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## Linguistic and Ontological Concept Formation: The LION Method

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### Abstract

Concept formation is a demanding task in social research. A methodological approach (called LION) is presented that emphasizes the clarification of concepts based on linguistic and ontological views. This method originates from a qualitative-pragmatist tradition of studies of work-practices in organizational settings and it is explicitly based on the linguistic turn and the practice turn in social research. It is also based on the articulation of seven conceptualization maxims. Its aim is to bring rigor to the conceptualizing process and clarity to resulting conceptualizations. The method is illustrated through an analysis example from service management. The concepts of “value-in-use” and “value generation” are critically analyzed using linguistically and ontologically oriented questions. The application of the LION method in qualitative research is discussed concerning research question formulation, collection, and analysis of data, review of extant theory, and final articulation of theoretical contribution.

### Keywords

conceptualization, linguistic turn, practice turn, language, ontology, qualitative research, pragmatism

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# Linguistic and Ontological Concept Formation: The LION Method

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Concept formation is a demanding task in social research. A methodological approach (called LION) is presented that emphasizes the clarification of concepts based on linguistic and ontological views. This method originates from a qualitative-pragmatist tradition of studies of work-practices in organizational settings and it is explicitly based on the linguistic turn and the practice turn in social research. It is also based on the articulation of seven conceptualization maxims. Its aim is to bring rigor to the conceptualizing process and clarity to resulting conceptualizations. The method is illustrated through an analysis example from service management. The concepts of “value-in-use” and “value generation” are critically analyzed using linguistically and ontologically oriented questions. The application of the LION method in qualitative research is discussed concerning research question formulation, collection, and analysis of data, review of extant theory, and final articulation of theoretical contribution.

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## Introduction

### Meanings and Significances of Conceptualization

Conceptual development is essential in research and means the creation and refinement of concepts that are used to describe the world in theories, frameworks, and other knowledge products. Concepts are constituents in all kinds of scientific statements. They are constituents in explanatory, evaluative, normative, and prescriptive statements. Concepts can form statements of their own kind, as conceptual statements, where concepts are clarified. A conceptual statement is equivalent to a definition. Concepts are categorial knowledge. A concept is a categorization of phenomena in the world. A concept is expressed in a common word, and it refers to some phenomena. Concepts are used to order the world into classes of phenomena. Members of such a category are considered similar and they share properties that unify them into a class and at the same time discern and differentiate them from other phenomena that belong to other conceptual classes.

Conceptualizing is essential in qualitative research. Working with quantitative research may imply that concepts only from the literature are used to test relations between them, while no new concepts are created during such a research inquiry. On the contrary, in qualitative research, the main reason for applying this kind of research is often to “create new concepts” that give an improved and more nuanced understanding of the world. In the very title of their ground-breaking book on qualitative research methodology, Glaser and Strauss (1967) declare their aim and make a programmatic appeal to social researchers to strive for “discovery of grounded theory.” Although the concept of “discovery” has been contested (as “unfounded and

naïve” by Bryant, 2002) in the context of theory construction, I do think that “discovery” is essential for an understanding of conceptualization and qualitative research. The concept of discovery should be seen in the light of much qualitative research that aims to “detect new” (not already known) “phenomena” and to “create a new understanding” through “new concepts” based on in-depth empirical inquiries (Goldkuhl & Cronholm, 2019).

When looking into the meaning of conceptualization, the following two meanings can be found: (a) the process of forming a conceptual form of a phenomenon, that is, the act of conceptualizing; (b) the concept so formed, something conceptualized (from Wiktionary.org; similar definitions can be found in other dictionaries). How come that “conceptualization” can have these two different meanings in ordinary language? How should we then use this term in a scientific argumentation that should strive for unambiguousness? I want to provide a possible explanation to this following the analysis in Goldkuhl (2022). Conceptualization as a word form is a noun. It is a nominalization, that is, it is made a noun from another word having a common etymological origin as is the case in polysemy. Conceptualization is a nominalization of the verb “conceptualize,” which implies that it is a noun denoting a process (meaning a above). However, it can also be seen as a nominalization of “conceptualized.” In this case, it is a nominalization of the result from the process of conceptualizing. The word “conceptualized,” albeit a verb, is here used in the participle form as an attribute in the phrase “something conceptualized” (meaning b above). This implies a similar meaning as “concept.” What was accounted for above was also an example of a linguistic analysis of concepts, which is part of the method for concept formation presented in this paper. It will be further elaborated on below. In the following, I will use phrases such as concept formation, conceptualization process, or conceptualizing to denote the process phenomenon (meaning a), and I will use concept or conceptualization to denote the resulting phenomenon (meaning b).

## **Purpose**

The development of scientific knowledge about the social world includes thus conceptual development, as an essential part. Proposing and using concepts in scientific reasoning means talking about the world. This implies a need for a reflective understanding concerning:

1. The “world” talked about
2. How we “talk” about the world

The first issue can be called “ontological,” that is, what is the fundamental character of the studied world (Goertz & Mahoney, 2012). The second issue is about “language,” that is, how concepts are used in linguistic utterances (Suddaby, 2010).

The purpose of this paper is to present an approach to conceptualization that builds on ontological and linguistic reflections. I call this approach to conceptualization the LION method that is an abbreviation of LInguistic and ONtological determination. The method is founded on the goals that conceptualizing should be a “rigorous” process of leading to “clarity” in evolved conceptualizations. These goals can be transformed into “research questions” for this paper: How can the conceptualization process be performed in a rigorous way concerning the language use of concepts and the ontology of world-phenomena? How can conceptualizations be stated with clarity concerning the language use of concepts and kinds of phenomena in the studied world? The motivational and conceptual background of this method is further explored in a coming section below when reviewing extant discourses on conceptualization in research.

## **The LION Method for Concept Formation: An Introduction**

I present in this section an overview of the LION method; what parts it consists of. The method is related to discourses on scientific conceptualization, and I describe how it has originated. The structure of the method presentation in the paper follows.

### **Main Parts of the LION Method**

As a method for concept formation, LION consists of several related elements. First, it consists of a “perspectival foundation” expressed as seven conceptualization maxims. Second, it consists of “conceptual frameworks” concerning the linguistics of conceptualization and a practice ontology for conceptualization. Third, it consists of a “procedure” for performing concept formation. The procedure comprises “questions” to ask when conceptualizing.

### **A Review of Discourses on Conceptualization – Contextualizing the LION Method**

Conceptualization is treated explicitly, and implicitly, in a large amount of scientific literature. In this section, I position the LION method in relation to some relevant discourses in the literature. In further sections below, I make some specific connections with direct relations to those treated parts of the method (the conceptualization maxims, and the frameworks for linguistic and ontological determination).

Conceptualizing and conceptual use pertain to several situations in research practices. Concepts are important elements in scholars’ pre-understanding that influence how problems and directions of research are considered (e.g., Blumer, 1969; Fisher & Aguinis, 2017). Concepts may be guides for the selection of empirical units for inquiry (Welch et al., 2016). Concepts may be guides for data collection and structuring of data (e.g., Blumer, 1969; Van Maanen et al., 2007). Concepts may gradually emerge through continual data analysis and concept refinement (Dubois & Gadde, 2002; Fisher & Aguinis, 2017; Gioia et al., 2013; Glaser, 2002; Glaser & Strauss, 1967). Concepts are necessary to drive a comparative analysis that may include data and abstractions (e.g., Eisenhardt, 1989; Fisher & Aguinis, 2017; Glaser, 2002; Glaser & Strauss, 1967). Concepts may be searched for among extant theories as an aid in data analysis and conceptual emergence (e.g., Dubois & Gadde, 2002; Eisenhardt, 1989; Fisher & Aguinis, 2017; Van Maanen et al., 2007). Concepts are building blocks for the formulation and validation of theoretical statements (Dubin, 1969; Eisenhardt, 1989; Glaser & Strauss, 1967; Osigweh, 1989; Reynolds, 1971; Welch et al., 2016). Established concepts provide a common vocabulary for the scholarly community (e.g., Welch et al., 2016). All these situations of conceptual development and use are acknowledged as significant for a method of concept formation as LION.

Theorizing comprises often the formulation of abstract concepts. In theorizing, there may be an attempt to create concepts with broad coverage. Such an abstract and broad concept may cover many phenomena and sometimes the phenomena lumped together under the label of a concept are too disparate to make a well-thought concept (Hirsch & Levin, 1999; Locke, 2012). There may also be that some conceptual labels are homonymic or polysemous in character. This means that a concept in one statement means something, and in another statement, the concept label designates something else, although there might be some resemblance between them (Podsakoff et al., 2016). There is of course also the case that synonyms exist (Suddaby, 2010), and in such cases, there might be hard to determine if there exists an exact equivalence between such different terms. Sometimes, there may be concepts that are vague and fuzzy. Readers of scientific texts may be very uncertain concerning the meanings of proposed concepts due to their vague characters. All these conceptual pitfalls and

challenges put demands on the process of conceptualization. As scholars working with conceptualizing, we need to address the following questions: How do we avoid unclear and abstruse formulations? How do we avoid categorial mistakes in definitions? How can we make our conceptual formulations entrenched in the real-world? How can we create definitions in sharp and communicative language? It is foundational in a theory development process to perform conceptualization in a clear and rigorous way. Clarity in conceptualized findings and developments is necessary to successfully communicate within targeted communities (Alvesson & Kärreman, 2000; Suddaby, 2010).

