Are Meanings in the Head? The Explanation of Lexical Attrition

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The main question I consider in this paper is: What is the (explanatory) place of the social in cognitive linguistics? More specifically I am mainly occupied with the relationship of mind-internal (individual) and mind-external (social) in cognitive linguistics, particularly in lexical semantics that Gärdenfors talks about in the second part of his book The Geometry of Meaning.
I argue in this paper that the idea of meaning being basically in the head/mind is fine but not really controversial. What is controversial is whether the mental states that are responsible for meaning are at least partly constituted by their relations to the external (social) world. If communicative acts "as part of the process of building meanings" in any way constitute meanings, then meanings in the head by themselves cannot play the explanatory role it is given to them by cognitivists.
I try to prove my point on the example of sociolinguistic analysis of lexical loss in Split dialect arguing that the mechanism of lexical attrition is nicely explained by Gärdenfors' idea of semantic transformations in the conceptual space but the final explanation of the lexical loss is mind-external and social. It is not only the communicative acts, as a result of the context of use, but more broadly different social factors that are most crucial for the explanation of lexical loss.

Keywords: *Individual, social, meanings as conceptual spaces, semantic transformations, explanation of lexical loss.*

1. Introduction

The belief that meanings are in the head has been one of the tenets of Cognitive Linguistics (CL). Peter Harder says: "Adopting a mind-internal source of explanation has been a pervasive trend during what may be called the "cognitive era" from 1960 onwards" (2010: 59).

Cognitivism primarily focuses on individual's mental representations. In his newest book *The Geometry of Meaning, Semantics based on conceptual spaces* Peter Gärdenfors says: "According to the cognitive tradition, meanings are *mental entities*. The prime slogan for cognitive semantics is: *meanings are in the head"* (2014: 5, italics in the original). Or: "The core idea of cognitive linguistics is that meanings of linguistic expressions and other communicative acts are *mental entities*" (2014: 8).

It seems that the general position in cognitive linguistics clearly is that the explanatory directionality is from mind-internal conceptual framework, together with the view that language is only indirectly social.[1]

On the other hand, we hear cognitive linguists claiming that cognition is embedded in interaction. "In this book, says Gärdenfors, a semantic theory based on *meeting of minds* will be presented. According to this view, the meanings of expressions do not reside in the world or (solely) in the mental schemes of individual users but they *emerge from the communicative interactions of language users."* Consequently, meanings are in the *heads* of the users (2014: 18, italics in the original). Gärdenfors also says: "Note, however, that a cognitive approach to semantics does not entail that the external world plays no role in determining the contents of the meanings in the head. On the contrary, our cognitive structures are formed in constant interplay between our minds and the external world" (2014: 5).

The question that comes to mind naturally then is: If meanings emerge in communicative acts of language users how are they primarily in the head? *Now meanings cannot be in the head (primarily) and also emerge in interaction (primarily). Here we surely have some inconsistency or even contradiction. Or is it a seeming inconsistency?* The answer obviously, I think, depends on the way in which cognitivists in general think that semantics must "take in" communicative acts and/or social factors. If such acts and factors, and "the external world" in any way *constitute* meanings, then the two previous claims clash, they are clearly contradictory.

Gärdenfors says that a new semantic theory is "sociocognitive in the sense that it takes the communicative acts *as part of the process of building meanings* while at the same time using conceptual spaces to model the inner worlds of the communicators" (2014: 20, italics mine). If the meanings are "built" in the process of communication and the external world plays a role in determining the contents of the meanings in the head (as clear from the previous quote) then it sounds as if such processes and the world are, at least partly, *constitutive* of meanings. So how are then meanings primarily in the head?

[1] Lakoff says: "...unconscious frames and metaphors laying behind....conscious beliefs ..." and Peter Harder continues: "The problem lies in ruling out the direction that begins with social processes and looks at the mind in that perspective—and there is little room for that in Lakoff's thinking" (Harder 2010: 60). For interesting views on intersubjectivity and social mind see Sinha and Rodriguez (2009).

