EXPLORATIONS IN THE DISCURSIVE MIND: THEORETICAL MODEL

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ABSTRACT. In the article we describe the model of discursive architecture of mind, which expresses the ideas of DST in more cognitive terms and adapts it to experimental research. We show how is this model connected to many contemporary approaches to human mind and/or personality and explain why we think the model is unique and needed. The model is based on 3 assumptions. They refer to: 1) the modular character of the cognitive system; 2) the social origin of one’s knowledge structures; 3) the specificity of the knowledge structures for the social context from which they stem. For the presented discursive model of the mind the question of subject of knowledge is essential and can be justly posed referring to every piece of knowledge stored in every particular person’s mind.

Keywords: discursive mind, dialogical self, positioning, I-position, shared knowledge, cognitive representation, cognitive-affective resources, discursive resources

Discursive concepts have been so far rarely the subjects of a systematic empirical verification. They are mostly supported by case studies and other qualitative studies as well as by re-interpretations of previously conducted research. In this article we will present research which is one of the first attempts of an experimental verification of these conceptions’ assumptions.

In this article we introduce the model of the discursive mind, propounded by the authors of this article, which combines DST and other discursive conception’s elements

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with the social-cognitive approach. In the next article in this volume, we describe several experiments which were aimed at verifying the model’s validity.

**The Discursive Mind Model’s Assumptions**

On the foundation of the model lays a thesis of the cognitive system’s discursive organization, inspired by the classical works of Vygotsky (1982) and Bakhtin (1984), as well as by social constructionism concepts (Berger and Luckmann, 1966) and some ideas from discursive psychology. This thesis states, that a number of relatively autonomic, holistic modules of representation exist in our mind, of which every one is linked to a specific social context, which is present in one’s socialization history. Different modules contain specific cognitive-affective resources, shaped by different ways of giving meaning to personal experience. These patterns of naming and weighting experience are developed within relationships with significant others, important groups or influential social backgrounds.

The theoretical view of the cognitive system, based on the described thesis (Hermans, 1999, Stemplewska-Żakowicz, 2002, 2004, Wertsch, 1991, see also van Dijk, 2008), is called by us the discursive mind model. Three assumptions are fundamental for this model:

1. the modular character of the cognitive system;
2. the social origin of one’s knowledge structures;
3. the specificity of the knowledge structures for the social context from which they stem

The first two assumptions can be found in many contemporary psychological theories, especially from the social-cognitive approach (Cervone and Pervin, 2008).


The assumption concerning the social origin of one’s knowledge is one of the cornerstones of the social-cognitive approach to personality (Bandura, 1999, Cervone and Pervin, 2008) and the social cognition approach (Forgas, 1981, Forgas and Williams, 2002). As may be reckoned, the contemporary trends tend to consider the impact of the phenomena and processes, that are intersubjective in their nature,
increasingly more. These phenomena include culture, subjective patterns of self-constructing (*selfways*, Markus, Mullally and Kitayama, 1997); relational self (Andersen and Chen, 2002), private audience (Baldwin and Holmes, 1987), or shared reality (Hardin and Higgins, 1996). They all draw a coherent vision of a human as someone (see Higgins, 2000) who is shaped by relationships with others and is being consistently engaged in the social process of meaning creating.

The third assumption mentioned above does not play a key role in mainstream theories; however it is present in the concepts of social constructivism and discursive psychology. Rom Harré’s theory of positioning is the most important of these concepts (Harré and Gillett, 1994, Harré and van Langenhove, 1999) as well as the influential ideas of Kenneth Gergen’s (1991, 2009), Derek Edwards and Jonathan Potter (1992) and Michael Billig (1996). The specific structural basis of these theories can be dwelt upon. Because they reject experimental methodology and traditional psychological notions such as cognitive representation, there is also nothing strange in the fact that these theories do not offer any precise models of the architecture of the mind, directly from which some specific, testable hypothesis could be drawn. The contrast between these theories and the group of personality and self theories mentioned before can be seen as an exemplification of the general interaction-cognition gap in social sciences recognized by Teun van Dijk (2007, see also Jost and Kruglanski, 2002).

