

Questions on Transitivity

Randy J. LaPolla
La Trobe University

1. Introduction

This handout (it isn't a paper) presents phenomena and questions, rather than conclusions, related to the concept of transitivity. The idea is to return to these questions at the end of the Workshop to see if we can have a clearer consensus about the best general analysis of phenomena associated with transitivity.

Section 2 presents alternative analyses of transitivity and questions about transitivity in three languages I have worked on. Section 3 discusses a few of the different conceptualisations of transitivity that might be relevant to our thinking about the questions related to these languages or that bring up further questions. Section 4 presents some general questions that might be asked of individual languages.

2. Analyses of three languages

2.1 Rawang

- Rawang (Rvwang [rə'wàŋ]): Tibeto-Burman language; far north of Kachin State, Myanmar. Data from the Mvtwang (Mvt River) dialect.¹ (Morse 1962, 1963, 1965; LaPolla 2000, 2006, to appear a, to appear b; LaPolla & Poa 2001; LaPolla & Yang 2007).
- Verb-final, agglutinative, both head marking and dependent marking.
- Verbs can take hierarchical person marking, aspect marking, directional marking (which also marks aspect in some cases), and tense marking.
- All verbs clearly distinguished (even in citation) by their morphology in terms of what has been analysed as transitivity, and there are a number of different affixes for increasing or decreasing valency (see LaPolla 2000 on valency-changing derivations). Citation form is third person non-past affirmative/declarative:
- Intransitives: non-past affirmative/declarative particle (*ē*) alone in the non past (e.g. *ngōē* 'to cry') and the intransitive past tense marker (*-i*) in past forms (with third person argument); they can be used transitively only when they take valency-increasing morphological marking (causative, benefactive). Adjectives can take the intransitive morphology or the nominaliser *wē* in citation (e.g. *tēē* ~ *tēwē* 'big'), and can modify a noun in post-head position without being nominalised, but when used as predicates function the same as other intransitive verbs. Some stative intransitive verbs can take an oblique argument marked by the locative/dative marker:

- (1) *Ngà vḡisv̀ng svrēngē.*
ngà vḡi-sv̀ng svrē-ng-ē
1sg dog-LOC afraid-1sg-N.PAST
'I'm afraid of dogs.'

¹ The Rawang orthography (Morse 1962, 1963) is used in this paper. Most letters represent the pronunciations of English, except *i* = [i], *v* = [ə], *a* = [a], *o* = [u], *q* = [ʔ], and *c* = [s]. Tones: high falling: *á*, mid: *ā*, low falling: *à*. Syllables ending in a stop consonant (*-p*, *-t*, *-q*, *-k*) are in the high tone. Open syllables with no tone mark are unstressed. A colon marks non-basic long vowels.

- Transitives: non-past third person object marker (*ò*) plus non-past affirmative/declarative particle (*ē*) in non-past forms (e.g. *ríòē* 'to carry (something)') and transitive past tense marker (*-à*) in past forms (with third person O arguments); can be used intransitively only when they take valency-reducing morphological marking (intransitivizing prefix, reflexive/middle marking suffix). In transitive clauses the agentive marker (*-í*) generally appears on the NP representing the A argument. Rawang seems to have only two ditransitive roots: *zíòē* 'give' and *v̄lòē* 'tell', and they take the same morphology as mono-transitives. All other ditransitive verbs, e.g. *dvtānòē* 'show' (< *vtānē* 'be visible') and *shvríòē* 'send' (< *ríòē* 'carry'), are derived using the causative construction.
- Ambitransitives (labile verbs): used as transitives or intransitives without morphological derivation (*á:mòē / v̄mē* 'to eat'). Both S=O type and S=A type ambitransitives. With the S=O type, (e.g. *gvyaqē* 'be broken, destroyed' ~ *gvyaqòē* 'break, destroy'), adding A argument creates causative, without the need for causative prefix. With the S=A type, as in (1), use of the intransitive vs. the transitive form marks a difference between a general or habitual situation and a particular situation respectively. If the O is specific, then the transitive form must be used, but if the O is non-specific, it is not necessary to use the intransitive form. If no O is understood, then usually the intransitive form is used.

