

# Morphology in the wrong place

## A survey of preposed enclitics

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### 1. Introduction

Clitics are a phenomenon on the boundary between words and affixes. A clitic looks like an affix to some extent, yet fails to fulfill all characteristics one might expect from a prototypical affix.<sup>1</sup> A typical characteristic of affixes is their obligatory connection to a particular lexical class. Many clitics do not share this characteristic, but most clitics will at least exhibit some kind of regularity in their choice of host. The most elusive kind of clitics are those that show no regularity at all in the kind of hosts onto which they can attach. In this article, I will discuss various examples of such clitics. The host of these clitics belongs neither to a particular lexical class, nor to a particular kind of syntactic phrase. In contrast, the element on the *other* side of the clitic is easily characterisable. This kind of structure is illustrated schematically in (1). In these structures, the clitic host X is structurally and functionally highly variable. In contrast, the constituent Y on the other side of the clitic is structurally either a particular lexical class or a particular kind of syntactic phrase, and functionally is clearly related to the clitic. I will call this constituent Y the clitic's *attractor*. In such cases, the clitic appears to be attached morphologically on the wrong side. Functionally, the clitic belongs together with Y, yet it is attached morphologically to X. Embick and Noyer (1999:291) have introduced the term *ditropic* clitic for this phenomenon.

- (1) a. [X]=clitic [Y]  
b. [Y] clitic=[X]

As an example of a ditropic clitic, consider the Yagua object clitic in (2), to be discussed in more detail below. The object clitic (in boldface) always directly precedes a coreferential full object NP (here ‘Anita’) but it is enclitically attached to whatever constituent comes before the object, in this example the prepositional phrase ‘inside the house’. Yet the object clitic has no semantic relation whatsoever with this phrase – in particular, the prepositional phrase does not mean ‘inside his/her house’.

- (2) Yagua (Payne & Payne 1990: 365, ex. 373)
- |   |              |                         |              |
|---|--------------|-------------------------|--------------|
| <i>sa-púúchiy</i>                             | <i>Pauro</i> | <i>rooriy-viimu-níí</i> | <i>Anita</i> |
| 3SG.SUBJ-lead/carry                           | Paul         | house-inside-3SG.OBJ    | Anita        |
| ‘Paul leads/carries Anita inside a/the house’ |              |                         |              |

In this article, I will present a survey of such preposed enclitics, i.e. structures as shown in (1a). In such cases the clitic is preposed relative to its attractor Y, yet enclitic to a variable host X. In principle, examples of the mirror image phenomenon – postposed proclitics as in (1b) – are just as interesting, but I know of no convincing cases. I do not believe that there is any deep structural restriction at work here, but simply a strong cross-linguistic preference for clitics to be enclitic rather than proclitic, just as affixes show a strong preference for being suffixes rather than prefixes (cf. Halpern 1998: 119). As proclitics are only rarely attested, and ditropic cliticisation is also a rare phenomenon, the combination of these two rare phenomena will be extremely rare.

## 2. Definition and demarcation

Two characteristics are crucial to establishing a ditropic clitic. First, the host and the clitic must not form a semantic unit, in other words, there is a mismatch between the semantic and the morphological structure. In morphological theory, such mismatches are known as ‘bracketing paradoxes’ and have been discussed extensively (cf. Sproat 1988 and Marantz 1988 on the relation between bracketing paradoxes and cliticisation). However, such a mismatch is attested in many kinds of clitics besides ditropic clitics, so a further demarcation is needed. The second characteristic of ditropic clitics is that the host of the clitic should defy all attempts at any unitary structural characterisation. In all cases to be discussed in this article, the only possible way to describe the surface position of the clitic is by stating that it is attached to whatever element happens to come before its attractor.

This second definitional characteristic distinguishes ditropic clitics from several other types of clitics with semantic mismatches. First, second position (or ‘Wackernagel’) clitics often have no regular semantic relation to their host. For example, the Latin enclitic *-que* ‘and’ in *hae-que canunt feminae* ‘and these women are singing’ has no relation with its host *hae* ‘these’. However, as already implied by the name ‘second position’, there is a clear structural characterisation of the clitic’s host, it being the first constituent (or first word) of the clause. Another phenomenon involving no necessary semantic relation between clitic and host is phrasal cliticisation. The most well-known case of a phrasal clitic is the English genitive’s as in *the queen of England’s hat*. There is no semantic relation between the genitive’s and its direct host *England*. However, there is a clear structural characterisation of the clitic’s position, it being attached to the last element of the possessor phrase.

Other bracketing paradoxes involving clitics will likewise not be further investigated in this article because the clitic’s host is easily characterisable. For example, the English auxiliary clitics (like *’ll* in *I’ll go there tomorrow*) also seem to be attached on the wrong side. Semantically, the auxiliary belongs together with the verb, which follows the clitic. However, this is not a case of ditropic cliticisation because the host of the clitic is not variable at all, it being the obligatorily preverbal subject. Similarly, articles cliticizing onto prepositions (e.g. French *du* < *de-le*, German *vom* < *von-dem*) represent a semantic mismatch, as the article would be expected to cluster with the following noun. However, the host is clearly strongly restricted lexically, it necessarily being a preposition.<sup>2</sup> All these examples of cliticisation are interesting in themselves, but they are not as mysterious as real ditropic clitics, which attach neither to a semantically nor to a structurally definable host.

