

How a directional particle gives rise to possessive semantics

German differs from English in that verbs of ballistic motion (such as *werfen* (throw)) on their own cannot appear in a syntactic frame which is reserved for a caused possession interpretation (ex. 1 a, b below). In German, this frame involves a dative marked DP with a recipient interpretation (ex 1b). In order for these verbs to appear in such a frame, they must combine with a particle such as *zu* (*to/ toward*) (see ex. 2). On the face of it, this is a surprising fact, since, as I will show, the verbs on their own do not select a recipient argument, nor does the particle introduce a recipient, as it is a particle with a purely spatial meaning. The question then is: how is a caused possession interpretation derived from a verb and a particle which on their own do not license caused possession? I will present an analysis in which the recipient reading is compositionally derived from the meaning of the base verb, the meaning of the particle and the meaning of the dative case. The particle *zu*, like other particles such as *zurück* (back) and *weiter* (forth), adds directionality to *werfen*-type verbs, which on their own do not encode directionality and hence do not select a goal argument. I show that the dative DP is best understood as a free (event-related) dative, and the recipient interpretation is shown to be derived from the combination of the goal reading introduced by *zu* and the experiencer reading introduced by the dative DP.

An analysis of *zuwerfen*, in which the possessive component comes in through a lexicalization process, is refuted by cases of non-possessive pure spatial occurrences of *zuwerfen* (see ex. (3) below), which support the idea that *zuwerfen* is a purely spatial verb. Though spatial in meaning, the verb *werfen* on its own is shown not to select a goal argument. It is the particle *zu* that adds directionality and creates an open goal slot in the semantic representation. The verb *werfen* and the particle *zu*, though they do not on their own encode possessive semantics, yield a verb with potential possessive semantics. In addition, I show that the ‘recipient effect’ – a spatial goal receiving a recipient interpretation when the goal is realized by an animate DP – is a fully regular phenomenon with ballistic motion verbs.

I will also provide an analysis of the dative argument that appears quite obligatorily with *zuwerfen* -verbs. Pykkänen (2002) and McIntyre (2006) argue for a distinction between two major types of datives: entity-related and event-related datives. I show that the dative that appears with *zuwerfen* is of the latter kind, despite the fact that the dative argument seems to be obligatory and bears the recipient role (see ex. (4)), two facts that would favor the analysis of an entity-related dative. Event-related datives are not selected by the verbal semantics, are restricted to animates and bear the basic semantic role of the experiencer of the event. It is shown that the case of a dative argument added to the base verb, *werfen*, alone, is exactly interpreted like that: it is a beneficiary. Example (5) below shows that the animate being, here a dog, is the one for whom, but not to whom, the stick is thrown. The dative argument of *zuwerfen* is also shown to be restricted to animate beings, which would be surprising according to an entity-related analysis. Surely *werfen* does not seem to have any semantic components which would restrict its goal to recipients, as example (6) below shows.

Unlike with dative DPs added to the simplex verb, the benefactive experiencer interpretation of the dative DP with the complex verb is ‘bound’ by the unsaturated directional semantics of the particle. I suggest that a recipient interpretation is created by merging the basic experiencer interpretation of a free dative with the directional semantics provided by the particle *zu* (recipient = beneficiary + goal). However, this analysis leaves open the question of why the

goal is realized as a free dative DP in the first place, yielding a basic experiencer interpretation, even though German, as other languages, usually realizes spatial goals as PPs. Note that *zuwerfen* does appear with inanimate goals, realized as PPs headed with the preposition *auf* ('onto') (ex. (3)). I speculate, along the lines of Kittilä (2008), that the choice of an animate goal participant triggers the differential marking of the argument (dative case). Crosslinguistically there exists a clear tendency to avoid marking animate goals using the normal marking for a goal. In the present case, when the verb *werfen* appears with the particle *zu*, the usual oblique realization is suppressed if the chosen goal is an animate. Languages prefer animate beings to be expressed in a way that makes a higher degree of participation inferable, in our case, as an experiencer dative argument. By virtue of lexically encoded directional semantics, this animate being is the spatial goal of the event, and is assigned the most salient interpretation of an experiencing goal: a recipient.

Examples:

- (1) a. ENGL.: Oli threw the child the ball.
 b. GERM.: #Oli warf dem Kind den Ball.
 Oli.NOM threw the child.DAT the ball.ACC
- (2) Oli warf/schleuderte/schmiss/kickte dem Kind den Ball **zu**.
 Oli threw/catapulted/threw/kicked the child.DAT the ball.ACC **to-**
 'Oli 'to-threw/etc.' the child the ball.'
- (3) Einer nach dem andern warf den Totenschädel **auf das Ziel** zu.
 One after the other threw the skull.ACC onto the aim to-.
 'One after the other threw the skull towards the aim.'
 (http://www.sagen.at/doku/Andreas_Hofer/Wipptal_Volkskunde_1809.html)
- (4) Oli warf *(dem Kind) den Ball zu, * und/ aber sein Bruder fing ihn.
 Oli threw the child.DAT the ball.ACC to, *and / but his brother caught it.
 'Oli 'to-threw' the child the ball, and/ but his brother caught it (instead).'
- (5) Janina hat mir das Stöckchen geworfen.
 Janina has me.DAT the stick.ACC thrown
 'Janina threw the stick **for me.**'
 (<http://www.sheltie-tico.de/tl/M.ae.rz-2010.htm>)
- (6) *Oli warf **dem Tor** den Ball zu (cf. Oli warf den Ball **zum Tor**).
 Oli threw the goal.DAT the ball.ACC to- (Oli threw the ball.ACC to-the goal)
 '*Oli threw the goal the ball, cf. Oli threw the ball to the goal.'

References:

Kittilä, Seppo (2008) "Animacy effects on differential Goal marking", *Linguistic Typology* 12,245-268. **McIntyre, Andrew (2006)**, "The Interpretation of German Datives and English *have*", in D. Hole, A. Meinunger and W. Abraham (eds.), *Datives and Other Cases*, Amsterdam, Benjamins, 185-211. **Pylkkänen, Liina (2002)**, *Introducing Arguments*, Ph.D. Thesis, Cambridge, MA, MIT.