

The Evolution of Clitics

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0. Introduction.

In the recent literature on synchronic structure and diachronic change the class of clitic elements has assumed considerable importance, undoubtedly in part because of their intermediate (or mixed) status with respect to the division between morphology and syntax, but also because of the complex interrelationships manifested in them with regard to phonology, morphology, syntax, semantics, pragmatics, style, and discourse structure. In the growing literature on the historical development of clitics (exemplified by the contributions by Chafe, Haas, and Steele to the Li 1977 collection and by several unpublished papers by Wanner), there are a number of standard assumptions and suppressed premises about the synchronic and diachronic properties of these elements, assumptions that in many cases seem to us to be dubious or significantly short of the full story. We propose to enumerate these assumptions, in the hope that stating them forthrightly and challenging them will lead to fruitful debate, the framing of new hypotheses, and the search for fresh relevant data.

We begin by recalling the distinction in Zwicky 1977 between simple clitics and special clitics. The paradigm case of a simple clitic is the ordinary unaccented form of a word that attaches phonologically to an adjacent word; such forms include proclitics, like the English indefinite article in a pear and an apple, and enclitics, like the English complementizer to in I should go, but I don't want to. The paradigm case of a special clitic is not so regularly associated phonologically with a full form (in a related type of clitic, the bound word, there is no associated full form at all; the Latin enclitic -que 'and' is a typical bound word), and rather than attaching itself to a word that happens to be next to it, a special clitic is located within sentences by genuinely syntactic principles (in brief, special clitics attach either to the head of a phrase or to one of its margins). The Romance 'weak' or 'conjunct' pronouns are clearly special clitics, and again these include both proclitics, as in Spanish lo vi 'I saw it', and enclitics, as in Spanish ver lo 'to see it'.

1. Pronouns and Particles.

One widely held assumption about clitics is that the prototypical clitic is pronominal, like the Romance clitics. Indeed, although we have not seen this position stated or defended in print, we believe that many scholars would subscribe to the view that if a language has any clitics at all, it has pronominal clitics.

On this view there would be two types of languages with respect to the items that appear as clitics in them: pronoun-only languages, like Spanish, and languages with other types of clitics besides pronouns, as in the many Slavic languages with clitic forms of the copula and in Tagalog, which has a very rich collection of non-pronominal clitic particles (marking questions, imperatives, honorifics, emphasis, various adverbials, etc.).

But systems with only particle special clitics are not unknown; indeed, they seem to be fairly widespread in Southeast Asia. Hmong (also known as Miao or Meo), for instance, has two classes of particles, each occurring in one of the canonical locations for clitics (in 'second position', which for Hmong is between subject and verb; or in final position) and each subject to rigid ordering constraints. The interrogative and negative particles are in the 'second position' class, while tense and modal particles are distributed between the two classes. Pronouns, however, have the same privileges of occurrence as full noun phrases, and do not act like clitics at all (Indochinese Refugee Education Guide 15).

Our intention here is not to claim that particle clitics imply pronominal clitics, or the reverse. Rather, we want to emphasize that pronominal clitics do not have a special status, and in particular that their historical development does not necessarily precede the development of particle clitics.

2. The Morphological Cycle and Semantic Weakness.

It is a widely held hypothesis for the prehistories of many languages that a system of inflectional affixes and perhaps derivational affixes as well reflects one stage in a cycle that proceeds from free morpheme to clitic to affix. The assumption is that free morphemes initially come to occur in unaccented positions in a clause, being associated with adjacent accented words as clitic particles. Phonological reduction results in a gradual disintegration of lexical autonomy for these morphemes. Such an hypothesis has, for example, been put forward for the prehistory of Proto-Indo-European (Lehmann 1975).