The theory of context proposed by van Dijk (1989, 2008, 2009) is an interesting attempt to fill this gap. He described two types of mental models needed to explain text processing: the text model and the context model. The former is a representation of the data being currently processed whereas the latter is an overriding script-like structure, which represents the social situation (the subjective meaning of it) in which a particular act of information processing takes place. Context models continuously shape and control the text models’ activity; therefore the developing discourse maintains its suitability over changing conditions.

The sociocultural approach proposed by James Wertsch (1991) can be considered another interesting attempt of filling the interaction-cognition gap. His “tool-kit” metaphor views the mind as a collection of discursively constructed instruments for understanding reality and acting on it. The dialogical self theory put forward by Hubert Hermans (1996, 1999, Hermans and Kempen, 1993) shares the main assumptions of the Wertsch’s conception; however it goes further in describing the internal activity of a discursively structured mind. The bachtinian notions such as dialogicality and multivoicedness gain their full psychological meaning on the basis of Hermans’ theory. Following these ideas, Stemplewska-Żakowicz (2002, 2004, see also Stemplewska-Żakowicz, 2000) described the discursive mind model, which was the starting point of the concept described here. The aim of why it was created and described was to combine the valuable elements of all already described groups of theories and to give them an empirically testable shape.
The Properties of the Discursive Mind Model

The way in which Forgas (1981) defines social cognition is twofold. It can either mean knowledge about the social world or/and knowledge which is socially constructed and shared. In the first case, the social character applies to the object of the knowledge, while in the second case, what is social is the subject of the knowledge. It seems that the majority of research and conceptions focuses on the former aspect of the social cognition, while the latter one remains relatively less examined. However there are significant trends (Hardin and Higgins, 1996, Higgins, 2000) leading to taking a wider account of the intersubjective nature of cognition.

For the hereby presented discursive model of the mind the question of subject is essential and can be justly posed referring to every piece of knowledge stored in every particular person’s mind. In other words - every piece of knowledge „belongs to someone“, even if it does not seem so obvious introspectively. We assume that there cannot be any knowledge without the subject just as there is no novel or handbook without its author. Furthermore, the psychosocial characteristics of the subject affect the form and the content of the knowledge shared by it, as it was argued by the discourse analysts (van Dijk, 1997). We can, for example, be quite sure to understand the identification of the statement's author depending on whether he or she uses the term “terrorists” or “fighters” when referring to the September 11 attackers.

We assume that every piece of knowledge represented in one’s mind is in a similar way marked by its author’s perspective. However stating that the subject of this piece of knowledge is just the very same person is too much of a simplification. The assumption about the social origin of knowledge forces one to recognize that knowledge stored in human mind is shared with others - significant social groups, organizations of which one is an active member, and last but not least with important people with whom he or she has close relationships. Each of these contexts can form certain shared reality, which is a source of knowledge represented in one’s mind. Thus, this knowledge is socially constructed and its subject is not a given person in general, but this person in her or his social identity, emerging from being part of a certain group or a relationship.

In today’s complex world, a person is usually involved in many relationships and can be a member of many groups. The thesis of the presented model states that the architecture of the cognitive system reflects this variety. A given person’s knowledge stems from many sources and can be diverse. In the cognitive system, knowledge which stems from different social contexts is recorded and stored in different modules of representation – even if it concerns the same object. For it is the subject of knowledge which is a more important (though likely implicit) criterion of knowledge aggregation than its object, just as the author of a book is a more significant attribute than its title.
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Figure 1
The structure of “a dog” concept

A. According to Rosch’s conception (1978)

B. According to the discursive mind model
What are the consequences of this statement for the cognitive architecture of the mind? Let us consider an example shown in Figure 1, which derives from an introspection of one of the authors of this article. It shows the subjective meaning of a concept of “a dog”, which, from the discursive mind concept perspective, turns out to have a slightly different structure than it would have according to the contemporarily acknowledged theory of natural concepts (Rosch, 1978).

