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constructional flaw**

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Value co-creation: disclosing Service-Dominant Logic's constructional flaw

Christian Arnold & Hermann Knödler***

Abstract:

Within the framework of Service-Dominant Logic (S-D Logic), it is asserted that the beneficiary is always a co-creator of value. Accordingly, the creation of value is always a shared act of the beneficiary and at least one other party. However, value co-creation, within the meaning of S-D Logic, comprises several processes that differ in distinct ways. The creation of value requires the perception and transformation of certain events on the side of the beneficiary. These processes do not involve joint or collaborative activities; rather, they are connected in a highly selective manner with the context. The interactional aspect of service provision does not take place as part of value creation, but rather during the collaborative application of specific a competencies-mix of the parties.

Keywords:

Service-Dominant Logic, Value-in-use, Value co-creation, Systems theory, History of economics

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Introduction

Service-Dominant Logic (S-D Logic) is an academically shaped framework that includes, according to Vargo and Lusch (2008a), generalizable ideas that have the potential to establish a new market theory. Indeed, numerous protagonists emphasize that S-D Logic is still in development, and therefore it cannot claim the status of a mature theory, exhibiting perhaps paradigmatic traits (Spohrer 2008; Vargo et al. 2010; Lusch/Vargo 2011). Moreover, S-D Logic – despite its difficult-to-deny eclectic underlying tendency – significantly influences the current service research (Breidbach et al. 2013; Grönroos/Gummerus 2014; Lin et al. 2015).

S-D Logic is based on a process-centered market perspective (Vargo et al. 2010) and the assumption that any and all economic exchange is aimed at value creation: ‘The creation of value is the core purpose and central process of economic exchange’ (Vargo et al. 2008: 145). According to Vargo and Lusch (2004, 2006, 2008c), providers do not create value during production, but they can offer customers value propositions. Prefabricated goods are therefore not regarded as value-laden outputs, but as resources for value creation: ‘[What] firms provide should not be understood in terms of outputs with value, but rather as resource inputs for a continuing value-creation process’ (Lusch et al. 2008: 6). Value creation itself takes place during use processes, namely through the integration and application of resources (Lusch and Vargo 2006), which is why the beneficiary must always be a co-creator of value: ‘[Providers] make value propositions and [...] beneficiaries are always cocreators of value because they ultimately determine the value of a firm’s offering through use’ (Vargo and Akaka 2012: 210). On the basis of these claims, service is defined as ‘the application of competencies (knowledge and skills) for the benefit of another party’ (Vargo/Lusch 2008b: 256) and is therefore to be understood as the application of competencies for at least one recipient (Maglio et al. 2009). Thus, service is of great importance because the use of a resource requires the necessary knowledge and the appropriate skills (Vargo/Lusch 2004), which the beneficiary may not possess or not want to possess.

It remains that the term ‘value creation’ is at the center of S-D Logic. It is postulated that the beneficiary is always a co-creator of value. Consequently, the creation of value is always a collaborative act (co-creation) of the beneficiary and at least one other party. If one is guided by these claims, the following questions arise:

- (1) What are the antecedents of the S-D Logic approach?
- (2) What is value within the meaning of S-D Logic and what does co-creation mean specifically?
- (3) Is it always about a collaborative act when referring to value creation?

The denial of the second question would be problematic for S-D Logic, as the claim FP6 that 'the customer is always a co-creator of value' (Vargo/Lusch 2008a: 7) would no longer have to be maintained.

In the first part of the paper we classify important elements of economic thinking in order to trace back the roots of the S-D Logic approach. Using the central literary sources concerning S-D Logic, the terms 'value' and 'co-creation' will be expanded upon below, and it will be shown that value creation is not a collaborative act. Subsequently, appropriate adjustments will be carried out. This paper ends with conclusions that lay out the implications for theory and practice.

S-D Logic's family tree: New market theory or just some economists' child?

In a recent update of the framework of S-D Logic Vargo and Lusch (2016) extend and modify their approach and some of the basic foundational premises to get to a more complete and realistic portrayal of markets and marketing. The role of interaction between various actors in value creation is strengthened and now seen as multi-actor phenomenon. Furthermore, the process of value creation is related to institutional arrangements.

