Available online at www.sciencedirect.com

ScienceDirect

Journal of Pragmatics 99 (2016) 39–61

journal of PRAGMATICS

www.elsevier.com/locate/pragma

Revisiting the thinking-for-speaking hypothesis: Speech and gesture representation of motion in Danish and Italian

Bjørn Wessel-Tolvig [a,*], Patrizia Paggio [a,b]

[a] Centre for Language Technology, University of Copenhagen, Njalsgade 140, 2300 Copenhagen S, Denmark
[b] Institute of Linguistics, University of Malta, Msida MSD 2080, Malta

Received 11 December 2014; received in revised form 5 May 2016; accepted 9 May 2016
Available online 30 May 2016

Abstract

Many studies try to explain thought processes based on verbal data alone and often take the linguistic variation between languages as evidence for cross-linguistic thought processes during speaking. We argue that looking at co-speech gestures might broaden the scope and shed new light on different thinking-for-speaking patterns. Data comes from a corpus study investigating the relationship between speech and gesture in two typologically different languages: Danish, a satellite-framed language and Italian, a verb-framed language. Results show cross-linguistic variation in how motion components are mapped onto linguistic constituents, but also show how Italian speakers to some degree deviate from standard verb-framed lexicalization patterns, and use typical satellite-framed constructions. Co-speech gestures, when they occur, largely follow the patterns used in speech, with a notable exception: In 28% of the cases, in fact, Italian speakers express manner in path-only speech constructions gesturally. This finding suggests that gestures may be instrumental in revealing what semantic components speakers attend to while speaking; in other words, purely verbal data may not fully account for the thinking part of the thinking-for-speaking hypothesis.

Keywords: Thinking-for-speaking; Cross-linguistic variation; Conceptualization; Gesture

1. Introduction

Numerous studies show that the semantic domain of motion is particularly well-suited for investigating cross-linguistic differences in how speakers map semantic information onto linguistic form (for an overview see: Berman and Slobin, 1994; Goschler and Stefanowitsch, 2012; Han and Cadierno, 2010; Pavlenko, 2011). In this body of work, Talmy's (1985, 1991, 2000) influential distinction between verb-framed and satellite-framed languages constitutes the main theoretical background against which to test hypotheses on form-meaning mappings in typologically different languages. Depending on the type they belong to, speakers of different languages show striking cross-linguistic variations with respect to what type of spatial information is selected, and how the selected information is expressed when talking about motion. In verb-framed languages, the path of motion (directionality) is generally mapped onto main verbs, and the manner of motion (the manner in which the figure moves) expressed in subordinated or independent clauses. Conversely,

* Corresponding author. Tel.: +45 26702860.
E-mail addresses: bwt@hum.ku.dk (B. Wessel-Tolvig), Paggio@hum.ku.dk (P. Paggio).

http://dx.doi.org/10.1016/j.pragma.2016.05.004
0378-2166/

in satellite-framed languages the path component is expressed in verb particles, prepositional phrases or prefixes, while manner is expressed in the main verb. This insight has led to the claim that speakers of different languages think differently in the process of speaking, depending on the linguistic resources available in their specific language, a claim known as the thinking-for-speaking hypothesis (Slobin, 1996, 2004). The thinking-for-speaking hypothesis is concerned with the possible effects of language on the thinking processes that occur while speaking, specifically with the way language-specific preferences for certain syntactic constructs may direct speakers' attention to the dimensions these constructs encode.

However, in order to prove the effect of linguistic categories on thinking processes, one needs to somehow access thinking processes through different means than language itself. Following what other researchers in gesture studies have proposed, we suggest that looking at co-speech gestures may reveal more about what speakers attend to while speaking, and provide additional evidence for claims about thinking-for-speaking processes. Gestures produced together with speech, or co-speech gestures, have been shown to be closely related with speech both temporally and semantically (Kendon, 1980; McNeill, 1985, 1992). In fact, speech and gestures are increasingly seen as planned and processed together at a conceptual level (McNeill, 2005), although it is still debated how and at what stage of speech production the two modalities influence each other (de Ruiter, 2007). Moreover, work done on cross-linguistic variation in the expression of motion events has already shown that co-speech gestures that accompany descriptions of motion are also likely to reflect the internal semantic and syntactic structure of the utterance, and therefore the thinking-for-speaking patterns, typical of the specific language (Choi and Lantolf, 2008; Hickmann et al., 2011; Stam, 2006; Özyürek and Kita, 1999).

This paper investigates how speakers of two typologically different linguistic communities speak and gesture about motion. The languages investigated are chosen for different reasons. Danish is selected as a representative of a rigid satellite-framed language. Italian, on the other hand, is chosen as an example of a language which, although belonging to the group of Romance languages considered verb-framed in Talmyan sense (1985), can, and *increasingly does*, use satellite-framed constructions to describe motion events (Folli, 2008; Iacobini, 2010; Iacobini and Masini, 2006). If the thinking-for-speaking hypothesis holds, we expect the two languages to differ not only in the lexicalization of the selected motion events, but also in the associated choice of gestural patterns.

We start in Section 2 by briefly introducing the theoretical background and establishing the relevant terminology before describing in more detail the way motion events are expressed in Danish and Italian in Section 3. In Section 4 we discuss previous literature on co-speech gestures and motion events, both in general and specifically for Danish and Italian. At the end of the section, we qualify our initial hypothesis on how we expect speakers of Danish and Italian to behave. Section 5 accounts for the methodology used in the study, in other words how our data were collected and annotated. Section 6 contains a quantitative analysis of the annotations in terms of speech and gestural patterns and a discussion of these results. Section 7 presents the conclusions.

2. Motion events across languages and the thinking-for-speaking hypothesis

Motion is a frequent topic in everyday discourse and all languages have lexical means for describing it (Verkerk, 2014). However, languages differ crucially with respect to which linguistic resources are available to speakers and how they are used to express different aspects of a motion event (Slobin, 2004; Talmy, 2000). Based essentially on how speakers lexicalize path of motion (directionality), languages are categorized into at least two major patterns; as either framing path in satellites to the verb (satellite-framed) or in the verb root (verb-framed languages) (Talmy, 1985).[1] The two major patterns are exemplified in (1) and (2).

(1) The bottle *floated* *into* the cave
Figure Manner Path Ground

(2) The bottle *entered* the cave | *floating*
Figure Path Ground Manner
(Examples from Talmy, 1985:66)

These lexicalization patterns influence the syntactic packaging at the clausal level (Slobin, 1996). While satellite-framed languages package both manner and path in one-clause constructions, verb-framed languages often need two independent verbal predicates, or two clauses (cf. clause boundary indicated by '|' in example (2)), to express the

[1] This paper does not consider equipollently framed languages (Slobin, 2004).