CHAPTER 5

Syncretism and Containment in Spatial Deixis

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5.1 INTRODUCTION

According to Diessel (1999, 6), demonstratives have four main uses, which are summarized in Figure 5.1 and illustrated for English in (1). For discussion see also, among others, Fillmore (1971, 1982, 1997), Lyons (1977), Levinson (1983), Himmelmann (1997, 2001), and Diessel (1999).

(1) a. **That** book in the window over there is wonderfully illustrated. (*exophoric*)
b. My friend's dog is so friendly. I'll dogsit **that** little guy any time. (*anaphoric*)
c. . . . and they lived happily ever after. **That** was the end of our fairy tale. (*discourse-deictic*)
d. Have you heard about **that** terrible measles epidemic? (*recognitional*)

This chapter[1] focuses only on the (gestural) exophoric demonstrative use (Diessel 1999, 94), that is, the use of demonstratives to point at objects in the physical environment of the speech participants, with an indication of relative

1. This chapter is a modified and abbreviated version of Lander and Haegeman (2016). We make use of the same data here; the discussion of the data is also closely based on the earlier publication. This work has its roots in a nanosyntax weblab held in November and December of 2012. Special thanks to Michal Starke, Sebastian Bican-Miclescu, and Bartosz Wiland for discussion of the data. We are grateful to the members of GIST (Generative Initiatives in Syntactic Theory) for comments on

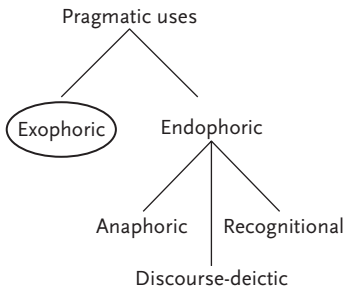

Figure 5.1 Uses of demonstratives

distance from speaker, hearer, or both. Of the four demonstrative functions in Figure 5.1, the exophoric use is normally considered the most basic or concrete one, because endophoric uses are more anchored in the discourse itself, as opposed to the physical speech situation.[2] We use the general term *spatial deixis* for the (gestural) exophoric use.

The purpose of this chapter is to investigate spatial-deictic systems in a wide range of languages from the perspective of two morphological phenomena. In Section 5.2 we discuss the semantic distinctions that have emerged from the literature. We systematize these and propose a hierarchical organization that receives support from the observed syncretism patterns. Section 5.3 delves deeper into the data and the proposed hierarchical classification by investigating the phenomenon of morphological containment, for which we discover crosslinguistically regular patterns clearly showing that certain components of the spatial-deictic system are structurally larger than others. In Section 5.4 we embed our findings in a nanosyntactic model: We show that the patterns observed in Sections 5.2 and 5.3 can be understood in terms of a simple syntactic structure consisting of three syntactico-semantic heads (Dx_1, Dx_2, and Dx_3) in a unique merge order. Section 5.5 concludes the chapter.

a previous version of this talk (May 7, 2014). Thanks to Lena Baunaz and Frédérique Berthelot for help with French. Thanks also to two anonymous OUP reviewers for helpful comments. Abbreviations include DEM.PRO = pronominal demonstrative, DEM.ADN = adnominal demonstrative, N(EUT) = neuter, F(EM) = feminine, M = masculine, ABS = absolutive, SG = singular, PL = plural, DU = dual, AN = animate, INAN = inanimate, IE = Indo-European, *coll.* = colloquial. For the languages discussed we provide the family in brackets, e.g. Ewe [Niger–Congo]. Eric Lander's research is supported by BOF (Bijzonder Onderzoeksfonds) grant 01D30311 awarded by UGent and Odysseus grant G091409 awarded by FWO–Flanders (Fonds Wetenschappelijk Onderzoek–Vlaanderen). Liliane Haegeman's research is funded by Odysseus grant G091409 awarded by FWO–Flanders.

2. For the exophoric–endophoric distinction, Meeuwis and Stroken (2012) prefer the terms situational and nonsituational, respectively. See also Rauh (1983).

5.2 ORGANIZING THE DATA

5.2.1 Crosslinguistic attestation

From the literature a consensus emerges that the encoding of spatial deixis in natural language encodes relative distance ('close to,' 'far from') of a referent and that the distance of the relevant referent is evaluated from a deictic center (or anchor or *origo*). Fillmore (1982) and Anderson and Keenan (1985) distinguish "distance-oriented" and "person-oriented" systems of spatial deixis. In distance-oriented systems, only the speaker serves as the deictic center. In person-oriented systems, in addition to the speaker, nonspeakers such as the hearer can also serve as the deictic center. According to Diessel (1999, 50) the two systems differ in terms of the encoding of distance: Distance-oriented systems have at most a three-way system of distance contrasts, whereas person-oriented systems may have four (or more) contrasts. As we will see in this section, there are in fact reasons to be skeptical about systems with more than three contrasts. More generally, we believe that the distance-oriented versus person-oriented distinction is a false dichotomy. One natural way to account for person-oriented deictic systems might be to bundle person–participant features with distance features. Fortis and Fagard (2010, 10–11), for instance, identify the following crosslinguistically possible anchors: Speaker (S), Hearer (H), Third Person (Th), and both S and H together.[3] On the basis of the combinations of distance oppositions and person features, there are then at least twelve different possible combinations (and hence readings) available. In (2) we provide the relevant feature systems; Table 5.1 shows all of the possible combinations.

(2) a. *Distance features*
distal
medial
proximal

b. *Person features*
[1] = S
[2] = H
[3] = Th
[1] + [2] = S + H

3. Imai (2003, section 2.3) lists three additional anchors: Participant, Nonparticipant, and Object. Although we are not in principle denying the possibility of the existence of such anchors, it remains true that they are very rare in his sample and marked by idiosyncratic properties. For instance, the Huallaga Quechua morpheme *qa* indicating an Object anchor is optional and "should be excluded from a paradigm of deictics" (Imai 2003, 70, n.5). Indeed, similar issues subsequently arise for the Third Person anchor, casting doubt on the validity of that particular anchor.

Table 5.1 READINGS RESULTING FROM THE FEATURE COMBINATIONS IN (2)

	Feature Bundles	*Interpretation*	*Label*
a.	? Dist + S	'far from S'	S-based distal
b.	? Med + S	'medium distance from S'	S-based medial
c.	**Prox + S**	**'close to S'**	**S-based proximal (= *Proximal*)**
d.	*Dist + H	'far from H'	H-based distal
e.	*Med + H	'medium distance from H'	H-based medial
f.	**Prox + H**	**'close to H'**	**H-based proximal (= *Medial*)**
g.	*Dist + Th	'far from Th'	Th-based distal
h.	*Med + Th	'medium distance from Th'	Th-based medial
i.	??Prox + Th	'close to Th'	Th-based proximal
j.	**Dist + Inclusive**	**'far from S and H'**	**Incl-based distal (= *Distal*)**
k.	*Med + Inclusive	'medium distance from S and H'	Incl-based medial
l.	? Prox + Inclusive	'close to S and H'	Incl-based proximal

Table 5.2 THREE ATTESTED SPATIAL-DEICTIC READINGS

	Interpretation	*Label*
c.	'close to S'	S-based proximal (= *Proximal*)
f.	'close to H'	H-based proximal (= *Medial*)
j.	'far from S and H'	Incl-based distal (= *Distal*)

Based on the empirical descriptions available in the literature, this system clearly overgenerates. In the descriptions of spatial deixis we have examined, none of the readings signaled by an asterisk in Table 5.1 have been found so far. The readings accompanied by question marks in Table 5.1 are reported in the literature but their status is dubious for reasons to be discussed presently. Out of the twelve possible readings generated by the combination of person features with distance contrasts, only three are undoubtedly attested as described in the literature. These three core readings are given in Table 5.2.

