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Organizational Needs: A Co-Creation and Human Systems Perspective

Heidi Korhonen

Abstract: The concept of need is embedded in economic systems. Since the concept originates in individual psychology, it is not well understood at the organizational level and other higher systemic levels. We address this gap by drawing on research on human needs, on organizations, and on value co-creation in nested human systems. We present a framework that summarizes essentials of well-being, behavior and the change dynamics of needs at individual, organizational, and ecosystemic levels of human systems of value co-creation. We argue that needs are co-created in nested human systems and that organizational needs are bridging meso level needs that mediate between the needs of different actors. It is important to re-think needs in this way as it allows us to search for new ways to increase the value creation and well-being of actors. We conclude our paper with academic and managerial implications and suggestions for further research.

Keywords: Organizational Need· Co-Creation· Systems Theory· Service-Dominant Logic· Actor-to-Actor· Well-being· Behavior· Ecosystems

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Introduction

The concept of need is embedded in economic systems, especially in their marketing and development functions. The very purpose of economy, markets and innovation can be argued to be the fulfilment of human needs. Recognizing and understanding customers' needs and how they change provides important opportunities for innovation, sales growth, competitiveness and profits, both in consumer markets and in business markets. Needs can be seen at different levels of nested human systems, for example individuals, groups, organizations, business ecosystems, industries, countries, and society. Consumer need has been studied a great deal, but since the concept of need originates in individual psychology, it is less understood at the organizational level and other higher systemic levels.

The purpose of this paper is to clarify the concept of organizational need as nested in human systems of value co-creation and to draw research and managerial implications. Service-dominant logic (Vargo and Lusch 2004, 2008) is an approach that describes value co-creation between economic actors. It can be used for studying many social phenomena, and recently it has aimed to build a bridge between individual, organizational, and market levels (Gummesson 2011; Vargo and Lusch 2011). Therefore we find the service-dominant logic (SDL) of particular use for our purpose of taking the step from individual needs to organizational needs.

We address the gap of organizational need by drawing on research on human needs, on organizations, and on value co-creation in systems of actors (SDL). On the basis of this background, we posit the following research questions:

- RQ. What is an organizational need when viewed as co-created and “nested”, and why is it important to re-think needs as they exist within systems? What kinds of research and managerial implications emerge based on such a systemic view of needs?

The rest of this paper is structured as follows. We start by analyzing the basic nature and change dynamics of human needs. Thereafter, we analyze organizations as different kinds of systems: rational, natural and open (Scott, 2003[1981]). In the next section, we discuss the contribution of SDL to the deepening of the systemic view on needs. Based on these conceptual considerations, we then present a new framework, namely organizational needs as co-created in nested human systems. We end our paper with a concluding discussion in which we summarize our contribution, point out academic and managerial implications and suggest avenues for further research.

Human needs

In this section, we ask what are human needs and how are they formed. For this we analyze theories on human needs from two viewpoints: what is the primary nature of needs and what are their change dynamics. Table 1 summarizes some main references on these issues.

Table 1: Primary nature, change dynamics and characterizations of needs: main references

