

Bühler's two-field theory of pointing and naming and the deictic origins of grammatical morphemes

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Current research on grammaticalization argues that grammatical markers are generally derived from content words (or lexical expressions); but earlier research by Brugmann (1904) and Bühler (1934) showed that grammatical markers are also commonly derived from (spatial) deictics (or demonstratives). The present paper provides an overview of this research focusing on Bühler's two-field theory of pointing and naming. In this theory, there are two basic types of linguistic expressions, deictics (or 'pointing words') and symbols (or 'naming words'), that are functionally and diachronically independent of each other. The paper argues that Bühler's two-field theory can be interpreted as an alternative to the standard model of grammaticalization in which all grammatical markers are ultimately based on content words. Elaborating this approach, it is shown that the grammaticalization of deictic expressions involves a different mechanism of change than the grammaticalization of content words and that the two developments give rise to different types of grammatical markers.

1. Introduction

One of the most basic assumptions of grammaticalization theory is that grammatical markers are generally derived from content words, notably from nouns and verbs. According to Hopper & Traugott (2003:4), it is commonly accepted that all languages make some kind of distinction between lexical expressions (i.e. content words) denoting concepts for things, actions, and qualities, and grammatical markers (or function morphemes) serving language internal, organizational functions such as adpositions, auxiliaries, or modal verbs. Since the latter are frequently derived from lexical expressions, it has become a standard assumption of grammaticalization theory that *all* grammatical markers are ultimately based on content words (for a recent statement of this view see Bybee 2003:161 and Heine & Kuteva 2007: Ch. 2).

This hypothesis is difficult to verify, however. To be sure, there is good evidence that adpositions, auxiliaries, and modal verbs are frequently derived from content words; but for the vast majority of the world's languages there are hardly any historical records so that the diachronic evolution of grammatical markers can only be studied indirectly by language comparison and historical reconstruction, which is a solid methodology for recent diachronic changes but not for changes of the more distant past. A similar problem occurs in the analysis of grammatical markers in languages for which we *do* have historical records. In this case, there is usually good evidence that at least some grammatical morphemes are derived from content words; but very often grammatical markers are so old that it is impossible to determine their ultimate source. Indeed, what the historical data show is that many grammatical markers are based on other function morphemes, which in turn may have descended from a lexical source; but this is not evident from the historical data, either because the developments occurred so early that they are not attested in the historical records or because these function words did not originate from a lexical source.

Although the latter possibility is hardly ever taken into account in the grammaticalization literature, there is no a priori reason to exclude it. On the contrary, the available data suggest that grammatical morphemes are not generally derived from content words, but also from demonstratives or spatial deictics (cf. Diessel 1999a, 1999b, 2003, 2005, 2006, 2011).¹ In languages across the world, demonstratives provide a frequent historical source for definite articles, third person pronouns, relative pronouns, complementizers, conjunctive adverbs, copulas, focus markers, and a wide range of other grammatical items that have no, or no obvious, relationship to content words. However, since demonstratives may function as pronouns or determiners, they are commonly included in the class of grammatical markers, which according to (some) grammaticalization researchers must have descended from a lexical source; but this hypothesis is unwarranted. There are two general problems with this.

First, there is no evidence that demonstratives (i.e. spatial deictics) are commonly derived from content words. On the contrary, the available data suggest that demonstratives are very old. In the Indo-European language family, for instance, the deictic roots **to-* and **so-* can be traced back to the earliest historical records and it is commonly assumed that they are part of the Proto-language (cf. Brugmann 1904; Brugmann & Delbrück 1911:307ff). However, although the old age of the Indo-European demonstratives is well-known in the historical

1. In accordance with the earlier literature on deixis by Brugmann (1904) and Bühler (1936) I use the terms demonstratives and spatial deictics interchangeably (cf. Diessel 1999a).

literature, it is often tacitly assumed that demonstratives are included in the class of function morphemes that originated from a lexical source. In a recent study, Heine & Kuteva (2007) made this assumption explicit, arguing that demonstratives may evolve from motion verbs; but their analysis is based on very little data from only three languages in which demonstratives are phonetically similar to the verb 'go', which does not seem to be sufficient to explain the existence of demonstratives as a cross-linguistic class (see Diessel 2011 for a more detailed critique of this proposal). Apart from this study, and two related studies by Frajzyngier (1987, 1996), there is no indication in the historical and typological literature that demonstratives developed from motion verbs or any other lexical source suggesting that they may have a different origin than other function words (cf. Diessel 1999a, 2006, 2011).

