8. PARALLAX EFFECT IN RESEARCH ON COMMUNITY OF PRACTICE

8.1. Introduction

In multiple scientific publications, in particular in those discussing social sciences, terminological chaos associated with the discussed issue is a subject of many complaints. Quite often, its main reason is not the complex and inter-disciplinary nature of the analyzed problem, but the generality and indistinct nature of the terms used to describe it. This can be seen in the literature on knowledge management that is a source of general yet universal theories and practical solutions that are supposed to be an antidote to the most ailing organizational problems. Their vague and indistinct nature fosters their free implementation and use. As a consequence, we are dealing with a parallax effect that is characterized by a lack of uniform approach to the nature and character of a given phenomenon. Too much space for interpretation is the source of multiple research perspectives as well as inconsistency in terminology that significantly hinders the exploration of a given issue and makes it impossible to establish a consistent theory.

An example of such a situation is the community of practice. This term comes from the situated learning theory developed by J. Lave and E. Wenger (1991). At the turn of the 21st century, the concept of communities of practice quickly gained popularity as a tool for creating and distributing knowledge in organizations. In no time it became a central subject of conferences, workshops and seminars devoted to knowledge management (Zboralski, 2007). In recent years one can notice a decline in interest in this concept from the side of science and practice. It is suggested that the main reason for this is the fact that the concept still lacks a widely accepted definition and can be interpreted in many different ways. Consequently, the term community
of practice can be sometimes problematic: everything is and at the same time is not a community of practice (Romhardt, 2002). This results mostly from the ambiguity of the term “community” that can be interpreted from the point of view of numerous fields of study, for example sociology (Tönnies, 1887; Weber, 1914), social sciences (Rheingold, 1995) or management (Hagel and Armstrong, 1997). When adopting a certain research perspective, it results in an emphasis on different characteristics of communities, and – as a consequence – different criteria of their description, which in practice makes it impossible to develop a common typology of communities.

The aim of this article is the presentation and critical analysis of the most commonly used approaches to the community of practice on the basis of well-established works of J. Lave and E. Wenger (1991), J. Orr (1990), J.S. Brown and P. Duguid (1991) and E. Wenger (1998b). The paper presents main research perspectives that view the community of practice as a space for identity establishment, tool for knowledge management in the organization and as an environment of social learning.

8.2. Community of practice as identity establishing

The term community of practice comes from the situated learning theory developed by J. Lave and E. Wenger (1991). Lave and Wenger based their theory on case studies carried out in majority by third parties: tailors’ communities from two ethnic groups in Liberia (West Africa) (Lave, 1988), midwives in Maya mountains in Mexico (Jordan, 1989), Alcoholics Anonymous (Cain, no data), butchers employed in markets in the USA (Marshall, 1972) and navigators in the US Navy (Hutchins, 1996). Their aim was to establish how learners coming from different cultures acquire their knowledge and competences: how they settle in the local culture and how the rituals and values of that culture are passed down (Bendkowski, 2012). The obtained results were supposed to reconstruct the western learning theories and theories on how the learning environment is shaped (Lave, 1993).

Lave and Wenger were able to establish that informal learning processes are directly linked with a specific situation and thus they constitute a social construction. Learning takes place by way of legitimate peripheral participation (LPP) that is about learning from masters (experts) and more experienced colleagues (apprentices) and
moving towards the community center as new knowledge and competences are being acquired, which is linked with the increase of status and gradual change of identity: from peripheral membership to full membership in the community (Bendkowski, 2012). The communities where this apprentice mechanism in the master-apprentice-pupil system was functioning was defined as “communities of practice”; although in their work they never formally defined this term.

From among other similar social structures of communities of practice that are described and analyzed by Lave and Wenger the following may be distinguished: legitimate peripheral participation, learning understood as establishing professional identity and focus on practices. Despite the significant generality, the above model of communities of practice is still used especially in research on the forming of personnel of communities of practice (Campbell, 2009; Harris, Simons, and Carden, 2004).