I want to argue here that the idea of meaning being basically in the head/mind is fine *but not really controversial.* There is no externalist/realist that would deny that there are mental states (and meanings) in the mind. Where else could they be? What is controversial (in the view of the externalists), is whether the mental states that are responsible for meaning are at least *partly constituted* by their relations to the external (social) world. If communicative acts "as part of the process of building meanings" in any way *constitute* the meanings, then meanings in the head by themselves cannot play the explanatory role it is given to them by cognitivists. Or at least this is what I try to argue for here.

The main question I want to consider is: What is the place of the social in cognitive linguistics? More specifically, I shall be mainly dealing with the relationship of mind-internal (individual) and mind-external (social) in cognitive linguistics, particularly in lexical semantics that Gärdenfors talks about in the second part of his book.

2. *Cognition as usage-based*

There is a growing consensus within cognitive linguistics to conceive of itself as a usage-based approach to language. That is another important tenet of cognitive linguistics: meaning is usage-based.[2]

The usage-based thesis holds that the mental grammar of the speaker... "is formed by the abstraction of symbolic units from *situated instances of language use*...there is no principled distinction between knowledge of language and use of language (competence and performance in generative terms)" (Evans & Green 2006 :122). Gärdenfors is fully supportive of such views and he says: "On this perspective, there will be no sharp boundary between pragmatics and semantics: semantics can be characterized as conventionalized pragmatic*s*" (2014: 4).

Natural conclusion here, I think, would be that according to such claims, the starting point is pragmatic language use (thus mind-external and social) which is a decisive explanatory force for semantics. It seems then that the second tenet of cognitive linguistics, the usage-based model of cognition, introduces another kind of tension between taking meanings as conceptualizations (meaning as mental entities) and meanings as entities created in social interaction. Cognitive semantics should take in social aspects of language as constitutive of meanings.

3. *Cognitive sociolinguistics*

More recently there has been a strong trend and decisive stress by cognitive linguists to (in an appropriate phrase) "get their hands dirty with data." In other words, there is a move of cognitivism into the sociolinguistic terrain. William Croft says: "Cognitive linguistics must

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[2] "Cognitive linguistics is a usage-based model of linguistics" (Geeraets 2006: 22).

reach out and embed itself in a more general social-interactional model
of language" (2009: 397). The prime consequence of such a move, that
is, recontextualizing language in its social content, implies an aware-
ness of the fact that ***variation*** is inherent in the social life of lan-
guage. The "usage-based commitment" of Cognitive Linguistics leads
by definition to a Cognitive Sociolinguistics putting primary stress on
language variation.

Now major consequence of a usage-based conception of language
is that it needs to incorporate *socio-variationist* studies.[3] A cognitive
linguistic framework is language as it is actually used by real speak-
ers in real situations. As Geeraerts presses, a truly usage-based model
naturally entails an examination of the *social variation we encounter
in real speech.*

I shall dwell on this issue for two reasons:

1. I have been doing research in sociolinguistics, namely language
variation and change, just the way cognitive linguists suggest.

2. The research might help us clear up some grounds stated at the
beginning: How does the individual and social meet or interact which
is relevant for Gärdenfors' idea of semantics seen as "meeting of minds"
which he elaborates in chapters 4 and 5. in the book under discussion.

4. *Research in Lexical Attrition / Loss*

Socio-variationist research involves the concept of a "sociolinguistic
variable." Variable in contemporary sociolinguistics is one variant in a
set of alternative ways of expressing the same linguistic function where
each alternative has a social significance. To give an example from pho-
nology from Croatian. Phoneme *m* can be pronounced as *m* (in standard
Croatian) or *n* in one of the dialects. Thus we have alternative ways of
pronouncing "I write" as *pišem / pišen.* This is a dialectal feature which
is also related to social variables like age, social status, language iden-
tity and such.[4]

The investigation I am to present is based on the loss of Split lexical
items of Romance origin. For example: "čavao" is standard Croatian
word and "brokva" is dialectal variant (meaning *nail*). The dialectal
words "brokva" is giving way to the standard Croatian word "čavao".[5]
Using sociolinguistic methods the main aim of my investigation is to
answer the question: Which lexemes of Romance origin disappeared

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[3] "Sociolinguistically oriented studies inspired by CL are only beginning to come
into view" (Geeraets 2006: 27). The main ideas about this area of research can be
found in Geeraerts, Kristiansen & Peirsman (2010).