Natural concepts consist of a prototype and a number of examples of a greater or smaller resemblance to the prototype. The resemblance can be interpreted as a distance and on the basis of it we can predict how fast the concept of “a dog” is activated when we are exposed to different examples of dogs’ images as more or less prototypical examples of this concept. For example, Figure 1A implies that the time of recognizing a given object as a dog should be shorter when a Dalmatian image is presented and longer for an image of a budger dog or a Pekingese. According to this approach it is irrelevant from which social context the knowledge of different examples of a dog comes – it is universal and organizes all information on dogs which a given person stores. This is very different in the discursive mind model, in which – as shown in Figure 1B – the examples of “a dog” concept are organized in three different circles. Each circle contains representations of different dogs, which are constructed in certain social contexts. In this introspective example, the “owner” of knowledge about dogs discovered that there are at least 3 different contexts that play a major role: a dog breeder’s handbook neatly studied when she was young (the author and title in Figure 1 are fictional), a childhood experience of being bitten by a particular dog called Pikuś, and a current experience with her dogs, which the author breeds and cares for with her daughters.

If our cognitive representation is organized as described in the discursive mind model, the social context would definitely be important for the data processing speed, which should be reflected by classical indicators as reaction times or error rates. In the example from Figure 1B, the Pekingese should be recognized as a dog quicker when the memories of a relationship with a friend (Pikuś was a Pekingese!) was activated than in a condition in which the knowledge from the Kitten’s dog handbook was active (a Pekingese is not a very representative example of this concept). The data showing the role of context was collected during studies on the example based approach (Rosch, 1978), however in the discursive model of mind, there is more to be said.

The object of knowledge constructed in each of these three social contexts is seemingly the same – a dog. However despite the same verbal etiquette, the subjective meaning of this concept varies as well as the detailed attributes of knowledge (see Table 1).
Table 1. Detailed attributes of knowledge about “a dog” constructed in three social contexts (example)

<table>
<thead>
<tr>
<th>Contexts</th>
<th>Context 1</th>
<th>Context 2</th>
<th>Context 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attributes</td>
<td>A dog breeder’s handbook</td>
<td>A relation with a childhood friend</td>
<td>Family, friends</td>
</tr>
<tr>
<td>An object of knowledge (what does “a dog” mean?)</td>
<td>A biological species, can be divided into breeds, with characteristic dimensions, colours, traits. A domestic animal, bred by human and trained (go to nurturing, training and feeding)</td>
<td>Pikuś - a mean and aggressive Pekingese, a dog of Malgosia’s neighbours</td>
<td>Munio, Buruś, Frodo – a friend, a member of family, played a role in major life events, a subject of many stories, one of a kind</td>
</tr>
<tr>
<td>Discourse - particular verbal means along with the attitudes and social practices behind these verbal means</td>
<td>Objectified, rational, verbal, public, context-less, based on special kennel jargon (“seek dead”, “guarding dog”)</td>
<td>Private, intimate, inter-subjective, highly contextualised, includes non-verbal content and meanings, specific for a relation with a friend</td>
<td>Family discourse-private, intimate, highly contextualized, includes non-verbal content and meanings</td>
</tr>
<tr>
<td>Partner of dialogue (with whom the knowledge is shared, who understands the same way, with whom can I talk about it?)</td>
<td>An anonymous group of kennels, readers of the Kitten’s handbook</td>
<td>Malgosia- good old friend</td>
<td>Members of family, especially daughters</td>
</tr>
<tr>
<td>Identity of subject (who knows it?)</td>
<td>A young dog enthusiast seeking for rational information on dogs</td>
<td>Malgosia’s friend</td>
<td>A Family - We (“this is our dog”)</td>
</tr>
<tr>
<td>Subjective experience</td>
<td>Reading book at parents’ home: yellow linen on the cover of a book, black-and-white images</td>
<td>Friends’ chat, a special ambience of Malgosia’s home, attempts not to meet Pikuś</td>
<td>A community of duties (feeding, walking), a collective admiring the dog, a disregard for its bad habits, tales of his adventures</td>
</tr>
</tbody>
</table>
The example from Figure 1 and Table 1 is apparently an easy one. However, it does well illustrate the essence of the specificity of knowledge for a social context, which – according to the discursive mind model – applies to the whole cognitive system of a person. The basis for the organization of cognitive structures is the aggregation of experience and knowledge in relatively independent modules; any of them being able to contain concepts and all other forms of cognitive representation – schemas, scripts, narrations or procedures. Each module carries cognitive-affective resources, which were raised and developed in a certain social context – within relationships with parents, peers, children, bosses or colleagues. The number and characteristics of these modules are the inter-individual variable, depending on the course of primary and secondary socialization processes in the case of a particular person.