Another fundamental work on the communities of practice is the ethnography of Xerox photocopy machine technicians penned by American sociologist Julien Orr (1990). It was prepared at the request of Xerox Palo Alto Research Center to optimize the training program in substantive and financial scope (North, Romhardt, and Probst, 2004). Orr’s research proved that in the traditional description of the work position it is not possible to specify it to the fullest extent possible. The management of Xerox assumed that the technicians will be able to carry out their tasks independently, with the help of guidelines and procedures found in the repair manual. However, during observations of the day-to-day work of a group of technicians (Orr referred to them as “professional community” or “work community”) it turned out that despite an extensive trainings program and comprehensive technical documentation they often had to face problems that they were unable to solve. To repair the device, the technicians were forced to skip the procedures and create own manners of repairing. For that purpose, they used their lunch breaks during which they could discuss their problems, exchange experience concerning the repairs and together think of new solutions for the failures. Orr called them “war stories”. They served two objections: to provide a practical, contextual knowledge on particular photocopy machines and to establish a professional identity of a technician who will do anything to find a solution and repair a device despite limitations and missing information. Common context of activities made the “war
stories” an effective tool for sharing private knowledge on the devices. To become a member of the community required not only the knowledge on how to repair a device but also the ability to pass this knowledge down in the form of a “war story” (Murillo, 2011).

When Orr was writing his ethnography, the term of community of practice was not wide-spread (Duguid, 2006). Therefore, Orr analyzed the work of photocopy machines technicians from the point of view of professional community (van Maanen, and Barley, 1984). Still, in the literature of the subject, Orr’s work is considered the first ethnography of community of practice (Teigland, 2003; Zboralski, 2007).

### 8.3. Community of practice as knowledge management tool

The third fundamental work devoted to community of practice is an article of John S. Brown and Paul Duguid titled “Organizational Learning and Communities of Practice: Toward a Unified view of Working, Learning, and Innovation”, where they defined community of practice as a strategic tool for the management of knowledge in the organization (1991). Brown and Duguid claimed that despite informal nature, the communities of practice are the key to effective learning at work and creation of innovative solution. As a result, they are an extremely crucial challenge for the managers, especially for managers of organizations based on knowledge. Thus, Brown and Duguid introduced the idea of community of practice into the organizational environment.

The theory of Brown and Duguid was founded in majority on Orr’s work described above. The proposed model of community of practice was composed of three dimensions corresponding with the work of technicians: narrative, cooperation and social construction. It goes beyond the intuitive interpretation of community of practice proposed by Lave and Wenger. This may explain why the article of Brown and Duguid is treated by many researchers as the main source of knowledge on the community of practice (Murillo, 2011).

The narrative covers coming up with an exchange of “war stories” concerning repair of defined devices. The story of a broken machine was a convenient way for the technician to create a cause and effect map that makes it possible to solve the
problem. The story turned out to be a better solution than the procedure found in the official instruction of repairs, as it was accompanied by a relevant context that influenced the operation of the device.

Cooperation refers to the spontaneous and informal organization of technicians. Its aim is cooperation, exchange of stories and mutual help in terms of analyzing the specific nature of particular devices. What is interesting is that the community of technicians was established even though the mother organization considered their work as independent activity and not as a group one (Murillo, 2011).

Social construction manifested itself in two dimensions. First of all, mutual interactions resulted in common understanding of the problem and thus brought about specific and contextual knowledge of the technicians on the particular devices. Second of all, by way of sharing “war stories”, the technicians were establishing their identity and contributed to the development of resources of group knowledge of the community of practice (Bendkowski, 2012).

Fig. 1. Negotiation of meaning: participation and reification
Rys. 1. Uzgadnianie znaczenia: uczestnictwo i reifikasię
Adapted from: (Wenger, 1998).

To characterize the activities of the technicians understood as group learning and establishing of an identity of a member of a community functioning within the organizational environment, Brown and Duguid adapted the situated learning theory of Lave and Wenger. As a result, the cooperation model proposed by them is only slightly different from the community as understood by Lave and Wenger. The
main difference is about the status of the members. Community of practice as understood by Lave and Wenger was based on the relation master-pupil, while Brown and Duguid argued that the members of communities of practice were equal. The second difference lies in the fact that Brown and Duguid characterized community functioning within an organizational environment as a community that directly or indirectly implements the objectives of the organization. Thus, it functions in determined power system which significantly influences its functioning. In turn, community of practice as defined by Lave and Wenger was an autonomous being that functions primarily due to the needs of their members and not for the needs of an organization.

As opposed to Lave and Wenger, Brown and Duguid saw the possibility of communities’ cooperation. This manifested itself, among others, in their approach to organizations as huge communities composed of smaller communities of practice used to implement superior organizational goals, in particular those associated with knowledge management. Over the next couple of years, many works were written on the communities of practice as a new organizational form and at the same time a key tool of learning and sharing knowledge within the organization (Brown, and Duguid, 1996; Brown, 1998).