The development of economic theory and new approaches usually reflect phenomena that occur in real economy as well as further development of existing theoretic approaches.

Traces of economic theory approaches can be found in ancient times when Aristotle's oikonomia was an important approach with individual actors as major resources. By the increase of national and international trade in the 17th and 18th century the exchange of goods got into the focus of economic approaches. Through industrialization economists addressed the phenomena of production, and in the late 19th and early 20th century consumption and individual welfare became matters of economic theory (Wieland 2000).

History of economic thoughts about markets and marketing shows that the basic ideas of the S-D Logic are based on two different approaches of economic thinking. S-D Logic integrates the aspect of production which represents firms as institutions and the aspect of product usage by customers in a broad sense, i.e. business to consumer and business to business exchange. The family tree of S-D Logic shown in figure 1 reveals many well-known ancestors. A closer look on the ancestry might identify the relations between some of the more important relatives and their descendent S-D Logic.

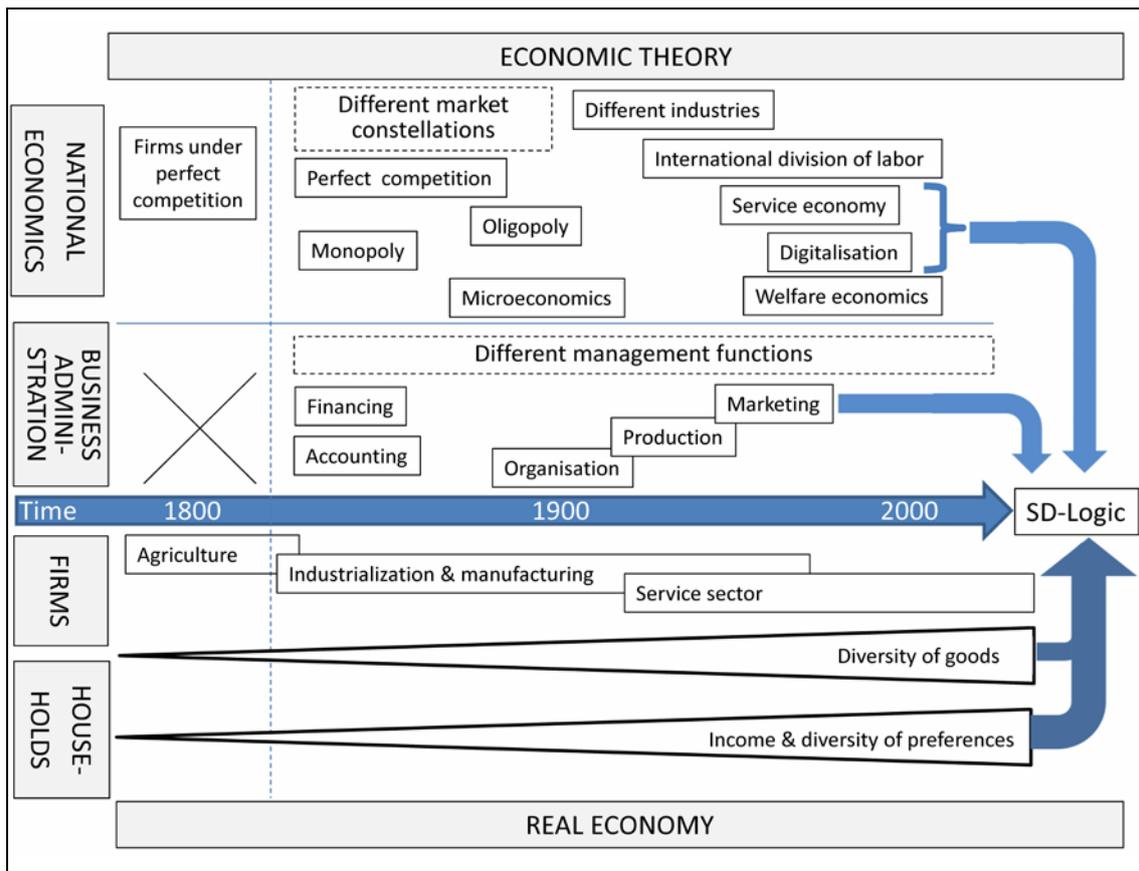


Fig. 1: Shift of focus in economic theory and real economy: SD-L’s family tree. (Source: diagram by author)

S-D Logic emerges from developments in economic theory and in real economy as well. As stated earlier in this paper the ideas of economic value exchange and value co-creation is a fundamental aspect of S-D Logic. Value creation from the classic point of view in production theory and the theory of the firm implies the use of input factors in order to produce goods and services as output. Figure 2 shows what traditional economics understands by value creation.

