

Origo, pointing, and speech

The impact of co-speech gestures on linguistic deixis theory

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What happens to linguistic deixis theory if co-speech gestures are considered? In this paper I will argue for a redefined concept of *origo*. It allows us to eliminate a contradiction inherent in the *origo* instantiation of local deixis between the verbal and gestural levels. The contradiction demonstrated in my example is that, for the same conceptual relation, the *origo* of the verbal level is allocated to the addressee, whereas the *origo* of the gestural level is allocated to the speaker himself.



The electronic edition of this article includes audio-visual data.

Keywords: deixis, *origo*, *origo*-allocating act, co-speech gestures, pointing, imagination-oriented deixis, face-to-face interaction, perspective, 6H-Model

Introduction

What happens to linguistic categories if we take co-speech gestures (Kendon, 1980; McNeill, 1992) into consideration? Within the field of deixis theory co-speech gestures have to be considered because certain deictic expressions as *that* or *there* are obligatorily accompanied by pointing gestures in face-to-face interaction. Nevertheless the role of pointing gestures has been marginalized up to now. In my paper I will give examples of speech-gesture relations that can only be analyzed adequately if basic concepts of linguistic deixis theory will be widened or changed, in this case the concept of *origo*.

What can we understand by *origo*? How are *origos* created? How are they structured? ¹My considerations aim to outline aspects of an adequate deixis-

theoretical framework. This is to be achieved, on the one hand, by means of conceptual reflection and, on the other hand, by including concrete observation data for describing routes on *Potsdamer Platz* [Potsdam Square] in Berlin. I will focus on aspects of utterance-internal *origo*-coordination in German local deixis. The following questions are raised.

- Is the *origo* a concrete or an abstract entity?
- Is it fixed to the speaker or moveable?
- Is there more than one *origo*?
- If there are several *origos*, how are they related? Are they positioned on the same level or are they arranged in a hierarchy?
- Are *origos* within communication simply provided or are they, for example, actively placed by the speaker?

The concept of *origo* according to Bühler

Bühler is generally accepted as the founder of modern deixis theory. Some later approaches have lost sight of distinctions introduced by Bühler while other approaches have maintained conceptual uncertainties in Bühler's framework. This is shown in the following section, where the problematic difference between "deictic" and "intrinsic" (Miller & Johnson-Laird, 1976) is discussed. I shall first outline the fundamental ideas that Bühler connects with the concept of *origo*.

The term *origo* is introduced by Bühler (1934) within the framework of his *Sprachtheorie* and is conceptually understood as the origin of a coordinate system. He calls it "das Koordinatensystem der 'subjektiven Orientierung'" [the coordinate system of 'subjective orientation'] (Bühler, 1934/1982a, p. 102), which is used to organize the personal, spatial, and temporal structure of utterances.

Let two perpendicularly intersecting lines on the paper suggest a coordinate system to us, 0 for the origin, the coordinate source: [...] My claim is that if this arrangement is to represent the deictic field of human language, three deictic words must be placed where the 0 is, namely the deictic words *here*, *now* and *I*. (Bühler, 1934/1990, p. 117)

In contrast to "symbols" or "naming words", according to Bühler, "deictic words" or "pointing words" are characterized by the fact that they are only interpretable by recourse to an *origo*, which is normally assumed to be that of the speaker.

Let me briefly illustrate Bühler's notion of deixis by the following example: Anna and Beate do not only share an office, but also a waste-paper basket.

Caroline comes to the door and asks: "Where is the letter?" Two possible answers are:

- (1.1) The letter is in the waste-paper basket.
- (1.2) The letter is there. (*accompanied by a pointing gesture*)

Answer (1.2) is indisputably deictic whereas answer (1.1) is not. Why? If the answer comes in the form of sentence (1.1), then the referent of the noun phrase *the letter* can be found without great difficulty using the prepositional phrase *in the waste-paper basket*. The knowledge about who utters this sentence is irrelevant. However, if the answer takes the form of sentence (1.2), then this is not possible without information about the situational context. In sentence (1.2) the prepositional phrase *in the waste-paper basket* is substituted by the local adverb *there*. In opposition to *here*, *there* refers to a distant area in relation to the speaker. Assuming that Anna and Beate were not sitting together but apart from each other on opposite sides of the room Caroline would begin to look for the letter in a different part of the room, depending on who utters sentence (1.2).

Now, information about who uttered this sentence and from where is not sufficient to find the letter in question. The utterance of *there* is obligatorily accompanied by a direction-indicating gesture: an extended arm, hand, or index finger, a glance or any other movement of a similar function. It is as if a straight line were drawn between two points, the tip of the indicating index finger and the point where the speaker is located, the *origo*. In order to find the letter, attention must be focused on the direction of this straight line. Depending on who utters this sentence and performs the pointing gesture, Anna or Beate, and depending on where in the room the speaker is, the extension of the straight line would lead to different target points in the room. This dependency, observable in all direction-indicating gestures, is the reason why Bühler (and others) assume a similar feature for verbal elements. As tokens of the same type, these verbal elements refer to different situational context elements, depending on when, where and by whom they were uttered.