- (2) a. *Ang pē zvtñē.*
 àng pē zvt-ē
 3sg basket weave-N.PAST
 'He weaves baskets.' (general or habitual sense)
- b. *A:ngí pē tiqch̀ng za:tnòē.*
 àng-í [pē tiq-ch̀ng]_O zvt-ò-ē
 3sg-AGT basket one-CL weave-TNP-N.PAST
 'He is weaving a basket.'

- The copula, *íē*, takes the intransitive morphology and is like other intransitive verbs in terms of person marking, tense/aspect marking, interrogative marking, applicative marking, and nominalization, but it has two arguments. The copula cannot take causative marking, the way most other intransitives can, though it can take the precative marker (*laq-*), which is a sub-type of imperative (e.g. *cílçè laq-(mò)-í* '(Don't) let him be a soldier'). Two other verbs that take two arguments but are always formally intransitive are *mvyóē* 'to want, to like' and *vdáē* 'to have, own'.
- Morse (1965:346-8) analysed the appearance of the verbal suffix *-ò* in the non-past or *-à* in the past as a necessary criterion for a clause to be transitive (adapted from Morse 1965:346):

	Clause-marking suffixes	
	Transitive	Intransitive
Past	-à	ì
Non-past	-ò	-Ø

He argued that only clauses with third person O arguments were transitive ("Only action from first or second to third person, or between two third parties, is expressed as transitive action"; 1965:348), even though in clauses that do not have third person O arguments the NP representing the A argument can take the agentive marker. For Morse then, (3a) is transitive, but (3b) is intransitive (from Morse 1965:348; glosses added):

- (3) a. *Ngái àng shvìlòē.*
 ngà-ì àng shvì-l-ò-ē
 1sg-AGT 3sg drag-TNP-N.PAST
 'I am dragging him.'
- b. *à:ngí ngà èshvìlē.*
 àng-í ngà è-shvìl-ē
 3sg-AGT 1sg N.I-drag-N.PAST
 'He is dragging me.'

- Morse (1965:349) and I both analyse reflexive/middle voice clauses, where the verb is marked by the suffix *-shì* and the actor cannot take the agentive marker, as intransitive, even when there are two noun phrases in the clause, as in (4).

- (4) *Nvpè gō vPuqdap taq cìlcè wáshì yàng má?*
 nv-pè gō vPuq-dap taq cìlcè wá-shì yàng má
 2-father also Jinghpaw-army.base LOC soldier do-R/M TMyrs Q
 'Was your father also a soldier in the Jinghpaw army base?' (Lit.: 'Make himself a soldier';
 Interview with Bezidø, p. 33)

Transitivity harmony: A small subset of transitive verbs can be used following a main verb to mark the phase or other aspects of the action, such as *dvn* (*dá:nòē*) 'be about to', *p̀vng* (*p̀à:ngòē*) 'begin to', *m̀vn* (*m̀ā:nòē*) 'continue', *m̀ūnòē* 'be used to', *d̀vng* (*d̀á:ngòē*) 'finish'. There is also at least one ambitransitive verb that can be used as an auxiliary as well, *daqē* ~ *daqòē* 'be able to'. When they act as auxiliary to another verb, they have to match the transitivity of the main verb. For example, with a transitive main verb, the auxiliary simply follows that verb and the two verbs together take one set of transitive marking morphology, as in (5), where the auxiliary verb *m̀vn* (*m̀ā:nòē*) 'continue' follows the transitive verb *dvkò̀mòē* 'gather (something)', and the transitive non-past marker *-ò* marks the combined predicate as transitive.