### 3. Previous approaches

In recent years, much effort has been invested in building theories of cliticisation to explain the various kinds of clitic attachment as attested in the world’s languages. One of the most influential analyses has been proposed by Klavans (1985), who presented a typology of eight different kinds of clitics on the basis of three binary parameters.<sup>3</sup> In this typology, the types 1, 4, 5, and 8 are kinds of ditropic clitics. Types 1 and 5 are preposed enclitics, which are the subject of this article.<sup>4</sup> Types 4 and 8 are the reverse cases, i.e. postposed proclitics. Klavans’ analysis is widely acknowledged to provide an appropriate tool for

approaching the diversity of clitic phenomena, though not all eight types are believed to be equally important.

There is some disagreement in the literature as to which of Klavans' eight types can be considered to be solidly attested and hence in need of explanation in a theory of linguistic structure. The existence of the ditropic clitics in particular has been repeatedly questioned. Sproat (1988:351–353) accepts all eight clitic types, though he argues that types 1 and 8 are only possible for clitics, and not for affixes. Most other commentators are more critical. Marantz (1988:267–269) criticises Klavans on a purportedly empirical basis, as “her system [...] predicts several types of clitics that are not found in the world's languages”. In particular, he states that her types 4, 5, 6, and 8 are unattested. Spencer (1991:380) has “some misgivings about types 4 and 5”. Sadock (1991:76–77) considers types 4, 6, and 8 to be “vanishingly rare”. Halpern (1995:34–36; 1998:117–119) questions whether types 4, 5, 6, and 8 exist. Finally, Embick & Noyer (1999:290–299) consider the ditropic types 1, 4, 5, and 8 to be impossible, coming back full-circle to the original impetus for Klavans' work, as she considered precisely the (apparent) existence of these four types to be the “most interesting prediction of the system” (Klavans 1985:103). Klavans gives examples of all four ditropic clitic types, though most of her examples are not very convincing or factually doubtful, as has been repeatedly noted by her commentators. Only her examples of Kwakwala (of type 1) and Kugu Nganhcara (of type 5) turned out to be factually irrefutable cases of ditropic clitics.

There have been various strategies to disqualify ditropic clitics as a phenomenon *sui generis* which must be included in a theory of cliticisation. The most thorough argumentation against their existence is given by Embick & Noyer (1999), following a line of attack first sketched by Marantz (1988:268) and Anderson (1992:202–203; 1993:74–76). Anderson claims that the direction of attachment is a result of the “directionality of language-particular phonological rules” (Anderson 1993:75), which makes ditropic cliticisation a purely epiphenomenal effect. This argumentation is built on the fact that, in many cases, the ditropic cliticisation is arguably a result of simple cliticisation (‘simple’ in the sense of Zwicky 1977:6). If the clitic can be analysed as occurring in its syntactically base position, but as being phonologically deficient, then it is simply ‘leaning’ on whatever precedes it. In this way, Embick & Noyer (1999) dismiss the ditropic clitics from Kwakwala (p. 293), Kugu Nganhcara (p. 297) and Northern Mansi (p. 311), arguing that all these clitics occur *in situ*.

Note that in this kind of explanation, the *existence* of ditropic clitics is accepted. Implicitly, Embick & Noyer grant that the direction of cliticisation is

possibly different from the constituency of the clitics. In this way, they subscribe to Klavans' original observation that the direction of cliticisation is in principle independent of the constituency. The problem remains how it is possible that such an *in situ* element on a phrasal boundary can become a clitic, given that the result of this reduction is a morphological bond between a clitic and a host without any syntactic or semantic relationship. Embick & Noyer's analysis seems to make sense only when the clitic is an optional variant of a regular full form (for example, conditioned by fast speech), which makes the 'wrong-sided' bond a truly epiphenomenal effect. However, in many of the examples to be discussed below (and also in the examples discussed by Embick & Noyer), it is not the case that there exist both a clitic and a full version of the same element. In most cases, the ditropic elements are obligatorily phonologically deficient, being unable to occur without a host in the corresponding position.

Another way to view the examples of ditropic clitics as discussed in the literature is formulated by Spencer (1991:380), who states that ditropic clitics "should be excluded on general grounds, unless overwhelming empirical evidence should turn up in their favour".<sup>5</sup> Such empirical evidence is exactly what I propose to provide in this article.

#### 4. Cross-reference by ditropic clitics

The first set of examples of ditropic clitics mark cross-reference to the arguments of a verb. In almost all examples to be discussed in this section, the verb regularly occurs in sentence final position and there are cross-reference pronouns occurring before this verb. Yet these pronouns are enclitically attached to whatever constituent occurs before them. If the verb is the only sentence constituent (so there is nothing in front of the verb to attach to), then the clitics are in most cases 'moved' to be enclitically attached to the verb.