As will be demonstrated below, Bühler's definition of *origo* is not completely adequate to the phenomena associated with deixis, but it takes an important aspect into account, namely that the *origo* is under no circumstances to be identified with a concrete component of the situation.

One argument against a concrete, physically defined *origo* is Bühler's idea of a shifting *origo* that resembles a mathematical volumeless point. A physical point in space and time cannot be shifted mentally. If it is possible to show that

the concept of a shiftable *origo* is more adequate than the concept of an *origo* fixed to the speaker, then the idea of a concrete *origo* is simultaneously rejected.

Is the *origo* fixed or movable? The problem of distinguishing between deictic and intrinsic according to Miller and Johnson-Laird

In the following I will argue against an *origo* fixed to the speaker as proposed by Miller and Johnson-Laird (1976) and for a movable, shiftable *origo*. I will show that a concept of *origo* that assumes a fixed *origo* leads to inherent contradictions if the deictic is categorically distinguished from the intrinsic. Second, I will show an example which cannot be handled by Miller and Johnson-Laird's dichotomy, but can be captured by Bühler's concept of displacement.²

The dichotomy "deictic" versus "intrinsic" is a common distinction in deixis theory. The concept of the intrinsic (without the actual use of this term) can be found in Bühler, who, however, deals with the intrinsic as part of deixis.

[...] we may view the important case, for example, of a vehicle (carriage, ship, locomotive, car) where one's orientation immediately and not only conceptually, but of necessity perceptually, follows the conventional direction of movement of the object. Just as naturally as with animals and other humans. When a teacher of gymnastics facing a dressed line of gymnasts gives commands, the orders *left* and *right* are conventionally given and understood according to the gymnasts' orientation. That is a paradigmatic case for whose explanation one must note the astonishingly easy translatability of all field values of the visual system and the verbal deictic system from someone in another plane of orientation. (Bühler, 1934/1982b, pp. 26–27; cf. 1982a, p. 131)

Bühler's concept allows the shifting of the *origo* to other people, creatures and objects. In contrast, according to Miller and Johnson-Laird (1976) the *origo* can, by definition, only be located where the speaker is. Therefore, they exclude phenomena as non-deictic that fall under Bühler's wider concept of deixis. Applied to local deixis – and only this is considered – the *origo* is provided via the visual orientation or perspective of the speaker.

We will call the linguistic system for talking about space relative to a speaker's egocentric origin and coordinate axes the deictic system. We will contrast the deictic system with the intrinsic system, where spatial terms are interpreted relative to coordinate axes derived from intrinsic parts of the referent itself. Another way to phrase this distinction is to say that in the deictic system spatial terms are interpreted relative to intrinsic parts of ego, whereas in the intrinsic

system they are interpreted to intrinsic parts of something else. (Miller & Johnson-Laird, 1976, p.396)

Using the above quote as a starting point, the deictic system and the intrinsic system can be characterized in accordance with Miller and Johnson-Laird as follows: if a deictic system is present, then the speaker makes himself or his visual orientation a reference point for a linguistic localization. However, if an intrinsic system is present, then the reference point lies with an object that is not the speaker and is derived from the inherent features of the object. The object must have a clear front and back so that, to a certain extent, a spatial coordinate system can be constructed and fixed. Examples of such objects are vehicles, chairs, and desks. Examples of non-intrinsic objects are balls, bushes, and single columns. Sentences (2.1) and (2.2) are examples for a deictic localization whereas sentence (2.3) is an example for an intrinsic one (Figure 1):

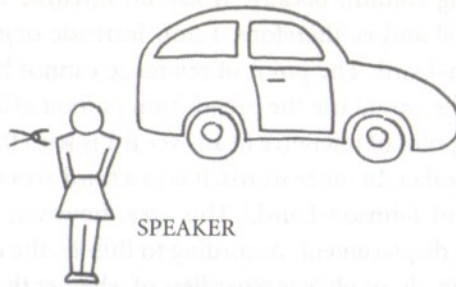


Figure 1. Deictic and intrinsic localization.

Deictic localization

- (2.1) The pliers are in front of me
- (2.2) The pliers are to the left of the car.

Intrinsic localization

- (2.3) The pliers are behind the car.

The definition given by Miller and Johnson-Laird is not convincing because the concept of the deictic system is not clearly distinguished from the concept of the intrinsic system but is rather derived from it. The opposition exists between the reference to the intrinsic coordinates of the speaker (deictic system), on the one hand, and the reference to the intrinsic coordinates of something else (intrinsic system), on the other hand. In other words: the actual opposition exists between the intrinsic systems of speaker and non-speaker.³

Indeed, cases can be constructed which can be explained with the help of Bühler's concept of displacement but not with the differentiation between deictic system and intrinsic system, as proposed by Miller and Johnson-Laird. Let us consider a chase scene in a suspense film. Person A is directing person B through the town via mobile telephone. The following short dialogue ensues:

- (3) A: Where are you? Have you shaken them off?
 B 1: I am standing *behind* an advertising column.
 B 2: I am standing *in front of* an advertising column.'