Second, although demonstratives are often used as pronouns and determiners, their communicative function differs from that of other function morphemes. In contrast to genuine grammatical markers serving language-internal, organizational functions, demonstratives are commonly used with reference to things and situations in the outside world (cf. Fillmore 1997; Levinson 2004; Lyons 1977). In their basic use, they function to establish a joint focus of attention, i.e. they create a 'common ground' (cf. Clark 1996), providing a prerequisite for all other joint activities between speaker and addressee (cf. Diessel 2006). Since this is one of the most fundamental functions of human communication, cognition, and language (cf. Tomasello 1999; Eilan et al. 2005), it seems plausible to assume that demonstratives emerged very early in language evolution and independently of content words.

Note that the communicative function of demonstratives to establish joint attention is independent of their grammatical function. In European languages, demonstratives usually belong to particular grammatical word classes – they are pronouns, determiners, or adverbs; but in other languages they are sometimes not associated with a particular grammatical class. In Acehnese, for instance, there are three demonstrative particles, *nyoe* 'proximal', *nyan* 'medial', and *jêh* 'distal', that can occur in a wide range of contexts in which other languages require (demonstrative) pronouns, determiners, or adverbs; but the Acehnese demonstratives are particles with no specific syntactic function, suggesting that the grammatical properties of spatial deictics are not an inherent and universal property of this class (cf. Diessel 1999a, 2006). In fact, a number of scholars have argued that genuine demonstratives are deictic particles that only later developed into pronouns, determiners, and adverbs (cf. Brugmann & Delbrück 1911: 311; Bühler 1934: 144; Himmelmann 1997: 21). While this hypothesis cannot be verified by concrete historical data, there is good evidence that demonstratives constitute a particular (function) class distinct from both ordinary grammatical markers and content

words. I suggest therefore that we abandon the hypothesis that all function morphemes are eventually derived from a lexical source and take demonstratives for what they are: a unique class of linguistic expressions providing another frequent source for the development of grammatical markers (cf. Diessel 2006, 2011).

While this is currently an isolated view in the grammaticalization literature, it is interesting to note that earlier research in historical linguistics predating grammaticalization theory stressed the importance of demonstratives for the diachronic evolution of grammar. The Neogrammarians showed that at least in Indo-European languages grammatical morphemes are commonly recruited from demonstratives (cf. Wegener 1885; Brugmann 1904; Brugmann & Delbrück 1911: 307ff). Later, Karl Bühler (1934) emphasized the importance of spatial deictics for communication and grammar. As a psychologist, Bühler was mainly concerned with synchronic aspects of deixis; but his research also provided important insights into the diachronic development of grammar (see Ehlich 1979, 2007 for some discussion of this aspect of Bühler's work).

It is the purpose of this paper to make grammaticalization researchers aware of Bühler's two-field theory of pointing (deictics) and naming (symbols) and to consider the implications of his theory for current research on grammaticalization. We will see that Bühler approached the study of grammatical categories from a very different perspective than current researchers in grammaticalization and other subfields of linguistics, providing a 'fresh' look at the classification and diachrony of grammatical markers. The paper is divided into two parts. The first part presents an overview of Bühler's two-field theory and his analysis of deixis and anaphora, and the second part discusses the implications of Bühler's work for the analysis of grammatical markers in grammaticalization theory.

2. Bühler's two-field theory of pointing and naming and the deictic origin of grammatical morphemes

Bühler's theory rests on earlier work by Karl Brugmann and other Neogrammarian scholars who conducted extensive comparative research on demonstratives and other deictics in the Indo-European language family (cf. Wegener 1885; Brugmann 1904; Brugmann & Delbrück 1911). This research revealed that demonstratives provide a common historical source for many grammatical markers, including (personal) pronouns, (definite) articles, and various types of sentence connectives (e.g. relative pronouns, complementizers, subordinate conjunctions, conjunctive adverbs, correlatives), which Brugmann attributed to the particular communicative function of spatial deictics. Specifically, he argued that demonstratives are 'acoustic pointers' ("*lautliche Fingerzeige*", 5) that speakers use to draw the

addressee's attention to concrete objects and locations in the surrounding situation, but which can also be utilized for language internal functions, providing the basis for their development into pronouns, articles, and conjunctions (cf. Brugmann 1904: 5, 13–21; see also Brugmann & Delbrück 1911: 307ff).