[4] For detailed research into phonological and grammatical variables in Split
vernacular see Jutronić 2010. It contains a long summary in English. Also Jutronić
1991.

[5] There are three main dialects groups in Croatia: Štokavian, Čakavian and
Kajkavian, named after the interrogative-relative words for 'what' in each dialect
which are što, ča and kaj, respectively. Štokavian is part of standard Croatian.

from the dialect and which are still part of the living urban speech with the young generation in Split. The main concern is both, *how* is the change taking place and what is needed to give *explanation* for the change. I will present a very concise version of the research with the purpose of dealing with our question about the relationship of individual and social in cognitivist approach. To anticipate, Gärdenfors' framework explains nicely *how* the changes are taking place but it cannot give us explanation *why* this is happening.

The research was conducted on 220 words of Romance origin in Split dialect[6] and the informants were divided into three age groups: older above 60, middle from 30–60 and the young from 18 to 30. Each informant was given a list of about 20 to 25 words[7] and he/she could choose between four answers: 1. *I know the word and use it;* 2. *I know the word but do not use it;* 3. *I recognize the word* 4. *I do not know the word.* This gave us a variety of relevant answers.

In the first two graphs there is an example of the common usage of the words of the older and middle generations (graphs 1 and 2).
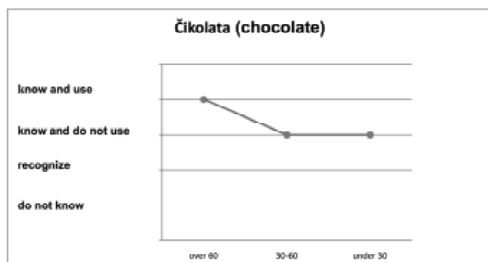
Older and Middle Generation
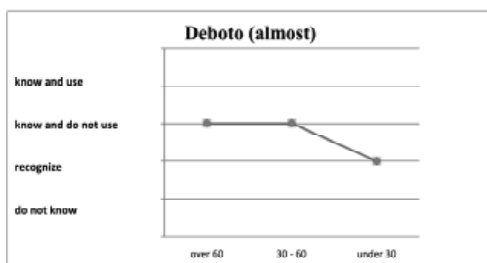
Graph 1.
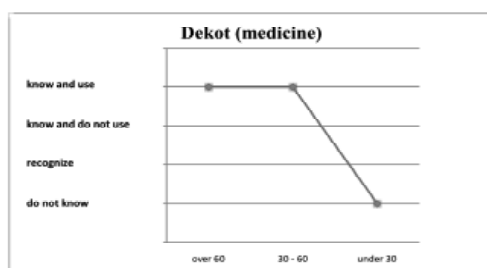
Graph 2.

[6] "One of the main characteristics of our Dalmatian Čakavian or Štokavian speech consists of a great number of words of Romance origin" (Šimunović & Alujević-Jukić 2011: 5).
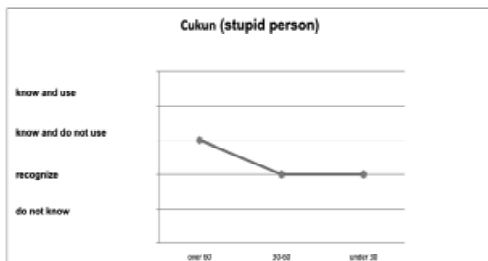
[7] The most complete list of Romance words in Split vernacular we find in the book by Magdalena Nigoević: *Romance words in "Berekin"* (2007). In the Introduction the author says: "In spite of growing standardization and štokavization the core of speech has a great number of dialectal words of Romance origin which are fully intergated into a new system" (2007: 3).