##### 4.1 Kugu Nganhcara pronominal clitics

Ever since Klavans (1985:104–105) introduced Kugu Nganhcara (a Pama-Nyungan language from Cape York, Australia) as an example of ditropic cliticisation, this language has been discussed over and over again in the relevant literature – primarily to show that it could be analysed differently (Marantz 1988:268; Sproat 1988:356; Spencer 1991:379–380; Embick & Noyer 1999:294–298). However, at least from a purely descriptive point of view,

Kugu Nganhcara is a straightforward example of a language with ditropic clitics (Smith & Johnson 1985: 104–106; 2000: 397–404).

The Kugu Nganhcara ditropic clitics are optional bound pronouns. “Bound pronouns do not occur obligatorily in Nganhcara [...] Nor has the use of free pronouns been diminished by bound pronouns. Indeed [...] free pronouns frequently occur alongside their bound counterparts in the same clause” (Smith & Johnson 2000: 402). Syntactically, the bound pronouns are enclitic to whatever comes in preverbal position (3a). In contrast, the independent pronouns can be placed rather freely in the sentence. If the sentence contains only a verb, the enclitic is obligatorily attached to the verb (3b).

(3) Kugu Nganhcara (Smith & Johnson 2000: 400, ex. 62; 401, ex. 66)

- a. *nhila pama-ng ngathu ku'a-thu waa*  
 3SG.NOM man-ERG 1SG.DAT dog-1SG.DAT give  
 ‘The man gave me a dog’
- b. *waa-ngu*  
 give-3SG.DAT  
 ‘Give [it] to him’

The historical development leading to the Kugu-Nganhcara situation is reconstructed by Dixon (2002: 387–390). He argues that the clitics arose in reaction to the loss of cross-referencing verb suffixes, which are still found in other closely related Wik languages. Dixon adduces contact as a reason why the new enclitics in Kugu Nganhcara should occur in preverbal position. “This development can [...] be explained partly in terms of areal diffusion from its northern neighbour, Wik-Ngathan, which has pronominal enclitics which normally attach either to the word immediately preceding the verb or to the verb itself” (Dixon 2002: 388, 390).<sup>6</sup> Further, Dixon (2002: 375) mentions the neighbouring languages from the South Cape York Peninsular Group (Morroba-Lama, Lama-Lama, Rimang-Gudinhma and Kuku-Waru, i.e. groups ‘Da-b’ in Dixon’s terminology) in which bound pronouns generally follow the verb but can immediately precede it. Hence, the structure of Kugu Nganhcara is not a singularity. Ditropic clitics occur as an areal trait in various languages in its vicinity.

#### 4.2 Djinang/Djinba reduced pronouns

There are two more languages in Australia, not contiguous geographically with the previous area, that show ditropic cliticisation. Djinang and Djinba, two closely related Pama-Nyungan languages from Arnhem Land, have both full and reduced forms of the pronouns (Waters 1989: 30–36, 136–140). In contrast

to Kugu Nganhcara, the reduced pronouns are used very frequently. “Reduced pronouns may occur in the same clause as a coreferential full pronoun. When this obtains, the full pronoun typically marks a switch in participant focus [...]. Usually, however, once reference has been established in a given clause, overt subject and non-subject NPs are omitted from surface structure, and the coreferential reduced pronouns function as sufficient referencing forms for the deleted NPs” (Waters 1989: 136). The reduced form of the pronoun always immediately precedes the sentence-final verb (4a). The vowel-initial short pronouns *irr* ‘I’ and *il* ‘we (dual inclusive)’ are “closely bound to the preceding formative (4b), while the consonant-initial enclitics are more able to stand as free forms” (Waters 1989: 281).<sup>7</sup> However, again in contrast to Kugu Nganhcara, the reduced pronouns occur before the verb even when there are no other words in the sentence (4c), so they appear to be not necessarily enclitics. The ditropic effects as in (4b) are thus best analysed as the result of incidental phonological leaning. The existence of reduced pronouns in Djinang and Djinba is probably the result of contact with neighbouring non-Pama-Nyungan languages. These languages have pronominal prefixes on the verb, which might explain the strictly preverbal placement of the reduced pronouns in Djinang (Waters 1989: 279–281; Dixon 2002: 379–380).

(4) Djinang (Waters 1989: 237, ex. 72; 223, ex. 43; 245, ex. 255)

- a. *nambidi-ban girri prisoner-ban bili-ny djin*  
 inside.ALL-FOC COMP prisoner.ACC-FOC 3DU-ACC 3PL.ERG  
*yagirr-djin*  
 insert-PAST  
 ‘Inside (a prison) they then imprisoned them (as) prisoners’
- b. *nguli wal-d-irr dirradji-la*  
 that.LOC food.ACC-?-1SG.ERG eat-PAST  
 ‘There I kept eating food’
- c. *bil gir-ali*  
 3DL.NOM GO-PAST  
 ‘They (i.e. the two children) went’

### 4.3 Kherwarian pronominal suffixes

In various Munda languages the subject markers are suffixed either to the main predicate or to the word that stands directly before the main predicate. Real ditropic clitics are found in the Kherwarian languages, a group of closely related and structurally very similar North Munda languages (e.g. Mundari, Santali,