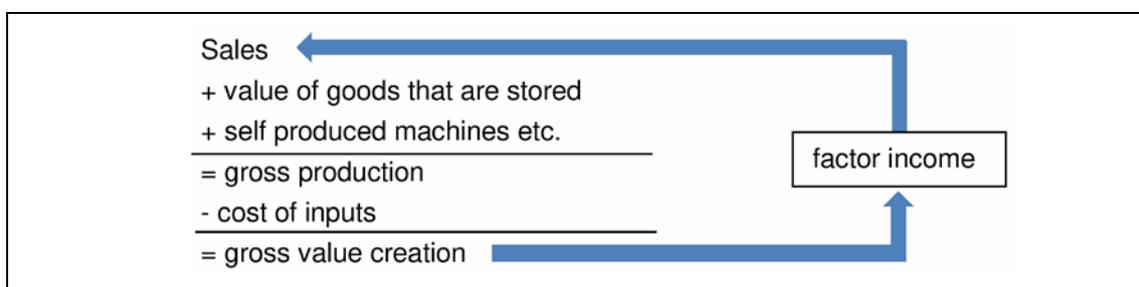


Fig. 2: Value creation and income creation (Source: diagram by author)

On the other side, there is the customers’ point of view: Households buy goods and services and thereby have a benefit by increasing their individual welfare. This is the classical micro-economic perspective with a focus on rational behavior and utility maximization. In a long

term perspective, all goods and services will be sold if market principles are working, i.e. providers will lower prices in case of not being able to sell goods and services at given prices or they will just stop production of certain goods and services or the firm itself will disappear from the market because of supplying goods and services that are not sought after. In perfect competition as a market situation the production and usage of goods and services are understood as one thing at the same logical moment. Therefore, there is no necessity for economics as a science to care about distribution, marketing etc. under perfect competition due to the “market as a whole-perspective”.

Theory of perfect competition does not deny that firms and entrepreneurs in real markets undertake activities in order to promote their business. The focus is just a systemic one that does not explain single firms’ strategies and decisions on a managerial level. Even Adam Smith relates to practical marketing and service orientation when he states that a butcher is selling sausages in order to make profit and not in order to be a nice person towards customers: “It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest” (Smith, 1776). Of course almost all economic endeavors and firms in history used some kind of marketing efforts that were appropriate in their economic and institutional framework, e.g.:

- In ancient Rome there were local markets for agricultural goods, there was production and export of clothes, wine and glass – and manufacturers and salesmen for sure used instruments that we nowadays would identify to be part of the marketing mix.
- In the Middle Ages Southern German forest industry used rivers for distribution of wood in order to sell their raw materials to cities located more up to the North. There must have been some kind of communication- and distribution-policy in order to spread the information of Southern wood and manage transportation.
- In the Renaissance and Baroque Ages artists used their signatures to build up reputation in order to get more business from noble families and dynasties.
- In the early 19th century there were product exhibitions, e.g. for consumer goods, which emerged to special industry conventions in the second half of the 19th century.

Marketing in earlier times has been focused mainly on what we nowadays would call networking instead of price- and product-policy etc. With economic liberalization and stronger competition, the focus in marketing activities became more customer oriented, i.e. the importance of preferences and satisfaction of customers increased. This might explain why early economics did not care about marketing in a modern sense and separated production from consumption as two different issues that are not interlinked. Since Smith’s Inquiry of the Wealth of Nations economic theory changed its focus step by step from the firms’ perspective via different market constellations and increasing diversity of outputs towards the consumers’ perspective and individual preferences.

Since real economy does not work under perfect competition it seems to make sense to combine production and consumption in the meaning of the S-D Logic-approach and the criticism of Vargo (2008) is understandable. One of the major changes in marketing from the 19th century up to now is the increasing role of intangibles and the focus on service aspects (Vargo 2004).