Primary nature of needs	Change dynamics of needs	Characterization of needs	Main references
Needs are primarily seen as factors explicating goal-directed behavior	Needs are innate	Action is driven by primary physiological needs as the body works to maintain a homeostatic balance. An imbalance gives rise to tension that needs to be reduced. Behavior that reduces these needs is repeated, as learning occurs through conditioning and reinforcement.	(Hull 1943)
		Needs can be organized in a hierarchical order so that higher order needs must be satisfied before others: physiological needs, safety, love and belonging, esteem, self-actualization, self-transcendence.	(Maslow 1978[1954])
		Higher order needs can be pursued simultaneously with lower order needs. Needs can be grouped into needs for existence, relatedness and growth (ERG).	(Alderfer 1969)
	Needs are acquired	Needs explain motivation and direction of behavior. They are learned and activated by the environment, psychological rather than physiological. There are individual differences in the importance of various needs for different people, leading to unique personalities.	(Murray 1938)
		Needs are shaped by experiences and they can be classified into needs for achievement, affiliation and power.	(McClelland 1961)
Needs are primarily seen as fundamental essentials of well-being	Needs are innate	Humans are intrinsically motivated proactive organisms that are naturally inclined to engage in activities that interest them. Their behavior does not have to be aimed at need satisfaction. However, satisfaction of the needs of competence, autonomy, and relatedness is a necessary condition for psychological well-being.	(Deci and Ryan 1985, 2000)
	Fundamental needs are universal but their satisfiers change across cultures and through time	The fundamental and constant needs are subsistence, protection, affection, understanding, participation, leisure, creation, identity and freedom. Satisfiers include for instance forms of organization, social practices, values and norms. Lack of resources in satisfying a fundamental need reveals a kind of poverty.	(Max-Neef 1991)
		All humans share a fundamental goal to participate in a form of social life of their choice. The preconditions for any individual action in any culture – physical health and autonomy – need to be satisfied to some degree before actors can effectively participate in their form of life so as to achieve any other valued goals. These, therefore, are the most basic human needs. Intermediate needs are characteristics of needs satisfiers that universally contribute to improved physical health and autonomy. They can be regarded as goals for which specific satisfiers can act as the means.	(Doyal and Gough 1991)

Needs as factors explicating goal-directed behavior and needs as essentials for well-being

There are two fundamentally distinct traditions concerning the view of the primary nature of needs: needs as factors explicating goal-directed behavior and needs as fundamental essentials of well-being. This distinction is shown in the first column of Table 1. Need theories of the first tradition are essentially drive theories based on an underlying philosophy assuming that human behavior is rather deterministic. The other stream of theories of human needs is aimed at explaining what is needed for people to flourish and achieve well-being. These theories try to describe desired states that we should aim at in order to be able to reach what is seen as human flourishing. Behavior may or may not be driven to these states. In other words, human beings may or may not behave in ways that are good for them. As opposed to determinism, these more recent theories emphasize importance of issues such as autonomy, freedom and choice in human behavior. Needs as fundamental essentials of well-being are of a different nature than needs as factors explicating goal directed behavior.

The study of human well-being and flourishing has made great advances in the wave of positive psychology. Here, psychological well-being is seen as dependent on positive emotional experiences and an overall sense of purpose (Fredrickson 1998; Fredrickson and Joiner 2002; Seligman et al. 2005). This research stream is important from the viewpoint of the present paper because it has also been influential in organizational psychology; researchers have suggested that positive emotions produce upward spirals in organizational dynamics (Fredrickson 2003) and support more generative organizational change processes (Bushe 2007).

Both pleasure and purpose have been argued to be essential in employee well-being (Robertson and Cooper 2010). There seems to be a strong connection between the pleasurable experience of fulfillment of needs and well-being, but well-being is not only about hedonic experiences and survival. It also seems to be linked to intrinsic motivation, purpose and the capability and freedom to do things that one values.

Based on the discussion above, we outline a first research proposition:

- P1. Needs can be understood either as fundamental essentials of actors' well-being or as factors explicating goal-directed behavior.

Change dynamics of human needs

Another issue where theories of human needs differ greatly is the view of the change dynamics of needs which is shown in the second column of Table 1. Basically, needs can be seen as either acquired or as innate. Innate needs are considered to be constant human characteristics common to all people, whereas acquired needs are considered to change during the course of people's lives. It is quite evident, however, that even if fundamental human needs were to be considered constant and common, there is something related to needs that changes over time and across different

cultures. This ambiguity can be solved by making a distinction between needs of a more general nature and their specific manifestations at certain moments in time (cf. Max-Neef 1991; Doyal and Gough 1991). Also, a distinction can be made between needs and their satisfiers, considering needs as constant and their satisfiers as changing. The change processes of needs, their manifestations and their satisfiers are social phenomena taking place as people interact with other people in social systems (Doyal and Gough 1991).

One way of addressing the issue of changing needs has been to view needs as hierarchical in relation to each other. The best-known theory of human needs, Maslow's (1987[1954]) hierarchy of needs, is a drive theory claiming that unsatisfied needs motivate people to act, and that certain needs must be satisfied before others. His hierarchical list of needs shown in Table 1 can still be seen as a good list of different kinds of needs, but the idea of satisfying needs in a stepwise manner is no longer considered to be valid (Sheldon 2004). Instead, it is more common to view needs and their satisfaction as characterized by simultaneity, complementarity and trade-offs. Certain needs, or certain specific manifestations of needs, may be regarded as more important than others either at specific times or for specific people. This varying relative importance can also be seen to be affected by social interaction.