The most interesting category with the middle and young generations is one in which they say that they *know the word but do not use it*. This indicates a good passive knowledge with occasional active usage. Also with recognition (graphs 3 and 4).
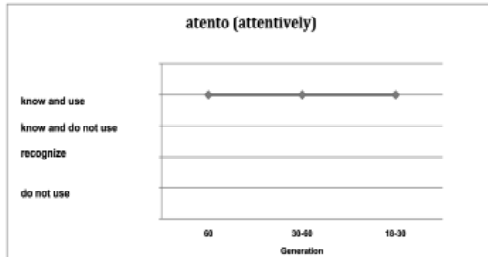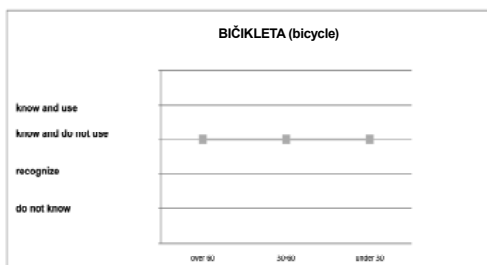
Middle and Young Generation

Čikolata (chocolate)

know and use

know and do not use

recognize

do not know

over 60   30-60   under 30

Graph 3.

Cukun (stupid person)

know and use

know and do not use

recognize

do not know

over 60   30-60   under 30

Graph 4.

All 3 Generations: Know and Use the words

atento (attentively)

know and use

know and do not use

recognize

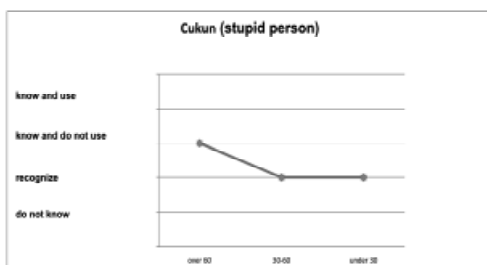do not use

60   30-60   18-30

Generation

Graph 5.

Know and use the word as in Graph 5 or know and to not use the words/ recognize it (again good passive knowledge) as in Graphs 6 and 7.

BIČIKLETA (bicycle)

know and use

know and do not use

recognize

do not know

over 60   30-60   under 30

Graph 6.

Cukun (stupid person)

know and use

know and do not use

recognize

do not know

over 60   30-60   under 30

Graph 7.

This is the most important category for us because it shows that all the words found in this category are known by the young generation, too. Thus such words are living and are recognizable in today's Split speech.

Summary in percentages for the young generation
Young generation Percentage
Know and use 37,2%
Know but do not use 19,9%
Recognise 12,6%
I do not know 30,3%
Total 100 %

5. *The Reasons why?*

Very little has been said about dialectal vocabulary loss or vocabulary attrition from a theoretical point of view (see David Britain 2005). The task is far from easy especially when we look into what (socio)linguists have to say about this area of research. Richard Millar says: ...."recording and analysing lexical use is fraught with problems; studying lexical variation and change is even more problematical, primarily because, like all essentially sociolinguistic projects, it does not truly anticipate a 'system within which everything holds'... (Millar 2013: 3).[8] This theme

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[8] Now published in Millar, Barras & Bonnici (2014).

was, in half a page, dealt with by David Britain in his article "Dying British Dialects" where he says the following: "The rate of lexical attrition is considerable and dramatic with those over 60 recognizing over three-quaters of the words and those under 18 less than one word in five. The biggest drop appears between 30–60 years and 18–30 years category suggesting the attrition was at its most vigorous in the 1960s" (2005: 24). My investigation does not support such dramatic loss of dialectal vocabulary. Searching for the *reasons* of lexical attrition Britain says: "Lexical loss appears to affect historically *locally* embedded words more than words with wider regional and national currency" (2005: 24). How good an explanation this is in the case of Split lexicon is hard to say. Words investigated are not only characteristic for Split but are part of the wider Dalmatian and coastal region. Thus they are not locally but regionally defined.

Furthermore in the literature we find two hypotheses about the *reasons* for language (dialect) loss. One is external and the other internal. 1. The loss is connected to the conversion toward the dominant language. The process is conditioned by a number of external factors. 2. The loss is (psychologically) internal, that is, the reasons that the words are not used any more is because they are not used enough and thus forgotten (Laleko 2007: 103).