If we give any credence to such theories concerning a diachronic cycle in morphological systems, we must include in any investigation of the evolution of clitics, not only morphemes referring to person, number and gender, but also morphemes referring to such notions as agency, location, instrumentality, modality, tense, aspects, and so on. It would be difficult to argue that morphemes of this type are semantically weak, or that languages show any tendency to mark redundantly the notions to which such morphemes refer, although such reasons have been given for the demotion from free to clitic to affixal morpheme for pronominals, and other commonly discussed participants in the morphological cycle, as when Janson (1976:242) supposes that Latin -que and enim 'for' become clitic because they are 'semantically so weak that they are not allowed to carry a main accent'.

3. Decliticization.

Although many of the developments that have been discussed in the literature--as in Givón 1971 and in Kahr's 1976 treatment of the development of inflectional suffixes from postpositions--illustrate the morphological cycle, there is nevertheless no empirical basis for the assumption of many linguists that clitics do not emerge, or re-emerge, as independent words. On the contrary, many Indo-Europeanists concerned with the morphological and syntactic prehistory of IE pronouns and pronominal constructions make just such an assumption. It is widely held that the particles *kue/kuo and *ie/io occurred as clitic particles in PIE. There is ample comparative evidence in languages like Latin (-que), Sanskrit (-ca), and Greek (-te) that the clitic particle *kue/kuo occurred after the first word of a clause and that it was either a simple prosecutive or that it marked some aspect of interclausal relationship. The particles -ia and -a (*-ie/o) of the Anatolian languages correspond in position and in function to the reflexes of *kue/o.

These two PIE particles are almost universally identified with the roots of relative/indefinite/interrogative words in the descendant Indo-European languages, such as Latin quis, quod (*kuo), Greek hos (*io), Sanskrit yas (*io), and Hittite ku-is, ku-it (*kuo). Moreover, in a series of articles and monographs appearing in the past 15 years (most notably Watkins 1963, 1964, Gonda 1971, Jeffers and Pepicello 1979), many of the details by which the accented pronouns probably come to be historically derived from the cognate particles have been explicitly presented. In brief, the reconstruction of these developments proceeds as follows.

First, we have the evidence already cited that a series of enclitic particles could follow the first accented word in a clause in PIE. The particles *kuo and *io may be followed by clitic pronouns, which in turn may be followed by other categories of clitics. We might then reconstruct patterns like

$$*X \left\{ \begin{array}{l} \text{-i}^{\circ}\text{o} \\ \text{-k}^{\text{u}}\text{o} \end{array} \right\} \text{-}(\text{o})\text{s (nom.)}.$$

With the shift away from the use of cliticization toward a greater dependence on isolated words, a development which we see in virtually all the extant dialects outside Anatolian, several such sequences might well be interpreted as monolexical inflected words (Hitt. ia-ās, Skt. yas). Such a reinterpretation probably established a pattern for the spontaneous generation of full pronominal paradigms--the origin of relative pronouns/adjectives.

We conclude that the tacit assumption that clisis is invariably one stage in an inexorable development toward the status of an affix, or toward ultimate oblivion, is simply false. In particular, the

evolutionary trends which affect a language must be taken into consideration, as in our example above, where the IE drift towards analytic rather than synthetic constructions plays a critical role. A further example can be seen in the development of the finite verb in Indo-European: in the early IE dialects the finite verb could occur in unaccented clitic position in a clause; but every modern IE language which is verb-medial inherits an accented finite verb system which is, at least in part, derivative of the ancient system whose members so commonly occurred in clisis.

4. Deaccentuation.

A more specific assumption about the development from independent word to inflectional affix is that it proceeds through a stage in which the independent word loses its accent (for whatever reasons), to a stage at which this unaccented morpheme becomes a simple clitic, to a stage at which the simple clitic becomes a special clitic, to the incorporation of the special clitic as an affix.