Based on the discussion above, we outline a second research proposition:

- P2. The specific manifestations and satisfiers of needs change in social processes through interaction.

The interaction through which the manifestations and satisfiers of needs change, takes place between actors of different levels, for instance individuals, groups and organizations. Needs themselves can also be seen at higher systemic levels above the individual, such as organizations. In the following section, we address the issue of organizations.

Organizations as rational, natural and open systems

Our main argument in this paper is that organizational needs are co-created in nested human systems. In order to open up and justify this argument, we have to take a closer look at the nature of organizations. We start this analysis by utilizing Scott's (2003[1981]) categorization that recognizes three distinct perspectives on organizations:

1. Organizations as rational systems – highly formalized social structures that are instruments for pursuing relatively specific and predetermined goals
2. Organizations as natural systems – collectivities and social groups strongly influenced by the informal structure of relationships, whose participants pursue multiple interests, both disparate and common
3. Organizations as open systems – aggregations of flows and activities that link shifting coalitions of participants embedded in wider environments.

In what follows, we combine our review on the nature of individual needs and their change dynamics with Scott's categorization on three organizational systems. The combination is presented in Table 2.

Table 2: Aspects of needs in different organizational perspectives (cf. Scott, 2003 [1981])

	Organizations as rational systems	Organizations as natural systems	Organizations as open systems
Needs as fundamental essentials of well-being	Organizations need to survive. Other goals are expressed in formal representations such as key figures and strategy.	Organizations have the need to survive as a social group. They rely on employees' willingness to make contributions.	Organizations are dependent on flows of personnel, resources, and information from the outside.
Needs as factors explicating goal-directed behavior	The behavior of organizations is aimed at accomplishing their goals in an optimizing way. Behavior emerges from formal decision processes.	Behavior is guided by the informal organizational structure. It emerges from the multiple motives, values, feelings and sentiments of employees. There are both common and individual agendas.	Behavior emerges from loosely coupled semi-autonomous parts such as teams, departments etc.
Change dynamics of needs	Goals are predetermined.	Individuals and coalitions choose organizational goals through negotiations and the interests of some parties are often favored over those of others.	Organizations are capable of double-loop learning and self-maintenance. The setting of goals is also influenced by stakeholders outside the organization.

From the rational systems perspective, organizations are primarily instruments for attaining predetermined goals (ibid). Therefore, we can think of their fundamental needs as fulfilling the basic purpose of the organization. In the context of private companies, the rational perspective usually assumes that the purpose of a company is to optimize net financial value for the organization or its shareholders. This purpose does not change.

Rational organizations also need to survive. Other manifestations of needs are expressed in formal representations, such as key figures, formal goals, expressed strategy, etc. Organizational behavior emerges through planned and formal decision processes in a way that optimizes value creation. Ultimately, it is top management who decide what the organization needs and who control organizational behavior. (Ibid.)

Within the natural perspective, organizations are fundamentally social groups attempting to adapt and survive in their particular circumstances. They have a need for survival as social groups. It is the members of the organization that choose the goals of an organization based on their multiple common and individual agendas. Individuals are not just roles as in the rational models, and they do not behave as rational economic actors. Instead, the behavior of an organization is based on its employees' human behavior and emerges from employees' multiple motives, values, feelings and sentiments. Employees often exhibit loyalties to colleagues and the social group that

are stronger than their individual self-interest. Organizations rely on their willingness to make contributions. (Ibid.)

A system is defined by the boundary between it and its infinitely complex environment. Complexity is reduced at the system boundary. In essence, the difference between a closed and an open system resides in the extent of interaction between the system and its environment. The open system perspective views organizations as strongly influenced by and dependent on their environment. This makes open systems more complex than closed systems. The issue of needs is also more complex in open systems than in closed systems. Organizational behavior emerges from loosely coupled semi-autonomous parts, which reduces the effect of the complexity (ibid.). Organizations learn from their interaction with the environment, and their goals are also influenced by stakeholders outside the organization (ibid.).

