

# The Contribution of Social Networks to Individual Learning in Service Organizations

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*This study investigates how social networks in service organizations contribute to employee learning. Two specific types of social network seem especially relevant to individual learning: first, the service network, where employees carry out and improve their work, which may lead to learning; and second, the learning network, where employees participate in intentional programs in order to learn. Their experiences acting in both networks can help employees create their own learning paths in the workplace.*

**Keywords:** Social Networks, Workplace Learning, Service Organizations

This paper views employees rather than HRD practitioners or managers as core actors in the learning and work arena. They gain all kinds of experiences relevant for learning as they carry out and improve their work and as they participate in intentional learning programs. Every employee in an organization thus engages in his or her own specific learning path, which may combine implicit, self-directed, and guided learning activities in particular ways (Poell, 2005).

Although employees are core actors in the creation of their own learning paths, they are always part of social networks in and around the organization as well. In their work employees deal with other organizational actors, who maintain relations with them and affect how they carry out their work. Employee activities in intentional learning programs, too, are influenced by other actors, who together make up the learning network of the organization – for example, their colleagues, supervisors, HRD practitioners, and other experts.

This paper will use the learning-network theory (Van der Krogt, 1998; 2006) to demonstrate the crucial importance of social networks for the creation of employee learning paths. In doing so, we shall focus especially on the service industries (e.g., healthcare, education, social work, personal and financial services, et cetera). Three research questions will be investigated, which are introduced below.

First, how do social networks of organizational actors impact upon the experiences relevant to learning of individual employees as the latter carry out and improve their work? This being service work, we shall refer to these particular social networks as service networks. These learning-relevant work experiences may be thought of as a continuous learning path very much tied to every-day operations. Figure 1 shows the learning paths (dotted arrows) of four employees as impacted by the service network in which they operate.

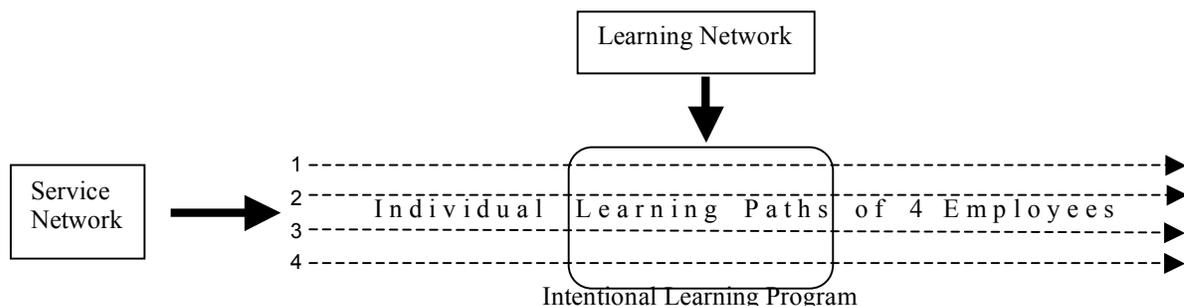


Figure 1. The Impact of the Service and Learning Networks on Learning Paths and Programs.

Second, how does the learning network in the organization impact upon the intentional learning programs in which employees participate? Every organization has a learning network consisting of various actors, who explicitly give rise to activities that can lead to learning. As Figure 1 implies, the intentional learning programs that are thus

created can be regarded as temporary constructions, unlike employee learning paths that are continuous in nature. Third, how can employees create their own learning paths and in what ways are these affected by their work experiences and their participation in learning programs? As indicated by Figure 1, individual learning paths are impacted by the learning experiences gained in the service network and given fresh impetus by intentional learning programs organized within the learning networks of the organization.

The paper will answer the above three research questions after first introducing and defining a number of basic concepts from the learning-network theory (Van der Krogt, 1998; 2006). Conclusions will be drawn and themes for further research will be proposed in the area of social networks and individual learning in organizations.

### Basic Concepts from the Learning-Network Theory

A central idea in the learning-network theory (Van der Krogt, 1998; 2006) is that actors organize processes out of various networks. Organizing is viewed as a cyclical process, which will be explained in this section. In the two final sections after the present one, the concept of learning path will be further illustrated and the impact of learning-path creation on individual learning will be clarified.