There is not much consensus about the reasons for the loss of languages or dialects.[9] However, in my opinion dividing factors squarely into internal and external cannot be right. Memory loss and long-term absence of stimulation are certainly internal (psychological) factors contributing to vocabulary loss but the external ones contribute to it as much. Namely contact with the standard language and its prevailing use, frequency of use, social pressures and also/or particularly speakers' attitudes are very relevant factors.[10] Some problems with sociolinguistic explanations should be mentioned, too. Firstly, the fact that the

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[9] See Kopke and Schmid (2004) and Schmid (2001).

[10] There are predominantly four theoretical models and frameworks offered for the explanation of language loss: 1. Jakobson's regression hypothesis 2. Language contact and language change 3. Universal grammar and parameter setting 4. Psychological questions of accessibility. Since this is not the central issue of this paper and for the sake of space I cannot dwell on them but the interested reader can learn more about them although none of them are adequate explanations of vocabulary loss. (See Schmid & de Bot, 2004: 211). In a few words: 1. The center of Jakobson's regression hypothesis is the assumption that the pattern of language dissolution in aphasics is similar, but in reverse order, to the pattern of language acquisition in children. 2. Language contact and language change hypothesis stresses that modifications are entirely or in parts due to one language encroaching on the other. 3. Universal grammar and parameter setting is basically related to regression theory since it considers acquisition factors. It is based on Chomsky's notion of a UG which contains a set of fixed parameters. I highly doubt that this is relevant for lexical attrition since vocabulary is not innate. 4. Psychological questions of accessibility hypothesis stresses the language internal factors by taking into account features of processing and memory retrieval and is also dealing with more psychological issues like the accessing and forgetting of information.

findings about the degree to which language attrition is present in the data under observation *vary so radically* among studies is partly due to different methods of data collection. Secondly, one of the main reasons why the results from studies of language attrition often seem conflicting is that there is no agreed upon and testable definition of what, exactly, counts as "attrition". And thirdly, a major problem in language attrition studies is that the dialectal or sociolectal variation in the L1 have mostly not been looked into.

6. *Lexical loss in Gärdenfors' conceptual space framework*

At this point I would like to look into how Gärdenfors' approach based on conceptual spaces could deal lexical loss. Gärdenfors does not say much about language change and nothing about lexical loss/attrition but there is enough room for interpretation/ speculation. In section 11.1.1. Gärdenfors (2014: 201) speaks about *semantic transformations* in connection to the semantics of prepositions in the search for a few basic transformational mechanisms. In our case of lexical loss we are not faced with semantic transformations but with the gradual loss of grounds of one of the two (or more) lexical variants.[11]

Gärdenfors identifies two main categories of meaning transformation: re*focusing of attention* (within a domain) and *metaphorical mapping* (between domains). In case of lexical loss we deal with the former and not with the latter.

Here are some relevant details for the explanation of lexical loss: *in the first stage, the original meaning of a word w is p. In the second stage an inference q becomes more or less automatically activated together with p, perhaps as a result of the context of use. In the third stage the word can be used to mean both p and q. At a possible fourth stage, the meaning p is forgotten.*[12]

To use one of my examples: *skoro* (Cr. standard word) and *deboto* (Split dialectal word, both meaning "nearly"):

<div align="center">

CONCEPT
NEARLY

"skoro"   **"deboto"**

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[11] For an interesting and succesful application of conceptual space approach to different paths of theory change see Gärdenfors & Zenker (2013).

12 This is how Gärdenfors states it in the published version: "…the set of lexicalized meanings of an expression should be connected. This means that if word *w* originally has a meaning *m1* and this meaning has been extended by a series of transformations to meaning *mn*, through meanings *m2, m3, …,* and meaning *mn* also falls under the word *w*, then all meanings *m2, m3, …,* also fall under *w*" (2014: 204).

In the particular case of lexical loss we have two words being used for one concept in the first stage (both "*skoro*" and "*deboto*"). In the second stage we have refocusing of attention (to "*skoro*") as a result of the context of use (at least), in the third stage one of the words is used more often ("*skoro*") and at the fourth stage the other word ("*deboto*") is eventually forgotten and lost.

