

23. Locus of Marking in the Clause

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1. Definitions and values

Locus is a convenient one-word term for what is also known as *head/dependent marking*. In any kind of phrase, overt morphosyntactic marking reflecting the syntactic relations within the phrase may be located on the head of the phrase, on a non-head (i.e. on a dependent), on both, or on neither. In clauses, the arguments are dependents and the verb is the head. Examples of the locus types in clauses are (1)–(4). For ease of illustration these examples show the treatment of subjects and objects, in languages that treat both identically. As discussed below, not all languages treat subjects and objects identically, and where they are treated differently we have mapped the treatment of objects (specifically, direct objects (P below)). Not all languages treat pronoun and noun arguments identically, and where they are treated differently we have mapped the treatment of nouns.

The following locus types are distinguished on the map:

@	1. P is head-marked	71
@	2. P is dependent-marked	63
@	3. P is double-marked	57
@	4. P has no marking	42
@	5. Other types	2
	total	235

1.1. Head marking. In (1), the verb agrees with the subject (3PL) and object (3SG), and their form and position show which is subject and which is object. The words 'boys' and 'rock' have no overt marking to indicate their subject and object functions.

Thus all the marking of subject and object relations in this clause is on the verb, which is head of the clause.

- (1) Tzutujil (Mayan; Guatemala; Dayley 1985: 282, 75)

jar aak'aalaa7 x-Ø-kee-k'aq aab'aj
 the boys COMP-3SG-3PL-throw rock
pa rwi7 ja jaay
 on top.of the house

'The boys threw rock(s) on top of the house.'

1.2. Dependent marking. In (2), the subject and object nouns 'old man' and 'firewood' bear cases marking their syntactic functions. (The absolutive case has a zero ending, but as this is the only zero ending in the case paradigm it is unambiguously identifiable as absolutive, hence it counts as a case.) The verb has no agreement with either subject or object. Thus all the marking of subject and object relations in this clause is on the subjects and objects themselves, which are dependents.

- (2) Uradhi (Paman; Australia; Crowley 1983: 339)

wutpu-ŋku uma-Ø apa-n
 old.man-ERG firewood.ABS pick.up-PST

'The old man picked up some firewood.'

1.3. Double marking. In (3), 'monkeys' and 'children' have case endings to indicate their syntactic functions, and the verb has affixes agreeing with both. Thus subject and object are marked twice, once on the subject and object themselves and once on the verb. This is double marking. (The third person singular subject marker is zero, but is unambiguous as it contrasts with other person-number combinations in the paradigm.)

- (3) Belhare (Tibeto-Burman; Nepal; Bickel, own fieldnotes)

kubaŋ-chi-ŋa pitcha-chi n-ten-he-chi
 monkey-NSG-ERG child-NSG.ABS 3NSG.A-hit-PST-3NSG.P

'The monkeys hit the children.'

1.4. No marking. In (4), there is no marking of the syntactic relations on either the subject and object nouns or the verb. (The word order makes the syntax clear; but so it does in most of the above examples. Word order is not at issue in this chapter, which deals only with overt markers and their locations.)

- (4) Thai (Nichols, own fieldnotes)
D̄aang h̄ũaróo Dam.
 Dang laugh Dam
 'Dang laughed at Dam'

The examples of head, dependent, and double marking above have affixes or clitics as their marking. This is most common, but it is also possible for case and agreement markers to be isolating formatives, written and pronounced as separate words. The accusative marker of Dahalo (Cushitic; Kenya) is a separate word:

- (5) Dahalo (Tosco 1991: 88)
ʔááta ʔéleto Dawa kabê
 you know.NONPAST.2SG Dawa ACC
 'Do you know Dawa?'

1.5. Other. The division into head, dependent, double, and zero marking does not exhaust the possible types. There are several low-frequency but systematic further patterns. One of them is **free** (or **floating**) **marking**, where the marker is positioned not on the head or the dependent of the phrase but on some other word in a position defined relative to the head or to the phrase boundaries. For example, in Yagua (Peba-Yaguan; Peru), an overt object NP, if roughly definite (see Payne 1990: 255 and 364–367 for more on the pragmatic conditions), is

marked by a clitic which attaches to the preceding word. This is floating because it is controlled by one word (the object) but located on another (the preceding word, whatever it may be). The following examples show the object preceded by the verb, the subject, and an adverbial word, respectively

(7) Yagua (Payne 1990: 255) (I, II are agreement classes)

- a. *siimyi=ñíí* *quiiv-a*
 3SG.I.eat-3SG.II fish
 'He is eating the fish.'
- b. *siimiy* *Alchíco=níí* *quiiv-a*
 3SG.I.eat Alchico-3SG.II fish
 'Alchico is eating the fish.'
- c. *siimiy* *sinumu=níí* *quiiv-a*
 3SG.I.eat land.LOC-3SG.II fish
 'He is eating the fish on land.'