#### *Actors Organizing Processes out of Various Networks*

The learning-network theory views organizing as the creation and optimization of processes by actors, which is also referred to as the actor-network approach to organizing (cf. Scharpf, 1997; Lin, 2001). According to this approach actors, from their positions in the network and from their action theories, together create processes that lead to organizational structures. The structures, in turn, influence the activities undertaken by the actors. Actors do keep certain discretion, however, to act according to their own action theories, that is, in accordance with their own values, knowledge, and skills (see Figure 2).

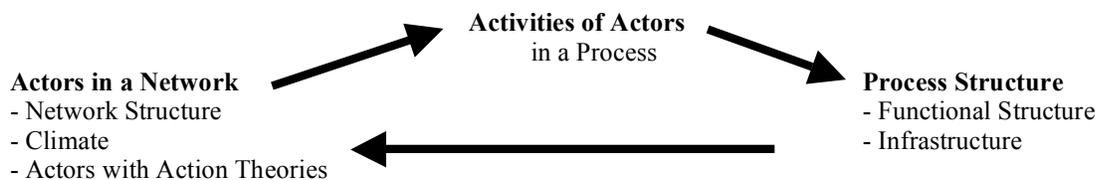


Figure 2. Organizing as a Cyclical Process.

From this perspective, organizing is a cyclical process. From their positions in various networks and on the basis of their action theories, actors continually create processes and try to optimize them, that is, give fresh impetus to the processes in order to reduce their problems.

#### *Network Structure: Three Dimensions*

The structure of an actor network comprises three dimensions: the vertical, horizontal, and external dimensions (see Figure 3). The first, vertical dimension is an expression of the relations between higher management (line and staff actors) and the operational core (service providers on the shop floor). If higher management is very powerful and influential in the organization, there is a strong vertical dimension. Their formal authority gives higher managers a strong position, often augmented by their central role in organizational communication and their access to important resources. The lower end of the vertical dimension represents organizational structures that grant individual employees strong positions. In these organizations, the service providers on the shop floor have the autonomy to decide about their own work -- they can take initiatives independent from managers and staff departments.

The second, horizontal dimension refers to the interrelationships among those employees who are positioned at the same level. This dimension is strong in organizations where the service providers work in organic units that maintain intensive and multi-faceted internal relations. The horizontal dimension is weak if individual employees can operate highly independent from their direct colleagues.

The third, external dimension indicates the impact exerted on the organization by external actors relative to the influence of the internal actors. In organizations where external actors (e.g., professional associations, other institutions, public authorities, supportive bodies) are passive, the external dimension is weak. It is strong if the organization is influenced by external actors to a large extent.

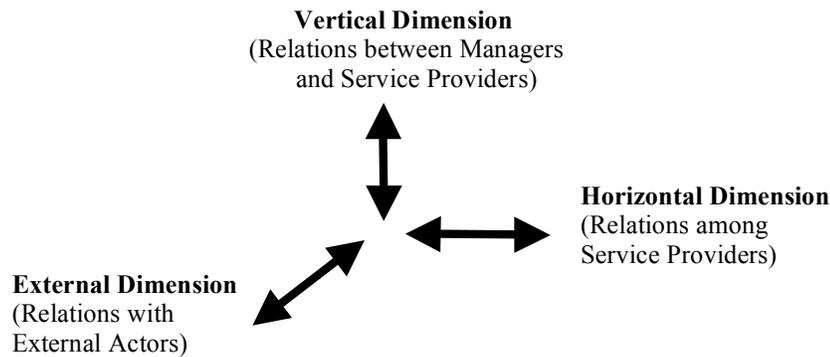


Figure 3. The Three-Dimensional Space of the Actor-Network Structure.

#### *Actors and Their Action Theories*

The learning process is about content, in that it refers to the development of values, knowledge, and skills. Authors increasingly emphasize the importance of looking at the constellation of values, knowledge, and skills in their interdependence (e.g., Bolhuis, 2000; Onderwijsraad, 2003, Billett, 2001). This idea is also expressed in terms like mental models, knowledge structures, action logics, and practical theories (Homan, 2001; Senge, 1990; Verloop, 2003, Ellström, 2001). These terms refer to the frameworks that enable people to interpret situations and to act in a meaningful way. The learning-network theory uses the concept of action theory to this end (cf. Argyris & Schön, 1996). An action theory is a set of values, knowledge, and skills that enable employees to interpret situations and act appropriately. Learning, then, is developing one's action theory. New and old experiences are integrated in the existing action theory and get their meaning within that particular framework. The action theory itself can also be redefined, however, as learning involves a process of mutual adaptation between the existing action theory and (new and old) experiences.