We note that the change from a rational to a natural perspective is a change in how we view system behavior, and the change from a closed to an open perspective is a change in how we view the complexity and nestedness of the system. Based on this and from the above discussion, we outline a third research proposition:

- P3. The formation of the manifestations and satisfiers of actors' needs turns from a linear mechanistic process based on actors' formal roles to a non-linear recursive activity based on human nature, as the perspective on system behavior changes from rational to natural and as the system complexity and nestedness increases.

Contribution of SDL to the deepening of the systemic view on needs

In this section, we first discuss the connection of SDL to the natural and open systems views presented in the previous section, and then deepen the systemic view of needs by drawing from the SDL view of markets as nested systems of value co-creation.

SDL views all economic actors as resource integrators participating in value co-creation through service-for-service exchange (Vargo and Lusch 2004, 2008). It presents a contrast to the prevailing goods-dominant logic inherited from economics that views economic actors as focusing on making units of output (products and services) embedded with utility (ibid.). We draw a parallel between economic actors focusing on making units of output and rational organizations mechanistically accomplishing their predetermined goals. Similarly, a parallel can be drawn between service-for-service exchange and the way that individuals in natural organizations make coalitions and negotiate in order to carry out their individual and common agendas with the help of others. This reveals the nature of SDL as a natural perspective. The same is visible also in the emphasis that SDL places on human experience and the phenomenological nature of value (see e.g. Vargo and Lusch 2008; Ramaswamy 2011; Helkkula et al. 2012a, 2012b).

The influence of the open systems paradigm is also clearly evident in SDL. Service-dominant logic views markets as complex adaptive systems (Lusch and Vargo 2006). Over time, the discussion on openness has only grown, and several authors have proposed an overarching approach connecting the individual, organizational and market levels in the study of nested actor-to-actor value co-creation (see Gummesson and Polese 2009; Gummesson 2011; Vargo and Lusch 2011). This would be of use, since actors can improve value creation by designing for internal and external configurational fit in these nested structures (cf. Nenonen and Storbacka 2010). Value co-creation in these nested structures is seen as dynamic and spontaneously sensing and responding (Vargo and Lusch 2010). This improves the adaptability and survivability of actors (Vargo et al. 2008). We think of SDL as a nested open natural systems view of dynamically organizing economic and social exchange in order to co-create value.

Needs as essentials for well-being are intrinsic to service-dominant logic, as the discussion on SDL puts high emphasis on value, benefit and well-being. From the theoretical SDL viewpoint, markets can be seen as institutional solutions of how resources are applied to solve human problems or needs (cf. Vargo 2009). These institutions are formed as individuals first form dyads of micro level activity, and then these dyads generate higher meso and macro level structures of groups, organizations, industries and societies (Chandler and Vargo 2011; Akaka et al. 2012). Therefore, needs are also visible at several system levels above the individual.

Based on the above, we outline a fourth research proposal:

- P4. Satisfaction of needs of different systemic levels takes place through the application of resources in nested value co-creation.

Recent views further point out that value should be understood as a part of a social context in which actors adopt social positions and roles so as to interact and create social structures (Edvardsson and Tronvoll 2013). How resources are assessed for value co-creation depends on the social context (Edvardsson et al. 2011). Our previous discussion on recent theories on human needs reveals that this participation in social life through value co-creation is a fundamental goal for all humans, giving rise to human needs. Further, the meaning that motivates human action emerges from social interaction, which is at the heart of social change processes in which people use their environment in order to actively create self and society (Flint 2006). Resources can only be turned to value when an actor enjoys their benefits (Gummesson and Mele 2010). It is during interactions that actors can influence how value is created (Grönroos and Ravald 2011). Through this interaction, and situated in context, needs also emerge.

Based on the above, we outline a fifth research proposal:

- P5. Manifestations and satisfiers of needs emerge from the context of actors participating in value co-creation.