The crucial point is the alternative answer from B. The sentences B 1 and B 2 are different solely because in answer B 2 the preposition *in front of* is used instead of *behind*.

Considering the answer B 1, it is clear that the point of reference can neither be with the advertising column nor with the speaker. Why not? It cannot be with the advertising column because it has no intrinsic front or back. It is radially symmetrical and is, therefore, a non-intrinsic object as according to Miller and Johnson-Laird. The point of reference cannot be with the speaker because otherwise he would use the preposition *in front of* instead of *behind* as in answer B 2. The point of reference in answer B 1 is with the people searching and not with the speaker. In other words, it is in a third area that is not accounted for by Miller and Johnson-Laird.⁴ This area, however, can be covered by Bühler's concept of displacement. According to Bühler, the *origo* can be shifted to other people, animals, or objects regardless of whether these are perceived or imagined. Consequently, the concept of *origo*, which starts with an abstract, shiftable *origo*, is clearly more adequate and is preferable to the concept of an *origo* fixed to the speaker.

Is there more than one *origo*?

If we turn again to the quote introduced at the beginning of this article, Bühler (1990, p. 117) seems to assume one single *origo* for all dimensions, a mutual coordinate starting point for personal, local, and temporal deixis. The question arises whether the assumption of one *origo* is sufficient.⁵ If we could show that even when limited to the local dimension the assumption of a single *origo* is not adequate, then the concept of a single *origo* would be intra- as well as inter-dimensionally refuted. Aspects of Theo Herrmann's model of local deixis (6H-Model) provide the basis for further discussion.

Theo Herrmann's model of local deixis (1990/1998)

Let us consider the situation portrayed in Figure 2 and assume the speaker wants to inform the addressee in which spatial relation the pliers are located. From the conditions shown in the illustration, he can produce at least the following equally appropriate utterances (cf. Herrmann & Schweizer, 1998, p. 51):

Three-point localizations:

- (4.1) The pliers are to the left of the car.
(ORIGO: speaker, RELATUM: car, INTENDED OBJECT: pliers)
- (4.2) The pliers are in front of the car.
(ORIGO: addressee, RELATUM: car, INTENDED OBJECT: pliers)
- (4.3) The pliers are to the right of the car.
(ORIGO: Otto, RELATUM: car, INTENDED OBJECT: pliers)

Two-point localizations:

- (4.4) The pliers are in front of me.
(ORIGO: speaker, RELATUM: speaker, INTENDED OBJECT: pliers)
- (4.5) The pliers are in front of you.
(ORIGO: addressee, RELATUM: addressee, INTENDED OBJECT: pliers)
- (4.6.a) The pliers are behind the car.
(ORIGO: car, RELATUM: car, INTENDED OBJECT: pliers)
- (4.6.b) The pliers are in front of Otto.
(ORIGO: Otto, RELATUM: Otto, INTENDED OBJECT: pliers)

The object to be located, the pliers, is called the intended object and is the same in all utterances. This intended object is located with respect to a reference object, the *relatum*, and from a viewpoint, the *origo*. *Relatum* and *origo* can be

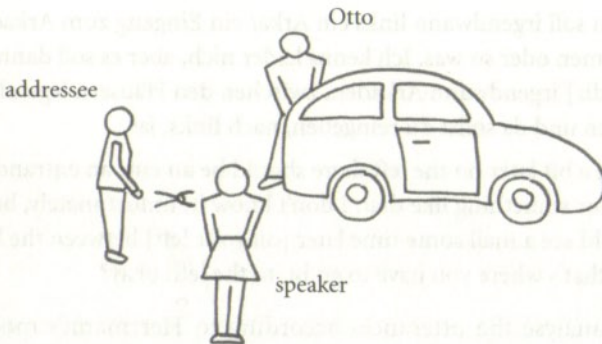


Figure 2. The connection of the intended object to different *relatum* objects (cf. Herrmann & Schweizer, 1998, p. 343).

instantiated by different entities, in this case either by the speaker, the listener, a third person named Otto, or the car. The utterances can be divided into two large groups, namely three-point localizations and two-point localizations. It depends on whether there are three different entities or only two which instantiate the position of the *origo*, the *relatum*, and the intended object. Utterances (4.1) to (4.3) are examples of three-point localization. Utterances (4.4) to (4.6) are examples of two-point localization. These main variants of the 6H-Model result from variation in the assignment of the *origo* to the speaker, to the addressee, or to a third party.