#### *Climate*

The third element of an actor network, its climate, reflects the values and norms that have come to be embedded in the network structure. Actors have values and norms, which they express in their actions. These actions lead to structures, embedded in which are also the underlying values and norms of the actors.

#### *Processes*

The learning-network theory distinguishes between two types of process: organizing processes and learning-relevant work processes. Two organizing processes are directly meaningful to the ways in which employees operate: service provision and the personnel flow. Service provision is the primary process of the organization, in which employees create services with clients. The personnel flow refers to the ways in which employees enter, pass through, and exit the organization (also named human resource management, HRM). Besides the two organizing processes, three learning-relevant work processes are distinguished: organizing learning programs, creating learning paths, and developing learning policies. In the present study, we restrict ourselves to only one organizing process (i.e., service provision) and two learning-relevant work processes (i.e., organizing learning programs and creating learning paths). The other processes are dealt with elsewhere (Van der Krogt, 2006).

### **The Creation of Learning Paths**

The learning-network theory defines a learning path from the perspective of the employee. The concept refers to a set of learning activities that are both coherent as a whole and meaningful to the employee. Coherence and meaning are created by the employee through undertaking action and/or 'discovered' by the employee through reflection on past experiences. The core elements of this description will be illustrated below.

#### *Employees Create Their Own Learning Path*

Employees can create a learning path by engaging in learning activities, for example, studying a book or participating in a coaching session. Often such learning activities will lead employees to 'recall' experiences from

the past that they deem relevant to their current learning path. They interpret and redefine their past experiences so as to fit with their current activities.

#### *Explicit Creation and/or Retrospective Construction*

When employees engage in explicit learning activities (e.g., self-study, training course), they usually think back to past experiences. They connect the latter to their current activities and, by doing so, integrate them in their learning path. Many trainers and educators encourage this process as well. The learning path can also be created more explicitly, when employees engage in activities with a view to learning more about a certain topic or getting better at a certain skill. Mostly, employees will alternate between explicit creation and retrospective construction, between integrating past experiences and undertaking new activities.

#### *Elements of Various Learning Programs*

Employees can participate in learning programs offered by educators (e.g., a professional development course or a supporting scheme to an organizational innovation). In participating in such programs, employees usually place their own emphases. Certain parts of various existing programs are more interesting and relevant to employees because they fit the learning paths that they are creating.

#### *The Learning Idea*

A learning path emerges from the perspective of the individual employee and can guide further learning activities. Employees can create and bring order to their learning path along various 'lines'. These lines are referred to as learning ideas, usually problems or themes relevant to the employee.

#### *Learning by Creating Learning Paths*

Learning has been defined as developing one's action theory. The learning-network theory assumes that employees can organize their learning by creating learning paths. They gain experiences in their work (during service provision) and in especially arranged learning programs. Chances of gaining work experiences relevant to learning can be increased by engaging in particular activities, for example, tackling work problems with colleagues or raising topics they deem relevant as they participate in learning programs.

### **The Service Network and Learning-Relevant Work Experiences**

Service providers can gain experiences in the service-provision process that are relevant to their learning paths and their learning. Which experiences they can gain depends strongly on the service network and the service structure. This will be illustrated in the following section.

#### *Actors Provide Services out of the Service Network and the Service Structure*

The primary process in a service organization is brought about by actors in and around the organization. It is shaped by the client in interaction with one or several service providers and other actors. Students in a secondary school, for instance, give rise to their educational career together with teachers, mentors, counselors, their parents, and their fellow students. Patients in health care institutions work to get cured together with doctors, nurses, specialists, and family members.

Service actions are often divided into three phases: diagnosis, treatment, and evaluation. A diagnosis can lead to a 'treatment', which can in turn be evaluated. These activities are combined to form sets of tasks allocated to certain dedicated employees concerned, for example, with intakes, treatments, or quality control. Sometimes a team structure will form, in which team members decide among themselves how they will divide tasks.

To provide services actors use various facilities, such as, technical equipment and protocols for treatments and quality control. Thus, over time, a service structure comes into being, which can be characterized by a functional structure and a certain infrastructure.