From the discrepancy between Tables 5.1 and 5.2 we conclude that it is unlikely that encoding of spatial deixis results from the combination of person features with distance features, and we do not pursue an approach in which person features are involved in the expression of spatial deixis.[4]

4. The basic idea that person features are at the core of spatial-deictic contrasts can be found in Leu (2015, section 2.7.2) and Harbour (2016), among others. We do not approach spatial deixis from this angle because, as discussed in this section, when person features are combined with distance contrasts in this way, the system overgenerates. There are other reasons to keep the domains of person and deixis clearly

Let us now consider the (non)attestation of the readings in Table 5.1 in more detail. Starting with the readings involving S (a–c), it is rather uncontroversial to say that crosslinguistically S is universally the primary anchor of spatial deixis (Imai 2003). The spatial-deictic systems of many languages are indeed described as being purely S-based, with proximal, medial, and distal readings with respect to S. There is some reason to doubt the empirical validity of these descriptions, however. We illustrate this with two examples. First, consider the case of Venda [Niger–Congo], which has been claimed to have a four-way distance-oriented system: 'immediately next to speaker,' 'relatively close to the speaker,' 'farther away from the speaker,' and 'relatively remote from both the speaker and the person addressed' (Poulos 1990, 107, cited in Imai 2003, 97). However, on the basis of native speaker elicitation, Imai (2003, section 4.3.3) concludes that Venda in fact shows only a three-way system and that H is the anchor in the medial form; the fourth item 'immediately next to speaker' is more accurately identified as an item for emphasis or givenness (Imai 2003, 99). Similarly, Malagasy [Austronesian] has been claimed to have as many as seven S-based distance contrasts (Anderson and Keenan 1985). Again on the basis of experiments, Imai (2003, section 4.3.2) demonstrates that Malagasy actually has a three-way system, which also involves the H anchor in parts of the system. The impression of a very rich distance-oriented system can be attributed to additional parameters outside of distance (i.e. boundedness and visibility, as well as the existence of a

separated. For instance, Starke (2013) and Vanden Wyngaerd (Chapter 11 in this book) find that the person fseq is [1 [2 [3]]]. If this fseq were also responsible for spatial deixis, then it would mean that Prox is larger than Med and Med is larger than Dist, i.e. [Prox [Med [Dist]]]. However, this is in fact the exact opposite of our findings in Section 5.3, where we firmly establish the containment relation [Dist [Med [Prox]]]. In other words, the person–distance hypothesis for spatial deixis not only overgenerates, but it also appears to clash with the containment facts.

A second reason we think it is unwise to reduce spatial-deictic distinctions to person features is that certain predictions made by such a hypothesis appear not to be confirmed. For instance, if person and deixis are actually the same, then we would expect that languages with a rich set of pronouns will also have a rich set of deictic contrasts. By doing a rough search on the World Atlas of Language Structures (WALS) (Dryer and Haspelmath 2013), where it is possible to combine the value "distance contrasts in demonstratives" with the value "inclusive–exclusive distinction in independent pronouns," we find that this prediction is not borne out. For instance, Navajo [Na-Dene] and Koasati [Muskogean] have rich deictic systems but no inclusive–exclusive distinction in pronouns. On the other side of the coin, WALS gives a total of 21 languages that do have an inclusive–exclusive distinction in pronouns but display only a two-way deictic contrast. There is even a language, Kera [Afro-Asiatic], that shows an inclusive–exclusive pronoun system but *no* distance contrasts in its demonstrative system. Virtually all combinations in between these extremes are found as well. Thus there does not appear to be any significant crosslinguistic correlation between person and deixis.

neutral demonstrative; Imai 2003, section 4.7, 96). Regarding the state of our understanding with regard to spatial deixis, Imai (2003, 21) points out the following:

> Popular languages that are studied in the literature in more detail than less popular languages tend to be analyzed as being addressee-anchored: for example, Basque, Finnish, Hawaiian, Japanese, Korean, and Maori. Less popular languages tend to be described as a speaker-anchored three-degree distance contrast. It is, however, possible that some researchers failed to correctly detect the addressee anchor in these less-studied languages.

We adopt a strong version of Imai's intuition that the H anchor is underreported, and we formulate the hypothesis that all languages should be described not only in terms of an S anchor but also in terms of an H anchor. In specific cases, syncretisms may obscure the H anchor, of course, a point to which we return, but nonetheless readings anchored by the H should exist in every language. We are confident that this hypothesis will be further confirmed as the descriptive adequacy of the typological literature improves.

As indicated in readings a–c in Table 5.1, the encoding of S-based proximal 'close to S' (reading c) is clearly reported in the literature, but for now, given the lack of clarity for languages like Venda and Malagasy, we question the existence of purely S-based medials 'medium distance from S' (reading b) and distals 'far from S' (reading a). This is signaled by superscripted question marks in Table 5.1. We call the S-based proximal (reading c) the *Proximal*.

With respect to the hearer (H) anchoring of spatial deixis, H-based proximals 'close to H' (reading f) have been identified, as is more fully demonstrated in Section 5.2.2 We refer to the H-based proximal as the *Medial*. H-based medials 'medium distance from H' (reading e) and distals 'far from H' (reading d) are, as far as we can tell, unattested, as indicated in Table 5.1 by asterisks.

With regard to the Th(ird person) anchor, according to Imai (2003, 171) no language expresses more than a single degree of distance from a Th anchor, namely 'close to Th' (reading i). Thus, the Th-based medial 'medium distance from Th' (reading h) and distal 'far from Th' (reading g) have been marked by asterisks. However, even the Th-based proximal (reading i) has rarely been identified, and there are a number of reasons to doubt that the Th anchor is actually a valid category. First, though Imai (2003, 25–26) claims that languages like Kikuyu [Niger–Congo] and Inuktitut [Eskimo–Aleut] have morphologically encoded Th anchors, he himself adds that such readings resemble "pragmatically conditioned perspective shifts" whereby "the deictic center has been transferred from the speaker to another person." Thus the 'close to Th' reading seems to have more to do with logophoricity than with spatial deixis. Moreover, the prefix that Inuktitut uses as its 'field shifter,' *-ta*, is *optional* and

therefore "should be excluded from a paradigm of deictics" (Imai 2003, 70, n. 5). This casts doubt on the status of Th as an anchor. Furthermore, Imai (2003, 25–26) observes that, apart from Kikuyu and Inuktitut, no other language seems to mark such shifts in their morphology. On the basis of these considerations, we tentatively conclude that further research on Kikuyu and Inuktitut would be needed to confirm Th as a deictic anchor.

Let us finally turn to the Incl(usive) readings: 'far from S and H,' 'medium distance from S and H,' and 'close to S and H.' From the literature it is clear that that distal reading 'far from S and H' (reading j) is attested. This is the reading we have labeled the *Distal*. To the best of our knowledge, the Incl-based medial 'medium distance from S and H' (reading k) has not been reported, and we assume it is unattested. For the Incl-based proximal 'close to S and H' (reading l), Imai (2003, 22–23) mentions that, though quite rare, it is attested in languages such as Paamese [Austronesian], Quileute [Chimakuan], Bemba [Niger–Congo], and various languages of the Philippines [Austronesian]. However, it is unclear how, in fact, the Incl-based proximal reading 'close to S and H' differs from the more clearly attested S-based proximal with the meaning 'close to S' (reading c). Moreover, Imai (2003, 22–23) points out that the relative proximity denoted by 'close to S' as compared with 'close to S and H' is not crosslinguistically consistent. In Binukid [Austronesian], for instance, the form *ʔi* 'close to S and H' seems to denote an object closer than the form *ʔini* 'close to S,' but in languages like Waray-Waray [Austronesian] and Quileute [Chimakuan] the 'close to S' form seems to indicate closer proximity than the 'close to S and H' form (Imai 2003, 23). Furthermore, in most languages there is no morphological distinction between encodings of the two readings (see Janssen 2004, 989–990 on English *this*, Tahitian *teie*, and Japanese *ko-*). Because of the somewhat peripheral status of the Incl-based proximal reading and the semantic fuzziness associated with it, we abstract away from it in this chapter until further research can be conducted.