Explicit knowledge, of which one is aware, is then nothing more than a tip of the iceberg. Every piece of such knowledge is wrapped with the representation of personal experience stemming from the social context, in which it was acquired – interpersonal relationships, participation in a group, being a member of a certain community. The record of experience forms the personal implicit knowledge – theoretically, it can be accessible to the subject’s awareness. However, more often it remains below the threshold of his or her conscious awareness – engaged in processing information about an object of knowledge, of which one is aware. There also is a supra-individual, shared, inter-subjective, implicit knowledge stored in this unit of representation. It is the knowledge concerning social context. It contains, among others, the characteristics of interpersonal relationships in a given social circle as well as a representation of the identity of the subject and its partners (“who is who” in a certain relationship). It also contains sets of beliefs and truths shared by members of this social circle. Figure 2 depicts these ideas.

These modules can be thought of as being similar to subsystems, the existence of which was postulated by Greenwald (1982) as part of the “personalysis” conception of inner multiplicity. This conception depicts the mind as an informational system consisting of many relatively independent subsystems. This independence arises from the code (or discourse – in discursive mind) differences and limits in access, which hinder the flow of information. Each subsystem carries an expanded knowledge volume and can influence the behavior of a person in its own domain. Greenwald does not determine which specific subsystems can be distinguished (however, he comes up with a certain proposal), so it is not conflicting with his concept to assume that these subsystems can be the I-positions or voices, understood as in the above-mentioned Hermans’, Wertsch’s and Harré’s theories. Following this path, as we understand the I-positions as subsystems of the mind, we may describe them using other useful notions developed in the social-cognitive approach and used in the concepts of Markus, Andersen, Mischel and Shoda or Cervone. These notions are accessibility, priming, or limitation of resources. This provides us with a basis for a model of a cognitive
architecture of the mind, in which we can explain the intriguing phenomena both of an inter-subjective and intra-subjective nature, which are described in discursive concepts. However, so far, the phenomena have been perceived as too subtle or too blurred to be considered by the rigorous models of mainstream psychology.

This is the aim of elaborating the discursive mind model. According to this model, I-positions are relatively autonomic modules of cognitive system which consist of script-like structures combining personal knowledge and socially shared knowledge, as depicted on the diagram in Figure 1. These structures are activated in certain conditions (automatically or intentionally) and henceforth – up till when the next I-position is activated – determine the range of processable information and the specific rules of this processing.

The process of taking up a certain I-position is called positioning (Harré and van Langenhove, 1999, Hermans, 1996, 2001) and it is essential in the discursive mind model, because it is crucial for the whole chain of events which happen afterwards. Each of the modules has specific rules of discursive structuring and is linked to specific cognitive contents. Different I-positions can even “remember” the same things differently, because they are independent in their ontogenetic development, each developing in its own social context and at its own pace. At a given time in life, different I-positions of the same person can be at different stages of their development.