The S-D Logic just links the two different perspectives of firms and households by arguing that firms themselves are not creating value by the process of producing goods and services because providers only offer value propositions. Finally consumers are part of the value creation process in the sense of co-creators (Vargo 2008a). Hence the S-D Logic-approach redefines the meaning of creating value by mixing up the spheres of production and usage. As a consequence we would call SD Logic rather a child of earlier economic approaches than a new market theory.

S-D Logic: Imagination, reflection and Customer-Dominant Logic

Value creation in the context of S-D Logic is based on the co-creation between a firm which supplies its output on one hand and customers using the output for their own purposes on the other hand. These customers could be households or other firms. The idea of a "Customer Dominant-Logic" has been discussed by other authors as well (Heinonen/Strandvik 2015).

As the final purpose of production is basically the use of firms' outputs either for usage by households or for further production processes, the role of preferences in a wide sense seems to be a major issue when investigating which services are used by which kind of recipient. The decision for a certain proposal by households or firms as customers has an important implication: No matter whether households or firms are reviewing firms' proposals there is a process of reflection and imagination by customers. If households feel a need of something they look for proposals supplied by firms. This aspect is taken into consideration by the S-D Logic approach. Within a reflection process households will prepare their consumer decision by creating imaginations about what would be if they would choose certain proposals. If there is a suitable proposal, then households will decide to buy a certain resource. If there is no suitable proposal by firms, then households might communicate their imaginations to the market. The role of a co-creator of goods then has another meaning because households are giving input in ideas to firms and hence enable them to produce offerings that meet the preferences of households. Firms might catch these signals within their market research. In analogy firms are looking for solutions in order to do their business. Within a reflection process managers will evaluate proposals that are offered by other firms. The role of imagination is in a way different from consumers' choice. Nevertheless there is a process of reflection and imagination of different outcomes. These relations are shown in figure 3. Taking into consideration that there are reflection processes by po-

tential customers the extended framework could be called Customer Dominant-Logic (CD-Logic). This framework then includes two sub-frameworks which are Preference Dominant-Logic and Solution Dominant-Framework.