There exist, in the literature, several criteria and guidelines for concept formation (e.g., Locke, 2012; Suddaby, 2010). One ambitious approach is presented by Podsakoff et al. (2016). They have presented a methodologized conceptualization approach consisting of four stages; two preparatory stages followed by defining the concept and a continual revision. The four stages are: (a) attribute specification through inquiries in diverse sources, (b) determining what attributes are necessary and sufficient, (c) formulating a preliminary definition, (d) further conceptual refinement. The LION method takes another approach and can thus be seen as complementary to conceptualizing following Podsakoff et al. (2016). Their kind of “life cycle approach” with different stages is not predominant in LION. Neither is the discussion of different sources in stage a. I do not deny the importance of such methodological guidelines, however, the LION method takes a focused approach on concepts while problematizing and specifying their linguistic and ontological bases. LION takes as its vantage point a concept proposal (typically from data analysis or extant literature) and continually refines it through close examinations of how to linguistically express and delimit the concept and how to relate it ontologically to foundational kinds of phenomena. The LION method also applies seven conceptualization maxims elaborated in the next section. These maxims strengthen the linguistic and ontological orientation, which I found missing in Podsakoff et al. (2016). That is why I state that these two conceptualizing methods should be seen as complementary and not opposing.

The LION method for concept formation has emerged through experiences from working in a “qualitative research tradition.” This means that the kinds of concepts that are elaborated here are typically those that have been developed through a qualitative research approach. The emergence of this conceptualization approach follows a qualitative tradition with a pragmatist orientation (Blumer, 1969; Dewey, 1938). It is inspired by philosophical works within pragmatist traditions (e.g., Dewey & Bentley, 1949; James, 1907; Peirce, 1878; Thayer, 1981; Wittgenstein, 1958a, 1958b).

The LION method builds on the division into linguistic and ontological issues. In linguistic issues, especially the relations between concepts and words are addressed. In ontological issues, especially the relations between concepts and phenomena are addressed. The linguistic focus in the LION method builds on what has been called the linguistic turn in science (e.g., Alvesson & Kärreman, 2000; Bergmann, 1953; Rorty, 2010; Schoeneborn et al., 2019; Wittgenstein, 1958a, 1958b). The ontological focus in LION builds on what has been called the practice turn in science (e.g., Miettinen et al., 2009; Schatzki, 1996, 2001; Simpson, 2009; Whittington, 2006). The linguistic turn means a turn to an enhanced understanding of the role that language plays in scientific development. The practice turn means an ontological turn to practices as nexuses of social reality and thus how to understand this reality.

Accentuating a linguistic focus is a response to problems and needs as expressed by Alvesson and Kärreman (2000): “The problem is that, in common with the work of a great majority of organizational and social researchers, there is a shared oversimplistic understanding of language and language use” (p. 140). To address this, one needs to explicitly focus on language and how to use different words. The LION method is founded on the claims to

enhance reflection, articulation, and rigor in conceptualizing by addressing linguistic aspects as stated by Alvesson and Kärreman (2000).

As stated by the mentioned practice theorists, a practice is co-constitutive in relation to its sub-parts. Activities, roles, language, and objects build up a practice, but they are only considered adequate elements of that practice if they are congruent with the practice's meaning and purpose. Practice is both physical and discursive. I have labeled the practice ontology of the LION method as "socio-instrumental practice." "Social" means an emphasis on the social and intersubjective character of work-practices. In practice, human action can be performed with the aid of linguistic means or physical tools. The word "instrumental" emphasizes that human actions are conducted in such a mediated way (Wertsch, 1998) using all possible instruments (linguistic, technical, or simple material tools).

A practice-ontological perspective, as the one presented below, can bring "new ways of seeing and new questions to ask" (Simpson, 2009, p. 1330). It acknowledges entities of diverse kinds (e.g., Nicolini, 2012; Schatzki, 1996), but puts them into a relational context of enactment with "a focus on the everyday activity of organizing in both its routine and improvised forms" (Feldman & Orlikowski, 2011, p. 1240). The presented practice ontology is harmonious with established qualitative views of social reality, such as social phenomenology (Berger & Luckmann, 1966) and symbolic interactionism (Blumer, 1969), but brings also onto the scene different types of artifacts that play decisive roles in the forming of modern social life (Feldman & Orlikowski, 2011; Schmidt, 2014).

### **The Origin and Application Scope of the LION Method**

The LION method has emerged during many years of qualitative research work, including research, teaching, and supervision. Original ideas were presented in Goldkuhl (2002) and later refined in many publications (e.g., Goldkuhl, 2019; Goldkuhl & Röstlinger, 2003). The development of the LION method has followed an abductive research strategy over a long time (Kennedy & Thornberg, 2018). It has switched back and forth between research work containing concept forming, literature reviews, methodological development, and discussions and interaction within the scholarly community. A recent LION application can be found in Goldkuhl (2022).

The substantive areas that are the background of this conceptualization approach are within "organizational, institutional, and professional work-practices." I have a background in studying many types of organizational and institutional practices. Examples are manufacturing, logistics, marketing/purchasing/business interaction, service management, innovation/change management, consultancy management, information systems management, diverse kinds of public administration, defense administration, social work, healthcare, and education. This list is not made to exclude any similar kinds of practice. On the contrary, the aim here has been towards a generalized and inclusive scope of an application of this conceptualization approach.

I make this declaration of the origin of the LION method for the following reasons. First, it helps the reader to understand the originating context of practice studies to assess the method adequately. Second, it informs the reader about its hitherto main areas of application and thereby helps the reader to judge its potential value in other types of studies. I presume that this kind of conceptualization approach also might be useful in (a) other types of qualitative research than practice-oriented studies and (b) quantitative research endeavors. It is evident that both qualitative and quantitative research needs concepts that are linguistically and ontologically well-reflected.

## **Presentation of LION**

The general background of LION is presented above in the introduction (the main scope, definitions, and main purpose of the method). The LION foundation is further elaborated above in the sections of the method introduction (the main parts of the method, its relations to relevant discourses in the literature, method origin, and application scope). In the next section, the seven foundational conceptualization maxims of LION are presented. Then, in two sections, the two main parts of LION (linguistic and ontological determination) are presented. After that, it follows a synthesis of linguistic and ontological determination, how the seven maxims are applied in a LION analysis, and a clarification of the method procedure (its different analytical questions). The following section is an example of a LION concept analysis (value creation in service logic). Next, it follows a discussion on how LION can be used in different situations of qualitative research. In the last section, concluding remarks are formulated.

### **LION: Seven Foundational Conceptualization Maxims**

As a foundation for the linguistic and ontological approach to conceptualization, I elaborate on seven conceptualization maxims based on prominent literature. The maxims are described below and summarized in Table 1. I refer in the text below to the seven maxims by their numbers (#1-#7) in Table 1. These maxims express certain essentials of conceptualization as process and result. I have extracted knowledge from philosophical and methodological literature and formulated such knowledge concerning conceptualization in a succinct way in these maxims. The maxims as such can stand alone as a useful contribution to conceptualization work. In this paper, they are, however, considered an integral and foundational part of the LION method.

When working with conceptual development, it is essential to keep in mind the semiotic triadic relationship between word, concept, and phenomenon (Ogden & Richards, 1923). Words are symbolic expressions that stand for concepts. Concepts are what is thought of, and they are part of humans' intersubjective sphere of understanding life. Words and concepts refer to a world of phenomena thought of and spoken about. This world can be external to humans, but phenomena can also be elements of the inner world of humans. Through words and concepts, we can refer to subjective phenomena like thoughts, intentions, experiences, and feelings.

One basic insight from the semiotic triad is that conceptualizing comprises reflection about the use and meanings of categories as thought constructs and how such categories are expressed in suitable words and what kind of phenomenon in the world a category refers to. Working with conceptualization means dealing, in an integrated way, with linguistic issues (proper words as expressions) and ontological issues (phenomena as referents). This means to move back and forth between words - concepts – phenomena (#1). This means that when the focus is on one of these three, the other two should be in the contextual background but not totally disregarded. "Phenomena" addressed in research inquiries are "categorized" and "linguistically codified" phenomena.