Intradimensional origos

Bühler distinguishes between three dimensions of deixis, namely personal, local, and temporal deixis. Intradimensional *origos* are limited to one deictic dimension, in this case the local one. The question is: does more than one *origo* exist within the local dimension? I will give an example that illustrates the phenomenon of two non-identical origos on the gestural and verbal level in German local deixis

The phenomenon of two non-identical origos on the gestural and verbal level in the dimension of German local deixis. Let us now consider more closely the following conversation section and the conceptual spatial relation LEFT OF verbalized as *links von dir* [on your left] in German. It is taken from video recordings of route descriptions at *Potsdamer Platz* in Berlin. Both communication partners are standing at the Infobox-exit of the *Potsdamer Platz* underground station, the starting point of the route. The section of the route talked about is not accessible to the perception of the speaker and the addressee. The beginning and end of the pointing gesture is marked by square brackets. Other co-speech gestures that appear are not considered in this context.

- (5) Dann soll irgendwann links ein Arka/ ein Eingang zum Arkadenzentrum kommen oder so was. Ich kenns leider nich, aber es soll dann also [links von dir] irgendwann Arkaden, zwischen den Häusern irgendwann stehen und da sollst du reingehen, nach links, ja?

Then a bit later on the left there should be an ent/ an entrance to the mall or something like that. I don't know it, unfortunately, but you should see a mall some time later [on your left] between the buildings and that's where you have to go in, to the left, okay?

Let us now analyse the utterances according to Herrmann's model. Table 1 summarizes the results of the instantiation of the *origo*, the *relatum*, and the intended objekt in example (5).

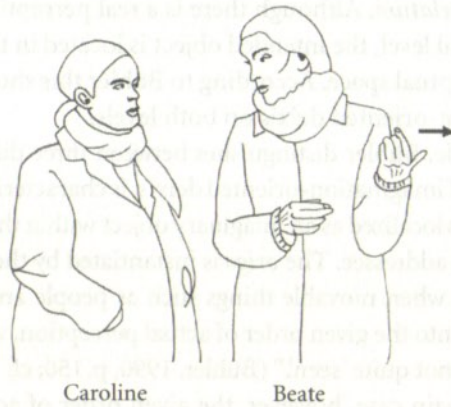


Figure 3. Execution of the pointing gesture for the conceptual relation LEFT OF in example (5).

Figure 3. Movie 1 (7 MB)

The intended object on the verbal and gestural level is the same, namely the entrance to the glass-covered shopping mall. On the verbal level the speaker localizes the mall with reference to the intrinsic coordinates of the addressee, who instantiates the *origo* as well as the *relatum*.

However, if we include the gestural level in our analysis it is evident that, in contrast to the verbal localization, the speaker carries out the gestural localization of the intended object referring to her own current intrinsic coordinates. We can observe that while the intended objects at the verbal and gestural level are the same, the gestural and verbal *origos* and *relata* differ. How is this finding to be interpreted?

Bühler's three main cases of imagination-oriented *deixis*. For the verbal and gestural levels in example (5) the case of *demonstratio ad oculos* [ocular demonstration] is excluded: on the verbal level an imagined addressee instantiates the

Table 1. The conceptual relation LEFT OF in example (5) according to Herrmann's model.

LEFT OF (links von dir [on your left])	ORIGO (differs)	RELATUM (differs)	INTENDED OBJECT (the same)
VERBAL LEVEL	addressee	addressee	mall
GESTURAL LEVEL	speaker	speaker	mall

origo as well as the *relatum*. Although there is a real perceptible demonstrative action on the gestural level, the intended object is located in the imagined space and not in the perceptual space. According to Bühler this should be considered a case of imagination-oriented deixis on both levels.

Within this mode, Bühler distinguishes between three different main cases. The first main case of imagination-oriented deixis, is characterized by the fact that the intended object is localized as an imaginary object within the actual perceptual space of speaker and addressee. The *origo* is instantiated by the speaker. "What is imagined, especially when movable things such as people are concerned, often comes to us, that is, into the given order of actual perception, within which it can be localized, though not quite 'seen.'" (Bühler, 1990, p. 150; cf. 1982a, p. 134).

In the second main case, however, the given order of actual perception is eliminated. The *origo* is displaced to new positions within perceptual space or imagined space in the sense of Langacker's (1987, p. 131) distinction between "mental transfer" and "cross-world identification". Thus, the uttered verbal deictics are not interpreted in relation to the current orientation of the speaker but rather in relation to another grounding system that is not the actual speaker himself (cf. Bühler, 1982a, p. 135).