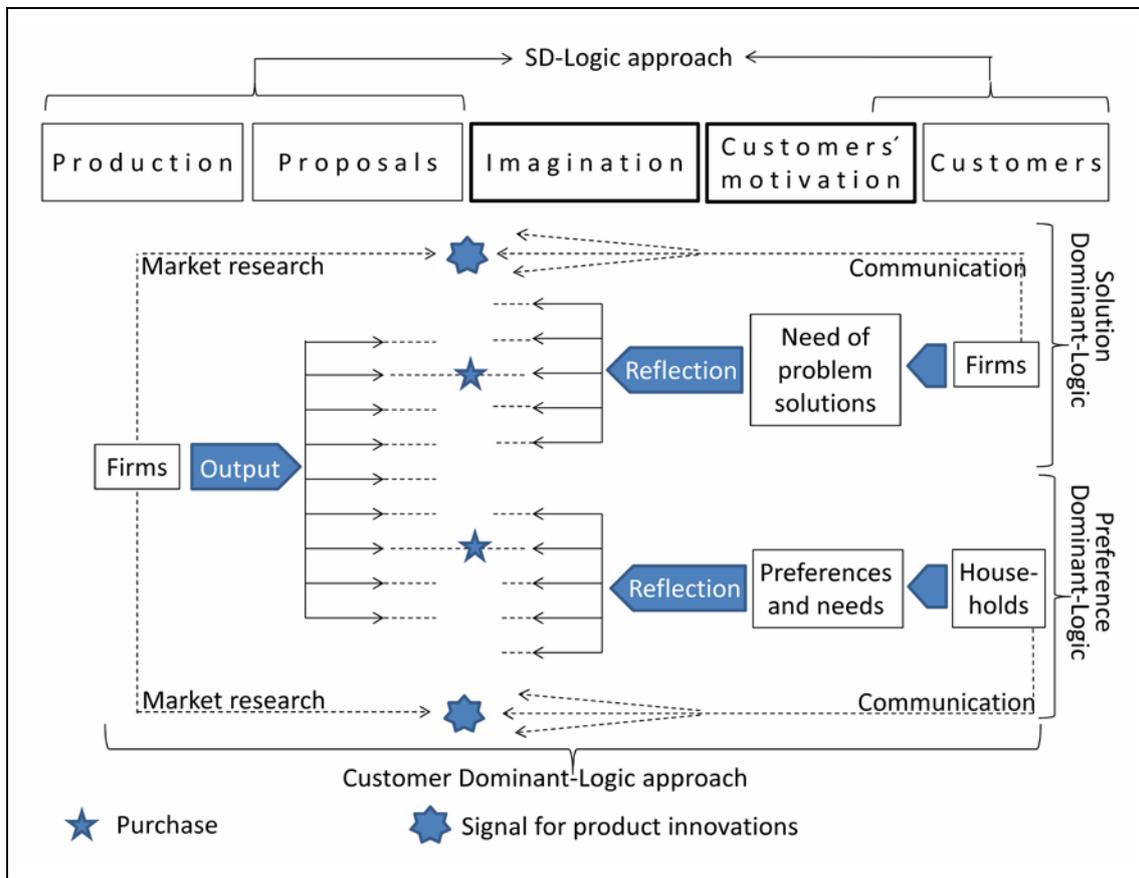


Fig. 3: Proposals, reflection and imagination: From S-D Logic to C-D Logic (Source: diagram by author)

Value

The already superficially construed term ‘value’, within the context of S-D Logic, must be clearly distinguished from concepts inspired by production theory approaches because it is claimed that it arises in the course of the use of resources and not during production processes carried out on the side of the provider (Reckenfelderbäumer/Arnold 2015). This conceptual dualism is, however, in no way an exclusive part of the discourse concerning S-D Logic, rather it was already addressed by Adam Smith (1776/1869: 29): ‘The word VALUE, it is to be observed, has two different meanings, and sometimes expresses the utility of some particular object, and sometimes the power of purchasing other goods which the possession of that object conveys. The one may be called “value in use;” the other, “value in exchange”.’ It should be noted that value-in-use and value-in-exchange represent distinct, but not mutually independent concepts because value-in-exchange depends on the expected value-in-use of the resource: ‘In practice, goods and services may have exchange value in the short term, but in the long run no or low value-in-use means no or low

value-in-exchange. Hence, value-in-use is the value concept to build upon, both theoretically and managerially' (Grönroos 2008: 304).

Indeed, Grönroos and numerous other protagonists from the field of service research mainly and rightly postulate the primacy of value-in-use (exemplary Heinonen et al. 2010). Unlike the problem-free, operationalizable value-in-exchange, its exact determination proves to be difficult as multiple variants that are difficult to harmonize can be distilled from the corresponding literature (Grönroos/Voima 2013; Gummerus 2013). As part of the discourse on S-D Logic, a few detailed clues can be found:

- Vargo, Maglio and Akaka (2008) define value creation as an improvement of the well-being of the beneficiary; thus created value is increased well-being.
- For Grönroos (2008), value is created when the beneficiary is better off or feels better.
- Maglio et al. (2009) argue in a systematically inspired manner and claim that value creation increases the ability of the system to better adapt to the environment. Value thereby strengthens the viability of the system (supplementary Wieland et al. 2012).

Detached from the lack of definitional precision, it remains to be said that value in terms of S-D Logic refers to value-in-use even when it – as in some recent elaborations – is substituted by the term 'value-in-context' (Vargo/Akaka 2012; Vargo et al. 2010): This substantiates value creation because the use of a resource always takes place within a specific context.

Co-creation of value: foundational aspects

Vargo and Lusch (2006) replace the designation 'co-production', which was used in the initial article from 2004, with the term 'co-creation' from Prahalad and Ramaswamy (2004a, 2004b) because they think that co-production

- leans too far towards the vocabulary of production theory approaches and
- the interactive character of value creation is not adequately represented (expanded upon Vargo/Akaka 2009).

Indeed, the concept of 'creation' is deeply rooted in the sphere of metaphysics (Luhmann 2008), yet it enjoys great popularity inside and outside S-D Logic and it is therefore not to be put into the discourse at this point. However, a critical examination of the value co-creation thesis that represents one of the pillars of S-D Logic proves to be more pressing. Since it cannot be about a production process in terms of production theory approaches, the question arises on how collaborative creation of value should be understood.