- (5) *Paqzí shá-ò shvìlē gō wēdō dvkò̀m m̀ā:nò!*
 [paqzí shá-ò shvìlē]_O gō wē-dō [dvkò̀m² m̀vn-ò]_{PRED}
 education know-TNP layer also that-ADV gather continue-TNP
 'Continue to gather the educated ones that way!' (Karu Zong, 46.3)

If instead the main verb is intransitive, then the auxiliary verb must be intransitivised, as in (6), where the same auxiliary, *m̀vn* (*m̀ā:nòē*) 'continue', is made intransitive by the reflexive/middle voice suffix *-shì* to harmonise with the intransitive verb *vløp* (*vløpmē*) 'enter, go/sink into':

- (6) *Kādō wà-ò nìgō, sòngmèd̀vm nō vløp m̀vnshìē wā.*
 kā-dō wà-ò nìgō, [sòngmè-d̀vm]_S nō [vløp m̀vn-shì-ē]_{PRED} wā
 WH-ADV do-TNP though needle-CL TOP go.into continue-R/M-N.PAST HS
 'No matter how (he tried) the needle keep on going inside, it is said.' (Makangya, 6.5)

In (7), the ambitransitive verb *daqē* ~ *daqòē* 'be able to' is used first as an intransitive, as it follows an intransitive verb (which is intransitivised by the reflexive/middle marker *-shì* because it is reflexive), and then is used in its transitive form, as it follows a transitive verb:

² There is a tone change from low to high tone on this verb when the auxiliary is added. This change occurs with some words, but not with all. It may be a type of stem formation, or a type of nominalization, as it appears when the reflexive/middle voice suffix or the benefactive suffix is added as well.

- (7) *Yvnglòng nō wāshì daqē, wā; Tòlòng nō gwōr daqòē, wā.*
 yvng-lòng nō [wā-shì **daq-ē**]_{PREP} wā tò-lòng nō [gwōr **daq-ò-ē**]_{PREP} wā
 long-CL TOP do-R/M able-N.PAST HS short-CL TOP toss able-TNP-N.PAST HS
 'Long ones can be taken for oneself; short ones can be discarded.' (Rawang proverbs, #8)

Notice we are talking here purely about morphological transitivity; as with the ambitransitives, there may be two arguments in the clause, but the clause is morphologically intransitive.

In (8) we can see that when the main verb is intransitivised by the other intransitivising marker (*v-*), which is used here to give the sense of a reciprocal, *daqē* also has to be intransitive:

- (8) *Angní dvhò nō dvkū màkūí vrú kē nò vshvt daqē, wā.*
 àngní dvhò nō dvkū màkū-í v-rú kē nò [v-shvt **daq-ē**]_{PREP}, wā
 3dl in.laws TOP ladle scoop-INST INTR-hit RECIP PS INTR-fight can-N.PAST HS
 'Close relatives sometimes can fight.' (Rawang proverbs #7)

The auxiliaries follow the harmony pattern even with the different forms of the ambitransitive verbs. That is, when the ambitransitive main verb is used as an intransitive, the auxiliary verb will also be intransitive, but if the ambitransitive main verb is used as a transitive verb, then the auxiliary will be transitive. Compare (9a-b), for example:

- (9) a. *àng vmdvngshì bói*
 àng [v̄m-**d̄vng-shì** bói-ì]_{PREP}
 3sg eat-finish-R/M PFV-INTR.PAST
 'He finished eating.' (intransitive *v̄mē* 'eat')
- b. *àngí vmpàlòng vmdvng bóa*
 àng-í vmpà-lòng [v̄m-**d̄vng** bói-à]_{PREP}
 3sg-AGT food-CL eat-finish PFV-TR.PAST
 'He has finished eating the food.' (transitive *v̄mòē* 'eat')

The pattern is also followed when the main verb is nominalised, as in (10), where *ngaqòē* 'push over' is intransitivised by the intransitivising prefix (*v-*), and then nominalised by the purposive suffix (see LaPolla 2000 on the prefix, and LaPolla, to appear, on the suffix and complement structures). Because the verb is intransitive, the auxiliary must be intransitivised.