To sum up, though ~~at first sight~~ review of the typological literature may appear to lead to a complex inventory of deictic centers and hence a wide array of spatial contrasts, careful matching of such claims with the available data reveals—at least at this point—that the crosslinguistic variation is, on the whole, actually quite modest and fails to reflect such a complexity. Indeed, in their extensive studies both Diessel (1999, 36, 40) and Imai (2003, 171–173) conclude that all languages have at least two distance contrasts[5] and that three contrasts are the upper limit for the vast majority of languages (see also Fillmore 1982, 48–51).[6]

5. Although some languages have a neutral demonstrative, as we will see, with no distance contrasts displayed, these languages will often have locative adverbs available that make at least a two-way contrast.

6. More "exotic" languages like Dyribal, Inuktitut, or West Greenlandic are said to display dozens of contrasts involving parameters like 'visible–invisible,' 'movement

5.2.2 Syncretism and a universal three-way system

In this section we support our classification on the basis of syncretism patterns. We show that the three-way system posited in Table 5.2 is in fact universal. More precisely, we show that observed variation across languages in the encoding of spatial deixis is best understood in terms of syncretism. Under such a perspective all languages have access to the Proximal, Medial, and Distal readings in Table 5.2, even though their morphology may not overtly reflect the three distinct readings. We believe that such a syncretism hypothesis greatly simplifies the assumptions needed to account for the crosslinguistic variation observed.

5.2.2.1 Dist ≠ Med ≠ Prox

The most straightforward evidence in support of the universality claim of the availability of three distinct readings identified in Table 5.2 is the fact that many languages encode exactly such a three-way system in the morphology of their spatial-deictic systems. In (3)–(19) we provide a sample of 17 languages that have been reported to display exactly such a system. For the sake of transparency we have not altered the basic glosses as they appear in our secondary sources (for the morphosyntactic categories considered, and their abbreviations, see the titular footnote).

(3)[7] Kwakw'ala [Wakashan] (Bach 2006, 270)
DEM.PRO suffixes
-k '1 vis' [= close to first person and visible]
-uχ '2 vis' [= close to second person and visible]
-iq '3 vis' [= close to third person and visible]

toward–away–across,' 'up–down,' 'downhill–uphill,' 'upriver–downriver,' 'north–south coastline,' 'in–out,' etc. (Diessel 1999, 42–47 and sources cited there; see also Imai 2003, 176 for an exhaustive list). Following Fillmore (1982, 48–51) we assume that these are not part of the core of spatial deixis. First, it is reasonable to think that (in visibility should be considered an evidentiality feature of some kind. The parameter of directionality or movement, moreover, is clearly part of the Path system carefully studied by Pantcheva (2011), i.e. 'movement toward' corresponds to her Goal, 'movement away' to her Source, and 'movement across' perhaps to her 'Route.' Second, it would appear that many of the remaining parameters here (concepts involving hills, rivers, coastlines, etc.) belong in the extralinguistic domain, meaning that these bits do not even belong to UG proper.

7. We consider the gloss '3 vis,' meaning 'close to third person and visible,' to be a relic of Bach's (2006) particular descriptive terminology and we do not attach too much importance to it. For our purposes we consider such glosses to conform to the Distal reading we have established, namely 'far from S and H.'

(4) Passamaquoddy-Maliseet [Algic] (Ng 2002, 94)

DEM.PRO–ADN [Type 3]

AN.SG	INAN.SG	
wot	yut	'near speaker'
not	nit	'near addressee'
yat	yet	'away from speaker and addressee'

(5) Wari' [Chapacura-Wanham] (Everett and Kern 1997, 149)

DEM.ADN

M–F	N	
cwa'	ca'	'proximate to the speaker'
	ma'	'proximate to the hearer'
cwain	cain	'far away (distal) from the interlocutors'

(6) Latin [IE] (Bennett 1918, section 87)

DEM.PRO–ADN

M.SG	F.SG	N.SG	
hīc	haec	hōc	'this (where I am)'
iste	ista	istud	'that (where you are)'
ille	illa	illud	'that (something distinct from the speaker)'[8]

(7) Iraqw [Afro-Asiatic] (Mous 1993, 90–91)

DEM.ADN

-í (NEUT -ká)	'near the speaker'
-síng	'near the addressee'
-qá'	'near neither of them but still visible'[9]

(8) Kiswahili [Niger–Congo] (Okombo and Habwe 2007, 82–83)

DEM.PRO–ADN

huyu	'proximal to the speaker and listener'
hicho	'proximal to the addressee and distal to the speaker'
kule	'away from the speaker and addressee'

(9) Sinhala [IE] (Chandralal 2010, 228)

DEM.ADN

mee	'proximal to speaker, or to both speaker and hearer'
oyə	'proximal to hearer'
arə	'distal from both speaker and hearer; in sight'[10]

8. More precisely: "le plus éloigné dans l'espace ~~dans l'espace~~ et dans le temps" or "il se réfère à une troisième personne ou un troisième objet" (Gaffiot 2016: 683).

9. There is also a distal-invisible item *-dá'* that we do not include, as we think evidential features encoding visibility must lie outside the core spatial-deixis fseq we are trying to uncover here.

10. Here again there is also a distal-invisible *ee* that we do not include.

(10) Khasi [Austro-Asiatic] (Diessel 1999, 43)
ROOTS
-ne 'proximal'
-to 'medial (near H)'
-tay 'distal'

(11) Korean [isolate] (Diessel 1999, 20–21)
DEM.ADN
i 'near the speaker'
ku 'near the hearer'
ce 'away from both speaker and hearer'

(12) Japanese [Japonic] (Diessel 1999, 59)
ROOTS
ko- 'near S' (and/or hearer; Janssen 2004, 989)
so- 'near H'
a- 'away from S + H'

(13) Yimas [Lower Sepik-Ramu] (Foley 1991, 112)
ROOTS
-k 'near speaker'
m- 'near hearer'
-n 'near neither speaker nor hearer'

(14) Arapesh [Torricelli] (Aronoff 1994, 98)
DEM.PRO [gender viii]

SG	PL	
eñuda'	ešuda'	'pro-near-me'
neñuda'	nešuda'	'pro-near-you'
ñeiñuda'	šeišuda'	'pro-over-there'

(15) Tukang Besi [Austronesian] (Donohue 1999, 137, 147)
DEM.PRO–ADN
ana 'near the speaker'
atu 'nearer the addressee than the speaker'
iso 'at a distance from either the speaker or the listener(s)'

(16) Tahitian [Austronesian] (Tryon 1970, 24)
DEM.ADN
teie 'near the speaker' (and/or hearer; Janssen 2004, 990)
tēna 'near the person addressed'
tēra 'not near the speakers'

(17) Ket [Yeniseian] (Werner 1997, 137)
DEM.PRO
ki 'neben dem Sprechenden'
tu 'neben dem Zuhörenden'
qa 'vom Sprechenden und Zuhörenden entfernt'

(18) Basque [isolate] (Hualde and de Urbina 2003, 123)
DEM.PRO–ADN
(h)au(r) 'this . . . indicates proximity to the speaker'
(h)ori 'that (just there) . . . [indicates] proximity to the addressee'
(h)ura 'that (over yonder) . . . [indicates] remoteness from both'

(19) Old Catalan [IE] (Imai 2003, 24, citing Otaka 1987)
DEM.PRO–ADN

M.SG	F.SG	
aquest	aquesta	'proximal to the speaker '
aqueix	aqueixa	'proximal to the addressee'
aquell	aquella	'distal'

We take the languages illustrated in (3)–(19) to be those wearing the universal spatial-deictic system "on their sleeve." Put differently, in the relevant languages the universal system in Table 5.3 is not obscured by syncretism: Each conceptual category is matched by a formal category.

