

THE IMPACT OF LANGUAGE ON KNOWLEDGE CREATION

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ABSTRACT

The impact of language in knowledge creation will be illuminated from a systemic point of view. From a constructivist point of view knowledge has to be discussed as a cognitive process of the human being and implies the skills of one's perception, memorizing, connecting and networking, remembering, active steering of action and active learning. Dealing with complex problems and systems such as knowledge creation processes can be made easier by using fitting languages. The knowledge creation process can be supported by different models such as e.g. *the logical levels of change* which help humans to create more awareness for changes in thinking and acting.

The Human Language

At the end of the 1960s Watzlawick et al. [11] declared that *one cannot not communicate*. This is still valid. Hence, any action – even when it seems to be no action – is communication and is an expression which can be interpreted. In the situation of a face-to-face conversation between two or more people it is certainly helpful to know how good communication can work by bearing in mind that the analogue body language is as important as the verbal digital language. Both have to be congruent so that the speaker appears authentic. The more complex the framework is, the more it is important what kind of language one uses and what words one chooses.

As language is a model for the description of one's experiences and perceptions and not the experience and perception itself, it can be chosen wisely. Luhmann described the characteristics of human communication - expressed through language - as *selectivity*. To communicate means to have a choice between several possible pieces of information. One of the most efficient ways to communicate is to use verbal language, which gives the opportunity to choose from an infinite number of expressions for what the speaker wants to be said. Therefore, every decision for every selection can always be made in another way – it is *contingent* [3]. Luhmann speaks of two actors in three acts. One is the usual *sender* which he calls *alter* and the other is the usual *recipient* which he calls *ego*. These two actors play in three acts which is a *three-digit process of selection*. The three selections of understanding are: information, message and adoption. Information and message are selected by the *sender (alter)* and the adoption is made by the *recipient (ego)* [3].

Heinz von Förster postulates that the relevance of what one says is determined by the person who notices the other's statement [8]. That would mean that the speaker is responsible for what he or she selects and the recipient is responsible for what he or she construes. This is preprogrammed complexity.

Complexity of language and structural coupling

Language itself is not able to take any distinction. It proceeds on the assumption that words and the things which are described with these words are identical. Consequently, language fails to make a distinction between the *map* which appears in an individual brain and the *territory* it refers to [10]. The relationship

between words and things, map and territory has indeed a very similar but not an identical structure. Words can – as a matter of fact – develop their own structure which shows the territory it refers to totally incorrectly [2].

Generally, the human language is accompanied by the human consciousness and is essential for the significance of communication [4]. Beliefs, feelings and perceptions are signified through language values. Language is a tool for structural coupling [4] between consciousness and communication [9]. Structural coupling primarily means being selective. To eliminate a vast amount of information through which one is affected by the environment is the precondition for dealing with those few things the human brain is able to absorb [7]. One could say that reduction of complexity is a condition sine qua non for building up complexity again. Structural coupling functions can be explained easily with e.g. listening and watching. To reduce the complexity which appears through human language a conscious selection of a certain language with carefully chosen words is helpful. In that context structural coupling means that language excludes a lot to include less, and for that reason language itself becomes very complex [4]. In most cases it depends on the context but even in everyday conversations a permanent process of reduction and construction of complexity takes place. Different languages challenge abstract situations as much more. However, the distinction of different languages is not only related to different nationalities (English, Spanish, Italian) or exclusively based on different language levels (everyday talk, science talk, baby talk) but also depends on one's identity.

The concept of *Ba*

At the end of the 1990s Nonaka and Konno introduced *the concept of ba* [6] and described it as follows: *The concept of ba* is considered to be a shared space for emerging relationships and the creation of knowledge. *Ba* – which roughly means *place* – is the context shared by those who interact with each other, and through such interactions those who participate in *ba* along with the context itself evolve through self-transcendence to create knowledge. It is a system with open boundaries for interactions amongst individuals [6].

The four types of *ba* are described as follows [6]:

- *Originating ba* is the place where individuals share experiences, feelings, emotions and mental models. It is defined by individuals and face-to-face interaction.
- *Dialoguing ba* is defined by collective face-to-face interaction. It is the place where the mental models and skills of individuals are shared, converted into common terms, and articulated as concepts.
- *Systemizing ba* is defined by collective and virtual interactions. It mainly offers a context for the combination of existing explicit knowledge, as explicit knowledge can easily be transmitted to a large number of people in written form.
- *Exercising ba* is defined by individual and virtual interactions. Here, individuals embody explicit knowledge that is communicated through virtual media, such as written manuals or simulation programs.

Knowledge is the basis of any interaction. As regards the selectivity of communication as Luhmann describes it, knowledge becomes knowledge when a message (previously selected information) is interpreted and understood by somebody. Knowledge has the active and subjective nature represented by such terms as *commitment* and *belief* that is deeply rooted in individuals' value systems [1].

However, one must not forget that knowledge is articulated through language. Therefore, the language used must be considered at all times.

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- [9] Structural coupling is the term for structure-determined (and structure- determining) engagement of a given unity with either its environment or another unity. It is ...*a historical process leading to the spatio-temporal coincidence between the changes of state...* [5] in the participants. As such, structural coupling has connotations of both coordination and co-evolution.
- [10] The whole life of an individual is stored in its subconsciousness. That means that every single experience characterizes a person individually. Hence, one can say that every individual has his or her own map of life. This map helps them to orientate but it is still just an image of their individually experienced reality. It can be seen as a street map which is just an image of a certain territory.
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