The actors in the service network can use the service structure to engage in new service-provision activities. They do so on based on their perception of the service structure. Their service theory also plays an important role, as it influences their perception and interpretation of the service structure as well as their actions in service process. Their actions are also affected by their position in the service network.

#### *Actors in the Service Network*

Various actors can be part of the service network. First, the clients and the service providers, whose interactions shape the service process. Second, the actors that interact with the clients, for example, their fellow clients and family members. Third, the actors that interact with the service providers, such as, (internal and external) colleagues, supervisors, and support staff.

The positions of the actors in the service network are strongly influenced by their power bases. The power base of the service providers resides, among others, in their formal position and their relational position, which are closely tied to their relations with their external colleagues and professional associations. Their discretion to operate according to their own views is also impacted by their individual and strategic power positions.

The positions and relations among the actors in the service network can be presented along three dimensions: the vertical, horizontal, and external dimensions. The three dimensions can be regarded as axes delineating the space in which service structures can be situated. Any service organization can be described and typified on the basis of the structure of the service network using these three dimensions.

The positions of the actors in the service network delineate the boundaries within which they can operate. Their action theories, however, determine to what extent they can actually use that room. Problems encountered in the service process influence how actors operate in learning-relevant work processes. They will try to reduce such problems by adapting learning paths and learning programs accordingly. Managers will do so by operating strategically in learning policies and learning programs, while service providers will use their learning paths to reduce their problems in the service process. Educators hold a special position in this context, as learning and development are their job rather than tools for them to use.

### *The Service Structure*

The service structure is an expression of the knowledge available in the organization (and its sector, i.e., education or health care) about organizing a particular service process. Over time, actors in an organization carry out and improve service processes, which come to be embedded in the service structure. This structure comprises the tasks and responsibilities needed to provide and improve service as well as the procedures employed to that end. It also contains the infrastructural facilities, such as, treatment programs and tools for service provision. Quality control is an important part of the service structure, responsible for the systematic evaluation and improvement of the service process.

### *Organizing Service Processes out of Various Networks*

Service providers create service processes together with other actors from their positions in the service network. Different service processes are expected to occur in different networks. Table 1 typifies the different service processes according to their network structure and their service structure.

Table 1. *Network and Service Structures of Various Service Processes*

<b>Organization of the Service Process</b>	
<b>Network Structure of the Service Network</b>	<b>Service Structure (Structure of the Service Process)</b>
<ul style="list-style-type: none"> <li>• Loosely coupled network</li> <li>• Individual autonomy</li> <li>• Entrepreneurial organization</li> </ul>	<ul style="list-style-type: none"> <li>• Individual service provision</li> <li>• By entrepreneurial service providers</li> <li>• Broad jobs</li> </ul>
<ul style="list-style-type: none"> <li>• Vertical network</li> <li>• Hierarchical, formalized relations</li> <li>• Bureaucratic organization</li> </ul>	<ul style="list-style-type: none"> <li>• Programmatic service provision</li> <li>• By centrally coordinated units</li> <li>• Strong task division</li> </ul>
<ul style="list-style-type: none"> <li>• Horizontal network</li> <li>• Organic relations</li> <li>• Unit organization</li> </ul>	<ul style="list-style-type: none"> <li>• Integral service provision</li> <li>• By teams</li> <li>• Integrated jobs</li> </ul>
<ul style="list-style-type: none"> <li>• External network</li> <li>• Professional autonomy</li> <li>• Professional organization</li> </ul>	<ul style="list-style-type: none"> <li>• Specialized service provision</li> <li>• By professionals</li> <li>• Disciplinary task differentiation</li> </ul>

### *Learning-Relevant Experiences and Problem Reduction in the Service Process*

The above descriptions illustrate the number of learning-relevant experiences that service providers can gain in the service process. They can also tackle service problems and learn from that. Gaining these experiences and learning from problem solving depend strongly on the position of service providers in the three dimensions of the service network (see Figure 3). If they operate in a mainly vertical network they are likely to learn about better applying procedures, whereas more horizontal networks will probably see them solving joint problems with their direct colleagues. Professional networks offer many external learning opportunities, sharing experiences with colleagues from other organizations and experts. In loosely coupled networks gaining learning-relevant experiences is mainly a function of the individual provider's efforts to improve their service.