Confusion about what a word/concept means in a discourse is often due to vagueness in how specific words are used. A word has a potential meaning repertoire, and a specific word can take different meaning roles in different utterances. Misunderstandings may arise due to the meanings of words are unspecified. Wittgenstein (1958a) emphasized meaning as language use. This means that specific words in utterances get their meaning from how they are used. We must decide what we shall mean by a stated expression (#2). One way to do this is through clear references to practical consequences of what it should mean to adhere to an asserted conceptual distinction. Peirce (1878) elaborated on this in his classic article "How to make our



ideas clear” where he stated, “we come down to what is tangible and conceivably practical, as the root of every real distinction of thought, no matter how subtle it may be; and there is no distinction of meaning so fine as to consist in anything but a possible difference of practice” (#3). James (1907) brought this further with direct references to decisions on how to use linguistic expressions in communication, that is, meaning as “decided language use” (#2). James further elaborated on the consequences of this practical attitude:

There can *be* no difference anywhere that doesn't *make* a difference elsewhere—no difference in abstract truth that doesn't express itself in a difference in concrete fact and in conduct consequent upon that fact, imposed on somebody, somehow, somewhere and somewhen. (James, 1907)

Phenomena, conceptualized, and referred to, must exist somewhere and/or in some way (#4). This claim to existence should not be misinterpreted as a claim to only external-physical existence. As said, conceptualized phenomena can be of a subjective nature, such as thoughts, intentions, experiences, and feelings.

Phenomena in the social world should not be seen as isolated objects. The social world is a relational world (Emirbayer, 1997). It consists of objects that can be distinguished as separate although having relationships with other objects (#5). Phenomena appear always together with other phenomena in situations (Dewey, 1938). The environment is external to humans, but it is fundamentally relational. Different environmental objects, which can be of different kinds (natural, physically human-made, symbolic), afford different kinds of action possibilities for humans (Gibson, 1979). Human-made objects (of physical or symbolic character) have of course relationships with their creators as well as their recipients and users. This kind of “relationality” is also reflected in the way we use language describing the world (#5). In most utterances, the locutor positions different phenomena, through syntactic and semantic roles, to each other. “Words, concepts, and symbols derive their meaning only from their location within concrete utterances” (Emirbayer, 1997, p. 301). This kind of relational thinking also positions processes and actions as central to the conception of social life. It avoids structuralist and substantialist thinking where a separate phenomenon (an independent variable) by itself produces effects on another phenomenon (a dependent variable), without any explicit processual transformation (Abbott, 1992; Dewey & Bentley, 1949; Emirbayer, 1997). Blumer (1969, p. 71) has formulated a strong action dictum for the study of social life: “the essence of society lies in an ongoing process of action - not in a posited structure of relations. Without action, any structure of relations between people is meaningless. To be understood, a society must be seen and grasped in terms of the action that comprises it” (#6). This means that processes and related concepts, such as actions, activities, operations, and events, must have prominent places in the conceptualization of social reality (Rescher, 1996; Weick, 1979). From this follows also that scholars need to be cautious concerning which verbs and how verbs (process concepts) are used in conceptualizations and theoretical statements. In many abstractions, there seem to be short-cut descriptions where processes and actions have disappeared or are made implicit (Abbott, 1992; Emirbayer, 1997).

It is important to avoid a diffuse abstractedness in the concepts formulated. Concepts need to be properly demarcated and there should be clear what is covered by a specific concept and what is not. The link between abstract concepts and empirical phenomena should not be broken. Concepts should be clearly anchored to the world described. This means that the conceptualization process should be conducted with clear links to the empirical world studied and talked about. We should introduce conceptual abstractions in a way that keeps the link to empirics and at the same gives more meaning to the world. Before we can understand and

describe the complex, we must first grasp the simple (#7). From an understanding of what is simple, we can build more complex conceptual structures (Goldkuhl, 2002).

**Table 1**  
*Seven Conceptualization Maxims*

<b>Label</b>	<b>Maxim</b>	<b>References</b>
1. The semiotic maxim	Concepts relate words to world. Conceptualization means moving back and forth between categories, words, and phenomena.	Ogden and Richards (1923)
2. The use-meaning maxim	Conceptual meanings depend on how words are used and what people have decided words to mean.	James (1907), Wittgenstein (1958a),
3. The tangible maxim	To clarify conceptual distinctions, relate concepts to actions and what is concrete/tangible.	James (1907), Peirce (1878)
4. The existence maxim	What is conceptualized must exist somewhere and/or in some way.	James (1907)
5. The relational maxim	Phenomena are relational; consequently, concepts are relational.	Dewey (1938), Emirbayer (1997), Gibson (1979)
6. The processual maxim	Process phenomena are nexuses in social practices. Process concepts (foundationally expressed as verbs) are nexuses in descriptions of social practices.	Abbott (1992), Blumer (1969), Dewey & Bentley (1949), Emirbayer (1997), Rescher (1997), Weick (1979),
7. The simplification maxim	First, clarify simple concepts. Then, based on such conceptual clarifications, elaborate more complex concepts.	Wittgenstein (1958b)

Wittgenstein (1958b) has in his Blue Book eloquently stated the need for clarity and how to reach it through a stepwise procedure (#7):

We shall with great advantage look at primitive forms of language in which these forms of thinking appear without the confusing background of highly complicated processes of thought. When we look at such simple forms of language the mental mist which seems to enshroud our ordinary use of language disappears. We see activities, reactions, which are clear-cut and transparent. On the other hand, we recognize in these simple processes forms of language not separated by a break from our complicated ones. We see that we can build up the complicated forms from the primitive ones by gradually adding new forms. (p. 17)

### **LION: Linguistic Determination**

Conceptualization is a cognitive process and as such, it is performed with the aid of language (Goldkuhl, 2002). Different linguistic constructs (words, phrases) are used to express and explicate an emergent conceptualization. Language is thus used in such a conceptualization. The main angle taken in this section is: “How do we speak about conceptualized phenomena?” To address this query, there is a need to decode the language use situations in the conceptualization process. This idea of linguistic determination in the LION

method follows the linguistic turn in science as mentioned above. It depends mainly on maxims #1, #2, and #5, which emphasize the role of language. Other maxims form the background of this linguistic analysis. Especially maxim #7 is important since the aim here is to help the analyst to avoid unnecessary complexities in conceptualization.

During conceptualizing, we use different kinds of words, such as nouns, verbs, and adjectives. This entails that we speak about entities (normally expressed as nouns), processes (normally expressed as verbs), and properties (normally expressed as adjectives). However, language is used in flexible ways with words in different semantic and syntactical roles. This means that we cannot equate the use of a noun with the existence of an entity-object.

The use of nouns in a conceptualization process is especially problematic. Wittgenstein has in an eloquent way pronounced a special warning concerning the use of nouns: “We are up against one of the great sources of philosophical bewilderment: a substantive makes us look for a thing that corresponds to it.” (p. 1). Many concepts are often given a substantival form in a statement although they originally denote a process (verb) or an attribute (adjective). Nominalization, that is, the creation of a noun from another word class, is often necessary to make in a language to talk in a grammatically correct way, about such other phenomena as processes and attributes. For example, talking about the process of people communicating (that is a verb; here in gerund form), a nominalized word (communication) can be created. This is often grammatically necessary when topicalizing such phenomena in a statement, that is, making it grammatically a subject or an object. However, not every scholar is aware of such nominalization processes and their consequences. There is a risk of falling into a nominalization trap, that is, searching for the essential thing behind the nominalized concept. But does the proposed concept really represent a separate thing? Or is it rather be seen as an attribute of an object, or as an active process? Wittgenstein (1958b) speaks about such unreflective nominalizations as “primitive, too simple ideas of language” (p.17). He speaks especially about the problem of giving attributes a substantival form. The nominalization of verbs may also hide the active and processual character of social life. Weick (1979) urges us to use verbs (in one form or the other) in inquiring and theorizing.

In conceptualization, it is important to distinguish between different kinds of concepts, such as entity-objects (expressed as a noun), processes (primarily expressed as a verb), attributes/properties/states (primarily expressed as an adjective, adverb, or participle of verb) and relationships (expressed through a preposition or transitive verb).

One way to sharpen the explication of a concept is to conduct a “linguistic analysis” of a proposed concept (Goldkuhl, 2002). To do this, it is appropriate to state different related word forms of a concept, such as noun form, verb form, and attribute form. I will use three examples to illustrate the linguistic determination part of the LION method. First, the example of “structure” that was originally used in Goldkuhl (2002). The question to raise is: what is structure? Is it fundamentally an object or a process or an attribute? Different word forms associated with this concept should be listed:

- A structure (noun)
- To structure (verb)
- A structured... (attribute in participle)

A linguistic analysis can be pursued in the following way: Is any of these words seen as the original or foundational concept type? Are the other word forms to be seen as derivations from the basic one? In such an analysis, one can be aided by using an “etymological dictionary” to read about how words have originated. In the example, the following initial question can be raised: Does something exist that is only structure? This means an inquiry if this phenomenon is an entity-object, corresponding to a true noun (i.e., not nominalized from another word form).

The proper answer to this posed question is no. There will always be the structure “of something.” The original conception of structure is that it is an attribute of something. A structure belongs to something as a property of that thing. It does not come by itself separated from the thing which is given structure. When we use it as a noun, which of course is acceptable in some language use situations, we mean a structure of something. The verb “to structure” should mean to create a structure of some object.