5.2.2.2 Dist ≠ Med = Prox

In this section we turn to languages whose morphology seems to correspond to a two-way system: One deictic item has the reading 'close to S or H' and the other one 'far from S and H.' Examples are given in (20)–(22). We do not conclude that the system of spatial deixis of such languages is impoverished, though. Rather, we assume that they illustrate cases of syncretism in which the Medial and Proximal readings are expressed by the same morphological item, with a second distinct item encoding the Distal reading only.

Table 5.3 THREE-WAY SYSTEM (DIST ≠ MED ≠ PROX)

Distal	**Medial**	**Proximal**
'far from S and H'	'close to H'	'close to S'

(20) Bulgarian [IE] (Imai 2003, 23, citing Yajima 1984)

DEM.ADN			
M.SG	F.SG	N.SG	
toozi	taazi	tovaa	'close to speaker or hearer'
onzi	onazi	onova	'distal'

(21) Apurinã [Arawakan] (Facundes 2000, 356)

DEM.ADN		
M	F	
iye	oye	'close to the speaker or to the hearer'
ukira	okira	'far from the speaker and hearer'

(22) Catalan [IE] (Imai 2003, 23-24, citing Hualde 1992)

DEM.PRO–ADN		
M.SG	**F.SG**	
aquest	aquesta	'proximal to either the speaker or the addressee'
aquell	aquella	'distal'

Evidence for a Med–Prox syncretism in the prepositional system is also found in Fijian [Austronesian]. Geraghty (1976) reports that the prepositions *e* and *mai* are usually glossed as 'locative—close to S' and 'locative—far from S', respectively, as seen in (23).

(23) Fijian [Austronesian] *e* and *mai* (Geraghty 1976, 513)

a. Sā tiko **e** **waqa** na kato.
PRT is on boat the box
'The box is on the boat (Speaker is on boat)'

b. Sā tiko **mai** **waqa** na kato.
PRT is on boat the box
'The box is on the boat (Speaker not on boat)'

However, on the basis of information obtained from native informants, Geraghty is able to identify more precise readings for these prepositions. He finds that (23a) with the preposition *e* remains possible in the context in which the S is not on the boat but the H is; however, (23b) with *mai* can never be used if the S, the H, or both, happen to be on the boat (Geraghty 1976, 514–515). Thus he concludes that *e* refers to a "location close to speaker or hearer" whereas *mai* marks "location remote from both speaker and hearer" (Geraghty 1976, 515). Geraghty's description, which is an improvement on previous accounts that did not take into account the H anchor, thus uncovers another attestation of a Med–Prox syncretism.

Table 5.4 MED–PROX SYNCRETISM

Distal 'far from S and H'	**Medial** 'close to H'	**Proximal** 'close to S'
	'close to S *or* H'	

Evidence for a Med–Prox syncretism may also be found in Basque. As already seen in (18), Basque belongs to the group of languages with a three-way system. However, one specific fact from the history of this language hints at the availability of a Med–Prox syncretism. According to Hualde and de Urbina (2003, 122), Western varieties of Basque have a "proximate article" in the plural, as shown for instance in *gizon-ok* 'the men here.' In earlier texts, a proximate article was attested also in the absolutive singular, realized in different variants: *-ori, -or, -au*, and *-o*. It should be noted that the variant *-au* resembles the Proximal *(h)au(r)* in (18), whereas the *-ori* and *-or* variants are clearly related to the Medial *(h)ori* instead. Thus this overlap in the ABS.SG proximate article could be argued to instantiate at least a partial coalescence of Prox and Med.

As already mentioned, then, though at first sight the languages discussed in this section seem to show a two-way contrast, the underlying system can also be described in terms of the encoding of three separate readings, whereby two of them are expressed by the same morphological item (i.e. a Med–Prox syncretism) and the third one has a distinct morphological realization (i.e. Dist). This is summarized in Table 5.4 in which the shaded cells indicate syncretism.

The next section discusses a different kind of two-way system.

5.2.2.3 Dist = Med ≠ Prox

We now turn to languages that have been identified as displaying a two-way (so-called distance-oriented) system, in which one deictic item has the reading 'far from (or not close to) S' and the other one 'close to S.' English is one language which has such a system, as shown in (24).[11]

11. We note that for English and for many other examples in this chapter, more morphological decomposition is possible (i.e. *th-is, th-at*). However, when considering syncretism patterns it is not necessary to have a highly fine-grained morphological segmentation. For instance, we could refine the analysis of English by saying that the morphemes *-at* (Dist–Med) vs. *-is* (Prox) are responsible for making the deictic distinction here, but the syncretism pattern remains the same if we do not perform the decomposition (i.e. *that* vs. *this*). Similarly, a reviewer suggests that decomposing the Latin forms (classified as making up a three-way system) appears to reveal a Dist–Med syncretism in the initial element *i-* and the final inflectional component: Dist ***i-ll-e***, ***i-ll-a***, ***i-ll-ud*** ~~vs.~~ ***i-st-e***, ***i-st-a***, ***i-st-ud***. Rather than syncretism, however, this seems to be a case of sharing a demonstrative root (consider ***is***, *ea*, ***id*** meaning 'he she, it' or acting as the neutral demonstrative), with deixis being

(24) English [IE]
DEM.PRO–ADN
this 'close to S'
that 'not close to S'

With respect to the interpretation of *that* in English, however, the 'close to H' reading exists too: When pointing to a referent that is close to the H, *that* (and not *this*) will be used. It just so happens that the item *that* will be used for a referent far from both S and H as well. As a result of this syncretism, the specific H anchor associated with the Medial reading is obscured in the English system. However, given that the anchor is overtly available in other languages (and given that we assume the oppositions to be universal), we postulate that such a reading must be available in the underlying system.

Additional examples of languages with a morphologically two-way system with a Dist–Med syncretism are illustrated in (25)–(34). The criterion for inclusion as a language displaying a Dist–Med syncretism was not only that a 'proximal' versus 'distal' system be reported in the secondary source for the language in question, but crucially that this system be reported as being S-anchored. Thus, in the following examples, where glosses are not sufficient, we have also provided the relevant passage reporting the anchor.

(25) Klallam [Salish] (Montler 2007, 411, 419–420)
DEM.PRO–ADN
non-FEM FEM
tiə tsiə 'near'
təsə ɬəsə 'far'
"the far and near demonstratives indicate distance from the speaker, not necessarily the addressee" (Montler 2007, 419)

(26) Epena Pedee [Choco] (Harms 1994, 45)
DEM.ADN
na 'this (here) – physically proximate to the speaker'
hã 'that (there) – physically distant from the speaker'

(27) Macushi [Cariban] (Abbott 1991, 105)
DEM.PRO–ADN

AN	INAN	
mîserî – *coll.* insemoro	seni – *coll.* sîrîrî	'near to the speaker'
mîîkîrî – *coll.* inkamoro	siini – *coll.* mîrîrî	'remote from the speaker'

marked by distinct elements (Dist *-ll-* and Med *-st-*), keeping the three-way system intact. For the sake of presentation, then, we do not enter into such fine-grained decompositions in these cases.