Cases where simple clitics have become special clitics are not hard to find. These include the rather common phenomenon called freezing in Zwicky 1973: sec. 5.5, in which simple clitic combinations become fixed phonologically and specialized semantically, as in the English hortatory let's and the Welsh emphatic negative mo'r. They also include more subtle developments, as in the recent history of the English negative particle n't, which is no longer merely a variant of unstressed not, since it occurs in a variety of environments in which unstressed not is barred (for instance, in tags like Can't they? vs. *Cannot they? and in imperatives like Don't you touch me! vs. *Do not you touch me!). The classic example of the Romance special clitics has now been treated in detail by Wanner (ms. 1978), who argues for a series of developments contingent upon lack of stress, which leads to simple cliticization.

No convincing examples of special cliticization following historically on deaccentuation without an intervening stage of simple cliticization are known to us. There is, on the other hand, rather a large number of apparent examples of the opposite sort, in which morphemes customarily described as bearing accent (like Latin enim cited above) are positioned like special clitics. We would suppose that in such cases it can be argued (on independent grounds) that the morphemes in question bear only a weak accent. But the issue is still open.

5. Derivational Affixes.

We have been talking about the passage from independent word to clitic to affix as if an inflectional affix were always its goal. But derivational affixes can arise in this way, too. This is undoubtedly the mechanism that has given rise to the modern English

derivational suffixes -ful, -less, -ly (and their modern German counterparts -voll, -los, -lich), cognate with the independent adjectives full, less, like (German voll, los, gleich).

Whether the end product is an inflectional or derivational affix seems to depend heavily on the meanings expressed, in particular on whether a change of word class is involved or not. But this topic requires further study.

6. Portmanteau Forms.

Even when clitics are moving towards becoming inflectional affixes, this development does not necessarily involve clitics 'melting into' stems one by one. Instead, we may see sequences of clitics contracting into portmanteau forms, which are then eligible to be reinterpreted as affixes.

The beginning of such a development can be observed in many Romance dialects. One route has been taken by Romagnol (Gregor 1972:83-7), where nearly all the clitic pronouns have been reduced to single segments--a vowel, as in the clitic subject a (1 sg, 1 pl, 2 pl) and the dative or adverbial clitic i (3 sg or pl); or a consonant, as in the object (acc. or dat.) clitics m (1 sg), t (2 sg), s (1 pl), and v (2 pl). Note also that there is considerable syncretism in this system. The result is that ai stands for a 1 sg/1 pl/2 pl subject in combination with any third-person dative object or with a place adverbial, while at stands for a 1 sg/1 pl/2 pl subject in combination with any sort of 2 sg object, and so on. The analysis of these forms into meaningful subparts has clearly become difficult, and the system is ripe for reinterpretation as a set of inflectional endings.

Another route has been taken by Gascon (Kelly 1973:199-201) where many combinations of clitics are contracted: nun for nus ne 'nous en', bun for bus ne 'vous en', lazi for la luzi 'la leur' or las luzi 'les leur'. These contractions are irregular, a fact that again makes the combinations difficult to analyze and opens the way for reinterpretation.

A similar diachronic process resulting in a clear example of morphological reinterpretation is seen in the history of certain infixed pronouns in Old Irish. In Irish, a sequence of two clitics, only the second of which is etymologically pronominal, comes to be reinterpreted as a monomorphemic monolexical infixed pronoun. The so-called Class C singular pronouns of OIr are: dom/dam (1); dot (2); de/da (3 fem.). These forms are derived from a sequence of clitics which in each case includes as a first element the correlative clause particle *-de (cf. Greek -δε). The sources of the Irish forms, then, are *-de-me (1), *-de-te (2), *de-C (3). As a result of regular sound change, the vowels of the pronominal clitics

are lost, as is the final C in the third person form. That the first and second person forms were originally vowel-final, while the third person form was not, is demonstrated by the fact that an initial consonant of the following word--always a verb--undergoes a mutation termed lenition. Lenition results in the spirantization of stops, among other things, in intervocalic position:

-crocha 'crucifies', but
nudam-chrocha '(which) crucifies me' < *no-de-me-kroke

Apparently, as a consequence of the demise of clause particles as functioning morphemes of the language, in conjunction with the phonological reduction of the pronominal elements attached to such particles, a sequence of clitics has been contracted and has come to be reinterpreted as a single morpheme. Such contraction accounts for the first and second person pronouns. In the case of the third person, the etymological source of the person marker has itself been lost, leaving the first clitic of the sequence--a clause particle--to be reinterpreted as a personal pronoun.