This example is further explicated through a situation concerning an author and a text: The author structures (=activity, expressed as a verb) the text, which leads to a text that has a good structure (=attribute, expressed as a nominalized property), which is also equivalent to a well-structured (=attribute, expressed as a participle) text. This illustration can perhaps be found as overexplicit, but it is made here with the purpose to clarify the different word forms.

A by-product of this example of structure is that it also shows the problem of the theoretical notion of structure as used in “structure vs. agency” (e.g., Giddens, 1984). “Structure” seems, in this kind of social theorizing, to be used as an abstracted kind of entity, not as an attribute of something else.

Two more examples are given to illustrate noun/entity-object respectively verb/process as foundational concepts. The next example is the concept of a plan. First, different concept types/word forms:

- A plan (noun)
- To plan (verb)
- A planned... (attribute in participle)

This example is further explicated through a situation concerning a designer and an implementation process: The designer plans (=activity, expressed as a verb) the implementation process, which leads to a plan (=symbolic object, expressed as a noun), which can imply a planned (=attribute, expressed as a participle) implementation process. The foundational concept type is seen as an entity (a plan) and the others as derivations from this.

The last example is about the concept of communication. Different concept types/word forms:

- A communication (noun)
- To communicate (verb)
- A communicative... (attribute in adjective)
- A communicated... (attribute in participle)

This example is further explicated through a situation concerning a buyer and a purchase order: The buyer is communicative (=attribute, expressed as adjective) concerning their purchasing preferences, which is followed by the communication (=activity, expressed as nominalized activity) of an order which is equivalent to that they communicate (=activity, expressed as a verb) their purchase intention, which leads to a communicated (=attribute, expressed as a participle) order. The foundational concept type is seen as a process (to communicate) and the others as derivations from this.

Besides the fact that processes and attributes can be nominalized and appear as nouns, there is also a need to distinguish between different nouns in sentences. In a sentence that contains a transitive verb, there will be a grammatical subject and object. The subject is the one that initiates/performs the process (expressed as a verb) described in the clause. The object is the entity that the process is directed. Subject is here a grammatical term standing for the noun that is related to the verb (grammatically the predicate) of the sentence. If a sentence is expressed in passive voice, this means that the grammatical subject is not the one that performs

the process. Therefore, in grammar there exists a semantic role of a grammatical agent (Eastwood, 1994) who is the one initiating, performing, or controlling the process. Therefore, the concept pair of grammatical agent and grammatical object is used below.

A clarification of concepts as grammatical agents and objects can be important when applying a relational view (following maxim #5). The three examples from above will be used for such an illustration. The structure example: “structure” is the process (verb). This means that the “author” is the agent, and the “text” is the object. The plan example: “plan” is the process (verb). This means that “designer” is the agent and “implementation” is the object, which by the way is a nominalized process. The communication example: “communicate” is the verb. This means that buyer is the agent and “purchase order” is the object.

An important conclusion here is that it is important to be vigilant in conceptualization when process words and attribute words are presented as nominalizations. To avoid an erroneous characterization when interpreting processes or attributes as entity-objects, one should pursue a linguistic analysis as illustrated above. It is also important to clarify semantic roles and relationships between entities-as-agent, processes, and entities-as-objects. The result of such analyses is that an evolving concept within a scientific discourse becomes linguistically determined.

### **LION: Ontological Determination**

The formation of a concept means that phenomena in the world are categorized and given meaning. The ontological question in conceptualization is to demarcate and designate the kinds of phenomena that are perceived, thought of, and expressed in language. The ontological quest includes queries concerning what kind of phenomenon is designated and how and where it exists in the world. The idea of ontological determination in the LION method follows the practice turn in social science as mentioned above. It depends mainly on maxims #3-6, which emphasize ontological aspects. Other maxims form the background of this ontological analysis. I need also here to emphasize maxim #7 as a reminder to build concepts stepwise from simple phenomena and not jump too quickly to broad aggregates.

While ontological concerns need to be addressed in multiple areas, my specific focus in this article is on work-practice and in the spirit of the emergent perspective of practice theorizing in social science (e.g., Nicolini, 2012; Reckwitz, 2002; Schatzki, 1996, 2001). A practice is considered a demarcated and meaningful constellation of activities performed by actors belonging to such a practice. We can for example talk about a strategizing practice, a manufacturing practice, a marketing practice, or an accounting practice in a firm. We can talk about a nursing practice in medical care or a teaching and learning practice in a school.

In table 2, a socio-instrumental practice ontology is presented. It answers in general terms what kinds of phenomena appear in a socio-instrumental practice. What are the foundational elements of this kind of reality? The ontology helps to answer the questions of where and how conceptualized phenomena exist (maxim #4). Even if different elements are discerned in this ontology, these should not be seen as fully separated. A relational and situational view is applied as stated in maxim #5 and centered around processes (maxim #6). The presented work-practice ontology is a generalized ontological model that in its generality covers many types of practices. However, it could and should be expanded and detailed concerning other types of phenomena in relation to specific types of work-practices. The elaborated socio-instrumental practice ontology is inspired by different contributions of practice theorizing (e.g., Feldman & Orlikowski, 2011; Miettinen et al., 2009; Nicolini, 2012; Reckwitz, 2002; Schatzki, 1996, 2001; Schmidt, 2014; Simpson, 2009; Whittington, 2006). As stated by Miettinen et al. (2009) and Nicolini (2012), there is no uniform practice theory. The

presented practice ontology, in Table 2, is a synthesis made from those mentioned practice theorists, with the purpose to be useful in concept formation on practice-ontological grounds.

**Table 2**

*Types of Phenomena Following Socio-Instrumental Practice Ontology  
(developed from Goldkuhl, 2002, 2005, 2019; Goldkuhl & Röstlinger, 2003)*

<b>Meta-category</b>	<b>Explanation</b>
Human actor	Conscious agent, that is, with capability to act in the world.
Self-directed doing	Overt and/or covert action of a human comprising perception of the world, receiving objects from the environment, and taking care of oneself.
Internal doing	Covert action of a human that comprises dealing with external stimuli (experiencing, interpreting), thinking and reflecting about the world, and deliberation and planning that is related to a possible subsequent intervention.
Environment-directed doing	Overt action of a human that is intervening in the environment and comprises all types of communication (semiotically expressing) to others and physically oriented actions of touching, moving, and changing the environment.
Human personal knowledge	Intra-subjective knowledge of a single human. This knowledge functions as an action disposition for that human.
Human inter-subjective knowledge of temporary kind	Inter-subjective knowledge shared among humans (a socially narrow group) and of transient knowledge kind. This knowledge may function as common action dispositions for that group.
Human inter-subjective knowledge of institutional kind	Inter-subjective knowledge shared among a broad group of humans and of instituted and enduring knowledge kind. This knowledge may function as common action dispositions for that group and may also be manifested externally in different ways.
Temporary information	Informational (symbolic) object with an evanescent existence; orally expressed by humans or temporarily displayed by IT artifacts.
Enduring information	Informational (symbolic) object with a relatively permanent existence; written or recorded in other ways.
Informational techno-artifact (with artifact doing)	Technical artifact with an agential capability to perform informational processes through some machinery (hardware) following inscribed and embedded software. These processes can be performed by the artifact automatically or in interaction with humans.
Physical techno-artifact (with artifact doing)	Technical artifact with an agential capability to perform physically oriented processes, either maneuvered by humans or working independently based on humanly arranged machinery.
Utensil/tool	Object with physical functions and associated physical purposes. The object can be actively used by humans or arranged to fulfill some specific physical purpose but without any agential capability.
Institutional actor	Institutionally arranged agent, usually an organizational unity. Such an actor has been constituted by some humans (principals).
Institutional doing	The actions of an institutional actor that are conducted by humans or techno-artifacts as representing the institutional actor.
Money	Symbolic objects that are used for the exchange of value in society.
Natural resources	Food, raw materials, energy, and other resources.

Key elements in the ontological model are humans and their different types of covert and overt actions. Overt actions are visible to the environment. Covert actions are invisible. Through overt actions, an actor is interacting with the physical and social environment, that is, perceiving/receiving from the environment and intervening in the environment. Three types av

actions/doings are demarcated (formulated with inspiration from Blumer, 1969; Dewey, 1938; Gibson, 1979; Goldkuhl, 2005, 2012; Kolb, 1984; Mead, 1938; Wertsch, 1998; and other action theorists):

- Self-directed doing.
- Internal doing.
- Environment-directed doing.

Many human doings, demarcated as distinguishable actions (from the continual duration of human activity), will comprise more than one of these three types. All external actions intervening in the world are based on perceptions and some deliberate anticipation of expected effects. It is not clear-cut to state where a specific action starts (Goldkuhl, 2012; Mead, 1938). Many self-directed actions (like eating and personal hygiene) include some manipulation of external objects. Besides the intentionality of external actions, humans also “give off” bodily expressions, which may be interpreted by other humans (Goffman, 1959). Human knowledge is explicitly mentioned in the ontological model. Knowledge is seen in a pragmatist sense as part of action dispositions that also include normative, emotional, and intentional elements. This means that knowledge comprises pre-actional capabilities and intentions and post-actional experiences.