Building on this work, Bühler (1934) developed a psychological theory of deixis and anaphora that is grounded in his organon model of communication. In this model, language is seen as an instrument that speakers use to perform 'speech acts' (*"Sprechhandlungen"*, 53), i.e. verbal actions that are produced with the intention to accomplish particular goals in the communicative interaction with the addressee. In accordance with this interactive view of language, Bühler characterized the use of deictic expressions as 'a complex human act' (*"eine komplexe menschliche Handlung"*, 79) in which the speaker does not simply indicate the location of an object, but also plays a 'role', i.e. the role of the sender as distinct from that of the addressee (*"er [der Sprecher] spielt auch eine Rolle, die Rolle des Senders abgehoben von der Rolle des Empfängers"*, 79). Specifically, deictic expressions are used by the speaker to 'guide' (*"steuern"*) the addressee's search for a particular referent in perception:

Kurz gesagt: die geformten Zeigwörter, phonologisch verschieden voneinander wie andere Wörter, steuern den Partner in zweckmäßiger Weise. Der Partner wird angerufen durch sie, und sein suchender Blick, allgemeiner seine suchende Wahrnehmungstätigkeit, seine sinnliche Rezeptionsbereitschaft wird durch die Zeigwörter auf Hilfen verwiesen und deren Äquivalente, die seine Orientierung im Bereich der Situationsumstände verbessern, ergänzen. (Bühler 1934: 105–6)

To put it briefly: the formed deictic words, phonologically distinct from each other just as other words are, are expedient ways to guide the partners. The partner is called by them, and his gaze, more generally, his searching perceptual activity, his readiness for sensory reception is referred by the deictic words to clues, gesture-like clues and their equivalents, which improve and supplement his orientation among the details of the situation. (English translation from Goodwin 1990: 121)

Like Brugmann, Bühler emphasized that demonstratives are frequently accompanied by a deictic pointing gesture and other nonverbal means of communication. Brugmann (1904: 7–8) speculated that demonstratives may have emerged in the context of concrete gestures, and other scholars of that time hypothesized that verbal language may have evolved from gestural communication, notably from deictic pointing. Bühler does not go so far, calling it 'the myth of the deictic origin of language' (*"der Mythos vom deiktischen Quellpunkt der darstellenden Sprache"*, 86); but then he adds that myths need not be false and stresses the importance of deictic pointing for human communication (cf. Bühler 1934: 83–6).

Embarking from this view of deixis and verbal action, Bühler developed his two-field theory of pointing and naming, in which demonstratives and other

deictic expressions are analyzed as one of the two basic types of linguistic signs. The other type subsumes a much larger class of items including nouns and verbs and all other lexical expressions, to which Bühler referred as ‘naming words’ (“*Nennwörter*”). Deictic words and naming words are two strictly distinguished word classes belonging to separate ‘fields’, i.e. the ‘deictic field’ (“*das Zeigfeld*”), which is the physical or verbal context of a concrete speech event, and the ‘symbolic field’ (“*das Symbolfeld*”), which Bühler defined as the ‘synsemantic environment’ (“*synsemantische Umfeld*”, 81) of linguistic expressions and which modern linguists would probably characterize as the symbolic (or semantic) network representing our lexical knowledge. The two fields determine the meaning (or interpretation) of linguistic expressions: the meaning of deictic expressions is determined by a reference frame for pointing, and the meaning of symbolic expressions is determined by their relationship to other linguistic items in the language user’s linguistic knowledge and/or language use (i.e. cooccurring lexemes). On this account, deixis (i.e. pointing) and naming are two separate acts for which language provides two basic types of signs that are strictly distinct both functionally and historically:

Es muss aber betont werden, dass Deixis und Nennen zwei zu sondernde Akte, Zeigwörter und Nennwörter zwei scharf zu trennende Wortklassen sind, von denen man z.B. für das Indogermanische nicht anzunehmen berechtigt ist, die eine sei aus der anderen entstanden (cf. Brugmann & Delbrück 1911: 307ff).