## Learning Programs Created by Actors out of Learning Networks

Over time, a specific learning network comes into being in every organization. The learning network is a constellation of actors who, from their positions and action theories, undertake learning-relevant activities. The latter become embedded in the learning structure, which in turn influences the learning-relevant activities of the actors. In the learning network various positions can be distinguished, similar to the service network, each with a particular authority, such as, learning employees, consultants, training managers, content experts, supervisors, and external training providers. These actors keep their positions holding particular action theories about the purposes served by learning and how learning-relevant activities should be undertaken. The learning network also has a climate, representing its values and norms about organizing learning-relevant activities in the organization.

A very important process organized by actors out of the learning network is learning-program creation. Usually a consultant initiates a learning program, charged to do so by a manager in response to a perceived problem. The consultant forms a program group consisting of several managers, content experts, and service providers involved in the problem directly or indirectly. These actors may also come from outside the organization.

The program group also holds a position in the learning network. It gets a certain authority and develops relationships with other actors in the learning network. The program group analyzes the perceived problem and develops ideas about the learning theme (e.g., the goals of the learning program, a global description of the topic at hand), about the learning activities (e.g., courses, self-study, workplace training, experiments, mentoring, analyzing difficult situations in service provision), and about the contexts in which employees can learn together (dyads, learning sets, e-learning, self-directed approaches). It takes into account the possibilities offered by the existing learning structures, the tasks and responsibilities of the actors involved, and the usual procedures in place for developing learning programs. Also a consideration is the currently available learning infrastructure, which offers didactic measures, existing programs, e-learning facilities, tests, and so forth.

Problems in service provision are often triggers for actors to create a learning program. They form a program group to analyze the problem and engage in learning activities using the available learning facilities. The program group is part of the learning network and holds its own position (e.g., “Customer Focus Implementation Support Group”, “Treatment Effectiveness Professional Development Group”). The individual members of the program group hold their own position in the learning network as well, which is usually one of the reasons why they were invited to join the program group in the first place. The program group needs to find its position in the learning network and build relationships with other actors, for instance, external training institutes and content experts. The internal structure of the program group is also important, for example, the responsibilities and relationships among the members. Just as crucial as the structural aspects, however, are the beliefs, knowledge, and skills of the actors in and around the program group, as it tries to reach a (more or less) shared problem definition and approach.

The members of the program group also make use of the available learning facilities and will take into account (to a larger or lesser extent) the procedures within the organization for organizing learning programs. They create an image of the existing learning structure and may try to change this structure so as to be able to function well during the learning program. The program group conducts various kinds of learning activity. It tries to get a clear picture of the learning theme and also develops ideas about suitable learning activities and learning contexts for the program.

### *Learning Networks and Learning Programs: An Overview*

The learning-network theory expects relationships to occur between the learning network of an organization and the learning programs created by actors. Table 2 contains an overview of these expected relationships.

Table 2. *Relationships Expected between Learning Networks and Learning Programs.*

<b>Learning Network Structure</b>		<b>Learning Program</b>
<ul style="list-style-type: none"> <li>• Loosely coupled structure</li> <li>• Entrepreneurial learning climate</li> </ul>	↔	<ul style="list-style-type: none"> <li>• Loosely coupled program</li> <li>• Individual based</li> </ul>
<ul style="list-style-type: none"> <li>• Vertical structure</li> <li>• Controlling learning climate</li> </ul>	↔	<ul style="list-style-type: none"> <li>• Centrally regulated program</li> <li>• Competence based</li> </ul>
<ul style="list-style-type: none"> <li>• Horizontal structure</li> <li>• Organic learning climate</li> </ul>	↔	<ul style="list-style-type: none"> <li>• Organic program</li> <li>• Problem based</li> </ul>
<ul style="list-style-type: none"> <li>• External structure</li> <li>• Professional learning climate</li> </ul>	↔	<ul style="list-style-type: none"> <li>• Collegial program</li> <li>• Method based</li> </ul>

### *Structures and Climate, But What About Action Theories?*

The above brief descriptions of four learning networks and learning programs are based on the network structure and the learning climate. They intend to show how much learning networks can differ. We have not, however, taken into account the action theories of the actors. So far, we have more or less assumed that actors engage in learning

programs in accordance with the network structure and the learning climate. Of course, there is a fair chance that their action theories show similarities with the current climate and structures (as Figure 1 indicated). Fortunately, actors also have opportunities to place their own emphases in their organizing actions, deviating from the current network. Moreover, actors will not always act in accordance with their action theories, which offer opportunities for interpretation and action rather than prescribe or control them. The main reason why actions deviate from action theories, however, is that different actors probably use different action theories. Managers, consultants, employees, and external actors each have their own action theories and the intention to place their own emphases in the current learning network. The interactions between the various actors will ultimately determine to what extent their action theories become embedded in the network structure and climate of the organization.