A main division of knowledge/action disposition is made between “personal” (intra-subjective) knowledge and shared (inter-subjective) knowledge. The inter-subjective knowledge is further divided into (1) transient knowledge shared within a narrow social group and (2) established knowledge of institutionalized character. Institutional knowledge can be of different kinds (Berger & Luckmann, 1966; Giddens, 1984; Goldkuhl, 2011; Scott, 2014): cognitive-linguistic (constructs), normative (values, preferences), regulative (rules), performative (action strategies and tactics) and relational (roles).

A socio-instrumental practice is basically an artificially shaped world with different kinds of external objects. However, humans belong to nature and utilize resources from nature (food, raw materials, and energy) for their living. External objects have for their matter an origin in nature. Humans produce and use external objects. A socio-instrumental practice is thus not only a practice of humans and their relationships. It is also a world of objects and artifacts.

Humans are communicating using signs which are manifested as “information,” which here covers a broad array of semiotic expressions. Communication can occur orally (and leave temporary information) or in writing (and leave enduring information). Oral and recorded information objects form a symbolic and discursive realm of socio-instrumental practices.

Humans produce and use material artifacts of diverse kinds. A division is made in the ontology model into three kinds of material artifacts: (a) Simple “utensils/tools” with built-in functions (capacities). These are static objects which can be (a1) used in actions by humans to enhance their physical capability (e.g., a tool like an ax) or (a2) arranged to fulfill a physical purpose over time (e.g., a hanger that keeps clothes in place). (b) Machine-like artifacts with physical purposes. These artifacts are technically more advanced than simple tools since they comprise machinery (techno-artifacts). This makes them also into performative objects with operational capability; that is an agent. Such an artifact can be b1) a maneuverable machine (e.g., a car) or b2) an automaton (e.g., washing machine). This (second) class of artifacts is aimed at and used for physical purposes, e.g., moving or transforming matter. In Table 2, it is called “physical techno-artifact.” All three types of mentioned material artifacts (a-c) have physical substance and appearance. In that sense they are physical. However, classes a and b have physical purposes. (c) The third category of artifacts has informational and communicative purposes. It is in Table 2 called “informational techno-artifact.” It builds on

information technology (digital technology) and such artifacts can be called IT artifacts or digital artifacts. Such an artifact has, of course, a physical basis (hardware), but its essence is the handling of information and communication. They are thus symbolic machines. Digital artifacts will thus contain digitally recorded communication (in databases, user-interfaces, and message transferring). A digital artifact has an operational capability through its implemented software; thus, being a kind of agent.

Another special kind of artifact is “money.” They are symbolic but they have a special institutional existence through their capacity to be used for the exchange of value in society.

All these phenomena have clear existences as perceivable phenomena. Both physical artifacts and information objects/artifacts have separate existences that can be sensed by humans. Besides these phenomena, there is a special kind of object in the ontology: an “institutional actor.” This is an organization or an organizational unit or some similar kind of social and institutional arrangement. An institutional actor cannot be sensed in the same way as other phenomena. An organization is institutionally created and constituted by humans and given a separate, socially identifiable, and agreed identity and an action capability. An organization cannot, as an institutional construction, act by itself. Its actions are performed by agents (humans or artifacts) that represent the organization (Ahrne, 1994; Goldkuhl, 2005; Goldkuhl & Röstlinger, 2003; King et al., 2011; Taylor & Van Every, 2000).

As said, an organization is an institutional and abstract object, which cannot be sensed as a concrete object in the same way as other objects in the ontology model. However, there might often be concrete objects that are owned by an institutional actor, and such an actor can have humans, through contracts, as its members. Performers, like human members and owned or hired techno-artifacts, can conduct actions in its name. Even if there are such linkages to concrete objects, an institutional actor cannot, in total, be reduced to its constituents. It is therefore meaningful to have this as a special kind of phenomenon in the socio-instrumental practice ontology.

In the inter-subjective sphere, there exists knowledge that is shared among humans. For example, in an organization there can exist a business strategy that is shared among organizational members. One can talk about this as a “knowledge object” since it is distinct and demarcated in relation to other knowledge-items. It is possible to judge what is in the business strategy and what is not, although there can be some fuzzy boundaries due to different interpretations. A business strategy does not, however, exist only as a knowledge object in humans. Probably, the business strategy is written down and given a linguistic form. It is thus also manifested as an external symbolic object (enduring information in the ontology model). This means that a business strategy exists within two realms: (a) the inter-subjective cognitive realm and (b) the external symbolic realm. The phenomenon of a business strategy is thus a so-called “multi-existent phenomenon” (Goldkuhl, 2002). The ontological question – “Where does this phenomenon exist?” – will be responded to by dual answers: It exists as inter-subjective knowledge and it exists as an external document. We cannot not, however, take for granted that there is a full equivalence between the cognitive object and the document object. There might be differences between the linguistic manifestation and the human conceptions. There might also be differences and tensions between different persons’ apprehensions of the strategy. We can thus distinguish between and talk about strategy-as-document and strategy-as-knowledge as different manifestations of strategy. However, sometimes we do not need to make such a differentiation but rather talk about the strategy as a conjunct phenomenon. When we talk about such a multi-existent phenomenon, we can call it a “social knowledge object.” This concept is defined in the following way: A social knowledge object will be multi-existent having related manifestations: (a) inter-subjective knowledge among knowledgeable human actors, and (b) document(s) expressing this knowledge and as an external object accessible to



people to inspect and use. Other examples of social knowledge objects are theory, method, regulation, policy, contract, and standard.

The ontological typology can be seen as a list of foundational types of phenomena that exist in socio-instrumental practices. In that sense, it may help an inquirer to identify and reflect on phenomena to study and theorize in a research endeavor. Even if the types of phenomena are described as distinguishable and thus separate elements, they should not be treated as isolated elements without relations to each other. They appear always in social practice situations where they exist relationally to each other (Dewey, 1938; Emirbayer, 1997). The understanding of a specific phenomenon of some kind should be made in relation to the contextual whole of which it is a constituent (maxim #5).

I have labeled this ontology a socio-instrumental practice ontology (Goldkuhl, 2002; 2005; 2019; Goldkuhl & Röstlinger, 2003). I have not used labels such as realist or constructivist (Chua, 1986; Orlikowski & Baroudi, 1991; Podsakoff et al., 2016). The ontology can be interpreted as an integration of realist and constructivist views (Tsoukas, 2000) following the spirit of pragmatist philosophy (Blumer, 1969; Dewey, 1938; Goldkuhl, 2012). The ontology is realist since it emphasizes the existence of external objects of physical and semiotic character. It is constructivist since it acknowledges inter-subjective knowledge and institutional constructions. The world is seen as both external facticity and intersubjective reality (Berger & Luckmann, 1966).

### **LION: Synthesizing the Method**

In this section, I will synthesize the linguistic and ontological views to generate a list of fundamental meta-concepts to use in the conceptualization process. This means that I will integrate the two frameworks (linguistics and ontology) described above. I will then describe how the seven conceptualization maxims, elaborated above, constitute the perspectival foundation for the LION method. Further, I outline a procedure consisting of essential questions to ask in conceptual analysis.

#### **Synthesizing Linguistic and Ontological Views**

Fundamental concepts of socio-instrumental practices include entity-objects, processes, and constellations of entity-objects and processes. Entity-objects concern the actors and artifacts within situations, whereas processes are those activities and actions that occur within situations, and constellations are the networks, and assemblages linking and comprising entities and processes. Entity-objects, processes, and constellations can be “possessor-objects.” Such possessor-objects have “properties/attributes.” This means that properties are not separate categorized objects, they are attributes of possessor-objects.

Entity-objects have usually a separate existence or are at least considered a socially identifiable object. A fundamental division is made between static objects vs. performative agents (i.e., objects with a capability to execute some process). A “static object” can be a “physical object/artifact” (a utensil/tool that needs to be handled by actors), a “symbolic object” (recorded information or temporary information), or a “knowledge object” (an identifiable cognitive-immaterial object). A knowledge object can, however, not be seen as a separate object since it is a part of a human’s knowledge. An external static object does not have any performative capability, but it has a capacity/function in relation to its user. Such capacity (informative or physical) can be exercised by a performer in action. Linguistically, we can say that a static object does something (as affording some function) to a user, although that object does not perform anything actively by itself. It is not a performative doing; what the static object does is to bring a function as a potential to be used.

A “performative agent” is an entity with a capability to execute a process in a deliberate way; it can also be called a performer or doer. Performative agents can be divided into actors and arti-doers. “Actors are humans” (individuals or collectives) or “institutional actors” (organizations); that is, those that are considered legally responsible for their actions. Humans can appear as private individuals or as representatives of organizations. The term “arti-doer” denotes technical artifacts with a capability to perform operations. There exist different kinds of such “technical artifacts;” many operate with physical effects. There exist also symbolic machines, like “digital artifacts” that process information. Such symbolic operations can mimic human actions; therefore, they can be called pre-arranged symbolic actions (Collins & Kusch, 1998).