The third main case is characterized by "the fact that the experiencer is in a position to indicate with his finger the direction in which something which is absent is seen from the mental eye" (Bühler, 1982b, p. 29; cf. 1982a, p. 135). Bühler offers the following example from his teachings in Vienna: "If I ask, for example, the 500 students in my lecture 'Where is Saint Steven's Cathedral?' about 300 index fingers will be raised and point (with all kinds of interesting deviations) somewhere within the lecture hall." (Bühler, 1982b, p. 29; cf. 1982a, p. 135). This example illustrates what Bühler defines as the third case: neither does the speaker shift (as in the second main case) nor is the intended object localized as an imaginary object within the actual perceptual space of speaker and listener (as in the first main case). The difference to ocular demonstration is simply that the intended object Saint Steven's Cathedral is not accessible to the visual perception of those present in the lecture room.

If we transfer Bühler's division to our example, then for the gestural level only the first main case can be appropriate, because the pointing gesture is carried out in relation to the intrinsic coordinates of the actual speaker and localizes the mall as an imaginary object. The purely verbal utterance fulfills the criteria of the second main case: the *origo* is assumed by the imagined addressee, who is to follow the described imagined route after the current conversation. Thus, the circumstance of a divided *origo* or of two non-identical *origos* is maintained.

McNeill's model of gestures as indicators of certain perspectives. Is our observation of a divided *origo* compatible with the characteristics of gestures interpreted as indicators of certain perspectives? According to McNeill (1985, 1992), the type of gesture execution can be used to determine whether the speaker assumes a protagonist's viewpoint or an observer viewpoint, whereby the observer can be positioned inside or outside the described situation.

Let us transfer the first possibility to our example: does the speaker place herself in the shoes of the imaginary addressee? With her pointing gesture to the left, the speaker does not act like the imagined addressee, who follows the route on *Potsdamer Platz*. Instead, the speaker acts like a passer-by who provides directional information. This behavior provides an argument against a protagonist's viewpoint. The speaker seems to adopt the role of an observer inside the situation. She integrates herself into the imagined space, assumes the *origo* herself and localizes the intended object by abstract pointing within the gestural space. There is, consequently, no shift to the addressee on the gestural level.

The assignment of an inside observer viewpoint to the gestural behavior is compatible to the assignment of Bühler's first main case. Thus, the contradiction of two different *origos* on the gestural and verbal level is not resolved so far.

Interdimensional origos

The fact that not only several intra- but also inter-dimensional *origos* are present is shown by the following example taken from the first conversation of the same series of dialogues. Anna belongs to informant group A, which follows the route together with the experiment leader. That means Anna can recall the route and in the conversation tries to explain the route as precisely as possible to Beate, who as a member of informant group B does not know the route. The route leads along the back of the Stella musical theater. Earlier on in the conversation, the theater had already been localized in the center of the gestural space such that Beate is facing the entrance. This position is maintained in the following directions given by Anna (Figure 4):

- (6) Beate: Also [*ich bin hinter dem Theater langgelaufen*]

'Beate: So then [I have walked behind the theater]'

- (7) Anna: [*Genau du bist hinter dem Theater lang*].

'Anna: [Right, you have walked behind the theater]'

The beginning and end of the gesture in relation to speech are marked by square brackets. The bold lettering indicates the climax of the gesture, the so-called "stroke". In Beate's utterance the stroke is preceded by a preparation

phase (“preparation”) and followed by a stop phase (“post stroke hold”) (cf. McNeill, 1992). At the climax of both gestural utterances, the hands draw a line along the back of the theater. It seems to be possible that not only the path behind the theater is localized and depicted but also the protagonist herself as she walks along the back of the theater.

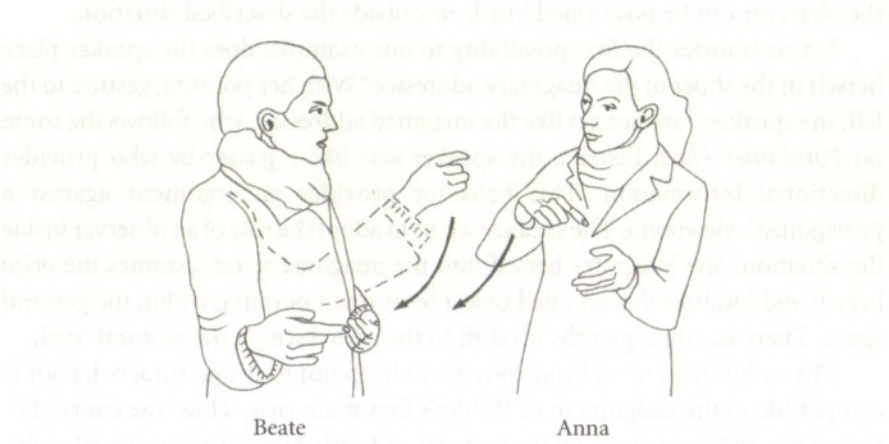


Figure 4. Execution of the demonstrative gestures for the conceptual local relation BEHIND in examples (6) and (7).



Figure 4. Movie 2 (2,1 MB)

Which *origos* can now be assumed for the three classic dimensions, the personal, the local, and the temporal? Table 2 summarizes the results for the instantiation of the *origos* in examples (6) and (7).