Ho, Bhumij). In all Kherwarian languages, exemplified in (5) by Santali, the unmarked position of the suffix is on the preverbal constituent. This positional rule holds independently of the kind of element that is present in preverbal position – in (5a), for example, a complex noun phrase, and in (5b) a sentential negator. However, in a few contexts, the suffixes are placed postverbally. First, when the sentence consists only of a verb, then the subject is suffixed to this verb, as illustrated in (5c). Further, in imperative sentences the subject marker is placed postverbally, independent of the presence of other preverbal constituents, as illustrated in (5d).<sup>8</sup>

- (5) Santali (Neukom 2001:203, ex. 5, 207, ex.31, 114, ex. 4, 147, ex. 1)
- a. *gam, kəhni, kudum emanteak'-ko jorao-akat'-a*  
 story tale riddle and\_such-3PL.SUBJ compose-PERF-IND  
 'They have composed stories and tales, riddles and so on'
- b. *onate cet'-hō ba-e met-a-e-kan-a*  
 therefore anything-also NEG-3SG.SUBJ say-APPL-3SG.OBJ-INPF-IND  
 'Therefore she was not say[ing] anything to him'
- c. *met-a-pe-kan-a-ŋ*  
 say-APPL-2sg.o-IPFV-IND-1SG  
 'I tell you'
- d. *mase mit' ghəri dɔhɔ-ɲōg-ɛŋ-pe!*  
 PTCL one moment put down-little-1SG.O-2PL  
 'Put me down for a moment!'

Ditropic clitics are not attested in Munda outside of the Kherwarian subgroup, but two other Munda languages, Kharia and Gutob, show a similar phenomenon. The default position of the subject suffixes in both languages is postverbal, as illustrated in (6a) and (7a), but in some constructions the suffix occurs immediately preverbally. In Kharia, the suffixes are attached preverbally only when the sentential negator is present (6b). In Gutob, the suffixes are attached to a variety of preverbal elements; Zide (1997:317–323) mentions the *wh*-pronouns *ūdoj* 'when' (7b), *mono?* 'where' and *maŋ* 'why', and the adverbs *eke* 'here', *a?* 'now', *begi* 'quickly', and *dapre* 'afterwards'. The clitics in Kharia and Gutob are not ditropic clitics, as the clitic's host is easily structurally definable. Still, these languages show a situation intermediate between the ditropic situation in Kherwarian and 'normal' verb suffixes as found in most of the remaining Munda languages.



- (6) Kharia (J. Peterson p.c.)
- a. *am-bar hokaŕ-te yo-te-bar*  
 2-2.HON 3SG-OBL see-PAST-2.HON  
 ‘You (polite) saw him/her’
- b. *am-bar hokaŕ-te um-bar yo-te*  
 2-2.HON 3SG-OBL NEG-2.HON see-PAST  
 ‘You (polite) did not see him/her’
- (7) Gutob (Zide 1997:317, ex. 9; 323, ex. c)
- a. *jom-lai bu-o<sup>2</sup>-NIŋ*  
 name-ACC beat-PAST-1SG  
 ‘I will beat up Jom’
- b. *NIŋ ūdoj-NIŋ sorpei-o<sup>2</sup>-be<sup>2</sup>-tu*  
 1SG when-1SG hand over-PAST-AUX-FUT  
 ‘When will/do I hand over (the girl to the tiger)?’

#### 4.4 Udi subject person markers

In Udi, a Lezgian language from Azerbaijan, subject person markers occur encliticised to various positions in the clause. The placement of these person clitics has recently been described in great detail by Harris (2000; 2002). The discussion here only amounts to a small excerpt of the many details in the positioning of the Udi person markers (cf. Ch. 6 of Harris 2002 for a complete analysis of all variants). Roughly summarised, this subject marker is either enclitic somewhere on (or ‘in’) the verb (8a), or on a constituent directly before the verb (8b, c, d). The verb is regularly sentence final (8b). Although some word-order variation is possible, the clitic remains strictly preverbal (8c). The preverbal constituent onto which the clitic is attached is most commonly an object noun phrase, though other kinds of constituents can also function as host (8d). At first sight, there does not appear to be a regular characterisation of the preverbal constituent, so this would again be an example of ditropic cliticisation. However, Harris (2000; 2002:Ch. 3) argues convincingly that the preverbal position in Udi is used for the marking of focus. The preverbal clitic is thus attached to a constituent that, although not identifiable semantically or structurally, is characterisable pragmatically as it is attached to the element in focus.

- (8) Udi (Harris 2002:55–56, exs. 23, 27)
- a. *äyel-en p<sup>1</sup>a eš a-ne-q<sup>1</sup>-e*  
 child-ERG two apple take-3SG-take-AOR  
 ‘The child took two apples’

- b. *äyel-en p'a eš-ne aq'-e*  
 child-ERG two apple-3SG take-AOR  
 'The child took two apples'
- c. *äyel-en-ne aq'-e p'a eš-n-ux*  
 child-ERG-3SG take-AOR two apple-OBL-DAT  
 'The child took two apples'
- d. *me xinär-en täksa k'inig-iy-o laxo-ne fikirbeso?*  
 DEM girl-ERG only book-PL-DAT about-3SG think  
 'Does this girl think only about books?'