“Processes” can be “actions/activities” performed by actors or “technical operations” performed by arti-doers. A “human individual action” can be performed (a) without any instrumental support other than own body or (b) with linguistic instruments (as in communication) or (c) with physical instruments (as in an action aiming for physical effects). There can be “human collective actions.” Such action can be performed jointly or distributed (i.e., with tasks distributed among a collective). Organizations conduct “institutional actions,” however, not by themselves (Ahrne, 1994; Goldkuhl, 2005; Goldkuhl & Röstlinger, 2003; Taylor & Van Every, 2000). Those actions are performed by their representatives (humans or arti-doers). One can also talk about “ensemble activities” that consist of actions/operations performed by humans, organizations, and arti-doers. Many processes are arranged and intentional, however, there exist also many unintentional and accidental processes and events.

There exist also multi-existent objects (Goldkuhl, 2002) with related manifestations, so-called “social knowledge objects.” In such a case, there is a close linkage and correspondence between a cognitive inter-subjective object and an external symbolic object as a document.

What can be called an “artifact-object” is usually seen as a separate entity (i.e., having separate existence)? Such separate objects can be grouped with other related objects forming “object-ensembles.” This can sometimes be done only in view/thought (as thought constructs), but of course often as “aggregate products.” Such artifact objects consist of different “components” that make an artifact function in an intentional way. These object-components are integral and embedded parts of the artifact.

In socio-instrumental practices, different “phenomena” (like objects, processes, and properties) are never isolated. They “exist” always “relationally,” both in the practice-reality and in language. For example, actors and arti-doers execute processes. Static objects and techno-artifacts are created by actors through their actions, and they are used by actors in actions. A property (of one possessor-object) should also be seen as relational to other objects. For example, properties of a tool or a techno-artifact are relational to a human actor (user) and its use in actions; cf. the notions of affordance and constraints (Gibson, 1979; Wertsch, 1998). The consequence of this is that a concept should be described in relation to other concepts.

Besides these mentioned concepts, there exist other foundational concepts, such as time and place (Giddens, 1984; Schatzki, 1996).

### **The Seven Conceptualization Maxims and the LION Method**

The LION method builds upon the seven conceptualization maxims as its perspectival foundation. In Table 3, I have clarified in what ways these seven maxims have influenced the LION approach.

**Table 3**

*The Seven Conceptualization Maxims Related to Linguistic and Ontological Determinations in the LION Approach*

<b>Maxim</b>	<b>Application in LION</b>	<b>Essential questions</b>
1. The semiotic maxim	Overall background for LION. Emphasis on the back-and-forth movement between words ( <i>linguistic</i> orientation) and phenomena ( <i>ontological</i> orientation).	What kind of word is this? What kind of phenomenon is this?
2. The use-meaning maxim	An awareness that a concept and its <i>linguistic</i> equivalence (a word) is employed with an intended use-meaning.	What should we mean by this concept/word?
3. The tangible maxim	Concepts should either designate processes or be possible to relate to processes and also to other tangible <i>ontological</i> kinds.	When this concept/word is used what kind of tangibility in practices is presumed?
4. The existence maxim	An understanding that a categorized phenomenon must have some existence in socio-instrumental practices; and thus, that it should be possible to <i>ontologically</i> determine.	Where does this phenomenon exist? How does this phenomenon exist?
5. The relational maxim	A phenomenon should be clearly related <i>ontologically</i> to other phenomena. From this follows that concepts appear in relational structures that can be <i>linguistically</i> expressed accordingly.	What other kinds of phenomena does this type of phenomenon relate to? How does this word/concept appear together with other words/concepts in statements?
6. The processual maxim	<i>Ontologically</i> , an orientation to doings (actions, processes) in practices. <i>Linguistically</i> , an awareness of how processes are codified (as verbs and sometimes as nouns).	What doings/processes occur in practices? What words denote doings/processes in practices?
7. The simplification maxim	Elementary concepts should have a clear and unequivocal <i>linguistic</i> form and have clear references to <i>ontological</i> kinds. Complex/aggregate concepts need to be based on more elementary concepts.	Can this concept be unequivocally determined from a linguistic and an ontological perspective? If the concept seems to be hard to grasp (due to complexity, abstractness, aggregation), how can it be built from graspable concepts?

This table consists of, besides the list of maxims, two more columns. The second column describes how each maxim is applied when using the LION approach. In the third column, this is further operationalized in typical questions to ask during concept formation according to LION.

### **The LION Procedure for Concept Formation**

A conceptual analysis (consisting of linguistic and ontological determination) can be used whenever dealing with concepts in scientific work. The LION procedure consists mainly of “a set of generative questions” for the inquirer to ask. Such a question-oriented mode of action is common in many research-methodological approaches (e.g., Charmaz, 2014; Nicolini, 2012). A conceptual analysis following the LION method should bring more clarity and rigor to the conceptualization process. Four important use situations, where conceptual clarification is needed, are:

1. When developing inquiry interests and research questions (what to study); a LION analysis can be performed as a pre-reflection about an empirical domain with different phenomena to be addressed.
2. When developing concepts that arise from inquiry processes in data generation and analysis.
3. When investigating concepts that might be brought into inquiry processes from extant scholarly discourses (i.e., existing theories and frameworks).
4. When articulating the final theoretical contribution (consisting of concepts and theoretical statements) from a research study.

A conceptual analysis can follow this suggested “procedure of sequential steps”: (a) Start with a “linguistic analysis” of a proposed concept, (b) Then continue with an “ontological analysis” of this concept, (c) Further “refinements” can be made by “alternating” between linguistic and ontological analysis, (d) Widen the scope and relate the focused concept to other concepts. Such a “relational analysis” should be conducted with linguistic and ontological eyes. The goal of a LION conceptual analysis is to reach a conceptual clarification. Such a conceptual clarification can be used as a basis in different parts of the research process as empirical investigation, data analysis, and theorizing.

Ask the following and similar “linguistic questions”: How do we speak of this phenomenon? What is the proposed word form? What other related word forms exist (nouns, verbs, attributes)? What can be said to be the primary word form? What other words can be seen as linguistic derivatives from the primary word form? This linguistic analysis should lead to a determination of conceptualized phenomenon to be an entity, process, aggregate, relation, or attribute. Ask the following and similar “ontological questions”: Where and how does this phenomenon exist in the socio-instrumental world? What is the foundational character of the phenomenon? Does it have several forms of manifestations, that is, is it a multi-existent phenomenon? Is it an ensemble of several phenomena? If so, what is the character of its components? If it is a knowledge object or informational object, what kinds of phenomena does it refer to? Ask the following and similar “relational questions”: What is the position of this phenomenon in relation to other phenomena? If it is an actor/agent, what typical actions does the actor/agent perform? If it is an external object or an internal knowledge object, by what type of actor/agent and what type of action is the object generated? And, in what actions and by whom are the object used, and for what purposes? If it is a process, which performers (actors, arti-doers) partake in the conduct of the process?

### **A LION Analysis Example: Value and Value Creation in Service Logic**

As an illustration of a linguistic and ontological analysis of concepts, I use a published paper by Grönroos (2017) on value and value creation in service management and marketing. Grönroos states that “value is an elusive concept ... [that] suffers from ‘fuzzy definitional problems’” (Grönroos, p. 126). This makes it a suitable candidate for conceptual analysis. I am below making a conceptual inquiry of Grönroos’ conceptual inquiry. This can be said to correspond to the third conceptualization situation mentioned in the LION procedure section above. The purpose of this section is to illustrate the LION way of thinking and working through a concrete example and thus help potential method users how to apply the method.

I focus on two concepts (value and value creation) in Grönroos’ conceptualization. Grönroos has based his work on the service logic tradition (Vargo & Lusch, 2008), which emphasizes that a service perspective should be applied to both services and goods. Value creation is an important concept in the interaction between the provider and the customer (C). Grönroos (2017) emphasizes that the customer is the main actor creating value and he has

further elaborated on the value concept. The value to the customer is pin-pointed to be value-in-use. I will re-use three examples from Grönroos (2017): The laundry of a shirt, a purchased electric car, and a purchased piece of art for illustration of my reasoning. The value arises from the use of each product (my terminology for coverage of goods and services), the “wearing” of a shirt, the “driving” of the car, and the “viewing” of the painting. I apply these primary product uses below, although there exist (as Grönroos also mentions) other possible product uses. There can, for example, be situations where C talks about being an owner of an electric car.

I start with a linguistic analysis of *value*. Different word forms are:

- A value (noun)
- To value (verb)
- A valuable... (attribute in adjective)
- A valued... (attribute in participle)

Etymologically “value” originates from Latin *valere* (participle) meaning “be of value; be worth” (etymonline.com). This means that value should not be considered as a separate entity. Value does not exist separately, but always as the value of something. Basically, this is an attributive concept; determined that something is valuable. The word value should be acknowledged as a nominalization of the attribute “valuable.” When Grönroos introduces the concept of “value-in-use” it is obviously related to the customer’s use of each product, that is, the wearing, driving, and viewing. The Grönroos concept of value-in-use is problematic since it might mislead the reader to believe that it is value as an entity that is used. However, value is not a separate entity, it is an attribute of something. The terminology value-in-use is also problematic since it conceals the object (i.e., the product) that is used. The product is made implicit through the term “value-in-use.”