The *origo* of the personal dimension lies indisputably with the actual speaker. Therefore, during Beate’s utterance the *origo* is with Beate and during Anna’s utterance, with Anna.

The local dimension turns out to be more complex if we again consider the verbal and gestural levels separately. In both utterances on the verbal level the *origo* as well as the *relatum* of the conceptual relation BEHIND is instantiated by the imagined theater, which has an intrinsic orientation. On the gestural level, the *origo* is instantiated by each speaker. The intended object is the imaginary wanderer.

In the temporal dimension, the *origo* is instantiated by the imaginary wanderer’s current spatial and temporal location. Why? Considering the examples, it becomes clear that the German sentences are expressed in the

Table 2. The instantiation of the *origos* in examples (6) and (7).

Origo instantiation in examples (6) and (7)	PERSONAL ORIGO (primary)	LOCAL ORIGO (secondary)	TEMPORAL ORIGO (secondary)
VERBAL LEVEL	speaker	theater	imaginary wanderer Beate = (6) speaker = (7) addressee
GESTURAL LEVEL	speaker	speaker	speaker

present perfect tense although the situation described is situated in the future. The “event time” of the described action precedes the current “reference time” which instantiates the temporal *origo*.⁶ The temporal *origo* is coupled with the imaginary wanderer and moves with him and his space-time-coordinates. This is possible because time, in general and in the case of this utterance, can be reconstructed as a dimension of the route followed.⁷ The reference time is not identical to the utterance time. For this reason, the temporal *origo* is not held by the current speaker and the time of her utterance but lies rather with the introduced wanderer, whose future actions are anticipated by the speaker.

Our analysis shows that one single *origo* is not sufficient for all dimensions. Consequently, we have to assume not only different intradimensional but also different interdimensional *origos*.

What relations exist between the different *origos*?

If we are confronted with several *origos*, we need to ask which relations exist between them:

- Are the *origos* arranged in a hierarchy between the dimensions (personal, local, temporal)?
- Are *origos* arranged in a hierarchy within a single dimension?
- How does the *origo* become allocated?
- Are *origos* in communication simply given passively or are they actively placed by the speaker?

Considering the observations made so far, it seems reasonable to distinguish between the following: a local *origo* as an abstract volumeless point, a concrete entity in the form of an intrinsically oriented object that instantiates this *origo*, and an agent who carries out the *origo* allocation.

If we assume an *origo* that is not fixed to the speaker but shifts onto other people and objects, the *origo* allocation is not achieved by the simple attainment of the speaker-role while turn-taking. When *origos* are allocated, it can be presumed that there is an agent who carries out *origo* allocation and instantiation. Talking to someone, the speaker acquires the speaker-role and with it, the right to allocate local *origos* or to provide the local *origo* with intrinsically oriented entities. Such an entity can also be the speaker himself. Therefore, it is important to distinguish between two different things:

1. The speaker who, in his role as speaker and as holder of a primary *origo*, allocates the secondary *origos*.
2. The speaker who, as an intrinsically arranged entity, instantiates a secondary *origo*.

If we assume that the function of the *origo* allocation is connected with the speaker-role, then the personal dimension is the highest dimension in the hierarchy.⁸ Thus, the right to allocate *origos* changes with the communicative role.

The distinction between primary and secondary *origo* eliminates the inherent semantic contradictions of verbal deictics that arise when the speaker is assumed to shift his *origo* to other entities. The semantic opposition between the meanings of *I* and *you* is determined by the opposition of the semantic features “origo-inclusive” versus “origo-exclusive” (cf. Diewald, 1991, p. 212). *I* refers to the person who adopts the origo-inclusive role and, therefore, to the speaker himself since the *origo* lies with the speaker. *You* refers to the person who adopts the origo-exclusive role and, thus, to the listener or addressee.

But how can the shifting of the *origo* to the addressee be explained without giving up the validity of the semantic opposition between the meanings of *I* and *you*? The following solution is proposed: we assume the strict validity of the semantic opposition between the meanings of *I* [+origo-inclusive] and *you* [–origo-inclusive] in relation to the primary *origo* of the personal dimension, which is attained with the speaker-role. Although *you* has the semantic feature [–origo-inclusive] in relation to the primary *origo* of the personal dimension, the speaker, as bearer of the primary *origo*, can allocate a secondary local *origo* to the intrinsically oriented person of the addressee called *you*. Thus, although the addressee instantiates a secondary *origo*, the validity of the semantic opposition “origo-inclusive” versus “origo-exclusive” is maintained on the level of the primary *origo*.