In Gärdenfors' framework both words belong to the same domain. They are synonymous. So the explanation of lexical loss is rather neat. Just as in semantic transformation we have several stages in lexical loss as presented above: 1. both words being used, 2. refocusing of attention (or focal adjustment) to the standard word, 3. More usage of the standard variant and 4. gradual loss of the dialectal word.

Going back to Gärdenfors' suggestion about semantic transformations it is very important to note that "refocusing attention" links up with sociolinguistic stress on the importance of individual's language attitudes. Lexical items are represented in one conceptual domain and their choice is tied to refocusing of attention. Speakers have to change attitudes towards the variants in order to refocus attention. But we have seen in the investigation presented that lexical loss is not only related to speakers' attention but is tied to social variables like age/generational differences, too. Is it also indexed to community identity of a group of speakers? More than likely. So it is not only the communicative acts*,* as a result of the context of use, but more broadly different social factors that are surely most crucial for the *explanation* of lexical loss. Social variation has to be included and explained. "Dynamics of social structure can lead to the propagation of some variants and the extinction of others," says Croft (2009: 418).

7. *Discussion*

Let us go back to the initial question: What is the relationship of the individual construal and social alignment? The crucial question is: In order to align the individual and social to what extent should we take social variables determining the individual conceptual space? Taking lexical loss as our case in point here I would say that it is only through an investigation into the communicative acts and, even more importantly, the social factors determining the individual choices that we can get a grasp of, not only of the mechanisms behind the of lexical loss but more importantly, the explanation of the language change. Lexical loss, in other words, is the output of the processes that are properly studied and understood in the context of pragmatic and social framework. This pragmatic, usage-based perspective automatically takes the form of socio-lexicological investigation. Lexical choice and eventual loss simply cannot be fully described, let alone explained, without an integrated sociolinguistic investigation. Just as the choice of phonetic

variants is determined by the social pressures so is lexical choice.[13] William Croft in his attempt to bring variation into a social cognitive perspective says: "*foliage and leaves* are not synonymous: among other things, they represent different conceptualization of an experience... construal is always for the purpose of communication in a particular occasion of use.[14] If this is true then in order to understand the nature of construal, we must consider construal in the light of the use of language....we have alternative verbalizations of experience. No two experiences are the same" (2009: 410).

It all point up to the fact that sociolinguistic factors are most relevant for the explanations of lexical attrition. Variables like age, gender, education, etc. as well as the amount of contact the individual has with the attriting language and the length of time elapsed since the onset of attrition—all play a role. "The role of individual attitudes towards a second language and the motivation for its acquisition has been a central issue in research on second language acquisition and bilingualism for some time" (Schmid and de Bot 2004 : 222). The same should hold true for vocabulary attrition.

However language loss is infuenced also by factors which operate on the level of society and these are much more elusive to describe, determine and operationalize. Nevertheless they are obviously influencial and decisive. Such factors as prestige, identity, assimilation, etc.. Schmid and de Bot say: "It is generally accepted that language attrition is only partly determined by internal linguistic factors…. However external and social factors also play a role" (2004: 219).

Gärdenfors can retort: I do not see the problem for my account here since I said:…"the interplay between individual and social structures is in eternal co-evolution" (2006: 22). And a quote from his *Conceptual spaces*: "What makes semantics inter-subjective is this mutual coordination of meanings. Hence I advocate a form of "sociocognitive" semantics…one cannot say the individual meanings of linguistic expressions come first and then generate a social semantics." (2000: 202). There is a perpetual interplay between the individual semantic mappings and the emerging social semantics. The semantic equilibrium point in a language group is constantly renegotiated and it is moving slowly over time.

But if the foregoing in Gärdenfors' own words is true (and I think it) then it proves my initial point that insisting that meanings are in the *heads* of the users (2014: 18) does not explain much. Meanings are in the head for sure but they are constituted by the links to the external and social world.

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[13] Like Labovian parameters of style and social class in his investigation of the use of variable "r" in the New York City. See Labov (1966).