I am following the linguistic conclusion from above, that value should be seen as an attribute of something. In this case, it should be considered as an attribute of the ensemble “product-in-use.” It is the product-in-use that is considered valuable. This ensemble consists of two elements, a product (an entity-object such as a shirt, a car, and a painting) and the use of the product (an activity such as wearing, driving, and viewing). This ensemble is a constellation of a noun (a product as object) and a verb (using as process), and the attribute (valuable) is thus a property of this constellation. As said, a conclusion from this analysis is that the terminology “value-in-use” (as described by Grönroos) is inadequate and might be misleading. A more articulate terminology would be “value of product-in-use.” If Grönroos’ shorter concept/wording is used, we need to remind ourselves that this is an “abbreviation” where the product is made implicit, and that value is not a separate entity, but something attributed to the ensemble.

How should we conceive of value from an ontological standpoint? Value of product-in-use is not a substantial property of the ensemble. It is rather an ascribed attribute (Bunge, 1977). It is the result of the customer valuing the use of the product, which entails that, ontologically, the value is C:s valuative knowledge about the product-in-use. Value is not a separate knowledge object; it is an attributive part of the customer’s knowledge about the product in use.

By the concept of “value creation,” Grönroos is emphasizing that the provider does only create something that has a value potential, and thus not value. The value is the result of the customer’s use of the product. It is asserted that the customer creates value through C:s use. A linguistic analysis of “creation” looks like this:

- A creation (noun)
- To create (verb)

- A creative... (attribute in adjective)
- A created... (attribute in participle)

The foundational concept here is clearly the verb “create,” etymologically originated from the Latin verb “to make grow” (etymonline.com). The word “creation” is a polyseme with the meanings of (a) the noun/object of something created and (b) a nominalized activity (from the verb create). “Value creation” in Grönroos framework is clearly meant the activity of creating value that is, the process of creation and not an object of something created. However, we need to reflect on what it means to create value since value is not a created entity. It should rather mean something like creating what is valuable in an object. The process of a customer’s “value creation” needs to be conceptually unfolded. There are (a) activities of using external objects/products performed by the customer (wearing, driving, viewing), and based on these use-activities there are (b) experiential assessments of the use-situation to estimate how valuable the product-in-use is to C. What can we generally say about what it is that is estimated as valuable? What is estimated as valuable needs to be connected to certain properties of the products, such as the cleanness of the shirt, the transport capability of the car, and the artistic qualities of the painting. These properties (possibly found valuable by the customer) are however not created by C. They are created (developed/put into place) by the provider. When Grönroos accentuate that the customer creates value this seems to be a far-fetched terminology. The customer uses a product (and thus creates a product-in-use situation) and based on this, C finds/estimates/ascribes the product-in-use to be valuable to C. Neither the use-action nor the value estimation creates the properties of the product that are found valuable. What is called customers’ value creation by Grönroos, could rather be called “valuation” or “value estimation.” Valuation is thus a process of the customer’s experiencing and estimating the value of C:s use of the product. The result of this valuation process is the customer’s valuative knowledge about the product-in-use, and it is not the creation of value as some separate entity. See e.g., Yuan & Wu (2008) about customers’ experiential knowledge about products and how this contributes to customer satisfaction. Ontologically, valuation is a covert actor process where experiences from activities dealing with external objects are transformed into a value opinion. This becomes part of the actor’s personal knowledge of post-actional character.

The process of valuing the product-in-use can be characterized in different ways depending on the outcome of the valuation:

- Value confirmation is when the outcome corresponds to value expectations.
- Value disconfirmation is when the outcome does not reach value expectations.
- Value discovery is when the outcome exceeds value expectations.

Grönroos (2017) has discussed important distinctions and insights concerning values-in-use and value creation. It is important to admit that providers cannot produce and deliver value which can be read in many papers on marketing. It is equally important to acknowledge the role of customers concerning how value arises. However, as shown above, the proposed terminology and conceptualization of Grönroos (2017) might be misleading. I take the mentioned messages from Grönroos and transform them into theoretical statements based on the conducted linguistic and ontological analysis: It is important to conceptually distinguish and thus also to apply a proper terminology between (a) the “provider creating” products and their properties “with a potential of being valuable” to customers and (b) the “customers’ experiential use” of products and their properties and (c) the “customer’s” subsequent “valuation” leading to an “experienced value of product-in-use.” To clarify the conceptual differences between Grönroos’ conceptual analysis and the one accomplished here through the

application of the LION method, I have made a comparative table (Table 4). I have selected two paragraphs from the abstract of Grönroos (2017) and I have re-formulated these paragraphs based on the LION analysis pursued above. Conceptual differences are highlighted in the table.

**Table 4**

*A Comparison Between Grönroos (2017) Original Concepts/Labels and the Concepts/Labels that were Results of the LION Re-conceptualization*

<b>Grönroos (2017) description (quotes)</b>	<b>LION re-conceptualization</b>
To develop a managerially relevant understanding of <i>value</i> and <i>value creation</i> , these phenomena must be analysed on a micro level. Seen from above, they lack a microfoundation.	To develop a managerially relevant understanding of <i>value</i> and <i>value determination of product-in-use</i> , and <i>creation of value potential of products</i> , these phenomena must be analysed on a micro level. Seen from above, they lack a microfoundation.
The customer not only <i>determines value</i> but is also the <i>value creator</i> . By facilitating <i>customers' value creation</i> , the firm provides potential value, which evolves as <i>value-in-use</i> during use or consumption.	The customer <i>determines value of product-in-use</i> and is thus the <i>value estimator</i> . By <i>facilitating customers' product use and value determination</i> , the firm provides a product with a <i>potential value</i> , which evolves as <i>estimated value of product-in-use</i> during its use or consumption.

The conceptual analysis with linguistic and ontological determination presented above comprises also a relational analysis. The conceptual analysis has also clarified relationships between phenomena like customer, provider, value, valuation, product, product use, product generation, product property, and value potential.

### **Discussion: LION Application in Qualitative Research**

In this discussion, I ponder over some implications, and I give some advice and recommendations. The discussion is mainly devoted to relating the LION method to other approaches in qualitative research. As said, a LION analysis can be conducted in different situations of a qualitative research process. I discuss the application of LION in such situations (research question formulation, collection, and analysis of data, review of extant theory, and final articulation of theoretical contribution).

Alvesson and Sandberg (2011) have suggested, as an alternative to gap-spotting, a problematization route to “formulating research questions.” This comprises problematization and challenging of key assumptions in extant theories. One element of such a critical study of some selected literature could be the conduct of a LION analysis of key concepts “root metaphors,” as Alvesson and Sandberg (2011) describe them. A discovery of conceptual obscurities and problems could guide the formulation of research questions and the subsequent empirical investigations and further conceptual inquiry. The analysis above, of the Grönroos case (value creation in service logic), could be seen as an example of a conceptual problematization inquiry. Such a conceptual analysis might be followed by an empirical investigation of customers and their valuations of product use. There exist other strategies to research question formulation (Alvehus, 2020) such as gap-spotting in extant literature (e.g., Locke & Golden-Biddle, 1997) or driven by practical problems (e.g., Corley & Gioia, 2011; Schein, 2001). Whatever strategy is chosen, the formulated research questions will contain some main categories that refer to important phenomena to inquire. Such main concepts within research questions should be addressed through a “pre-empirical reflection,” which can be

conducted by using LION principles as shown in Goldkuhl (2022). It is, however, important that this pre-empirical analysis of concepts will not lead to decided and strictly demarcated definitions. The idea of using LION principles at this early stage of research is to be better prepared for empirical studies but not to limit an open-minded search for data and a possible reconfiguration of initial assumptions of conceptual character.

“Analysis of qualitative data” can be made following the grounded theory (GT) approach. Initially, it was one concerted approach (Glaser & Strauss, 1967), but GT has now evolved into many different variants. Although, the existence of methodological and conceptual/terminological differences, there exist similarities among such different approaches. The “coding of data” is central in GT data analysis. The coding process can be divided into two or sometimes three phases. The initial phase is called open coding (Strauss, 1987) or substantive/open coding (Glaser, 1978), or initial coding (Charmaz, 2014). Gioia et al. (2013) calls this phase “1st-order analysis” with the use of informant-centric terms and codes. The next phase is called by Gioia et al. (2013) “2nd-order analysis” with the use of researcher-centric concepts, themes, and dimensions. In this phase, there is an “abstraction and concept formation” that is made based on initial codes which are close to data and sometimes made using linguistic constructs (in vivo codes) from the studied practice. As said, there exist variations among the different GT approaches. Strauss (1987) describes this as axial coding and selective coding. Glaser (1978) speaks about selective and theoretical coding. Charmaz (2014) uses the term focused coding. A LION analysis could be useful in the process of going from initial/open/1st-order codes to the abstracted 2nd-order concepts. A linguistic and ontological analysis of the proposed concepts can help clarify these conceptual building blocks. It should be further useful when “clarifying the relations between different concepts” as is made in the relational analysis called axial coding (Charmaz, 2014; Strauss, 1987). This is fully in line with the relational maxim of LION (#5). In the Straussian approach to GT, an action frame is used in the axial coding, where conditions, strategies, and consequences related to actions are explicated (Strauss, 1987). This is in line with the processual maxim of LION (#6).