(28) Pirahã [Mura] (Everett 1986, 285)
DEM.PRO–ADN
gíisai 'this – proximal'
gáihi 'that – distal'
"distinguished by the proximity of the referent to the speaker" (Everett 1986, 285)

(29) Lingala [Niger–Congo] (Meeuwis and Stroeken 2012, 148)
DEM.ADN
óyo 'close to the speaker'
wâná 'close to the hearer or away from both speaker and hearer'[12]

(30) Mandarin Chinese [Sino-Tibetan] (Yip and Rimmington 2004, 48)
DEM.PRO–ADN
zhè 'close to the speaker'
nà 'away from the speaker'

(31) Limbu [Sino-Tibetan] (Tumbahang 2007, 149–150)
DEM.PRO STEMS
ABS.SG
ba- 'close to the speaker . . . even if it is far away from the hearer'
hamba- 'remote . . . from the speaker . . . [even] if the referents are closer to the hearer than to the speaker'

(32) Semelai [Austro-Asiatic] (Kruspe 2004, 192)
DEM.PRO–ADN
(ʔ)nɔʔ 'this'
ke 'that'
"based on simple distance orientation from the speaker" (Kruspe 2004, 192)

(33) Gooniyandi [Australian] (McGregor 1990, 144)
DEM.PRO(?)–ADN
ngirndaji 'this'
ngooddoo 'that'
"distance with respect to the speaker" (McGregor 1990, 144)

12. In fact, it is explicitly stated that "*wâná* covers both the medial and the distal scopes" (Meeuwis and Stroeken 2012, 148).

(34) Evenki [Altaic] (Nedjalkov 1997, 210–213)
DEM.PRO–ADN
er 'this – near the speaker'
tar 'that – not considered by the speaker to be near'

In Section 5.3 we also illustrate the Dist–Med syncretism in Wargamay [Australian], Gulf Arabic [Afro-Asiatic], and Welsh [IE].

Once again we can understand what may appear to be two-way distance-oriented systems in terms of a universal hierarchy with three separate concepts if we assume that two of these concepts are expressed by the same morphological exponent (Dist–Med) and the third one has its own distinct morphological realization (Prox), as illustrated in Table 5.5.

5.2.2.4 Dist = Med = Prox

Diessel (1999, 36–39) reports that although all languages have at least two locative adverbs expressing a contrast like 'here' versus 'there,' some languages in fact have 'neutral' or 'unmarked' demonstratives without apparently encoding distance contrasts at all. The seven languages with such neutral demonstratives in Diessel's (1999) sample are Alamblak [Sepik], Czech [IE], French [IE], German [IE], Koyra Chiini [Nilo-Saharan], Supyire [Niger–Congo], and Tok Pisin [English creole]. In these languages the neutral demonstratives are very close to definite articles or the like, and it is possible that they are developing in this direction (i.e. from exophoric to endophoric). Diessel is careful to mention, though, that for now they retain their exophoric usage.

A methodological issue arises here. Because our hypothesis that there are universally three core readings in the spatial deixis domain is not adopted by all researchers, it is quite difficult to glean precise glosses from the descriptive literature, and thus it is difficult to verify if the three readings we are concerned with are available for the neutral demonstrative of the language in question.

However, a simple example from a familiar language can show how the neutral demonstrative works. In French, there is one adnominal demonstrative, whose form varies in number and gender: M.SG *ce*, F.SG *cette*, PL *ces*. The

Table 5.5 DIST–MED SYNCRETISM

Distal 'far from S and H'	**Medial** 'close to H'	**Proximal** 'close to S'
('far from–not close to S')		

form can be used in all three of the deictic contexts we have postulated. We illustrate this in detail in (35), providing the relevant discourse contexts.

(35) French [IE]
S and H are sitting facing each other at a table; S points to a book at location (a, b, c) and says:

Ce livre	est	vraiment	bon;	tu	devrais	le	lire.
CE *book*	*is*	*truly*	*good*	*you*	*should*	*it*	*read*

a. ✓ 'close to the S' (directly in front or beside)
b. ✓ 'close to the H' (directly in front or beside)
c. ✓ 'far from S and H' (on a table at the other side of the room)

For the sake of completeness, we add that our informants report that the locative adverbs *(i)ci* (usually glossed as 'here') and *là* (usually glossed as 'there') are actually distance-neutral. Rather than distinguishing proximity or remoteness, these items are in fact used for contrastive purposes when two or more referents are involved. As such they are not used in any of the three contexts in (35). The locative adverb *là-bas* 'over there,' however, does carry a distinct distal or remote-type reading, and may optionally be used in (35c).[13] Thus, in French we have a clear-cut case of a neutral gestural demonstrative, *ce(tte)–ces*, which can be used in Proximal, Medial, and Distal contexts. In other words, French *ce(tte)–ces* displays a Dist–Med–Prox syncretism.

Within our three-way system, languages like French can be thought of as having total syncretism among all three readings, with one morphological exponent for Prox, Med, and Dist, as shown in Table 5.6.

Even one-way systems, then, can be thought of in terms of the universal three-way contrast identified in Section 5.2.1.

5.2.2.5 Interim summary

Despite at least twelve logically conceivable spatial-deictic readings, we have argued that only three spatial-deictic readings are attested crosslinguistically: Proximal 'close to S,' Medial 'close to H,' and Distal 'far from S and H.' These three readings, moreover, are taken to be universal, even though not all languages show a transparent three-way system. Languages that might be taken

13. Frédérique Berthelot (p.c.) points out that it is important to distinguish *ce livre-là* from *ce livre, lá*. In the latter structure *là* is a topic marker and as such can be used in any context, regardless of distance or number of referents.

to display impoverished two-way and one-way systems can be understood in terms of a mismatch between meaning and form in that the underlying three-way semantic distinction is encoded in one or two forms that display syncretism.

Let us consider the syncretisms we advocated for in this section more closely. Out of the five possible syncretism patterns among Dist, Med, and Prox, in fact only four are attested, as shown in Table 5.7.

One possible syncretism is not attested, namely the pattern in Table 5.8: there is no language with a two-way system in which one deictic item encodes either a Distal or Proximal reading (i.e. Dist–Prox syncretism) and the second deictic item separately encodes a Medial reading.

This missing pattern is the so-called ABA pattern (see Bobaljik 2007, 2012 and Caha 2009). The ABA gap is expected on nanosyntactic grounds, because it is ruled out by nanosyntactic principles of spellout (see Baunaz and Lander in Chapter 1, Section 1.3.3.2, for discussion and references). Because syncretism is restricted to contiguous layers in this way, it is an indispensable tool for uncovering the linear sequence of functional heads. To impose hierarchical structure on this linear order, another kind of phenomenon needs to be taken into account, namely morphological containment.