A new framework: organizational needs as co-created in nested human systems

In this section, we build on the discussion and research proposals in the earlier sections and put forward an entirely new framework of organizational needs as co-created in nested human systems. Since this is a model of nested structures, it also includes the lower system level of individual needs, the higher system level of ecosystemic needs, and an overarching meta level assessment of needs. Ecosystems refer here to human systems of actors dependent on each other through value co-creation such as service ecosystems or business ecosystems. The framework is summarized in Table 3.

Our framework presents organizational needs as bridging meso level needs that mediate between the needs of different actors both at same level and at different levels. A meta level assessment across the micro, meso and macro levels in our framework shows that, not only are organizational needs co-created in nested human systems, but that human needs are nested in organizational structures. Needs are co-created across different system levels. The meta level assessment further reveals that the well-being of human systems is dependent on their capability to facilitate the efficiency and sustainability of actor-to-actor value co-creation.

Our framework is grounded on the idea that value co-creation through resource integration is a natural human activity and a way of participating in social life. Recent theories of human needs that view needs as essentials of well-being as described above in Table 1, emphasize the proactive behavior of humans in participating in forms of social life of their choice, and issues such as their capability, freedom or autonomy to do so. This accentuates the importance of access to resources leading to the idea that the individual's well-being is dependent on the willingness and capability of other individuals and higher level systemic actors to provide them with access to resources.

Organizations as meso level structures facilitate actors' access to each other's resources. As all levels of actors are ultimately dependent on human agency in order to access each other's resources, organizations as actors are dependent on the willingness and capability of their members and of the stakeholders in their environment to provide them with access to resources. Therefore the well-being of organizations involves issues far beyond mere organizational survival and profit-making. It is intrinsically intertwined with human well-being and the sustainability of actor-to-actor value co-creation throughout the ecosystem.

Ecosystems as macro level systems of actors dependent on each other through value co-creation contain feed-back loops leading to network effects. Network effects create powerful forces that affect the well-being of the ecosystem as a whole and the different level actors within it. They can create stability in the system or accelerate its change substantially.

Table 3: Framework of organizational needs as co-created in nested human systems

Meta level	<p>Organizational needs are bridging meso level needs that mediate between the needs of different actors both at same level (e.g. individual-individual) and at different levels (e.g. micro-macro).</p> <p>Human needs are nested in organizational structures.</p> <p>Needs are co-created across different system levels.</p> <p>The well-being of human systems is dependent on their capability to facilitate the efficiency and sustainability of actor-to-actor value co-creation.</p>		
	Individual needs Micro level	Organizational needs Meso level	Ecosystemic needs Macro level
Needs as fundamental essentials of well-being	<p>An individual's well-being is dependent on the capability, freedom and autonomy to integrate resources in ways that one values or needs if one so wishes.</p> <p>Therefore individuals' well-being is also dependent on the willingness and capability of the other individuals and higher level systemic actors to provide them access to resources.</p>	<p>Organizing allows actors access to each other's resources.</p> <p>Organizations as actors are dependent on the willingness and capability of their members and of the stakeholders in their ecosystem to provide them access to resources.</p> <p>The well-being of an organization, its members, the stakeholders in its ecosystem and its ecosystem as a whole are mutually dependent.</p>	<p>An ecosystem is a system of actors dependent on each other through value co-creation.</p> <p>The well-being of an ecosystem is dependent on the efficiency and sustainability of actor-to-actor value co-creation.</p> <p>Actors' interdependencies caused by mutual value co-creation form feed-back loops leading to network effects. These feed-back loops have important effects on the well-being of the ecosystem and the actors within it.</p>
Needs as factors explicating goal-directed behavior	<p>Humans participate in the social life of their choice through the process of co-creation in which they integrate available resources in ways that they value.</p>	<p>The behavior of an organization emerges partly from its formal structure, but it is also affected by the agency of different level actors within and outside the organization.</p>	<p>The behavior of an ecosystem emerges from the behaviors of the actors within the ecosystem and is affected by feed-back loops.</p>
Change dynamics of needs	<p>Manifestations and satisfiers of needs emerge from the individual's context of value co-creation. They change as the context changes as a result of actor-to-actor interaction.</p>	<p>Manifestations and satisfiers of needs emerge from the organization's context of value co-creation with its members and stakeholders. They change as the context changes as a result of actor-to-actor interaction. Larger coalitions can have a bigger impact than individual people.</p>	<p>Manifestations and satisfiers of an ecosystem's needs are based on the manifestations and satisfiers of the needs of the actors within the ecosystem.</p> <p>Feed-back loops and network effects of value co-creation have an important impact on change dynamics. They can create stability or accelerate change substantially.</p>

