel they own, causing them to impede changing processes (Pierce/Kostova/Dirks 2001). More research is needed here, to fully clarify the effects organizational culture of participation has on positive and negative aspects of work experiences and behavior. Such positive effects could be OCB and employee welfare; negative effects could be counterproductive behavior, employee cynicism, and rumination.

Another thing that needs to be considered is that organizational culture cannot easily be changed. Schein (2004) points out cultural changes only work in the long run. So, to build up a type-E culture can only be a long term goal. Based on our results, we would rather recommend managers to reflect their own organizational culture of participation with regard to managerial decisions and actions (cf. Sackmann 2006b). On the one hand, this requires knowing their organizational culture of participation. The instruments we used in our studies provide a possible means for diagnosing a company’s OCP. On the other hand, one should reflect whether actions or instruments for organizational improvement really fit the company’s OCP.

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Appendix: OCP-measure

Please read the following eight statements of this questionnaire carefully.

In each case, select one out of three answers (a), (b) or (c) which in your opinion best describes the situation in your company.

1. Important information about the company ...
 - (a) is gathered and found by the employees independently.
 - (b) the employees receive from their superior.
 - (c) the employees receive from the employee's representatives.
2. During change projects in our company ...
 - (a) the employees of the project team decide by themselves who is participating in the project and who will be consulted.
 - (b) the employee representatives (e.g. works council) arrange the co-operation of the employees who have to participate the project.
 - (c) the members of the project are assembled by the managers.
3. The impulse of change projects often comes from ...
 - (a) the employees.
 - (b) the managers.
 - (c) the employee representatives (e.g. works council).
4. Open communication in our company ...
 - (a) is ensured by the employee's representatives (e.g. works councils).
 - (b) is claimed actively by the employees.
 - (c) is ensured by the managers.
5. Employees participate actively in designing the processes and procedures of the company.
 - (a) That is a matter of fact in our company.
 - (b) It depends on whether the respective manager is approving it.
 - (c) In our company that is guaranteed by standards and agreements.
6. Employees working on their duties by themselves ...
 - (a) depends on whether the respective manager is approving it.
 - (b) is regulated by formal job descriptions.
 - (c) is a matter of fact in our company.
7. If employees don't take part in the organization of the company ...
 - (a) it would run anyhow.
 - (b) the employee representatives would claim the participation.
 - (c) things would not be working quite as well.
8. If a leader wants to evade employee participation in our company ...
 - (a) there would be conflicts with employee representatives (e.g. works councils).
 - (b) there would be conflicts with employees.
 - (c) he/she would get away with it.

(The German version of the OCP-measure is available from the authors.)