

**German *her*, *hin*, *hin-* und *her* and *herum*:**

**Meaning and Justification of Direction and Change of Direction in Perceptual Space**

The paper presents a case study of the compositionality of motion descriptions. The DRT-based semantics construction I will present lives on the idea that rule based composition is often a process of justification of lexical requirements in *specific* contexts. No large data coverage and discovery of semantic patterns, as e.g. in (McIntyre:2001) is intended in this paper. Neither will formalisation be of central concern. I confine myself to describing the conceptual mechanisms guiding composition, working through a few examples.

**Background assumption.** Events as they are described by means of motion verbs can be presented in their linguistically relevant respects as rectilinear motions in PRIMARY PERCEPTUAL SPACE(PPS), which follow one of the three axes of PPS. The principle determinants of PPS are the VERTICAL axis and the HOI(izontal) plane, which is perpendicular to VERT. We will be concerned with motion in the HOR(izontal) only.

While traversing its (rectilinear) path the target of the motion *e* determines for each time *t* two half-planes of HOR, the front and the rear of *e*, FRONT(*e*) and REAR(*e*). For each *t* some observer *x* of the motion can estimate whether the target is approaching or whether it is disappearing. That means: either the observer locates herself in the front of the motion, justifying *her-*; or in the rear, justifying *hin-*.

That characterisation leaves open whether or not the observer locates herself at some point on the (foreseen) path. It is only when endpoints of the motion come into play that the question whether *x* locates herself in the front (or the rear) of the motion on the path becomes decisive for the lexical contribution of *hin-* and *her-*; compare the examples in (2). The general lexical contribution of *hin-* and *her-*, respectively, in *hin-α* and *her-α* descriptions (where *α* is a motion description) amounts to (1): *her-* is indexical and contributes a spatial reference point *r<sub>o</sub>*; *hin-* is anti-indexical and contributes a reference point *r<sub>1</sub>* which is different from *r<sub>o</sub>*. This yields

$$(1) \text{ her} \rightsquigarrow \left\langle \left\{ \begin{array}{c} r_0 \end{array} \right\}, \left[ r_0 \subseteq \text{FRONT}(e_\alpha) \right] \right\rangle \quad \text{hin} \rightsquigarrow \left\langle \left\{ \begin{array}{c} r_0 \\ r_1 \\ r_1 \neq r_0 \\ r_1 \subseteq \text{FRONT}(e_\alpha) \end{array} \right\}, \left[ \begin{array}{c} r_1 \\ r_1 \neq r_0 \\ r_1 \subseteq \text{FRONT}(e_\alpha) \end{array} \right] \right\rangle$$

In (2) we have a context where *r<sub>o</sub>* must be justified as the point of the speaker's self-location.

- (2) a. Sprecher in Stuttgart: "Morgen gibt es in Tübingen eine Party. ...
- b. Kommst du auch?"; c. Kommst/fährst du auch \*her? "; d. Kommst/fährst/gehst du auch hin?"
- e. Kommst/fährst/gehst du auch hin und kommst/fährst dann wieder her?"
- f. Kommst/fährst/gehst du auch hin und \*gehst dann wieder her?"
- (2') "Wenn ich in Reutlingen wäre, würdest du auch .. (a) kommen (b)... herkommen." <sup>1</sup>

On the face of it the justification requirements of *her-α* and *hin-α* according to (1) seem to be identical with those for German *kommen* (come) and *gehen* (go), respectively. (Compare (Roßdeutscher:1997)). But this is not so. In contrast with what we find with *kommen*, *her-α* is in fact an instance of direct reference in (Kaplan's 1977) terms. In (2.c) *r<sub>o</sub>* cannot be in Tübingen; in (2'.b) the addressee moves to the actual point of the speaker's self-location, not to the counterfactual point of the speaker's self-location, which is the goal of motion in (2'.a).