The *origo*-allocating act

Considering the dimension of local deixis, how can the phenomenon of two non-identical *origos* as demonstrated in example (5) be explained? Figure 5 illustrates the function of *origo*-allocation as outlined in the previous section. On the one hand, we have the communicators in their roles as speaker and addressee. On the other hand, we have the object of communication, those entities that are talked about. In the communication process, the communicators alternately assume the roles of the speaker and the addressee. With the role of the speaker, the primary *origo* is acquired and, thereby, the possibility to intentionally allocate secondary *origos* to intrinsically arranged entities, be these perceptual or imaginary. These intrinsically oriented entities can be any objects, people, and creatures, even the addressee and the speaker, in so far as they are objects of communication that are referred to in speech.

With the hierarchical organization of the *origos* as primary and secondary, the discrepancy of the local *origos* on the verbal and gestural levels in example (5) becomes clear: The speaker (primary *origo*) allocates a secondary local *origo* to the imaginary addressee on the verbal level. At the same time, on the gestural level she allocates a secondary local *origo* to her own body as an intrinsically oriented entity.

Since the body of the speaker is analogous to that of the imaginary addressee, the speaker allows herself to be understood as a model that represents the imaginary addressee to the speaker as well as to the addressee present in the actual communication. Thus, on the gestural level the speaker does not shift herself to the addressee but rather instantiates the *origo* by her own body, which functions as an iconic sign of the imaginary wanderer. In other words: there is a mapping between the body of the speaker and the imaginary wanderer via sign relation.

Upon initial consideration, this interpretation seems to correspond with what Klein (1978: 29) describes as “analogische Deixis” [analogical deixis]. The introduction of the concept “analogical deixis” is, however, based on a misconception of the essence of Bühler’s imagination-oriented deixis. Klein (1978, p. 29) considers the example *Die Kugel traf ihn hier* [The bullet hit him here]. During the utterance, the speaker points to his right shoulder. According to Klein, the body of the speaker in this utterance depicts by analogy the body of the person referred to in speech. Klein (1978, p. 39) presumes that, expressed in Bühler’s categories, this is a case of *demonstratio ad oculos*.⁹ This is an incorrect presumption. Bühler actually considers the availability or the construction of an

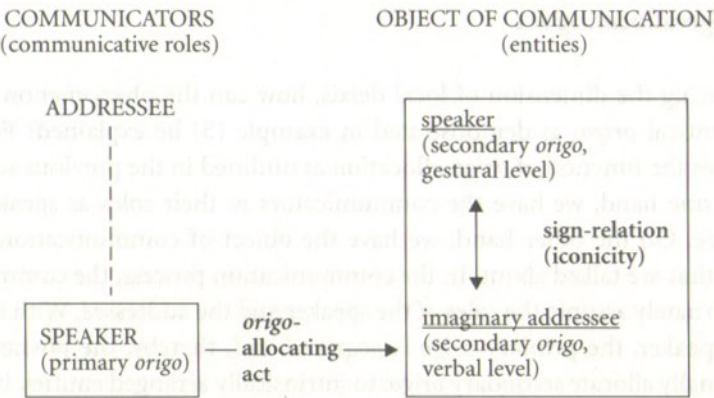


Figure 5. The *origo*-allocating act in example (5).

analogon as an important characteristic of the first main case of imagination-oriented deixis:

‘Here I was — he was there — the brook is there’: the narrator begins thus with indicative gestures, and the stage is ready, the present space is transformed into a stage. We paper-bound people will take a pencil in hand on such occasions and sketch the situation with a few lines. For example, I want to give a visual account of the course of the decisive battle between Caesar and Pompey with deictic clues as Plutarch describes it, and make a line drawing: ‘this is Caesar’s line of battle — here is the tenth legion — here is the cavalry — here he is himself. This is Pompey’s battle line’; and so on. A psychological study of the most elementary imagination-oriented deixis with linguistic resources requires that we proceed from that sort of basis. If there is no surface to draw a sketch on, then an animated speaker can temporarily ‘transform’ his own body with two outstretched arms into the pattern of the battle line. (Bühler, 1990, p. 156; cf. 1982a, p. 139)

Sennholz (1985, p. 87), however, believes that Bühler’s quote ‘*Here I was — he was there — the brook is there*’ is wrongly interpreted as imagination-oriented deixis. In his view, it is a case of analogical deixis and, therefore, a *demonstratio ad oculos*.¹⁰ According to Sennholz, this is a *demonstratio ad oculos* simply because perceivable pointing gestures appear. These gestures are seen as an indicator for the classification as *demonstratio ad oculos*, because demonstrative gestures cannot appear in imagined space.¹¹

I would like to support Bühler against Klein and Sennholz and argue against analogical deixis as a special form of *demonstratio ad oculos* and for the first main case of imagination-oriented deixis. The fact that perceptibility is considered

a criterion for the classification in *demonstratio ad oculos*, marginalizes the fact that a perceivable *analogon* is not only a perceivable object but rather a perceivable sign that depicts an absent person or object. It is an iconic sign in the sense of Peirce. According to Peirce, signs do not form classes of objects but rather emerge and exist only in the consciousness of an interpreter who produces these relations: "A representation is such only so far as it is conceived to be one." (Peirce, 1872–1878/1986, p. 64)

If we choose the sign function as the distinguishing criterion between *demonstratio ad oculos* and imagination-oriented deixis instead of the criterion of perceptibility, we arrive at the following delimitation: the *demonstratio ad oculos* is deixis in the perceptual space. The potential deictic objects are perceived objects that the speaker and the addressee do not interpret to be signs. The first main case of imagination-oriented deixis is deixis in imagined space. The potential deictic objects are interpreted as signs that represent something else.