Rather than typologize clause locus based on the treatment of all three of subjects, direct or primary objects, and indirect or secondary objects, we have relied on just the treatment of direct or primary objects in this map. The reasons for this choice, among various alternatives, are set forth in the section "Defining locus types" below. In cases of differential object marking (Bossong 1985, Aissen 2003), where some objects are zero-marked and some (generally definite or nongeneric objects) are overtly marked, it is not always straightforward to determine which is the default form. Here we selected the overt marking type (generally an accusative or dative case) as the survey object.

2. Geographical distribution

The head-marked clause is common in the Americas and Australia-New Guinea and very rare elsewhere. (There are five tokens in Africa, but three of them come from the young but

widespread Bantu family.) The dependent-marked clause is common in Eurasia and northern Africa, sparsely but solidly attested in South America, and rare in North America. In Australia–New Guinea it occurs in two clusters: the eastern highlands of New Guinea and the south, east, and interior of Australia. The Australian cluster is genealogically biased, with most of the tokens coming from the very old Pama–Nyungan family; the one in New Guinea is genealogically better distributed but smaller. Double marking is moderately well attested in the Americas, Australia–New Guinea, and the southern fringe of Eurasia (chiefly in the Caucasian and Himalayan mountain enclaves), and seems to be favored particularly in Australia and the westernmost Americas. The zero-marked object is, unsurprisingly, common in Southeast Asia and western Africa, two well-known centers of morphological simplicity; but it is also very common in New Guinea and moderately common in eastern Africa and Central to South America, among languages of average or higher morphological complexity.

3. Defining locus types

Locus types, whether for particular constituents or as whole-language types, have generally been defined by considering the locus marking of several different relations. Nichols 1986 defined whole-language types by considering marking of possessive noun phrases with noun possessors (e.g. *neighbor's house*) and with pronoun possessors (e.g. *her house*); subject, direct object, and indirect object relations in the clause, all three with both noun and pronoun arguments; adpositional phrases with both noun and pronoun objects; and noun phrases with attributive adjectives. Nichols 1992 removed adpositional phrases because of surveying difficulties but kept the others, which added up to nine different syntactic locations per language at which there might be head marking, dependent

marking, both, or neither. Whole-language types were then defined by various elementary mathematical operations on these nine: the sum of head-marking points minus the sum of dependent-marking points, or the ratio of head to dependent marking points. The head-marking type was the lowest one-third of the head/dependent marking ratios, or the lowest sums. Cysouw 2002 considers head marking and dependent marking as separate parameters, and uses the sum for each to indicate types.

These numerical operations have various disadvantages (see Cysouw 2002). More importantly, the range of nine morphosyntactic points on which they are measured presents some difficulties. All nine are not equally likely to have one or another marking type, as basing types on their sum or ratio would imply. Rather, some syntactic relations are especially prone to one or another kind of marking. For instance, the marking of the S or A argument is prone to reflect universals more than type: agreement with this argument is common even in otherwise dedicated dependent-marking languages, and its inflection is likely to be driven by topicality-related matters at least as much as by morphosyntactic type. Indirect or secondary objects are generally not core arguments and are very often treated as obliques, which are almost always dependent-marked. Pronominal arguments are likely to either inflect for case in otherwise caseless languages or cliticize to their heads (or both) regardless of the overall clause locus type of the language. Attributive adjectives are very rarely head-marked or double-marked. Furthermore, parts of speech behave differently: pronouns are likely to cliticize to verbs when nouns do not, and pronouns are likely to make case distinctions when nouns do not. These are universal tendencies.

Though the typologist obviously needs all of these kinds of information in order to determine preferences for different kinds of marking in different parts of the grammar, for purposes of determining the head/dependent marking type of a language

the nine-point survey muddies the picture, as marking at several of the points reflects universal tendencies rather than the marking type of the individual language. By removing the points most prone to follow universal tendencies, we can distill the morphosyntactic range down to two phrase types: possessive phrase with noun possessor (e.g. *neighbor's house*, *the color of grass*) and direct or primary object in the transitive clause (e.g. *wrote books*, *broke a glass*). The whole-language type can be defined on the noun phrase and the clause together. This exemplar-based survey of marking types makes it possible to map out the four cardinal types (head marking, dependent marking, double marking, zero marking) clearly and simply.

We created a preliminary set of maps using various definitions of the marking types (nine-point survey, smaller surveys, and the exemplar-based definition used here) and found that in all of them the same (or much the same) geographical areas showed up as favoring various types. Thus the pared-down exemplar-based approach loses no information and in fact appears to gain some information in that (especially for the whole-language types) areas stand out more sharply.

Even when considering just a single exemplar, questions can arise as to how to classify non-prototypical types. If a language had two different kinds of marking for one morphosyntactic point (e.g. most objects trigger verb agreement but some do not, animate and inanimate nouns have different case inventories or different privileges of occurrence as subject of transitive verb), we chose the majority or open or default pattern; if there was no clear majority/default/open pattern we coded the marking as split. If first and/or second person agreement markers differ from third-person ones, we have included only the third-person form; and likewise for any enumerable or delimitable special forms of marking.

Other Maps using exemplar-based definitions include 20–22, 24, and 25. For more discussion of the exemplar-based method see Bickel and Nichols 2002.

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