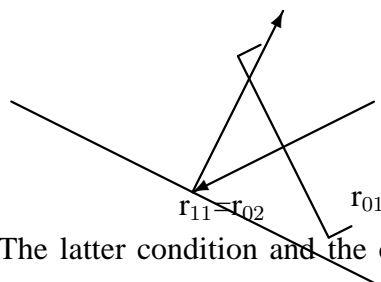
*Kommen* and *her-α* are different. The choice of *kommen* results from a perspectival description *strategy*, presupposing or implying an attitude bearer locating herself in the front of the

<sup>1</sup>I refrain from translating the examples; *komm(en)*(= to come); *fahr(en)*(= to drive) *geh(en)*(=to go); *auch*(= too); *Wenn ich ...wäre, würdest du...*(=If I was..., you would...).

motion. That presupposed or implicit attitude bearer can be justified as (self)located at some place that is different from the speaker's point of self-location at the actual speech point. (see (2,b)). For instance  $r_o$  in (1) is justified in (2.b) as the point of self-location of a party-goer, in (2',a) as the point of counter-factual self-location of the speaker. Let us put the difference between *kommen* and *her- $\alpha$*  as follows: *kommen* requires the justification of a perspective, i.e. of a propositional attitude, — *her- $\alpha$*  the justification of a salient direction that is opposite to the direction of the described motion.

In the context of (2.a) (2.b) is ungrammatical because the speaker is in the rear of the motion; as a consequence we conceptualise the direction of his view looking at the target in motion as *in alignment* with the direction of the motion. In (2.e), but not in (2.f), *gehen* is justified because the verb requires the reference point (here the speaker's self-location) in the rear of the motion. The choice of *fahren*, which as opposed to *kommen* lexicalises the manner of the motion is the result of an *intrinsic* motion description strategy. In (2.d) we have anaphoric binding of  $r_1$  by the antecedent *Tübingen*.

In the context of (2)  $r_0$  is the self-location of the speaker. That is a special case of a general justification requirement for both *hin- $\alpha$*  and *her- $\alpha$*  descriptions. Justification of  $r_0$  may also take the form of a justification within the *linguistic* context (as opposed to the speech context). In this case  $r_0$  is "the place reached within the story". (Whether there are still further forms of justification of  $r_0$  is an open question.)



(3) er lief hin- und her (he ran back and forth)

Reconstruction of (3) is as follows: the man runs to some point  $r_{11}$ , then he continues running from  $r_{11}$ , which is "the place reached in the story" ( $r_{11} = r_{02}$ ) following a direction that counts as opposite to the direction of the first motion. The described motion counts as in the opposite direction, if the change of direction amounts to more than 90 degrees.

The latter condition and the confirmed assumption that motion descriptions are descriptions of those motions as following one of the three axes of PPS support the outstanding role of orthogonality in motion descriptions, see Background Assumption.

This hypothesis is further supported by the semantics of the German spatial preposition *um* (roughly 'around') and the semantics of double-particle verbs such as *herum- $\alpha$*  and *umher- $\alpha$* . Here I want to say only this much: *Um* requires the justification of two *different* directions  $o_1$  and  $o_2$  going from different points (which are described by the external argument of the preposition) to a some common center  $z$ . In (3) and (4)  $z$  is the internal argument of *um*. Here again *her-* in *herum-* and *umher-* lexically contributes the requirement that the context specify some direction opposite to the motion described by  $\alpha$ .

It will be shown that the way justification mechanisms work in the particular contexts is responsible for the different truth conditions of (3.a) vs. (3.b) and (4.a) vs. (4.b). I will also show how conceptualisations differ in (5.a) and (5.b) and why (5.c) is ungrammatical.

- (3) a. Stühle (standen) um den Tisch.      b. Stühle (standen) um den Tisch herum.  
 (4) a. um den Baum fahren / den Baum umFAHren      b. um den Baum herum fahren.  
 (5) a. er lief herum      b. er lief umher      c. \*Leute/\*Stühle standen umher

## References

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