Lusch and Vargo (2012: 30) provide easily comprehensible examples, which are useful as a starting point for a corresponding analysis: '[The] value of a washing machine, wood pallet, cosmetic or computer can never be in its production, distribution or marketing, but only in its use. That is, if no one uses a computer or applies cosmetics, there is no benefit, no

value created. This suggests the repository of value is not the good or marketing offering, but rather the experience of the beneficiary of the offering, as he uses it.' In fact, the first part of the quote can be interpreted to mean that value is firmly anchored in the use of resources. Accordingly, Fließ et al. (2015) understand value-in-use to be value that a product in line with its own value creation processes can unfold. It then forces the presumption that such value creation manifests a substantial overlap with the use of resources: If value can be 'unfolded' by the product (resource in the sense of S-D Logic), the use as such must be value creating. A second interpretation – presumably adding more validation to the considerations of Vargo and Lusch – is that value emerges in the course of the use of resources in the inner world of the beneficiaries. Based on this claim, this variant suggests that the use of resources is accompanied by an experience. Moreover, this view corresponds to FP10 that was amended in 2008: 'Value is always uniquely and phenomenologically determined by the beneficiary' (Vargo/Lusch 2008a: 7). The accompanying explanations suggest that value creation always includes the application of specific resource combinations and another process, characterized as an idiosyncratic determination of value (Vargo/Lusch 2008a). Since the latter operation is located with the beneficiary (FP10), the beneficiary must necessarily be involved in the value-creation process (FP6).

It must first be noted that the value-creating entity must be a subject for that reason because only a subject can 'experience' and 'determine' value. Production processes, information technologies, machines, equipment, etc. are, however, not able to create value; rather, they can serve as tools that trigger value creation. This insight can already be found – at least in a similar form and detached from the discourse on S-D Logic – in Menger's works (1871), who interprets value as a subjective attribution. It should, however, be noted that there are elaborations that closely lean on S-D Logic and that do not contradict, but provide room for an alternative interpretation (Lusch et al. 2010; Vargo/Akaka 2012). This applies in particular to the presumption that value can be created outside of the subject in a network structure composed of processes, concepts and objects.

Secondly, value co-creation within S-D Logic encompasses several processes, including at least the application of resources (possibly in the form of service) and the determination of value. Since resources can also be used exclusively by the beneficiary, Grönroos (2011) correctly concludes that value co-creation within the meaning of S-D Logic must also include the production process of the resource; otherwise the provider is no longer an obligatory part of value creation. Alternatively, it would of course be conceivable that the utilized resources remain assigned to the sphere of the provider, but this would then mean that some production-specific phenomena would be frozen there, for example in the form of coagulated competencies. The determination of value is, however, assigned to the sphere of the beneficiary (FP10), which is why it is already recognizable at this point that the described processes must differ in distinct ways. Nevertheless, it remains unanswered, by

both Vargo and Lusch as well as by Grönroos, how the use of resources and the determination of value are linked.

To shed some more light on the problem brought up here, it is appropriate to resort to a statement from Luhmann (2001) that is indeed sufficient and yet precisely formulated (translated from German): 'A theory that claims that it is possible to link systems and environments through processes (which must then be in parts internal and in parts external processes), is well-advised if it avoids exactly specifying what processes it is concerning.' Of course, Luhmann's comments are deeply rooted in the thought patterns of the variants of system theory that he represents and is not related to aspects of S-D Logic. Yet, they are relevant because numerous protagonists of S-D Logic, including Vargo and Lusch, are mainly propagating a systematically-inspired perspective at the present time. Therefore, a reasonably short outline of the system-theoretical interpretation of S-D Logic and a discourse, strictly relating to the examined problems, concerning the theory of autopoietic systems follows below.