As a result of the work of Brown and Duguid, two main research directions emerged in the research on the communities of practice: one treating the community of practice as autonomous organizational form and the other one as a tool of knowledge management. First direction focuses on the development of theory, describing the emerging and informal nature of communities of practice. The second research trend emphasized the business value of communities of practice and was directed to the identification, support and/or intentional establishment of strategic communities of practice as a knowledge management tool (Zboralski, 2007).

Communities of practice as environment of social learning: participation, reification and negotiation of meanings

In 1998, E. Wenger published his famous ethnography devoted to the insurance loss indemnification titled “Communities of Practice. Learning, Meaning and Identity”. As opposed to the work written in cooperation with J. Lave in 1991, that focused on the process of establishing the identity of a community member, in this case in the center of Wenger’s analysis was practice (activity). The new model of
community of practice that was a development of the original intuitive understanding of the community of practice was based on field studies carried out in 1989-1990 in the medical claims processing center operated by one of the largest U.S. insurance companies. Till this day this monograph is the most detailed and exhaustive elaboration on communities of practice (Zhang, and Watts, 2008). Wenger departs from the cognitive theories of learning, proposing the focus on the process of the negotiation of meaning that he concerns the ultimate learning goal. Focus on the negotiation of meaning along with the assumption that this process takes place within a community results in the fact that the social nature of a human becomes particularly important in the context of learning (Murillo, 2011).

Wenger defines negotiation of meaning as a process by which we experience the world and give a meaning to our practices (1998a). This process is the basis for the community of practice as the result of influence of two other processes known as participation and reification (see Fig. 1). Participation is the membership in the community and active participation in its activities. It is not the same as cooperation, but means deep engagement in the works of the community at all levels. In turn, reification is the process of shaping the experiences by creating objects that are the objectification of these experiences towards which the negotiation of meaning is used.

![Diagram of social learning in community of practice](image)

Fig. 2. Model of social learning in community of practice
Rys. 2. Model społecznego uczenia się w społeczności praktyków
Adapted from: (Wenger, 1998).
Individual learning is about negotiation of new meanings and not about collecting new information or learning new skills (Wenger, 1998a). Negotiation of meaning takes place within the community of practice understood as a social group that was established to achieve goals considered by its members as important. At the same time, the community defines which members are professionals in the determined field. Learning is a process of social becoming, constant negotiation of identity created within a specific context of cooperation (or its lack) in the community and its activities (Wenger, 1998b).

Even though the concept of community plays a major role, for Wenger it is only a social environment that makes the group negotiation of meaning possible. The model of social learning covers four interconnected elements (see Figure 2) (Wenger, 1998b):

- **meaning** – the ability of individual and collective experiencing of the world and negotiation of meaning,
- **practice** – mutual engagement in the community activities,
- **community** – social environment established for a specific purpose (domain of practice) being a motivation for cooperation (participation),
- **identity** – feeling of belonging to a community, being its part.

Social learning takes place by negotiation of meanings with the use of four basic mechanisms (Wenger, 1998b):

1. meaning/learning as experience,
2. practice/learning as doing,
3. community/learning as belonging,
4. identity/learning as becoming.

Community of practice understood as an environment of social learning is determined by the following dimensions (Wenger, 1998b):

- **mutual engagement** – employees become members of a given community by engaging in the community practices. This mutual engagement unites the members of the community into one social structure,
- **common domain of practice** – field of interest around which the community is centered. It is based on mutual or shared understanding that is constantly being established and redefined by its members,
• shared repertoire of resources – a set of shared community resources that allows for greater engagement in the works of the community.

Presence of these three dimensions is a necessary prerequisite for the community of practice to exist. Wenger provides a list of factors that allow to identify the community of practice. They can be perceived as a manifestation of the main dimensions of the community of practice (see Tab. 2).

Wenger’s model is a significant theoretical development of the intuitive model from 1991. Even though in his work he did not provide a clear definition of the community of practice, the model presented therein allows to limit the possibilities in terms of interpretation. Unfortunately, researches use the Wenger’s model of 1998 in limited scope (Murillo, 2011). More popular are the approaches defined by Lave and Wenger (1991) or Brown and Duguid (1991).