Table 5.6 DIST–MED–PROX SYNCRETISM

Distal 'far from S and H'	**Medial** 'close to H'	**Proximal** 'close to S'

neutral DEM

Table 5.7 FOUR ATTESTED SYNCRETISMS

Distal	**Medial**	**Proximal**
Distal	**Medial**	**Proximal**
Distal	**Medial**	**Proximal**
Distal	**Medial**	**Proximal**

Table 5.8 ONE UNATTESTED SYNCRETISM (*ABA)

Distal	**Medial***	**Proximal**

5.3 MORPHOLOGICAL CONTAINMENT

The phenomenon of morphological containment became prominent thanks to pioneering work by Bobaljik (2007, 2012) in the framework of Distributed Morphology and was given a nanosyntactic implementation in works by Starke (e.g. 2013), Caha (2009), and Pantcheva (2011), among others. Morphological containment can be used to detect underlying hierarchical relations. To take a simple example of morphological containment from Bobaljik's (2007, 2012) work, we can clearly see that the basic (or positive) form of an adjective (Adj), for example, *great*, is structurally smaller than the comparative (Cmpr) form, for example, *great-er*. Because the comparative is bigger than the positive, we can posit (assuming that syntax builds from the bottom up) the underlying hierarchy Cmpr > Adj or [Cmpr [Adj]].

In the case of spatial deixis, the literature provides abundant crosslinguistic evidence for unidirectional containment, that is, the reported patterns of containment systematically show Distal to be morphologically more complex than Medial and Medial as morphologically more complex than Proximal. Following nanosyntactic guidelines, we interpret these containment relations to be significant and to reflect the internal organization of three additive heads involved in the encoding of spatial deixis.

5.3.1 Medial contains Proximal

In some languages we see that the morphological expression of Proximal is overtly contained within the morphological expression of Medial (36)–(39).

In Ma'di, for instance, the Proximal morpheme *dì* is contained within the morpheme *ɨlédì* that encodes Medial. The containment relation is sketched in (36b) using brackets, showing that Medial is bimorphemic, with one of the morphemes being the Proximal form.

(36) Ma'di [Nilo-Saharan] (Blackings and Fabb 2003, 123)[14]

a. DEM.ADN

dì 'this N (proximal in the physical context)'

ɨlédì 'that N near you (in the physical context)'

b. CONTAINMENT

[Med [Prox]]

[ɨlé-[dì]]

14. For the sake of completeness we add here that it is not clear from the description if *dì* is S-anchored. Importantly, however, the item *ɨlédì* is explicitly mentioned as H-anchored.

Similarly in Nkore-Kiga (37), the Proximal morpheme is contained within the element encoding Medial, with the Prox ingredient ~~word-initial~~, that is, [[Prox] Med].

(37) Nkore-Kiga [Niger-Congo] (Taylor 1985, 135-136)

a. DEM.PRO–ADN

ogu 'near speaker'

ogwo 'near hearer'[15]

b. CONTAINMENT

[[Prox] Med]

[[ogu]-o] > *ogwo*

The pattern is also observed in Boumaa Fijian (38) and Palauan (39).

(38) Boumaa Fijian [Austronesian] (Finegan 2013, 212; dialect A in Dixon 1988)

a. DEM.PRO–ADN

o^{n}go 'near the speaker'

o^{n}gori 'near the hearer'

b. CONTAINMENT

[[Prox] Med]

[[o^{n}go]-ri]

(39) Palauan [Austronesian] (Janssen 2004, 989–990)

a. DEM.PRO

ngile 'this – related to the first person exclusive'

ngilecha 'that – related to the second person'

b. CONTAINMENT

[[Prox] Med]

[[ngile]-cha]

The containment pattern observed is summarized in Figure 5.2.

Note that the linear ordering between the Medial component and the Proximal component (e.g. Med > Prox in Ma'di [*ɨ̌lɛ́*-[*ɗɨ̌*]] but Prox > Med in Palauan [[*ngile*]-*cha*]) is not relevant for establishing the containment relation in Figure 5.2.

15. For *ogwo*, Taylor (1985, 135) also provides the meaning 'not far removed from both speaker and hearer.'

5.3.2 Medial and Distal contain Proximal

In other languages we see that a morpheme encoding the Proximal reading is overtly contained within both the Medial and Distal items.

In Wailevu Fijian (40), the Proximal morpheme is *yā*; this morpheme is contained in the bimorphemic Medial *yā-ri* and also in the bimorphemic Distal *ya-ðei*.

(40) Wailevu Fijian [Austronesian] (Ross 2007, 278)

a. DEM.PRO–ADN

ɣā	'near speaker'
ɣāri	'near addressee'
ɣaðei	'distant from both speaker and addressee'

b. CONTAINMENTS

[[Prox] Med]	[[Prox] Dist]	
[[ɣā]-ri]	[[ɣa]-ðei]	(provided *yā* surfaces as *ya* here)

As seen in the paradigms in Tables 5.9 and 5.10, Ewondo also shows containment of the Proximal within both the Medial and Distal forms. In noun class 2, for example, the Proximal singular *ɲū* is contained within the Medial singular *ɲū-lú* and also within the Distal singular *ɲū-lí*. The same pattern is instantiated in the plural, where the Proximal *mī* is contained within both Medial *mī-lí* and Distal *mī-líí*.

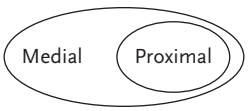

Figure 5.2 Medial contains Proximal

Table 5.9 DEM.PRO–ADN IN EWONDO [NIGER-CONGO] (DIESSEL 1999, 18, CITING REDDEN 1980)

	1	2	3	4	5	6	
SG	ɲɔ́	ɲū	dī	dzī	ɲī	ɲu	'near S'
	ɲɔ́lō	ɲūlú	dīlí	dzīlí	ɲīlí	ɲūlú	'near H'
	ɲɔ́lí	ɲūlí	dílí	dzílí	ɲílí	ɲūlí	'away from S + H'
PL	bá	mī	mā	bī	mā	dī	'near S'
	bálā	mīlí	mālá	bīlí	mālá	dīlí	'near H'
	bálí	mīlíí	mālí	bīlíí	mālí	dīlíí	'away from S + H'

In the singular there are only three forms (the Distal in classes 3, 4, and 5) that happen not to show this overt containment of Proximal; in the plural, the containment of Proximal is completely systematic across noun classes.

The patterns previously observed are summarized in the diagrams in Figures 5.3 and 5.4.

The containment relation in Figure 5.3 is the same as that in Figure 5.2, which was established on the basis of data from Ma'di, Nkore-Kiga, Boumaa Fijian, and Palauan. Wailevu Fijian and Ewondo provide additional evidence for this containment relation, as well as providing evidence for the relation in Figure 5.4. This means that the Proximal can be contained not only within the Medial but also within the Distal. At this point, the relative containment relation of Medial vis-à-vis Distal has yet to be established.

5.3.3 Distal–Medial contains Proximal

A morpheme with the Proximal reading can also be overtly contained within an item which is itself syncretic for the Distal and the Medial reading (see Section 2.2.3).

Table 5.10 [[PROX] MED] AND [[PROX] DIST] IN EWONDO

	1	2	3	4	5	6	
	ɲɔ́	ɲū	dī	dzī	ɲī	ɲū	Prox
SG	[[ɲɔ́]-lō]	[[ɲū]-lú]	[[dī]-lí]	[[dzī]-lí]	[[ɲī]-lí]	[[ɲū]-lú]	Med
	[[ɲɔ́]-lí]	[[ɲū]-lí]	dílí	dzílí	ɲílí	[[ɲū]-lí]	Dist
	bá	mī	mā	bī	mā	dī	Prox
PL	[[bá]-lā]	[[mī]-lí]	[[mā]-lá]	[[bī]-lí]	[[mā]-lá]	[[dī]-lí]	Med
	[[bá]-lí]	[[mī]-líí]	[[mā]-lí]	[[bī]-líí]	[[mā]-lí]	[[dī]-líí]	Dist

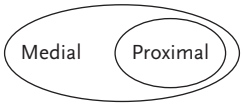

Figure 5.3 Medial contains Proximal

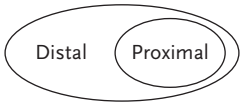

Figure 5.4 Distal contains Proximal

First take Wargamay, which has a two-way system consisting of a syncretic Dist–Med versus Prox. In (41) we see that the syncretic Distal–Medial form *ɲuŋga-ɠi* contains the Proximal form *ɲuŋga*.