#### 4.5 Northern Talysh clitic pronouns

The positioning of clitics in Northern Talysh, an Iranian language from the border area of Iran and Azerbaijan, shows a remarkable similarity to Udi.<sup>9</sup> In Northern Talysh, the agent (ergative) cross-reference marker is most commonly attested on the preverbal element, the verb being clause final (9a, b). On occasion, the clitic can also be found on other elements of the clause, like the first word in (9c). When there is no preverbal constituent, the clitic will be attached to the verb itself. For all cases, Schulze (2000: 54–55) claims that the position of the clitic is determined by focus. The clitic is attached to the constituent that is in focus, and the most frequent position of the focussed constituent is directly preverbal.

(9) Northern Talysh (Schulze 2000: 55, ex. 80; 53, ex. 72f.)

- a. *de čič-ə epışt-a?*  
 2SG.PRON what-2SG tie up-PERF  
 'What did you tie up?'
- b. *čay læng-on-əm epəšt-a*  
 3SG.POSS leg-PL-1SG tie up-PERF  
 'I tied up his legs'
- c. *albahal-əm tifang ba po pekərn-i*  
 this moment-1SG rifle to down take up-AOR  
 'In this moment I took up the rifle from below'

Schulze (2000: 52) states that this situation is “also present in a great variety of other Iranian languages”. Somewhat more concretely, D. Stilo (p.c.) informs me that such ‘floating’ clitics are attested in various Northwest and Southwest Iranian languages. As far as I have been able to gather from published sources, the same situation appears to exist in Southern Tati (Yar-Shater 1969: 155–157), a close relative of Northern Talysh (although the description does not

allow far-reaching conclusions on the conditions of clitic placement) and in the Jewish dialect of Hamadān (Stilo 2003: 625–626). In all these languages, some restrictions exist as to which constituents can take the clitic. In Hamadān, the clitic cannot be attached to a possessed noun (which would result in a doubled pronominal suffix), and both in Hamadān and Northern Talysh, the clitic cannot be added to the subject. Also, the ‘floating’ clitics only occur in particular tense/aspect forms, mainly past.

## 5. Clause-chaining ditropic clitics

The next set of examples of ditropic clitics involves clitics that link two clauses together. In the examples from both Ingush and Northern Mansi, the verb in the subordinate clause is clause-final and the clause-linking particle occurs prefinally in this clause, being enclitic to whatever comes before the clause-final verb.

### 5.1 Ingush clause chaining

In a direct attempt to prove the existence of one of the ditropic types in Klavans’ typology, Peterson (2001) presents the enclitic particle *ʔa* from Ingush, a Nakh-Dagestanian language from the Caucasus (cf. Good 2003: 301–331 for a comparable account of *ʔa* in Chechen, a close relative of Ingush). This particle has two main functions. First, it is used to mark some form of emphasis on the element onto which it attaches (Peterson 2001: 145–146). Second, and most frequently, this particle is used in chained (subordinate) clauses (Peterson 2001: 146–153). In this second function, the particle *ʔa* is best translated into English as ‘and’. In these cases, it is consistently enclitic onto the directly preverbal element, the verb being clause final (10a). If there is no preverbal element, the verb is reduplicated so as to host the clitic (10b).

(10) Ingush (Peterson 2001: 147, ex. 10; 150, ex. 23b)

- a. *muusaa gaziət=ʔa dieš-až, aara vax-ar*  
 Musa newspaper-and read-CONV out leave-PAST  
 ‘Musa left reading the newspaper’
- b. *doaxan daaža=ʔa~daaž-až hŋea-ča či=dax-ar*  
 cows graze=and~graze-CONV barn-LOC in=go-PAST  
 ‘The cows grazed and went into the barn’

## 5.2 Northern Mansi conditionals

In their discussion of ditropic clitics, Embick & Noyer (1999:299–310) extensively discuss the case of the conditional particle *-ke* ‘if’ in Northern Mansi (Vogul), a Uralic language from Russia. This example was originally brought up by Nevis (1990:353, 362), who claims that the conditional clause in Northern Mansi is verb final, and the conditional suffix occurs enclitic to whatever word precedes this verb (11).

(11) Northern Mansi (Nevis 1990:353)<sup>10</sup>

*χum jot-ke āl-ey-em,      náurem χani*  
 man with-if live-PRES-1SG child    cling.3SG  
 ‘When I live with a man, the child clings to me’

In an in-depth investigation of conditional sentences in various Finno-Ugric languages, Riese (1984:66–70) analyses a corpus of 223 conditional sentences of Northern Mansi, and finds that in 67% the particle *-ke* indeed occurs enclitic on the preverbal element, as in (11). In another 12%, the conditional clause consists of a verb only, and *-ke* is added enclitically to this verb. In an additional 14%, the particle *-ke* is added to the final verb, even though there were preverbal words available as potential hosts in the conditional clause. In the remaining 7%, the particle is positioned elsewhere in the conditional clause. Regarding these last cases, Riese (1984:70) comments that “it is very likely that emphasis plays a major role in such a positioning of the particle”. Thus *-ke* normally occurs prefinally and sometimes finally, with a few exceptions (partly) determined by pragmatic factors.