(Bühler 1934: 86)

However, it must be stressed that deixis and naming are two different acts and must be distinguished from each other, that deictic words and naming words are two different word classes that must be clearly separated; there is no justification for assuming that in Indo-European, say, the one emerged from the other (cf. Brugmann & Delbrück 1911: 307ff).

(English translation from Goodwin 1990: 101)

Note that Bühler did not posit the existence of a separate class of grammatical markers because he believed that the (communicative) functions of grammatical markers are related to the deictic and symbolic fields so that pronouns, articles, and other grammatical markers can be subsumed under the class of deictics and symbols. That does not mean, however, that Bühler did not recognize the particular role of grammatical markers in syntax – he was well aware of the fact that grammatical morphemes serve a specific function in the syntactic formation of phrases and clauses; but he distinguished the morphosyntactic aspects of words from their communicative functions.

In modern linguistics, words are primarily analyzed in terms of their morphological and syntactic properties, leading to their classification as nouns, pronouns, and prepositions, which most linguists consider basic for the analysis of the linguistic system. In Bühler’s framework, by contrast, the grammatical word

classes are only of secondary importance; they are due to relatively recent historical developments and vary across languages. Primary and more important for the overall organization of language is the classification of words according to their communicative functions, i.e. the division between deictics and symbols, which, according to Bühler, is likely to be universal and older than the distinction between grammatical categories (cf. Bühler 1934: 83–6). Now, since Bühler believed that grammatical markers are functionally (and diachronically) related to deictics and symbols, he included them into the class of deictic and symbolic expressions.²

In accordance with this view, Bühler stressed that the notion of demonstrative must not be confused with that of pronoun. Although demonstratives are often used as pronouns (or articles), they are not pronouns by definition. In fact, Bühler claimed that 'pure deictic signals' (*"reine Zeigsignale"*, 144) are particles, i.e. uninflected words with no specific syntactic function (cf. Bühler 1934: 80, 115–6, 144). Of course, most deictic expressions belong to a particular grammatical class, they are pronouns, articles, or conjunctions; but Brugmann & Delbrück (1911: 311) had argued that there may have been a time when all demonstratives were deictic particles, i.e. indeclinable words with no specific semantic and/or syntactic features and functions:

Vielleicht sind alle Demonstrativa einmal deiktische Partikeln, also indeklinable Wörter gewesen. Sie traten, wenn der Gegenstand zugleich genannt war, vor oder hinter seine Bezeichnung. Dergleichen Partikeln finden sich in attributiver Verbindung mit Substantiva auch noch vielfach in den historischen Perioden der indogermanischen Sprachen, z.B. nhd. der mensch da, da der mensch, du da.

(Brugmann & Delbrück 1911: 311)

Perhaps at some time all demonstratives were deictic particles, i.e. indeclinable words. If the object was simultaneously denoted by a noun, they were placed before or after it. Such particles are still commonly found in attributive conjunction with nouns in the historical (i.e. documented) periods of the Indo-European languages, e.g. New-High German *the man there, there the man, you there*. [my translation]

With reference to this quote, Bühler argued that 'pure deictics' are particles and that demonstrative pronouns and articles are 'mixed forms' (*"Mischformen"*), exhibiting features of both the deictic and symbolic fields: on the one hand, demonstrative pronouns/articles serve pointing functions like deictic particles;

2. Strictly speaking, Bühler was only concerned with grammatical markers derived from deictics; but since he pointed out that not all grammatical markers are inherently deictic (on page 107 of the *Sprachtheorie*, for instance, he states that prepositions are non-deictic), he must have assumed that there are non-deictic markers of grammatical structure included in the symbolic field.

but on the other hand they have semantic and morphosyntactic features that characterize them as symbolic terms:

*Das 'reine' Zeigsignal ist, war oder wäre, wenn es vorkommt, vorkam oder vorkäme, ein Wegpfeil ohne aufgeschriebenen Namen und sonst nichts; man löscht die Pfeilfunktion am Wegweiser nicht, wenn man einen Ortsnamen aufmalt und genau so wenig wurde sie gelöscht, als aus den Partikeln der *to-Deixis Wörter wie das deutsche *dér* hervorgegangen sind. Diesem, *der* ist zumindestens soviel an Nennfunktion aufgegeben, dass es im Symbolfeld der übrigen Nennwörter Platz nehmen kann; daher der korrekte Name Pronomina.* (Bühler 1934: 144)

The 'pure' deictic signal is and was, when it occurs and occurred, or would be if it occurred, an arrow showing the way without a name written on it, and nothing more; the arrow function on the signpost is not cancelled by painting a place-name on it; nor is it cancelled when the German word *dér* (*this* or *the*) emerged from the particles of the *to-Deixis: The word 'der' has at least so much in the way of the naming function entrusted to it that it can find a place in the symbolic field among the other naming words; hence its correct name, pronoun.

(English translation from Goodwin 1990: 161)

On this account, pronouns, articles, and conjunctions have lost their status as pure deictics and have adopted new symbolic functions indicating, for instance, gender and number contrasts (e.g. German *der* M.SG vs. *die* F.SG or PL) or semantic relationships between clauses (e.g. *darum* 'there-fore', i.e. causal). Nevertheless, according to Bühler all of these words have preserved their original pointing function, which is now conflated with functions of the symbolic field.

What is essential for the diachronic development of demonstratives into grammatical morphemes is the emergence of new deictic uses or 'modes of pointing' (i.e. "Zeigemodi"). In their basic use, deictic expressions refer to things or events in the situation surrounding speaker and addressee, to which Bühler referred as the *demonstratio ad oculos*; but there are other uses in which demonstratives do not refer to concrete objects or events. Bühler distinguished the *demonstratio ad oculos* form two other uses (or 'modes'): the anaphoric use of deictics and the use of deictics *am Phantasma* (Engl. 'imagination-oriented deixis'; cf. Goodwin 1990: 137ff).

The latter use is closely related to the *demonstratio ad oculos*. The main difference is that the use of deictic expressions *am Phantasma* does not involve the physical speech situation (as the *demonstration ad oculos*), but an imaginary situation that is created by the ongoing discourse (or narrative). In both uses, deictic expressions are anchored by the 'origo', which Bühler characterized as the center of a coordinate system involving three dimensions: space, time, and person. For each dimension, there are particular deictic terms: *here* and *there* (and *this* and *that*) are spatial deictics, *now* and *then* are time deictics, and *I* and *you* are person

deictics (cf. Bühler 1934: 102ff). In the *demonstratio ad oculos* the origo is usually associated with the speaker's location at the time of the utterance, and in the use of deictic expressions *am Phantasma* the origo is transferred to an imaginary observer in (narrative) discourse (Bühler 1934: 102ff).³

The third use, i.e. the anaphoric use of deictics, is radically different from the two other uses in this regard. Bühler (1934: 81) calls the anaphoric use of deictics "the most remarkable mode of pointing, the one specific to language" (cf. Goodwin 1990: 95). If there is anything like a deictic center in the anaphoric use, it is the position of deictic expressions in discourse; that is, in the anaphoric use the origo is disembodied and located in the unfolding stream of words and sentences.

Psychologisch betrachtet setzt jeder anaphorische Gebrauch der Zeigwörter das eine voraus, daß Sender und Empfänger den Redeabfluß als ein Ganzes vor sich haben, auf dessen Teile man zurück- und vorverweisen kann. Sender und Empfänger müssen also dies Ganze soweit präsent haben, dass ein Wandern möglich ist, vergleichbar dem Wandern des Blickes an einem optisch präsenten Gegenstand.
(Bühler 1934: 121–2)

Seen from a psychological perspective every anaphoric use of deictic words presupposes one thing: that the sender and the receiver have the flow of speech in front of them and can reach ahead and back to its parts. It must hence be given as a whole to both the sender and the receiver to such an extent that wandering is possible, comparable to the wandering of the gaze on an optically present object.
(English translation from Goodwin 1990: 138)

What anaphoric expressions refer to are elements of the preceding or subsequent discourse, sentences or parts of sentences. As Bühler notes, in the anaphoric use, deictic expressions serve to direct the addressee's attention backwards and forward along the speech stream, creating links between elements of the progressing discourse:

