Language evolution and language change – Under the spell of niche construction

The paradigmatical theories about language evolution (e.g. Hauser et al 2002; Jackendoff 1999; Pinker & Bloom 1990) are incomplete from the point of view of general evolutionary theories because they neglect to give an explanation of what happened to the linguistic trait after the ontogenesis. This deficiency hinders us to link recent languages and the faculty of language (whatever it may mean) with the faculty of language of early hominids. The link between the recent stage and earlier stages of various languages is important because it provides an extra support to theories about the origin of language (Botha 2006, in press).

At the same time, due to the growing interest in pragmatic research, various authors have suggested the need for a new perspective also in historical linguistics. According to such an approach semantic change should be seen as a product of language use (e. g. Hopper – Traugott 1993; Jacobs – Jucker 1995; Traugott 1999; Levinson 2000). Such a dynamic approach is the only one capable of account for the pragmatic factors of language change.

The aim of our paper is to demonstrate that language evolution and language history can be based on a common ground and discussed in common terms through a functional, dynamic stance on historical pragmatics and ecological psychology. Niche construction and affordance are fundamental concepts of ecological psychology. Niche construction is the process whereby species modify their environment through their own cognitive traits (Odling-Smee et al 2003). By transforming natural selection pressures, niche construction generates feedback in evolution in a manner that alters the evolutionary dynamics.

Then the modified environment imposes the selectional pressures of different species. Different niches arise through different cognitive traits. The relations between animals' cognitive traits and niches are affordances (Chemero 2003). For instance, on the one hand, speakers' linguistic choices also create niches because they motivate a certain situation/context. On the other hand, our relation (affordance) to a given context depends on the context itself. This mutuality is often neglected in paradigmatical cognitive science (e. g. neodarwinian accounts to evolution of cognition). However, it is relevant because it provides motivations for language evolution and linguistic change. This gives a possibility for searching clear causal explanations of language evolution and historical changes. From a more philosophical approach, niche constructions and affordances give the chance to consider the interaction between language users and contexts. The mutual influence between context and language users provides the common framework for historical pragmatics and evolutionary linguistics through a functional and dynamical stance.

The main point of our talk is to show that it is possible to construct a model which treats language history and language evolution as two stages of the same process with the same driving forces behind.

The research of the pragmatic aspects of language change is a theoretically relevant issue within contemporary linguistics. We try to apply a model for language change which includes pragmatic factors, as the only one capable of grasping the true nature of language change. Pragmatic aspects can be accounted for within an approach in which the context and its dynamic interaction with the coded meaning play a crucial role. We have developed such a model relying on Kecskés (2003). In the proposed model, each lexical item has a coresense which can be changed in the course of time by the influence of the context of use. At the same time, the choice of a word with a certain meaning modifies the context for the subsequent utterances. That is why, the process of language change can be understood as a niche construction. By the modification of the linguistic environment, each language community and even each language user construct their niche constructions, influencing the process of

language change. The linguistic activity and linguistic choices of language users modify their own and each other's niches.

Although, it is the speaker who initiates the "innovation", we must admit the role of the addressee, a potential speaker in further situations, in case this innovation is successful.

As our starting-point we study the form of expressions the speaker chooses to make his/her intentions properly conveyed. The addressee has to decode and infer the content of the speaker's utterance relying on its form. The inferential process inluences the semantic change, since a particular utterance token used to convey a meaning by the speaker which differs from the original coded meaning stimulates other language users to apply the modifications in their linguistic trait. The grammaticalisation of the new meaning includes a process of the conventionalisation of the conversational implicatures. We assume the same intention to express thoughts and ideas in the course of the language evolution.

In our talk we present a segment of a dynamic model of grammaticalisation, and discuss the correlations between the lexical and conceptual levels of the model on the one hand and the main driving force of change, that is, expressivity on the other.

The organisation of our paper will be as follows. First, we discuss a theoretical problem of language evolution, the concepts of niche construction and affordance as well as their relation to language change. We summarise critically the most relevant views on this issue. Second, we examine some historical data, comparing the grammaticalisation of constructions of 'to go' with infinitives in Catalan (*anar*) and Spanish (*ir*). The analysis highlights the important role pragmatic factors play in historical change. Relying on historical data, conclusions can be drawn concerning the process of grammaticalisation, according to which a dynamic model capable of treating the pragmatic side of the process can be given, the mechanism of which should be seen as a niche construction. In this way, it will be possible to fulfil the aim of our talk: to discuss language evolution and language history in common terms, through a functional, dynamical stance on historical pragmatics and ecological psychology.

The results of our investigation are as follows. We have illustrated that language evolution and language change are motivated by the same cognitive and functional driving forces. The properties of language evolution can be inferred from the properties of language change. At the same time, the properties of language change should be derived from the properties of language evolution. Furthermore, we have demonstrated that historical linguistics can support theories of language evolution providing empirical basis for them. Finally, using the concept of niche construction we have managed to account for historical data in a more adequate way.

Bibliography

Botha, Rudolf 2006, in press. On the Windows Approach to language evolution. *Language & Communication*. Chemero, Anthony 2003. An outline theory of affordances. *Ecological Psychology*. 15. 181–95.

Hauser, Marc, D. – Chomsky, Noam – Fitch, Tecumseh W. 2002. The faculty of language: what is it, who has it, and how did it evolve? *Science* 298. 1569 – 79.

Hopper, Paul J. - Traugott, Elizabeth Closs 1993. Grammaticalization. Cambridge.

Jackendoff, Ray 1999. Possible stages in the evolution of the language capacity. *Trends in Cognitive Sciences* **3.** 272 – 79.

Jacobs, Andreas – Jucker, Andreas H. 1995. The Historical Perspective in Pragmatics. In: *Historical pragmatics*. Ed. A. H. Jucker. Amsterdam – Philadelphia.

Kecskés, István 2003. Szavak és helyzetmondatok értelmezése egy dinamikus jelentésmodell segítségével. ÁNYT XX. 79 – 105.

Levinson, Stephen C. 2000. Presumptive meanings. MIT. Cambridge.

Odling-Smee, John F. – Laland, Kevin N. – Feldman, Marcus W. 2003. Niche Construction: The Neglected Process in Evolution. Monographs in Population Biology. **37**. Princeton University Press.

Pinker, Steven – Bloom, Paul 1990. Natural language and natural selection. *Behavioral and Brain Sciences* **13**. 707 – 84.