This situation is found only in Northern Mansi and not in the other Mansi variants. The particle *-ke* originated in Zyrian, where it is generally attached to the first or second element of the conditional clause (Riese 1984:134). The particle has been borrowed into all Mansi dialects, but a preference for encliticisation onto the preverbal constituent is found only in Northern Mansi, geographically closest to Zyrian. In Western Mansi, the particle appears to be rather free in its placement in the sentence (Riese 1984:90). In Eastern Mansi it is generally sentence final, and thus regularly enclitic to the verb (Riese 1984:81). In Southern Mansi, the particle has been incorporated into the verbal inflectional mood marking (Riese 1984:97–98). This dialectal variation probably reflects a grammaticalisation cline from Wackernagel-type second position clitics to purely lexically determined verbal inflection, the ditropic position being an intermediate stage.

## 6. Ditropic clitics in noun phrases

Cliticisation ‘on the wrong side’ is also attested in noun phrases. In all cases to be discussed in this section, some initial element of the noun phrase attaches enclitically to whatever comes before the noun phrase.

### 6.1 Kwakwala (Kwakiutl) determiners

Beginning with Klavans (1985), the Wakashan language Kwakwala (Kwakiutl) has been recurrently cited as a case of ditropic cliticisation. The description by Anderson (1984) is quite clear on this issue. In Kwakwala, the NP-initial deictics (often best translated as definite markers) are enclitic to whatever constituent occurs before the NP. For example, in sentence (12), all three nouns have deictics, but each deictic is phonologically enclitic to the constituent before the respective NP. Even the instrumental marker *-s-* of the noun ‘club’ is ditropic, being attached to the preceding direct object ‘otter’.

(12) Kwakwala (Anderson 1984:24)

*k<sup>w</sup>ixʔid-ida bəg<sup>w</sup>anəma-x-a qʔasa-s-is tʔəlwag<sup>w</sup>ayu*  
 clubbed-DEF man-OBJ-DEF otter-INST-3SG.POSS club  
 ‘The man clubbed the sea-otter with his club’

The same situation as in Kwakwala may exist in its close relative Haisla, though the available description is not very informative on this point. Lincoln & Rath (1986:43, 49) note that “in connected speech, several [...] proclitics, for instance certain demonstratives used attributively, have the [...] tendency [...] to behave as enclitics, without the loss of phonemic material” (Lincoln & Rath 1986:43). This statement clearly points towards a case of ‘simple’ cliticisation. In Heiltsuk, another Wakashan language, though from a different subgroup than Kwakwala, unstressed deictics likewise occur initially in the NP. However, in this case the deictic is described as being attached proclitically to its own NP (Rath 1981:87–88).

### 6.2 Yagua object doubling

A comparable situation is attested in Yagua, a language of Peru. Yagua has pronominal objects that are often, though not always, used coreferentially with a full object NP (a case of ‘clitic doubling’, Everett 1989). The functional difference between a full object NP occurring with and without a coreferential pronoun is unclear (Payne & Payne 1990:366). If present, the singular and the

inclusive object pronouns are obligatorily enclitic. The other pronouns are normally free forms, though in fast speech they can also be enclitic (Payne & Payne 1990: 364–365).

When the clitic ‘doubles’ the object, it is structurally ditropic. As was illustrated in (2), repeated below as (13a), the object enclitic always occurs immediately before the full object NP, being attached to whatever constituent occurs to the left of this NP. The clitic always precedes the entire NP, as in (13b), where the clitic is placed before the complex NP ‘Tom’s two bananas’. It might be questioned whether the clitic truly belongs to the full object NP. This strongly depends on the details of the researcher’s favourite syntactic analysis. Most crucial in this respect are some phonological criteria and the fact that it is not possible for any other element to occur between the object clitic and the full object NP (Payne & Payne 1990: 365–366).<sup>11</sup>

(13) Yagua (Payne & Payne 1990: 365, ex. 373; 350, ex. 311b)

- a. *sa-púúchiy*                      *Pauro rooriy-vĩĩmu-níi*                      *Anita*  
 3SG.SUBJ-lead/carry Paul house-inside-3SG.OBJ Anita  
 ‘Paul leads/carries Anita inside a/the house’
- b. *ray-vaata-rà*                      *ána-jo-júy*                      *Tomáása naváa*  
 1SG-want-3SG.OBJ.INAN two-fruit-two Tom banana  
 ‘I want Tom’s two bananas’

### 6.3 Greek pronominal possession

Another example of this exotic phenomenon is found in the possessive marking of Ancient Greek. In Ancient Greek, the genitive pronoun, indicating the pronominal possessor of a noun phrase, could occur initially, finally, or in second position in the noun phrase (Taylor 1996: 484–485). In all these positions, the genitive pronoun is strictly enclitic. This results in a ditropic clitic when the clitic is placed in NP-initial position, as shown in (14).

(14) Ancient Greek (Taylor 1996: 484, ex. 18a)

- kai peisthēso-ntai-sou*                      .                      *tais*                      *rhēma-sin*  
 and trust.FUT-3PL.MED-2SG.POSS DEF.DAT.PL word-DAT.PL  
 ‘And they will trust your words’

In Modern Greek, the reduced possessive pronoun is regularly placed after the noun phrase (15a). Sadock (1991: 71–72) argues that the possessive pronoun can also be placed immediately before the possessed noun, but retaining its enclitic nature (15b). He claims that no other positions are possible for the clitic.