### **Employees Organizing Learning Paths out of the Service and Learning Networks**

A learning path has been defined as a set of learning activities that are both coherent as a whole and meaningful to the employee. Service providers can organize their learning paths in many different ways. At the core, however, learning-path creation is about an employee recognizing and creating learning activities and experiences on the basis of a learning idea. Service providers use the opportunities available to gain experiences that can lead to learning, create new opportunities as well, and integrate the experiences in their action theory. Basic to the learning path are the experiences of employees' participation in service provision. They will probably also take part in ad hoc learning activities, such as, workshops, training courses, or coaching sessions. Very important mechanisms for learning from service provision are reducing the problems encountered in the service process and improving the quality of services. Besides gaining work and learning experiences in the service process, employees can also learn by participating in learning programs, as Figure 3 has indicated. The latter is more systematic than the former and has the advantage that service providers not only learn from what they encounter during work but they can influence learning programs so as to match their subsequent experiences with the learning path they have chosen.

### **Conclusions, Discussion, and Implications for Further Research**

This study set out to investigate the question how social networks in organizations contribute to employee learning. Based on concepts from the learning-network theory (Van der Krogt, 1998; 2006), we distinguished between two specific types of social network in service organizations especially relevant to individual learning: first, the service network, where employees carry out and improve their work, which may lead to learning; and second, the learning network, where employees participate in intentional programs in order to learn. It was argued that their experiences acting in both networks can help employees create their own learning paths, which were regarded as sets of learning activities both coherent as a whole and meaningful to the employee. Individual learning paths are both employee driven and affected by their work experiences and participation in learning programs, which are informed to a considerable extent by the particular service and learning networks that employees operate in. Focusing on individual learning paths renders the old distinction between formal and informal learning obsolete (cf. Billett, 2001), as it views an organization as a dynamic constellation of various actors engaged in organizing learning rather than as a formal entity that determines what makes for 'official' learning. Basically, all learning thus becomes informal (or formal, from the viewpoint of each different actor).

Unlike many other network approaches, the learning-network theory refrains from seeing 'the' organization as 'a' network. Instead, it conceives of various actor networks in an organization, each characterized by a specific content and organizational structure. The service network has other actor positions, power relations, and dynamics than the learning network does, and both also differ from the personnel allocation network (or HRM network, which was left out of this study for space limitations, see Van der Krogt, 2006). Actors create these various networks and they then have to operate in what they have created. By thematizing the various positions that employees have to negotiate in several different networks at the same time, the problems they experience in organizing their work, learning, and careers become surprisingly clear, as do the potential roles of managers and consultants in helping them cope.

One important question that needs to be answered by further research in this area is how the various networks created by actors are related. For example, is an organization with individual service provision more likely to have a loosely coupled than another type of learning network, as the learning-network theory would expect? Similar relationships are assumed between programmatic service provision and a vertical learning network, between integral service provision and a horizontal learning network, and between thematic service provision and an external learning network. Clarifying these relationships can help employees better negotiate their positions in the various networks and thus optimize their learning paths.

Another characteristic of the learning-network theory that differentiates it from other network approaches is its position in the structure – agency debate (Giddens, 1984). Although the tensions between these two principles are

often mentioned in literature, it often remains unclear how exactly actors can and cannot operate in the context of network structures. As we have illustrated in this study, the concept of an individual learning path created in the context of service and learning networks, offers opportunities to provide more clarity about that question. Structures in an organization, such as its social network, are also often presented as inherently positive in their capacity to facilitate individual learning, work satisfaction, organizational commitment, and so forth. As far as learning is concerned, however, the present study has indicated that social networks can also restrict employees to a considerable extent. Depending on the type of network and organization and on the position of the individual employees therein, they may feel supported or inhibited to learn what they deem valuable to their work and their careers.

Structure and agency should therefore be regarded in conjunction and in terms of their meaningfulness to employees. Important questions for further research in this area are how exactly employees create learning paths in the context of various social networks and what factors determine whether these structures support or inhibit them to do so. The learning-network theory offers a framework with which such research questions may be answered.

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