(41) Wargamay [Australian] (Dixon 1981, 44-45)

a. DEM.PRO–ADN

ɲuŋga	'this one (near speaker)'
ɲuŋgaɠi	'that one (distant from speaker)'

b. CONTAINMENT

[[Prox] Dist–Med]

[[ɲuŋga]-ɠi]

Similarly, in Gulf Arabic (42), the Proximal forms M.SG *haadha* and F.SG *(haa)dhi* are contained within the syncretic Distal–Medial forms M.SG *(haa)dha-ak* and F.SG *(haa)dhi-ich*.

(42) Gulf Arabic [Afro-Asiatic] (Holes 1990, 172-173)

a. DEM.PRO

M.SG	F.SG	
haadha	(haa)dhi	'this – near to the speaker'
(haa)dhaak	(haa)dhiich	'that – remote . . . from the speaker'

b. CONTAINMENT

[[Prox] Dist–Med]

[[haadha]-ak]

[[(haa)dhi]-ich]

In Welsh (43) we also see a version of this phenomenon.

(43) Welsh [IE] (Borsley, Tallerman, Willis 2007, 176)

a. DEM.PRO–ADN

M.SG	F.SG	N.SG	
hwn	hon	hyn	'proximal – this'
hwnnw	honno	hynny	'distal – that'

b. CONTAINMENT

[[Prox] Dist–Med]

[[hwn]-nw]

[[hon]-no]

[[hyn]-ny]

It should be noted that the Welsh system is in a state of flux, as the *hwn* and *hwnnw* systems are falling together semantically. Concurrently with this coalescence, a new Distal form is emerging with the form M.SG *hwnna*, F.SG *honna*,

N.SG *hynna* 'physically distant from the speaker' (Borsley, Tallerman, Willis 2007, 176). Here too, though, we observe containment of the Proximal within the new Distal: [[*hwn*]-*na*], [[*hon*]-*na*], and [[*hyn*]-*na*].

As a final example, in Limbu (44), the Proximal stem is *ba-*, a morpheme which is contained within the Distal–Medial stem *ham-ba-*.

(44) Limbu [Sino-Tibetan] (Tumbahang 2007, 149)

a. DEM.PRO STEMS

ba-	'close to the speaker'
hamba-	'remote . . . from the speaker'

b. CONTAINMENT

[Dist–Med [Prox]]

[ham-[ba-]]

These patterns may be summarized in Figure 5.5.

Note once again that establishment of the containment relation in Figure 5.5 is independent of the linear ordering of Dist–Med and Prox (e.g. Dist–Med > Prox in Limbu [*ham*-[*ba*-]] but Prox > Dist–Med in Welsh [[*hwn*]-*nw*]).[16]

5.3.4 Distal contains Medial

The containment patterns discussed in the previous three subsections provide morphological evidence from a range of languages that the structure encoding the concept Proximal 'close to S' reading is smaller than structures encoding Medial and Distal. The size of the Medial structure vis-à-vis the Distal structure.

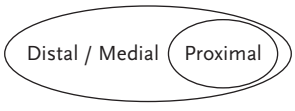

Figure 5.5 Distal/Medial contains Proximal

16. The Scandinavian languages appear to present a counterexample, because Dist–Med N.SG *det*, CM.SG *den* 'that' might be analyzed as being contained within Prox N.SG [[*det*]-*ta*], CM.SG [[*den*]-*na*] 'this' (Swedish). Although there are various issues that make the Scandinavian data more complicated than they may at first seem, we would like to point out here that if the colloquial language is to be considered, then the genuine members of the spatial-deixis system actually involve locative reinforcers meaning 'there' and 'here': Dist–Med N.SG *det där*, CM.SG *den där*, PL *dom där* 'that–those' vs. Prox N.SG *det här*, CM.SG *den här*, PL *dom här* 'this–these' (Swedish). Note that no containment is observed in these forms. See Lander (2015, appendix V) for more discussion. See also Leu (2015: sections 2.2, 2.3) for the view that the 'here' and 'there' reinforcers can be silent.

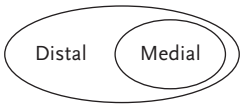

Figure 5.6 Distal contains Medial

Examples of containment relations involving Medial and Distal components are harder to come by, but Boumaa Fijian (45) deserves to be discussed here. In this language the Medial is *yā*, which is clearly contained within the bimorphemic Distal *ma-yā*.

(45) Boumaa Fijian [Austronesian] (Ross 2007, 278; dialect B in Dixon 1988, 58)

a. DEM.PRO–ADN
   yā 'near addressee'
   mayā 'distant from both speaker and addressee'

b. CONTAINMENT
   [Dist [Med]]
   [ma-[yā]]

The forms from Boumaa Fijian show the containment relation sketched in Figure 5.6.

Supporting evidence for this containment relation is discussed next.

5.3.5 Distal contains Medial contains Proximal

Consider Ewondo from Tables 5.9 and 5.10 again. This language displays instances of what might be called "total nesting.". Recall from Section 5.3.2 that some parts of the demonstrative paradigm show containment of the Proximal within both the Medial and the Distal. Additionally, there is a containment relation between the Distal and the Medial: Medial *mīlí* is contained within the Distal *mīlí-í*. As shown in (46), this also applies to the plural of classes 4 and 6.

(46) Ewondo [Niger-Congo] (Diessel 1999, 18, citing Redden 1980)

a.	class 2 PL	mīlí	'near H'
		mīlíí	'away from S + H'
	class 4 PL	bīlí	'near H'
		bīlíí	'away from S + H'
	class 6 PL	dīlí	'near H'
		dīlíí	'away from S + H'

b. CONTAINMENT
[[[Prox] Med] Dist]
[[[mī]-lí]-í]
[[[bī]-lí]-í]
[[[dī]-lí]-í]

In the plural Distal forms of classes 2, 4, and 6, then, we see all three layers of the spatial-deictic fseq morphologically realized, a case of total nesting.

The Ewondo paradigm shows the containment relation sketched in Figure 5.7.

The diagram in Figure 5.7 summarizes all of the containment relations discussed: Proximal is contained within Medial (e.g. Ma'di), Proximal is contained within Distal (e.g. Wailevu Fijian), Medial is contained within Distal (Boumaa Fijian), and Proximal is contained within Medial ~~that~~ in turn is contained within Distal (Ewondo). In the discussion in Section 5.4 we see that the fseq of spatial-deictic features directly replicates Figure 5.7.

5.4 CAPTURING THE PATTERNS IN A FUNCTIONAL SEQUENCE

Our main claim is that spatial deixis is semantically encoded in Universal Grammar as a three-way contrast: Proximal 'close to S,' Medial 'close to H,' and Distal 'far from S and H.' This claim is supported by the prevalence of exactly such a three-way system across languages, but also by the fact that other types of systems can also be understood in terms of this three-way system, if these systems are analyzed in terms of syncretism.

One possible proposal for representing the syntax of spatial deixis would be that there is a single functional head like Deix (as in Svenonius 2010) or Dx^{PLACE} (as in Den Dikken 2010), whose value is determined by the presence of one specific feature. According to Figure 5.8, if the deictic head Deix is projected, then one of the values Prox–Med–Dist is chosen to the exclusion of the other two. That is, the three features in Figure 5.8 are in complementary distribution.