Not only do system structures change, but also the manifestations and satisfiers of needs at different system levels. The specific manifestations and satisfiers of needs emerge from the specific context of each actor's value co-creation. The context of

value co-creation changes as a result of actor-to-actor interaction. Therefore, the manifestations and satisfiers of needs also change as a result of this social process. Uncoordinated actions of individuals change the context, but large coordinated coalitions create a much bigger impact. Network effects can lead to rapid changes with great momentum.

Concluding discussion

The aim of this article has been to clarify the concept of organizational need as nested in human systems of value co-creation and to draw research and managerial implications. In order to address the gap of organizational need we have posited the following research questions: What is an organizational need when viewed as co-created and “nested”, and why is it important to re-think needs as they exist within systems? What kinds of research and managerial implications emerge based on such a systemic view of needs? The novelty and main contribution of our paper lies in presenting a framework of organizational needs as co-created in nested human systems. The framework also reveals how human needs are nested in organizational structures. We now discuss this contribution by addressing our research questions, academic and managerial implications, and further research areas.

Organizational needs as co-created in nested human systems are bridging meso level needs that mediate between the needs of different actors. Organizations can be seen as a means for satisfying the needs of individuals and societies. Scarce resources need to be allocated in ways that are efficient and that balance the conflicting needs of different individuals or coalitions. Organizational needs are formed as people engage in organizing in order to co-create value, increase the efficiency of resource allocation, and negotiate in order to balance their conflicting needs. The outcome of this organizing is not necessarily optimal, which results in a kind of poverty of neediness and in a reduction of contribution to value co-creation in society by poor people. Organizational needs are also dynamic, changing over time in open-ended ways. It is important to re-think needs as co-created in nested human systems, because this allows us to search for new ways to increase the value creation and well-being of actors of all systemic levels, including individuals, groups, organizations, industries, countries, and society.

Despite the strong lineage of research on organizational buying (Peters et al. 2013), the academic issue of understanding organizational needs and behavior is far from resolved (Hadjikhani and LaPlaca 2013). There is a strong demand for a better understanding of the mutating and emerging needs of organizations and their buying behavior (Wiersema 2013). Our framework has important academic implications as it addresses the mechanisms through which the manifestations and satisfiers of needs emerge and change. We would also like to emphasize the significance of feed-back loops in nested systems of value co-creation as they have pronounced effects on the functioning of these systems and the emergence of needs. In addition, we advise academics to strive to better recognize the legacy of rationality assumption and closed systems paradigms in their thinking. As an example, the rationality assumption has a

tendency to hide the difference between what is truly valuable to actors and what drives their behavior.

Managers can use our framework as a perspective-widening tool so as to understand the different aspects of need and new opportunities for value co-creation. It especially unveils new opportunities emerging from human nature of needs and from the change processes of the manifestations and satisfiers of needs. Needs can be affected at least to some extent through interaction. Customers' mental image of their needs changes as their situation and possibilities change. One aspect of affecting customers' needs is to help them understand what is possible and to help them recognize new attractive and reachable futures. Another important part of this is coping with structural inertia through a careful consideration of the feedback loops affecting actors' behavior.

Understanding organizational or systemic needs is a challenging task due to the complexity of the issue. A fundamental question calling for further research is how to organize or facilitate the organizing of actors for the efficient and sustainable allocation of resources for needs satisfaction and value co-creation in nested systems. This question is essential to organizations of all sizes and to society as whole. Its importance is further stressed by the major societal challenges and the demand for sustainability. Another interesting research area is the feed-back loops of value co-creation in nested systems. We further call for research on the change processes of nested systems and needs in particular. A better understanding of them could for instance open up new views of innovation. All of these research areas would benefit both from theoretical development and empirical case studies. We also invite studies further developing our framework and implementing it in practice.

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