Co-creation of value: systems-theoretical perspective

Even a rudimentary analysis of relevant publications concerning S-D Logic shows that the corresponding authors had acquired a systemic perspective from the Service Sciences several years ago, which has appeared to receive ever greater emphasis in recent writings (exemplary Wieland et al. 2012; Chandler/Lusch 2015). According to Vargo, Maglio and Akaka (2008) a service system is composed of organizations, individual actors (active subjects) and/or groups of actors. It is to be understood as 'an open system (1) capable of improving the state of another system through sharing or applying its resources [...], and (2) capable of improving its own state by acquiring external resources' (Maglio et al. 2009: 395). The term being built upon, 'Service Ecosystem', substantiates this definition in this respect because it ascribes the following qualities to the actors (Lusch et al. 2010; Vargo/Lusch 2011):

- They use their senses to determine when and how they should act or react. Here, information technology supports and allows an increasing spontaneity (spontaneously sensing and responding).
- They are spatially and temporally arranged in a specific manner (spatial and temporal structure) and are largely loosely coupled.
- They provide value-proposing actors and use language, symbols, institutions and technology in order to co-produce service offerings, to engage in mutual service provision and to co-create value.

Both the definition (service systems are open systems) as well as the characterization of actors as a system or as an integral part of the system (subsystem) allow it to be supposed that the named authors are either not aware of the system-theoretical paradigm shift ('autopoietic turn') driven energetically by Luhmann or they do not assimilate the theory of auto-

poietic systems into their considerations because they understand service systems to be allopoietic systems ('trivial machines' in language used by Luhmann) that produce a specific output for a particular input in accordance with an internal transformation function (Luhmann 1985). The latter would be, however, vexing because the protagonists

- regularly emphasize the complexity of the systems (exemplary Vargo/Akaka 2009 2012) and
- at least the actors have to be regarded as living organisms that are unequivocally attributed to the autopoietic systems as seen already in the works of Varela et al. (1974) or Maturana and Varela (1987).

Luhmann argues that living as well as psychological and social systems are therefore autopoietic because they themselves produce and reproduce the elements out of which they are composed and through the elements out of which they are composed (Luhmann 2013). The transformation of elements into elements is designated as an operation; operations must be compatible, which is why autopoietic systems can only be composed of self-reproducing operations of the same type (Luhmann 1995). Since operations exclusively work selfreferentially, such a system is always organized in a recursive-closed manner and decides itself about the reproduction and linking of elements (Luhmann 1992, 2003). Therefore, autopoietic systems are indeed autonomous but not self-sufficient (Lee 2000; Ramage/Shipp 2009). Rather, the coordination with the environment is the result of co-evolution, in which structural couplings arise (Luhmann 2013), by means of which environmental events (irritations, disturbances, noises) are internalized and specified (Luhmann 1995). Autopoietic systems are highly selective and do not capture the total reality of the environment (Luhmann 2013).

Indeed, the terms used here, 'actor' and 'beneficiary', must be characterized as deficient from the perspective of the theory of autopoietic systems because an individual is obviously recruited from multiple systems that are in turn coupled by way of structures (Luhmann 1992). Despite these analytical weaknesses – justifiable given the research interests – it is attested to that for this reason a barrier-free internalization of value triggered by the environment is impossible because environmental noises and thus the use of resources and application of competencies can only produce irritations that are selected and internalized exclusively according to the relevant systems. Since the selection and the processing of results cannot represent a collaborative act, the co-creation thesis is to be shortened to the alleged causes of value creation: Service providers may be capable of producing irritations; but whether these events actually trigger value-creating processes remains exclusively left to those concerned. Value creation itself is a follow-up process that takes place without participation of other actors.

Consequences

Value co-creation within the meaning of S-D Logic includes sub-processes that differ in distinct ways, but are nonetheless inseparable and connected in a barrier-free manner with one another, whereby the use of resources is considered as the only cause of the determination of value. If we understand, however, the application of competencies and the use of resources as an integral part of the context that produces events that set the creation of value in motion and accept that the creation process occurs exclusively in the internal sphere of the actors, it quickly becomes apparent that the interactional aspect of service provision can take place only in the course of the application of competencies. Service understood in this way is neither compatible with the term 'integrativity' (Kleinaltenkamp et al. 1997; Moeller 2008) that stems from the customer-integration framework, nor with the service definition of S-D Logic. Vargo (2008) rightly criticizes the former school of thought as one-dimensional and provider-centered (supplementary Vargo/Akaka 2009) because customer resources are – more or less optionally – integrated in the manufacturer-sided production process, not vice versa. Vargo and Lusch (2008a) postulate, however, that service is the application of competencies on the side of the provider for the beneficiaries and thus appears also to be a one-way process. This may be consistent from the perspective of S-D Logic because the aspect of interaction, which is inherent for service, is strongly coupled to the value co-creation thesis. However, it can be shown that an understanding of service that is freed from the co-creation claim and that nonetheless leans on S-D Logic can be developed: An internet search query ('googling') requires that the user uses appropriate software and enters a search question. The search engine then provides, by using the appropriate algorithms, results to which the user alone, under favorable circumstances, attributes value.