This would make the kind of structure in (15b) an example of ditropic cliticisation, as the head noun regularly occurs in final position in the noun phrase. In direct reaction to Sadock, Halpern (1995: 35–36) argues that an enclitic on the first adjective is also accepted by at least some speakers. He further argues that enclitics are possible on all adjectives.

(15) Modern Greek (Sadock 1991: 71)

- a. *o-filos-mu*  
 DEF-friend-1SG.POSS  
 ‘my friend’
- b. *o-kalos palyos-mu filos*  
 DEF-dearest old-1SG.POSS friend  
 ‘my dearest old friend’

Neither Sadock nor Halpern (nor Anderson 1993: 75, citing Sadock) apparently found it necessary to check some general reference works on Modern Greek. The literature quite uniformly describes a much less constrained situation. Joseph & Philippaki-Warbuton (1987: 163) say that “optionally, however, when the noun is modified by one or more adjectives, the possessive may attach enclitically to one of the adjectives, with no apparent change in meaning”. Mackridge (1987: 222) notes in passing that “the possessive pronoun may also follow an adjective or other premodifier”. He claims that there is a slight difference in meaning (without specifying in what respect),<sup>12</sup> but a particular placement also “appears to take place often for purely euphonic reasons”. Most recently, Kolliakou (1999: 32) argues that the possessive clitic has a ‘floating’ distribution, as “it can attach to a specifier, any pronominal adjective, or the noun”. Contrary to Sadock’s claim, then, Modern Greek is not a case of ditropic cliticisation.

## 7. Conclusion

The main conclusion of this survey is that ditropic clitics are indeed attested. It is surely a rare phenomenon, and an extensive search was needed to find examples among the world’s languages. Building on the work of previous scholars, I have been able to enlarge the collection of known cases to the present ten examples of ditropic clitics, many from languages which are arguably part of a larger linguistic area or a small genetic group in which various languages show cliticisation on the ‘wrong side’ (cf. the examples from Kugu-Nganhcara, Kherwarian, Northern Talysh, Ingush and Kwakwala). The

examples discussed in this paper should be taken seriously by any theory of cliticisation. Spencer's (1991:380) proposal that ditropic clitics "should be excluded on general grounds, unless overwhelming empirical evidence should turn up in their favour" is clearly refuted.

All the languages in this survey should ideally be compared on various subsidiary parameters, like their suprasegmental structure, the segmental characteristics of reduction in general and the nature of other clitic-like elements in particular. However, already from this admittedly rather rough survey, the various examples appear to be rather heterogeneous. This first impression suggests that ditropic cliticisation cannot be explained simply by building one overarching structural generalisation into one's theory of morphology. In the remainder of this conclusion, I will sketch some structural, pragmatic and historical approaches to explaining this unusual phenomenon.

One possible explanation for ditropic clitics is to propose that they are simple clitics, incidentally leaning to the 'wrong side'. This approach seems fruitful for the case of Djinang and for the noun phrase clitics from Kwakwala, Ancient Greek, and Yagua. In all these cases, the clitic is an optional variant of a free form, and both clitic and free form have the same syntactic distribution. For these languages, the ditropic cliticisation can thus readily be interpreted as an epiphenomenal effect due to the particular adjunction rules of the language in question.

In Kugu Nganhcara, the ditropic clitics are only sometimes used. However, the corresponding free forms have a completely different syntactic distribution – they are rather freely positioned in the sentence. In this case, the clitics cannot be interpreted simply as phonologically reduced forms of the full pronouns. Even more telling, none of the remaining examples presented (from Kherwarian, Udi, Northern Talysh, Northern Mansi, and Ingush) have any alternative to the ditropic clitics. The clitics are an obligatory part of the construction and cannot be left out. Nor are there any free counterparts that can be used to replace the ditropic clitics. In these cases, the ditropic clitics look more affix-like.

This division between simple cliticisation and the affix-like cases is roughly mirrored in the positional variability of the clitics. In most of the affix-like cases the ditropic position is not the only possible position of the clitic. When no host is available before the attractor, then the clitic will appear after the attractor as an enclitic to it. Such a switch of position is attested in Kugu Nganhcara, Kherwarian, Udi, Northern Talysh, and Northern Mansi. In Ingush, the root of the verb is reduplicated to host the clitic if there is no available preverbal host.



In contrast, Kwakwala and Yagua always have at least a sentence-initial verb to host a ditropic clitic from any following noun phrase.

Summarising, there is something special going on in at least Kherwarian, Udi, Northern Talysh, Northern Mansi, Ingush, and perhaps Kugu Nganhcara. These languages are all verb final, the ditropic clitics occur before this verb, these clitics have no comparable syntactically free counterparts, and when there is no preverbal constituent, the clitics are attached to the verb. The descriptions of Udi and Northern Talysh present a possible explanation for these cases, namely that pragmatic considerations play a role. The clitic is attached to the element that is in focus, the regular position of focussed constituents being immediately preverbal.