[14] I guess that such construal would be complementary of Gärdenfors' idea of different dimensions of the same concept.

Furthermore one has to note that although Gardenfors says... "one *cannot* (italics mine) say the individual meanings of linguistic expressions come first and then generate a social semantics...." he nevertheless maintains that his "theory is still a cognitivist theory since it builds on individual mental representations of meanings." Gärdenfors wants us to accept the idea that conceptual structure of an individual is somehow fundamentally first but at the same time that conceptual structure is built up through communicative acts.

The question remains: If "*communicative acts are part of the meaning-building process*" how is this fact reflected in *the "inner worlds of the communicators' conceptual spaces"*? *In other words, how "big" is the contribution of these acts? My question would be to which degree are the communicative acts constitutive part of the meaning-building process? My answer (from the research presented) is that* if there is no separation of purely lexical and encyclopedic meaning and if lexical loss cannot be explained if social variables are not taken into account than the contribution of the communicative acts seem essential for building up the meanings and/or for the explanations of meaning change, or in this particular case lexical loss.

Finally, coming back to my first remark, if meanings are abstracted from language use in its social context how is it that there are primarily in the head? What stops us from concluding just the opposite, i.e. since meanings are abstracted from communicative acts they cannot primarily be conceptualizations. They are, as conceptualizations, anchored in social reality.

Gärdenfors sees the earliest predecessor of his theory of meaning as a meeting of minds in Herberd Mead (2014: 92) and quotes him saying: "Meaning as such, i.e., the object of thought arises in experience through the individual stimulating himself to take the attitude of the other in the reaction to the object" (2014: 92). But let us be reminded that Mead although not neglecting the biological level of social processes firmly believed that the private can only be defined over against that which is common. Thus his important idea and role of the "generalized other"[15] as obvious from the quote by Gärdenfors. Mead says: "The mechanism of meaning is thus present in the social act before the emergence of consciousness or before awareness of meaning occurs" (1934: 77).[16]

8. *Concluding remarks*

I questioned the slogan that meanings are in the head. Harder says that is no such things as "conceptual frames" but rather a whole social

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[15] "The attitude of generalized other is the attitude of the whole community.... the team is generalized other in so far as it enters—as an organized process or social activity—into the experience of any one of the individual members of it" (1934: 154)

[16] Note also his referentialist/externalist leanings: "take the attitude of the other in the reaction to the *object*.

cognitive world. It would be more precise to say that there are conceptual frames but they are embedded in social cognitive world.

I much support the view that stresses that social turn in cognitive linguistics can be interpreted that language-and-conceptualization needs to be set in the wider context of, in Harder's phrase, "meaning-in-society." Cognitive views of lexical change/loss need to seek a better integration with the social factors in change, at the general level of groups of speakers emphasizing not just the mechanism but also motivation for change, too. If cognitive linguistics is expanding from the classic version predicated on conceptualization towards a social cognitive linguistics that grounds conceptualization in its social context then conceptual frames are really "the tip of an iceberg" that constitutes the whole social universe.

Gärdenfors says that his new semantic theory can be called a *sociocognitive theory* (2014: 112). My attempt in this paper was to try to show, metaphorically speaking, that Gärdenfors could be more Mead-like and urge that **can** (in "can be called a sociocognitive theory") should definitely be replaced by **is** in which social is constitutive part of the individual/conceptual.

Let me conclude with Gärdenfors' own statements: "Relevant mental constructions are emergent meaning equilibriums (fix points) in the community of users" ….the lion's share of the learning of the semantic mapping comes from interaction with other individuals. This also means that the social criterion is built in as a central part of semantics" (2014:12). This seems that Gärdenfors-externalist is speaking here. (See the final part of Miščević's article in this issue). A mentalist-internalist would deny such statements. On the other hand "a meeting of minds is a construction of the minds" (2014: 110) shows Gärdenfors-internalist face. However the interaction of the individuals is realistically happening in the social space dealing with real and imaginary objects and events so why deny this reality in which we live and which is so crucial for our explanatory purposes?[17]

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