7. Metathesis.

On occasion clitics may move inside stems. Two large classes of metathesis may be distinguished: the relatively familiar infixing type, in which a clitic moves over a consonant cluster or a syllable (the motivation for the shift being primarily phonological, involving an alteration in the direction of a more favored syllable structure); and the somewhat more exotic endoclititic type, in which a clitic moves over a morphological constituent, either a single morpheme or a larger subpart of a word (the motivation for the shift being a morphological reanalysis).

Infixing metathesis can be illustrated by the well-known Austro-nesian cases in which historically original prefixes of the shape VC have been moved over the initial C of stems, to yield forms like Tagalog sumulat 'wrote' and ?umibig 'loved', from the stems sulat and ?ibig, respectively.

Endoclititic metatheses in Madurese, Estonian, Turkish, and Hua are described briefly in Zwicky 1977: sec. 3; these examples include some in which proclitics have moved over a following morpheme and some in which enclitics have moved over a preceding morpheme. Movement over larger morphological constituents can be illustrated by Portuguese forms like descreve-lo-íamos 'we would describe him', obtained from the enclitic o 'him' attached to descreveríamos 'we would describe'; -íamos 'we would' is a trimorphic subpart of descreveríamos.

Reanalysis as the motivation for endoclititic metathesis has been argued at some length by Haiman 1977 for the Hua case, and similar

arguments can undoubtedly be adduced for the other examples we have referred to, as well as to cases from Ewe, Pashto, and Sundanese, though the details need working out.

One lesson we should wish to draw from this brief survey of the facts is that the extent of clitic metathesis--especially of the endoclititic variety--as an historical process seems to have been seriously underestimated until recently.

8. Other Sources for Word-internal Clitics.

Metathesis is not the only way word-internal clitics can develop. They may also arise because of morphological changes by which certain morphemes come to be interpreted as infix elements. We return to the example of OIr Class C pronouns.

To elucidate this development, we must present a few facts about Celtic languages and about general IE. The Celtic languages in general are distinguished from other IE languages in being verb-first (VSO). Most of the ancient IE dialects are verb-last (SOV) languages, although all of these SOV languages provide the marked order VSO as an alternative. Consequently, the hypothesis that certain verb-first patterns of OIr are indeed archaic, and that they have undergone a status change from marked to unmarked, is widely held (Watkins 1963).

All ancient IE languages reflect an inherited system of preverbal particles (P). They occur in one of two positions in a clause: directly before the verb or clause-initially. The following patterns result: #...PV#, #P...V#. The comparative evidence also demands the reconstruction for PIE of a series of enclitics (E), which are suffixes to the first accented element in a clause; recall that the OIr Class C pronouns like -dom are derived from a sequence of such particles. IE can then be assumed to show the patterns #VE... and #PE..., in verb-first clauses and in clauses with initial preverbal particles, respectively. $\acute{V}E$ and $\acute{P}E$ comprise accent groups, and would function as phonological words. We may assume that these OIr patterns reflect PIE constructions.

In certain OIr clauses which do not include P and which begin with a simple verb, suffixed pronominal clitics occur; compare berid 'he carries' with beirthi < *bérit-i 'he carries it'. OIr sequences of verb plus suffixed pronoun apparently derive straightforwardly from the assumed PIE pattern #VE...#.