The abstracted concepts from this GT-phase are used, in “theoretical sampling,” to direct further collection and analysis of data. This means that these abstractions can be seen as “tentative concepts” due to further refinement or perhaps elimination if not found appropriate. It is therefore important that a LION clarification is not made too definitive but leaves possibilities for further conceptual evolution.

The review of existing literature can be made on different occasions during a qualitative research process. Thornberg and Dunne (2019) distinguish between three such occasions: (a) prior to data collection, (b) concomitant with iterative collection and analysis of data, and (c) during finalizing the contribution from the research study. There exist different approaches to literature reviews, such as concept-centric, author-centric, and orientational reading (Boell & Cezce-Kecmanovic, 2014; Webster & Watson, 2002; Wolfswinkel et al., 2013). Concept-centric reviews are emphasized by these authors, although they do not give detailed advice concerning the procedure for concept analysis. Linguistic and ontological analyses of salient and relevant concepts in selected literature should be performed. The literature review during iterative data collection and analysis is crucial for conceptual and theoretical development. As emphasized, by Eisenhardt (1989) and Charmaz (2014), extant concepts should not be taken for granted but they need to earn their place in relation to the abstractions made from collected data. A LION analysis of concepts from extant literature should be made with a critical eye and a constructive attitude of making “fitting adaptations” in relation to the ongoing conceptual development.

The described situations above pertain to conceptualization in progress. Scholars make provisional concept formations during an inquiry that should be open to further elaboration through empirical and theoretical developments. Even if theories and other scientific



knowledge, from a pragmatist stance (Dewey, 1938), always should be seen as provisional and in progress, it is necessary to stabilize concepts in the “final articulation of a theoretical contribution.” When drawing insights together in preparing a scholarly publication, it is necessary to be distinct and temporarily resolute concerning evolved conceptualizations. The concepts that are used in a theoretical statement need to be clear and understandable (Corley & Gioia, 2011; Whetten, 1989). All concepts that are elements in final theoretical statements should benefit from linguistic and ontological clarifications. Concepts are the “what” of theory, as Whetten (1989) declares; different “factors, variables, constructs” (p. 490). Whetten adds a how-question to theory-building, which means addressing issues of causality. The “what” and how elements are the main building blocks for theories since they “constitute the domain or subject of the theory” (Whetten, 1989 p. 491). This division into what and how can be related to the LION framework above. The what elements seem to relate to entity-objects and how elements to process-categories. From a LION perspective, it is of course, possible, and appropriate to distinguish between entity elements and process elements in theorizing. However, it is important to acknowledge the indispensable role of processes and actions when describing practices in a theorized way. There is an obvious risk in variance-theorizing (Langley, 1999), to restrict oneself to entity-objects with attributes that constitute both independent and dependent variables in theoretical explanations. The human/social processes that are the generators/transformers of effects (in the dependent variables) might be excluded (Abbott, 1992; Emirbayer, 1997), which can occur already through a narrow data collection, or at least at last through an entity/variable-focused abstraction process when formulating the theoretical outcome. The LION conceptualization maxims of tangibility (#3) and process orientation (#6) direct inquiry and theorizing to formulate and include explicit process categories in theoretical statements. The risk of (perhaps unreflectingly) excluding process categories from theoretical statements will thus be reduced if a LION analysis is applied.

As emphasized by Sutton & Saw (1995), data is not theory. However, since data are the ultimate building blocks for theory formation (Glaser & Strauss, 1967; Weick, 1979), they will be recurrently helpful when articulating the final theory outcome. Gioia et al. (2013) have elaborated a model (a data structure), which shows explicit links from raw data to the abstracted concepts that will appear as elements in theory outcomes. This type of approach can, in an adapted way, be used for the application of the tangibility maxim of LION (#3). Theoretical statements can be demonstrated through empirical examples. A brief narrative can be used to make an abstract theoretical statement graspable (Abbott, 1992). This can be called a “prototypical instantiation” of theoretical statements. However, it should be noted that the data structure approach of Gioia et al. (2013) mainly focuses on singular concepts at a time. A LION approach would apply the relational maxim (#5) and show the link between (a) a theoretical statement (including its “relationships” between concepts) and (b) “relational” phenomena in an empirical illustration.

As mentioned in my review of discourses above, Podsakoff et al. (2016) have contributed a “life cycle” procedure for concept formation. A performance of linguistic and ontological analysis could be integrated into their different phases of attribute specification, preliminary definition, and further conceptual refinement. However, the LION approach does not view concept formation as a separate research task, as made by Podsakoff et al. (2016), but rather as “supportive activities well integrated” into the different phases of the qualitative inquiry process as indicated above in this section.

### **Concluding Reflections**

One pivotal ideal in qualitative research is to develop knowledge in close contact with and based on the subjective understanding and rationality of informants. Gioia et al. (2013, p.

17) emphasize the importance to “to give voice to the informants in ... data gathering and analysis and also to represent their voices prominently in the reporting of the research.” Spradley (1979) states that “any explanation of behavior which excludes what the actors themselves know, how they define their actions, remains a partial explanation that distorts the human situation” (p. 13). I fully agree with this ideal of qualitative research generating data in terms of the informants’ definitions of situations. What can also be noted is that we as inquirers should not take concepts from informants for granted and that we should not avoid any critical scrutiny of the social constructs emanating from them.

One tactic in data analysis is “in vivo coding” (Corbin & Strauss, 2015; Saldaña, 2016). This means the use of linguistic constructs from informants and the studied practice. Sometimes, it can be appropriate to use words and concepts from the inquired practice directly in the theorizing process. However, there might be situations where these constructs are inadequate building blocks for conceptual development. Data as results from interviews, focus groups, and self-reports consist of statements that might be formulated through in vivo language. Such expressions might hopefully be clear, but they might also be confused, biased, prejudiced, faddish, or ignorant. What is expressed can be overgeneralizations, idealizations, hearsay, wishful thinking, whitewash, or based on random observations. Such data should not be dismissed in an analysis, but the inquirer needs to be cautious of what to use and how to use it. There is a necessity to be source-critical in assessing data (Scott, 1990). Even if we have close contact with the empirical social world and obtain data directly as expressions from informants, we cannot presuppose that such expressed constructs are appropriate building blocks in our scientific conceptualization process. A LION analysis, that unravels linguistic and ontological foundations of proposed constructs, can bring more clarity and rigor to conceptualization.

We can thus not take for granted that in vivo constructs, directly obtained from informants, are proper vantage points for the development of concepts. As was shown above, in the example of service value, we cannot take for granted that scholarly developed concepts are appropriate to be used in a continued conceptual and theoretical development process. What we bring into our conceptual development, from the empirical realm or from the scholarly knowledge base, needs to be scrutinized and the presented LION method is one resource for such a conceptualization process.

The LION method is intended for the social researcher’s toolbox of research methods. Its aim is, through active use, to bring clarity and rigor to conceptual analyses that can occur on various occasions in the research process: when clarifying knowledge interests and research questions, when preparing empirical inquiries, when analyzing data generated through such inquiries, when inspecting extant theories and concepts to possibly select and develop concepts for integration into emergent theory, and when elaborating a final/contributed theory from the conducted research. The method, in its entirety and its sub-parts, should be seen as a response to the stated research questions about rigor in conceptualizing and clarity in resulting conceptualizations.

As mentioned in the Introduction, this concept formation method has emerged based on my research experiences from a wide range of organizational work-practices. My view is that this method is applicable in such types of work-practices as well as others. The method consists of two related modules, one linguistic and one ontological. I cannot see any domain restrictions to apply the linguistic module in social research. For the ontological module, as founded in practice theorizing, there might be domain restrictions outside the stated area of organizational work. This restricted scope of application can be found as a “limitation” of the method. However, the formulation of the practice ontology as part of the LION method is made with inspiration from emergent practice philosophy (e.g., Nicolini, 2012; Reckwitz, 2002; Schatzki, 1996, 2001; Schmidt, 2014). This literature has wide claims of generality, far beyond

organizational work. This means that it should be possible to apply this part of the method outside this stated domain. I also foresee the possibility to modify or replace this stated ontology model with another model based on other ontological grounds, but still inspired by the foundational conceptualization principles and questions within the LION method.

Finally, some remarks on “unanswered questions” and possible “future work.” Besides the application and report of experiences from the use of this method, there are several other possible routes for future research. As said, the LION method has originated within qualitative-pragmatist research on organizational work. My belief is that this method for conceptual analysis can be useful in other settings of social research and in research pursued within other research paradigms. I can also foresee a possible use within quantitatively oriented research and look forward to the use and adaptation in such research orientations.

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