Figure 2.
*Representation of explicit and implicit knowledge in a discursive mind*
and their specific knowledge can be represented on different levels of the cognitive system and expressed in different codes. According to theories of general cognitive development (Karmiloff-Smith, 1992, Mandler, 2004) and narrative development (Salvatore, Dimaggio and Semerari, 2004), the levels of cognitive representation vary in their way of data encoding. The general trend of developmental change in the form of representation leads from sensual-temporal procedural code on lower levels, through middle-stage levels, where different meta-procedural coordinates enable the storing of data encrypted in more abstract and more complex codes, into respectively imaginative and verbal (fully declarative) codes on the two top steps of the representation ladder (compare to Stemplewska-Żakowicz, 2004).

All the differences described above result in the fact that the activation of different I-positions within the same person can cause significant intra-individual variations in this person’s functioning. Metaphorically, it may happen that one of the I-positions of a given person is more neurotic or intelligent than another one. It can be that only one of many I-positions within a given person shares stereotypes concerning a certain social group or is prejudiced others are not. This internal diversity and its complex, dynamic organization are well portrayed by the “self as a society of mind” metaphor (Hermans, 2002).

The discursive mind model also offers a new approach to the classical problem of stability vs. lability of personality. Like many social-cognitive concepts, this model associates stability to a latently existing repertoire of knowledge structures, while lability is explained by the fact that only some particular modules of that knowledge are activated at a given moment. What is specific for the discursive mind model – as well as for the dialogical Self theory (Hermans, 1996), by which it was inspired – is the emphasis on the subject of knowledge. In this concept, the activation of a specific module of knowledge (an I-position) is much more than just an activation of a certain content of a self-image – in the same act, a specific tool of information processing is launched. Here we have to deal with the well-known distinction of the Jamesian I and Me or “self-as-an-object” and “self-as-a-subject”, which was given a new social-cognitive meaning by Greenwald and Pratkanis (1984).

In the discursive mind, the entire knowledge that a person possesses is always “someone’s” knowledge, constructed and used by a specific person of a specific identity. For each portion of knowledge, a question of “who owns” this knowledge may be asked. For example, a subject of school knowledge is surely “a pupil” as one of the I-positions within a discursive mind. This knowledge was acquired in the context of a relationship with a teacher and school friends, where situations, such as being tested or preparing for an exam, were natural and obvious. After many years, when a grownup is in an entirely different social context and intentionally recalls information acquired in school, his or her discursive mind automatically activates also his/her identity as a pupil, and with that – all sorts of expectations which are natural in the school context.
and are not a subject of reflection. Currently, these formerly natural situations – for example, being assessed or waiting for a school bell to ring – are no longer adequate, but can still be activated implicitly while recalling portions of explicit knowledge and may involuntarily influence the way one experiences current situations or currently behaves, even if it is far away from the original context. It is hard to deny that this example is probable (a similar description can be found in Wertsch, 1991). The discursive mind model can provide explanations of these kinds of effects, because it understands relations between cognitive-affective units differently as compared to classic models. The network of mutual activation is based on the sharing of relational context and the identity of the subject, not on explicit knowledge contents’ resemblance.

Some of these assumptions were put in the form of an empirical hypothesis and were a subject of empirical verification. The described model, like DST, with which it corresponds, is characterized by a great complexity. Such a complexity makes an unequivocal verification harder to conduct. In an attempt to solve this problem, we used rigorous methodology and performed a series of different experiments. These empirical studies were aimed at checking the effects of activation of different I-positions on cognitive processes and behaviour. The results support the thesis that I-positions have their own specific cognitive-affective resources and that the main constructs of the DST - such as an I-position and positioning – are empirically real and can produce effects that are observable by means of empirical and experimental investigation. These research are described in details in the next article in this volume.

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