This simplified example shows that the application of competencies of the service provider (search engine) for the beneficiaries (users) is impossible if the latter does not utilize appropriate skills and knowledge (use of the software, formulating a search question). Therefore, service is hardly characterizable as an application of competencies by an entity for another entity. Rather, all parties must apply skills that only then lead to the intended results when the competencies are, in an appropriate manner, complimentary. Thus, FP6 and the definition of service as specified by S-D Logic can be adjusted: The service provider is not a co-creator of value; the service provider applies competencies with (not for) the beneficiaries. Service is therefore the collaborative application of a competence-mix and is aimed at the production of intended contextual events that set the value-creation process in motion. These in turn influence the context and service provision that is embedded in this matter (a graphical representation of this can be found in Fig. 4).

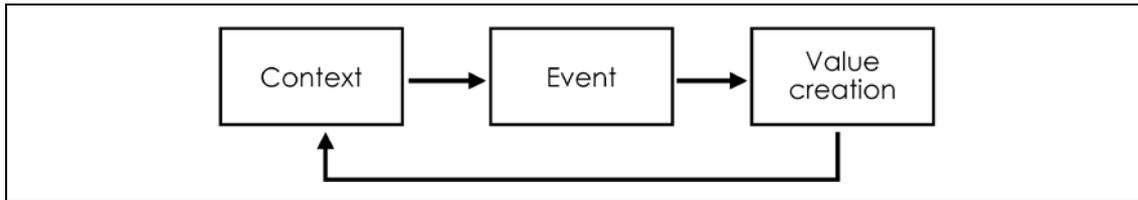


Fig. 4: Context-Event-Value Creation. (Source: diagram by author)

The arguments presented here may indeed be countered by putting forth that the value co-creation thesis is useful from a normative-practical perspective because it establishes a connection between the economically motivated activities of the provider and the goals of the beneficiaries. It must be noted however:

- The value co-creation thesis suggests that the service provider can actively intervene in the value-creation process.
- The value co-creation thesis hinders the sharpening of the role of the provider as co-producer of contextual events in the course of value creation.

Conclusions

Regarding the history of economic ideas, it turns out that S-D Logic is not a new market theory yet. Elements of production theory and microeconomic welfare theory are combined with a somehow unusual definition of value creation. The role of customers' reflection and imagination processes has been neglected so far.

It was developed that service is not to be understood as the application of competencies for beneficiaries, but as a collaborative application of a specific and contextual competence-mix of the participating parties. The adjustment proposed here is neither synonymous with the provider-centered customer-integration framework nor does it need to fall back on the discarded value co-creation thesis. Rather, it is argued that the process of collaborative application of competencies can trigger contextual events that are realized by the actors in appropriate circumstances and transformed into value. The latter processes do not involve collaborative activities; they are connected in a highly selective manner with the context in which the service provider is embedded. For this reason, created value influences the context during service provision because the creating actors are part of the same. It should be noted that the transfer of central findings of the (still under-represented) neurosciences provides a similar result: Events created through the application of competencies must be sensed, analyzed and interpreted by the subject. Here, it is naturally a question of internal, highly selective, and faulty processes influenced by noise that make direct access for service providers to the value-creation processes of the beneficiaries impossible (complimentary Reckenfelderbäumer/Arnold 2015). The inherent dynamics are of considerable importance for practice and are not highlighted enough from the side of theory.

On the normative-practical level, the value co-creation thesis misleads one to accept that providers can not only provide antecedents of value creation, but also intervene actively in the creation of value. It is recommended that service providers refrain from following this misconception. Rather, they should orient their offerings towards the context and close the gaps in experience-based competencies. Grönroos and Voima (2013: 133-134) therefore advise providers quite rightly: 'Instead of focusing on how customers can be engaged in co-creating [...], service providers should rather focus on becoming involved in the customers' lives'.

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