Jedenfalls aber sprächen alle anaphorischen Pfeile, wenn sie sprechen könnten, ungefähr so: schau vor oder zurück das Band der aktuellen Rede entlang! Dort steht etwas, das eigentlich hierhergehört, wo ich stehe, damit es mit dem Folgenden verbunden werden kann. Oder umgekehrt: dorthin gehört, was mir folgt, man hat es nur der Entlastung wegen versetzt.
(Bühler 1934: 390)

At any rate, all anaphoric arrows, if they could speak, would speak more or less as follows: look ahead or back along the band of the present utterance. There something will be found that actually belongs here, where I am, so that it can

3. Bühler distinguished between three basic uses of deictic expressions *am Phantasma*. In one case, the origo is transferred from the speaker to an imaginary observer; in another case, the speaker remains the deictic center and points to an imagined object in the speech situation; and in the third case, the two previous scenarios are intermingled (Bühler 1934: 134–5).

be connected with what now follows. Or the other way round: what comes after me belongs there, it was only displaced from that position for relief.

(English translation from Goodwin 1990: 443)

The anaphoric use of deictic expressions is of fundamental significance for the development of grammar; it provides a linguistic device that allows the speaker to establish links between non-adjacent elements in the unfolding stream of speech, weakening the tight constraints that the linear dimension of language imposes on syntactic structure.

Sie [die Anaphora] macht es möglich, ohne Gefährdung der Gesamtübersicht Einschreibungen aller Art zu vollziehen und in kleinen oder großen Bögen über alles Zwischenliegende hinweg schon Dagewesenes wieder hervorzuholen oder erst Kommendes schon im voraus zur Verbindung mit dem gerade Genanten in Aussicht zu nehmen. Im ganzen ein außerordentlich vielgestaltiges Füge- und Beziehungsmittel, das die Beschränkungen des psychologischen Gesetzes, dass die Wörter im Redefluß nur kettenförmig eines nach dem anderen hervorgebracht werden können, weitgehend ausgleicht.

(Bühler 1934: 391)

Anaphora makes it possible to make insertions of all kinds [into the chain of speech] without losing sight of the overall course, and to make a smaller or larger jump over intervening points in order to draw what has already been or what is yet to come into consideration along with what is now being named. Overall it is an exceptionally multifarious means of connecting and relating, and largely compensates the limitations imposed by the psychological law that the words in the flow of speech can only be produced in a chain one after the other.

(English translation from Goodwin 1990: 444)

Following Paul (1920 [1880]), Bühler assumes that the anaphoric use of deictic expressions is an extension of the basic use, i.e. the *demonstration ad oculus*, providing an important step in the diachronic evolution of grammar.⁴ In this use, ‘the context itself is transformed into a deictic field’ (*“der Kontext selbst wurde zum Zeigfeld erhoben”*, 386) in which genuine deictic expressions serve a language-internal function as ‘joints of speech’ (*“Gelenkwörter”*, 385). Bühler characterized the anaphoric mode of deixis as ‘syntactic pointing’ (*“syntaktisches Zeigen”*, 388), used to establish links between elements of the symbolic field. It is in this sense

4. Compare the following passage from Paul (1880/1920:148): *“Es war für die Entwicklung der Syntax ein höchst bedeutsamer Schritt; daß dem Demonstrativum, dem ursprünglich nur die Beziehung auf etwas in der Anschauung Vorliegendes zukam, die Beziehung auf etwas eben Ausgesprochenes gegeben wurde.”* It was an extremely important step for the development of syntax that the demonstrative, which was originally only used with reference to something seen (or imagined), was given the potential to refer to something just mentioned’ (English translation from Goodwin 1990: 439).

that the anaphoric use of deictic expressions can be seen as a link between pointing and naming, between the deictic and symbolic planes (cf. Bühler 1934: 123–4).