A final point of consideration is the diachronic dimension. Clitics are arguably a stage in the grammaticalisation of free forms into affixes. A number of authors have made various comments about the diachronic developments leading to ditropic clitics. Unfortunately, most of these comments are made only in passing and are not worked out in any comparative detail. A further problem is that the few speculations available do not converge on the same historical development. To the contrary, completely opposite developmental paths have been proposed for apparently quite similar cases. For Kugu Nganhcara, Dixon (2002: 387–390) proposes that the ditropic clitics are a stage in the development of prefixes. Clitics in the Pama-Nyungan languages are normally enclitics, so they normally cannot become prefixes. The situation in Kugu Nganhcara, Dixon argues, could be a last step before the development of prefixes. Unfortunately, there is no Pama-Nyungan language (yet?) that has taken this final step.<sup>13</sup> For the Kherwarian languages, Anderson & Zide (2001: 17–21) propose the inverse scenario. They argue that the affixes were originally prefixes, and through a reanalysis of the boundary became suffixes on the preverbal constituent. Note that this would constitute a strong case of degrammaticalisation (but see Cysouw 2004 for a different interpretation of the Munda diachrony).<sup>14</sup> For Northern Talysh, Schulze (2000: 52) argues that the word order was originally OAV, but has changed to AOV, with the exception of the pronominal clitics for A(gent). These clitics have remained in their original location, giving rise to the ditropic situation. If these three different scenarios describe the real historical developments, then there is little hope for a unified historical pathway to ditropic cliticization. However, a thorough comparison on all cases discussed in this article might shed a different light on the historical developments.

The present survey of ditropic clitics summarises one of the more striking possibilities of human language, which should not be dismissed in the formula-

tion of a theory of linguistic structure. Structural factors, pragmatic influences and historical accidents all have their share in the genesis of these often rather counter-intuitive structures.

### Acknowledgements

A large part of the research for this article has taken place in the context of the project P3 ‘The origin of morphology’ at the Zentrum für Allgemeine Sprachwissenschaft (ZAS) in Berlin. There, I thank Sören Philips for his indispensable help in obtaining much of the literature in Berlin’s library-jungle. At the Max Planck Institute, I thank Orin Gensler for his help with the English language. Further, I thank Jeff Good, Loren Billings and the editors of this volume for the correction of numerous little errors.

### Notes

1. Cf. Zwicky (1985:286–290) and Zwicky & Pullum (1983:503–504) for a list of possible factors distinguishing between clitics and affixes.
2. In the case of both French/German [preposition+article] and English [subject+auxiliary], one might even see an instantiation of (phrasal) second position cliticisation – a line of analysis that will not be pursued further here.
3. In this article, I will only refer to Klavans (1985), though basically the same content is also found in her 1980 Dissertation from University College in London, which was distributed in 1982 by the Indiana University Linguistics Club in Bloomington, and finally published in 1995 by Garland in New York.
4. The difference between types 1 and 5 depends on the parameter INITIAL/FINAL, which determines whether the clitic occurs in the initial or final constituent of the phrase to which the clitic belongs (Klavans 1985:97). I will disregard this parameter, as it does not appear to have any interesting consequences.
5. To be precise, Spencer only makes this statement about ditropic types 4 and 5, but he accepts the existence of types 1 and 8.
6. Dixon here cites the Ph.D. dissertation by Peter Sutton (1978), which I have been unable to consult myself.
7. In Waters’ (1989) grammar almost all reduced pronouns, including those with an initial vowel, are written as separate words – example (4b) being the exception. However, note the insertion of the apparently epenthetic *-d-* (unexplained by Waters) between host and clitic, making a strong case for the reduced pronoun being an enclitic.
8. This summary of Santali suffix placement appears to hold for all Kherwarian languages, e.g. for Mundari, see Sinha (1975:94) and for Ho, see Deeney (1975). However, Ramaswami

(1992: 128–132, 143–151) in his description of Bhumij gives many examples of multi-word indicative sentences with the subject marking suffixed to the verb, which indicates that preverbal placement is not the default position in this language.

9. As an explanation for this similarity, Schulze (2000: 56) claims that Udi “is heavily influenced by a yet unidentified (Talysh-like?) Northwest Iranian adstrate”.
10. Nevis here cites a Vogul dictionary by Munkácsi & Kálmán, which I have not been able to consult myself.
11. In Everett’s (1989: 354–355) analysis, this ‘wrong-way’ cliticisation is purely epiphenomenal, depending on case realisation and assignment.
12. C. Gabrielatos (p.c.) also mentions the possibility of a difference in interpretation. His intuitions suggest that the clitic can be attached to any constituent that is used in a contrastive sense.
13. In a different context, Steele (1977) has made a comparable proposal. In her analysis, which deals with cliticisation in Uto-Aztec languages, she proposes that the Aztec prefixes arose by reanalysis of originally second position clitics. At some stage, she argues, the verb followed these second position clitics, and by reanalysis the direction of attachment of these clitics changed from enclitics to proclitics to prefixes.
14. A further possible case of ditropic cliticisation is found in Kukuya, a Bantu language from Congo (Hyman 1987: 328–329, citing a reference grammar by Paulian 1974, which I have not been able to consult myself). It seems to be the case here that the typical Bantu subject prefixes have lost their morphological attachment to the verb, but are still positioned in front of the verb. What exactly the status of these morphemes is is unclear to me, but they might synchronically be ditropic clitics. This would then be a strong case of degrammaticalisation, alike to the proposal for Munda by Anderson & Zide (2001).

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