Table 1

Factors indicating a community of practice

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Main characteristics</th>
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<tbody>
<tr>
<td>Mutual engagement</td>
<td>Mutual relationships – harmonious or conflictual.</td>
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<tr>
<td></td>
<td>Shared ways of engaging in doing things together.</td>
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<td></td>
<td>Rapid flow of information and propagation of information.</td>
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<td></td>
<td>Absence of introductory preambles as if conversations and interactions were merely the continuation of ongoing processes, Very quick setup of a problem to be discussed.</td>
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<tr>
<td>Common domain of practice</td>
<td>Substantial overlap in participants’ descriptions of who belongs.</td>
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<td></td>
<td>Knowing what others know, what they can do, and how they can contribute to achieve a goal.</td>
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<tr>
<td></td>
<td>Mutually defining identities.</td>
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<td></td>
<td>Ability to assess the appropriateness of actions and products.</td>
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<tr>
<td>Shared repertoire of resources</td>
<td>Specific tools, representations and other artifacts.</td>
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<td></td>
<td>Local lore, shared stories, inside jokes, knowing laughter.</td>
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<td></td>
<td>Jargon and shortcuts as well as the ease of producing new ones.</td>
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<td></td>
<td>Certain styles recognized as displaying membership.</td>
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<td></td>
<td>Shared discourse reflecting a certain perspective on the world.</td>
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Note: Adapted from: (Wenger, 1998).

In his later works, Wenger modified his unitarian approach to community of practice suggesting that organizations should perceive themselves as systems of social learning composed of numerous communities of practice. Cooperation between members of different communities (by maintaining one’s own community identity) is possible thanks to the crossing of borders and transfer (adaptation) of artifacts into a new context of meaning. The above changes were, it seems, dictated
by the desire to interest the representatives of practice with the issues of communities of practice, the example of which is a book written together with McDermott and Snyder being a practical guide for organizations that are willing to implement the community of practice in their works (Wenger, Snyder, and McDermott, 2002).

8.4. Conclusions

Community of practice is present in the management literature for more than 25 years. Still till now no consistent terminology as well as methods and research tools were established. Indubitably, the main reason for this is the weakness of traditional theories of communities of practice, and in particular lack of formal definition of the research subject, using for that purpose general and blurry terms, lack of dominating research perspective or establishing theories on the basis of individual research. Chaos in terms of terminology and methodology becomes even greater due to the fact that communities, group learning and identity are the subjects of research of other fields of study such as sociology, anthropology and psychology.

As a result, till now there are not many works of scientific nature devoted to the communities of practice. Majority of them are one sided case studies that present an analysis of a selected aspect of their activities, or compilations developed for the implementation of communities of practice as an element of knowledge management system in an organization. Usage of different research perspectives and methods and tools of analysis resulting from them in majority of cases makes it impossible to compare the research results and thus to create a consistent theory.

The fact that the difficulty in researching the community of practice are its features can be a justification for such a situation. What is meant here are such dimensions of the community of practice as its informal nature, blurry borders or changeable personnel. This makes difficult not only the collection of empirical data but also their comparison. As a result, each community becomes a unique phenomenon.
Bibliography


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Abstract

At the turn of the 21st century the concept of communities of practice quickly gained popularity as a tool for creating and distributing knowledge in organizations. In recent years, however, we have noticed a decline in interest in this concept from both science and practice. It is suggested that the main reason for this is the concept still lacks a widely accepted definition and can be interpreted in many different ways. Consequently, the term community of practice can be sometimes problematic: everything is and at the same time is not a community of practice. The article presents a critical analysis of the most popular approaches to the concept of communities of practice.

Keywords: community of practice, legitimate peripheral participation, social learning theory, negotiation of meaning, reification, participation.

EFEKT PARALAXY W BADANIACH WSPÓLNOT DZIAŁAŃ

Streszczenie

Na przełomie XX i XXI wieku wspólnota działań bardzo szybko zyskała popularność jako narzędzie na potrzeby kreowania i dystrybucji wiedzy w organizacjach. Jednakże w ostatnich latach można zauważyć spadek zainteresowania tą koncepcją, zarówno ze strony nauki, jak i praktyki. Za główne przyczyny tego stanu rzeczy uważa się brak formalnego zdefiniowania pojęcia wspólnoty działań oraz szerokie możliwości jego interpretacji. Tym samym zastosowanie terminu wspólnota działań jest w praktyce niekiedy nieco problematyczne: wszystko jest i jednocześnie nie jest wspólnotą działań. W artykule przedstawiono oraz poddano krytycznej analizie najbardziej rozpowszechnione podejścia do koncepcji wspólnoty działań.

Słowa kluczowe: wspólnota działań, legitymizujące uczestnictwo na obrzeżach, teoria społecznego uczenia się, negocjacje znaczeń, reifikasi, partycypacja.