Although Bühler did not assume a particular class of grammatical markers, he made it clear that the anaphoric use of (spatial) deictics provides the functional and diachronic basis for many grammatical function words. With reference to Brugmann (1904) and Brugmann & Delbrück (1911), he noted that the relative pronouns of several Indo-European languages evolved from anaphorically used demonstratives (116), that the definite article has an anaphoric function (303ff), and that (many) conjunctions and conjunctive adverbs have a 'deictic content' (116). In other words, what Bühler proposed is that important aspects of grammar are grounded in the anaphoric use of spatial deictics. Although relative pronouns, definite articles, conjunctions, and conjunctive adverbs belong to particular grammatical word classes, they serve similar functions as anaphorically used demonstratives that speakers use to establish links between nouns and propositions. On this account, some of the most important grammatical markers are derived from (spatial) deictics that evolved into syntactic pointing words.

3. Discussion

The work by Brugmann and Bühler draws our attention to an aspect of grammar and grammatical development that has been largely neglected in current research on grammaticalization. While these scholars had little to say about the development of grammatical markers from content words, their research demonstrated that demonstratives play an important role in the diachronic evolution of grammar. In current grammaticalization research the focus is on semantic and conceptual processes that underlie the grammaticalization of symbolic terms; whereas Bühler and Brugmann approached the study of grammatical morphemes from an interactive perspective, which automatically drew their attention to the role of deixis and pointing in grammar evolution. In this approach, demonstratives constitute a small but very important class of linguistic expressions that are of fundamental significance for the emergence of grammar.

The development of grammatical markers from demonstratives is based on the anaphoric use of spatial deictics whereby a genuine pointing word is utilized for a language-internal, grammatical function. One can think of the anaphoric mode of deixis as a particular mechanism of change that shares important properties with the metaphorical use of content words which (often) underlies the incipient stages of the grammaticalization of symbolic terms (cf. Heine et al. 1991). In fact, one could think of the anaphoric use of deictic expressions as a particular type of metaphor. Both anaphora and metaphor involve a mapping between a concrete

source domain and a more abstract target domain, which can be characterized by Traugott's notion of 'subjectification' (cf. Traugott 1989); but the anaphoric use of deictics and the metaphorical use of content words involve different psychological processes. The anaphoric use of spatial deictics is based on a specific way of conceptualizing language whereby the unfolding speech stream is treated as a particular reference frame for grammatical pointing words that are grounded by a moving origo (see above), whereas the metaphorical use of symbolic expressions involves the conflation or blending of features from two conceptual domains, e.g. body and space or space and time (cf. O'Grady et al. 2005), which are in principle independent of the textual origo.

Not surprisingly, the two developments give rise to different types of grammatical markers. As pointed out in Diessel (2011), while there are grammatical morphemes that may originate from both sources (e.g. sentence connectives and copulas), some of the most frequent grammatical markers are almost exclusively derived from either deictics or symbols. Across languages, third person pronouns and definite articles are almost always based on spatial deictics, i.e. demonstrative pronouns and determiners – there are only very few exceptions (cf. Diessel 2011); whereas adpositions, auxiliaries, and modal verbs are generally derived from lexical expressions, notably from nouns and verbs (cf. Hopper & Traugott 2003; Lehmann 1995; Heine et al. 1991).

Interestingly, if we consider the various grammatical markers from the perspective of Bühler's two-field theory, one could argue that they are still deictics and symbols because they often preserve the basic pointing and naming functions of their respective fields. Third person pronouns and definite articles indicate relationships between elements in discourse in ways that are reminiscent of the anaphoric use of deictics; and adpositions, auxiliaries, and modal verbs elaborate the meaning of adjacent content words in ways that are immediately based on their earlier meanings as symbols (cf. Diessel 2011).

However, while these categories are consistent with Bühler's two-field theory, it must be emphasized that grammatical markers can lose their connection to the deictic or symbolic fields so that they are no longer used with an inherent pointing or naming function. For instance, in some languages demonstratives have been reanalyzed as noun clause markers that have completely lost their deictic force (cf. Greenberg 1978), and symbolic expressions can assume purely syntactic functions as complementizers or verb class markers with no noticeable semantic content (cf. Hopper & Traugott 2003). I therefore disagree with Bühler that all grammatical markers can be analyzed in terms of their original function as deictics or symbols; some grammatical markers have completely lost their original pointing or naming functions and have developed into 'pure' grammatical function morphemes. However, in the early stages of grammaticalization, grammatical

markers are generally related to elements of the deictic or symbolic fields, serving language-internal pointing and naming functions that gradually fade away as the grammaticalization process continues.

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