



THE UNIVERSITY *of* EDINBURGH

## Edinburgh Research Explorer

### **On There and Then: from object permanence to displaced reference**

**Citation for published version:**

Schouwstra, M 2008, On There and Then: from object permanence to displaced reference. in ADM Smith, K Smith & R Ferrer i Cancho (eds), *The Evolution of Language*. World Scientific Press.  
<<http://www.phil.uu.nl/~mariekes/Evolang-proceedings-2007.pdf>>

**Link:**

[Link to publication record in Edinburgh Research Explorer](#)

**Document Version:**

Peer reviewed version

**Published In:**

The Evolution of Language

**Publisher Rights Statement:**

© Schouwstra, M. (2008). On There and Then: from object permanence to displaced reference. In A. D. M. Smith, K. Smith, & R. Ferrer i Cancho (Eds.), *The Evolution of Language*. World Scientific Press.

**General rights**

Copyright for the publications made accessible via the Edinburgh Research Explorer is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

**Take down policy**

The University of Edinburgh has made every reasonable effort to ensure that Edinburgh Research Explorer content complies with UK legislation. If you believe that the public display of this file breaches copyright please contact [openaccess@ed.ac.uk](mailto:openaccess@ed.ac.uk) providing details, and we will remove access to the work immediately and investigate your claim.



## ON THERE AND THEN: FROM OBJECT PERMANENCE TO DISPLACED REFERENCE

MARIEKE SCHOUWSTRA

*UiL OTS, Utrecht University, Janskerkhof 13,  
Utrecht, 3512 BL, The Netherlands  
Marieke.Schouwstra@phil.uu.nl*

In the current debate about the emergence of language, researchers have looked for various sources of indirect evidence, either by comparing animals and humans, by analyzing the linguistic structure of certain present-day human languages or by constructing computer models. These approaches have been successful, at least to the extent that many hypotheses about language emergence have been put forward on basis of them. However, it has been recognized lately that it would be useful to combine the results from the different approaches, because that leads to a more complete picture of language emergence (Kirby, 2007).

I will focus on one phenomenon, ‘displacement,’ (or ‘displaced reference’) through two approaches to language evolution: one cognitive, the other linguistic. Displacement has been described already by Hockett (1960) as interesting from the point of view of language evolution, as it is a feature that is supposedly unique to human language. Humans seem to be the only ones that are able to talk about things that are not here and not now. In Hurford (2007) it is shown that animals do show signs of the *beginnings of* displaced reference, though not in their language, but in their cognitive capacities.

When an animal has achieved object permanence, it is aware that an object continues to exist, also when no sensory information about the object is available. This capacity is present in many animals, but there is a general trend: the more an animal genetically resembles humans, the better it performs at different ‘displacement tasks’. This indicates that object permanence has been important in the evolution of a species that has linguistic capacities:

The capacity to know something about an object, even when ‘it isn’t there’ is a first step along the road to the impressive characteristics of human languages, their capacity for displaced reference. (Hurford, 2007, p. 72)

Thus, Hurford sketches an evolutionary trajectory, on the basis of cognitive research, that starts from object permanence in animals’ cognitive capacities and ends in displaced reference in human language.

Support for this trajectory can be found in recent work in the field of linguistics: the windows approach. This is a perspective on language emergence that has been adopted in the work by Jackendoff (2002), Botha (2005) and goes back in part on earlier work by Bickerton. It studies (among other phenomena) restricted linguistic systems, such as pidgin languages, home sign systems and early stages of untutored second language acquisition by adults. These language forms all arise in situations where the resources for first language learning under normal circumstances are unavailable. The different restricted systems show striking similarities. Therefore, they may tell us something about the cognitive strategies on which language builds, or even about principles from evolutionarily early language, and thereby contribute to the language evolution debate.

From various studies of temporal expressions in early second language acquisition and home signs (Benazzo, 2006; Morford & Goldin-Meadow, 1997) it becomes clear that even in the most 'primitive' stadia of these systems (when little grammatical means are available to speakers or signers; utterances consist of only several words, and almost no verbs are used), displaced reference appears: subjects make reference to past and future. They do this in relatively rigorous ways, and much work is left to the interpreter, but such an early appearance of displaced reference tells us that it is apparently a fundamental feature of language and must have been present already in evolutionarily early language.

The conclusions drawn on the basis of the 'window work' described here can support and extend the evolutionary picture sketched by Hurford, but also force us to make precise claims about the relation between cognition and language: should the fact that we can talk about remote things really count as a property of *language*?

## References

- Benazzo, S. (2006, March). *The expression of temporality in early second language varieties and adult home signs*. (Paper presented at NIAS Workshop 'Restricted Linguistic Systems as Windows on Language Genesis')
- Botha, R. (2005). On the Windows Approach to language evolution. *Language and Communication*, 25.
- Hockett, C. F. (1960). The origin of speech. *Scientific American*, 203, 88-96.
- Hurford, J. R. (2007). *The origins of meaning*. Oxford University Press.
- Jackendoff, R. (2002). *Foundations of language: Brain, meaning, grammar, evolution*. Oxford University Press.
- Kirby, S. (2007). The evolution of language. In R. Dunbar & L. Barrett (Eds.), *Oxford handbook of evolutionary psychology* (pp. 669–681). Oxford University Press.
- Morford, J. P., & Goldin-Meadow, S. (1997). From here and now to there and then: The development of displaced reference in homesign and English. *Child development*, 68(3), 420–435.