In clauses that begin with P, clitic pronouns will occur in second position, again a reflection of an IE pattern, namely #PE...#. The situation in OIr becomes more complex. All ancient IE dialects show a drift towards univertation, that is, towards the treatment of PV as a unit, with a meaning assigned to the complex rather than to its parts. This tendency toward univertation, coupled with the Celtic typological shift to VSO structure, results in the movement forward

in a clause of finite verbs in OIr. Where P was once separated from its associated verb (#P...V#), we have instead clause-initial PV units (#PV...#). However, in clauses with initial PE, the forward movement within the clause of the finite verb results in the replacement of *PE...V# by #PEV... Recall that the sequence PE is a phonological word, and that the process of univerbation reflects a trend toward establishing the lexical unity of the sequence PV (as in do-beir < *to-bherti 'he takes'). Consequently, the construction PEV comes to be reinterpreted as a lexical unit, incorporating infixed pronominal objects, as in dom-beir < *to-me-berti 'he takes me'.

Note that the clause position of E remains stable throughout history, and that it is as a result of changes in clause position for other forms and of morphosyntactic reinterpretations that infixation develops as a productive process in OIr.

9. Morphology as Frozen Syntax.

Synchronic studies of clitics have concentrated largely on two issues--where the string of clitics is located within the sentence and how the clitics cooccur and are ordered with respect to one another. The range of facts to be described can be exemplified by the following observations on French clitic object pronouns: these are proclitic to the verb, except in affirmative imperative sentences, when they are enclitic; a nonthird person or reflexive may occur with a third person (in that order) if the former is dative and the latter is accusative, while if two third persons are combined the accusative precedes the dative (the reverse for enclitics)--and no other combination of object pronoun clitics is possible.

The most natural assumption about the historical source for these phenomena is that they represent survivals of earlier syntactic orders, and indeed such an assumption is explicitly made by several scholars: this is the position of Givón 1971, for instance, on the development of a number of clitic systems, including the Romance pronominals. Yet when this attractive hypothesis is pursued in detail, many difficulties and anomalies arise. Thus, Green 1976 points out with respect to the Romance developments that in Classical Latin, Vulgar Latin, and Old Spanish, neither pronoun objects nor full NP objects were fixed in position with respect to the verb, so that the modern procliticization of object pronouns to the verb can scarcely be explained as the simple survival of earlier syntactic orders.

10. Second Position.

In reaction to simple persistence theories of clitic syntax, other writers have described the historical developments as if they arose from forces impelling clitics towards certain positions in the sentence and arranging them in certain favored orders. Steele 1977, for instance, examines a Uto-Aztecan version of Wackernagel's

Law by which clitics move into second position, though for mysterious reasons. As things stand, such an account explains nothing (as Steele herself realizes) and can only function as a spur to further analysis.

An additional complexity is that even though second position is greatly favored as a location for clitics, the definition of 'second position' differs from language to language. Walbiri, Serbo-Croatian, Tagalog, and Pashto differ in detail on this point (Zwicky 1977:18-20), and the historical linguist is entitled to wonder if there are any reasons for these differences.

11. Clisis and Typology.

One largely unexplored area in which answers to the questions we have raised might be sought concerns the relationships between (syntactic) typological classification and clitic syntax. To what degree is the occurrence of clitics correlated with language type? Do certain typological shifts result in the development of clitics, or in specifiable alterations in existing clitic systems?

A correlation between syntactic typology and the nature (or even presence) of clitic systems cannot be a simple one. Consider, for example, that ancient IE languages of all three syntactic types make use of clitic particles of one kind or another, and that they all share certain specific kinds of clitics, such as proclitic preverbal particles.

A further source for explanation in clitic diachrony is the relationship between accentual systems (at the word and at the sentence level) and clitic syntax. To what degree is the occurrence of clitics correlated with accent type? To what extent can the placement or ordering of clitics be predicted from accent type? Do certain accent shifts result in the development of clitics, or in specifiable alterations in existing systems?

Finally, areal relationships might also be considered. To what extent can contact situations promote the development of clitics or alterations in existing clitic systems?

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