In our examples, the perceivable body of the speaker is interpreted as a sign and, indeed, as a part of the imaginary model constructed by the partners in conversation. This dissolves the contradiction that emerges from two heterogeneous secondary *origos* on the gestural and verbal levels for the same conceptual relation. The body of the speaker functions as an iconic sign, as an *analogon* of the addressee projected into the future. The secondary *origo* on the gestural level, which is instantiated by the speaker, is connected via the sign relation to the secondary *origo* at the verbal level, which is instantiated by the imaginary wanderer.

Conclusion

We must assume not only one single *origo* but also several *origos*, which have to be considered as abstract volumeless points. These *origos* are not fixed to the speaker but rather can also be shifted to other entities.

I have suggested a hierarchical structure beginning with a primary *origo* connected to the role of the speaker. Within the change of communicative roles, the primary *origo* is attained and with it the possibility of intentionally creating secondary *origos* by means of *origo* allocation. These secondary *origos* can be instantiated by perceptible and imaginary entities.

This differentiation allows us to eliminate a contradiction inherent in the *origo* instantiation of local deixis between the verbal and gestural levels. The contradiction demonstrated in my examples is that, for the same conceptual

relation, the *origo* of the verbal level is allocated to the addressee projected into the future as the imaginary wanderer, whereas the *origo* of the gestural level is allocated to the body of the speaker herself. If, as I propose, the body of the speaker is understood as an *analogon*, i.e. as an iconic sign representing the addressee as the imaginary wanderer, the contradiction is resolved.

Notes

1. Fundamental questions and discussion points can be found, for example, in Klein (1978), Harweg (1990), Ziegler (1989), Hörnig and Wiebrock (2000), and Fricke (in preparation).
2. Bühler's concept of displacement covers what Langacker (1987, p.131) calls "mental transfer" and "cross-world identification".
3. The inadequacy of this dichotomy is also criticized by Harweg (1990), Hörnig and Wiebrock (2000) and Herrmann and Schweizer (1998). According to Herrmann and Schweizer (1998, p. 49) the speaker's intrinsic orientation raises the question of whether the utterance "The parking lot is in front of me" is not just as much from an intrinsic perspective as the utterance "The parking lot is in front of the main railway station".
4. A detailed criticism of Miller and Johnson-Laird's dichotomy can be found in Harweg (1990, pp. 216–218).
5. Sennholz (1985, p. 24) notes that there cannot be a single *origo* for all dimensions since in some circumstances several deictics used in one and the same speech sequence can each have their own *origo*. However, as the examples of local deixis show in this article, one and the same verbal deictic can also be connected with at least two different *origos*. Klein (1978, pp. 33–34) differentiates between "primary" and "secondary" *origos*. In the following these terms are adopted but are defined differently.
6. According to Reichenbach (1947), the distinctions of tense are distinctions between three points along a time-line. These three points are the utterance time or time of speaking, the reference time, and the event time.
7. Cf. Lyons (1977, p. 692).
8. Cf. Bühler (1982a, p. 113 and p. 79), Lyons (1977, pp. 574–575), Sennholz (1985, p. 141). Ziegler (1989, p. 202) also argues for the priority of the personal dimension. Following Diewald (1991) we exclude the third person from the personal dimension.
9. "[...] ich weiß nicht, wie BÜHLER den Fall *Hier traf ihn die Kugel* behandeln würde; es ist, in Bühlers Kategorien, offenbar eine demonstratio ad oculos, aber eben eine andere als bei *Hier traf mich die Kugel*. [...]" (Klein, 1978, p. 39) [I don't know how Bühler would deal with the case *The bullet hit him here*; it is, in Bühler's categories, obviously a *demonstratio ad oculos*, but different from *the bullet hit me here*.]
10. Cf. Sennholz (1985, p. 87): [Bühler himself wrongly interpreted this type as imagination-oriented deixis. However, I interpret it as analogical deixis in the sense discussed above, whereby the analogon is a kind of 'stage' (as Bühler fittingly says). Then, within this 'stage

space' the same conditions exist as in reality so that, correspondingly, a completely normal deixis takes place, a *demonstratio ad oculo* in the truest sense of the word.]

11. For the most part, Sennholz (1985) investigates only *demonstratio ad oculos* and marginalizes imagination-oriented deixis, which for him only includes the shift deixis.

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