Indeed, it is conceivable that the flat structure in Figure 5.8 might in some way be able to account for the syncretism data discussed in Section 5.2, as Prox

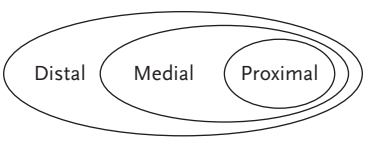

Figure 5.7 Distal contains Medial contains Proximal

is adjacent to Med (perhaps allowing for a Med–Prox syncretism) and Med is adjacent to Dist (perhaps allowing for a Dist–Med syncretism) in Figure 5.8. Crucially, Med intervenes between Prox and Dist, potentially blocking the ABA pattern from arising.

However, our containment data from Section 3 speak against the flat structure in Figure 5.8. The containment data clearly reveal an asymmetrical relation among Prox, Med, and Dist structures: The three spatial-deictic distinctions are not on a par, but rather they show an internal hierarchy, in which Prox is smaller than Med, which in turn is smaller than Dist. See Figure 5.9 (= Figure 5.7).

To put Figure 5.9 in more formal terms, we assume that spatial deixis is an independent functional domain made up of formal syntactico-semantic features (call them Dx features). The featural relation among Prox, Med, and Dist is formally represented in Figure 5.10.

Adopting a cartographic approach, we assume that the syntactico-semantic features making up syntactic structure are constrained by the "one feature–one

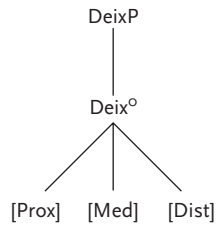

Figure 5.8 Flat structure for spatial deixis

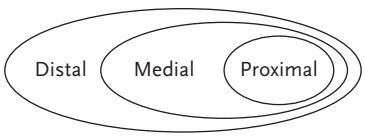

Figure 5.9 Distal contains Medial contains Proximal

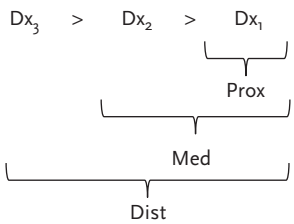

Figure 5.10 Superset–subset relations in spatial deixis

head" principle (Cinque and Rizzi 2008, 50), meaning that features are associated with specialized functional heads that head functional projections. Although these projections could conceivably be either left-branching or right-branching, we follow Kayne (1984, 1994) in assuming that only binary- and right-branching structures are possible. The three Dx features in Figure 5.10, then, comprise the fseq in Figure 5.11.

The heads Dx_1, Dx_2, and Dx_3 are understood to be unary and additive, such that the structure underlying the Proximal reading corresponds to $[Dx_1]$, the Medial reading corresponds to $[Dx_2\ [Dx_1]]$, and the Distal reading corresponds to $[Dx_3\ [Dx_2\ [Dx_1]]]$. This is shown in Figure 5.12.

Put differently, the Proximal is a subset of the Medial, and the Medial is, in turn, a subset of the Distal. Thus we replace the flat, tertiary-branching structure in Figure 5.8 with a binary-branching structure with an internal structure that directly reflects the containment data just discussed. ~~Although~~, syncretism is normally taken to reveal a linear ordering of features (Dist | Med | Prox), morphological containment, on the other hand, reveals hierarchical relations, automatically establishing a single linear order in the process. In this sense it is perhaps the more helpful diagnostic of the two.

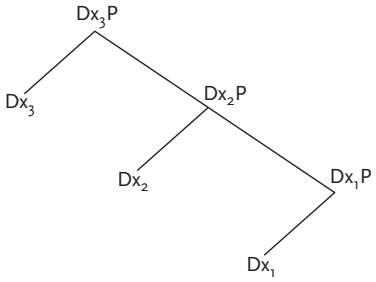

Figure 5.11 Functional sequence of spatial deixis

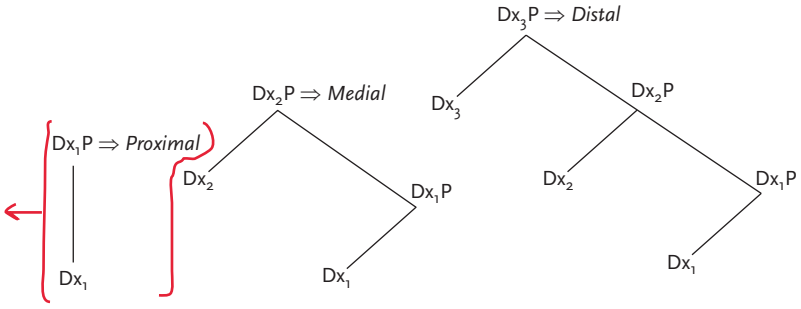

Figure 5.12 Additive heads

5.5 FINAL THOUGHTS

We have proposed a universal three-way distinction in the functional domain of spatial deixis on the basis of syncretism and morphological containment data. Although the syncretism data provide the means of determining which functional layers must be adjacent in a linear order of syntactico-semantic features, the morphological containment data provide us with a hierarchy of features, revealing in a very clear way the relative sizes of Distal, Medial, and Proximal structures.

Observe that Prox 'close to S' is at the bottom of the spatial-deixis hierarchy. Importantly, this makes sense from a semantic viewpoint. Adopting the fseq proposed here, then, corresponds to saying that the speaker's perspective is built first, giving spatial deixis an egocentric foundation (see Bühler 1934). From here the domain of spatial reference is extended to that of the hearer, by most accounts the next-important participant in the speech situation. Finally, the domain is extended beyond the immediate surroundings to an area beyond the speaker and hearer. This is a common way to characterize the semantics of spatial deixis, but, importantly, we have shown here that morphological form parallels the semantics, suggesting that form and meaning are closely linked.

LANGUAGES

Apurinã	Facundes (2000)
Arapesh	Aronoff (1994)
Basque	Hualde and de Urbina (2003)
Binukid	Imai (2003)
Bulgarian	Imai (2003)
Catalan	Imai (2003)
Chinese	Yip and Rimmington (2004)
English	Eric Lander
Epena Pedee	Harms (1994)
Evenki	Nedjalkov (1997)
Ewondo	Diessel (1999)
Fijian	Dixon (1988)
	Finegan (2013)
	Geraghty (1976)
	Ross (2007)
French	Frédérique Berthelot (personal communication)
	Lena Baunaz (p.c.)
Gooniyandi	McGregor (1990)
Gulf Arabic	Holes (1990)

Iraqw	Mous (1993)
Japanese	Diessel (1999)
Ket	Werner (1997)
Khasi	Diessel (1999)
Kiswahili	Okombo and Habwe (2007)
Korean	Diessel (1999)
	Imai (2003)
Klallam	Montler (2007)
Kwakw'ala	Bach (2006)
Latin	Bennett (1918 [1895])
Limbu	Tumbahang (2007)
Lingala	Meeuwis and Stroeken (2012)
Macushi	Abbott (1991)
Ma'di	Blackings and Fabb (2003)
Nkore-Kiga	Taylor (1985)
Palauan	Janssen (2004)
	Passamaquoddy Ng (2002)
Pirahã	Everett (1986)
Semelai	Kruspe (2004)
Sinhala	Chandralal (2010)
Swedish	Eric Lander
Tahitian	Tryon (1970)
Tukang Besi	Donohue (1999)
Wargamay	Dixon (1981)
Wari'	Everett and Kern (1997)
Welsh	Borsley, Tallerman, and Willis (2007)
Yimas	Foley (1991)

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