- (10) *Vngaqlv̄m d̄vns̄hìē.*
 v-ngaq-lv̄m d̄vns̄hì-ē
 INTR-push-PUR about.to-R/M-N.PAST
 '(It) seems like (it) is about to fall down.'

A similar phenomenon is also found in some Australian languages, such as Kaythetye (Harold Koch, p.c.) and Wambaya (Nodlinger 1999), though in the examples I know of an intransitive auxiliary is causativised to match a transitive main verb (Kaythetye), or the two verbs in certain tight serial verb constructions have to match in transitivity, such that you would say 'hit + kill' rather than 'hit + die' (Wambaya).

Questions on transitivity in Rawang:

1. How should transitivity be defined in Rawang? Why?
2. It seems one of the analyses assumes a dependency between the individuality of the O and transitivity; the other one assumes a dependency between person and transitivity. How might our choice here influence our general understanding of transitivity?
3. What could be the possible communicative motivation and historical path of development for what I have called transitivity harmony?
4. Non-agentive animate core argument (those I am assuming are core arguments) can be marked the same way as peripheral arguments? How can we distinguish core and non-core arguments (none are obligatory in the clause).

2.2 Qiang (Tibeto-Burman language of Sichuan; extracts from LaPolla with Huang 2003)

Qiang has intransitive, transitive, and ditransitive verbs, plus some ambitransitive verbs. Transitives can be formed from intransitives, or ditransitives from transitives, by the addition of the causative suffix. There is no intransitivizing marking other than the reduplication that marks the reciprocal. In a transitive clause, when the actor is the topic, then the noun phrase representing the actor need not take any agentive marking, and the undergoer can also be unmarked. With few exceptions, this is true regardless of whether the noun phrase representing the actor is a noun or a pronoun, or whether the referent is first, second, or third person, or whether the argument is agentive or non-agentive, and is true for all aspects. The person marking on the verb generally reflects the person and number of the actor, regardless of whether the actor is agentive or non-agentive. When there is marked word order, or when there is a need to emphasize the agentivity of the actor, the agentive marker *-wu* can be used after the noun phrase representing the actor, as in the following example:

- (11) *the:-tɕ pi:-xsə-la sum-wu de-l-ji ŋuə.*
 3sg-GEN pen-three-CL teacher-AGT DIR-give-CSM COPULA
 'The teacher gave him three pens.'

In this example, because the noun phrase representing the actor is not in the clause-initial topic position, in order to avoid ambiguity in the assignment of actor status (especially as the actor and recipient are both third-person singular referents, so person marking on the verb is of no assistance in identifying the actor), the agentive marker *-wu* must appear after *sum* 'teacher'.

If on the other hand the semantic relations are clear given the nature of the referents and the action involved, then even with marked word order the agent marking is not necessary, as in (12):

- (12) *khuə-le: qa zə-p-ji ŋuə.*
 dog-DEF:CL 1sg DIR-buy-CSM COPULA
 'The dog was bought by me. / It was me who bought the dog.'

The one exception to the lack of marking of the undergoer of a transitive verb is when the undergoer is animate and the noun phrase representing the actor does not have agentive marking, so there might be confusion of which referent is the actor and which is the undergoer. In this case the dative/allative marker *-ta* can be used after the noun phrase representing the undergoer to disambiguate the actor from the undergoer or emphasize the undergoer, as in the following examples:

- b. *thizzi e:-wu e:-ta fa phifphifi-tci.*
 3dl [one:CL-AGT one:CL-DAT] clothing tear:RECIP-3pl
 'The two of them tore each other's clothes.'

Questions on transitivity in Qiang

1. In Rawang I used the presence of the agentive marker as criterial for identifying a transitive clause, but in Qiang I said having or not having the agentive or animate undergoer marking did not make a difference to transitivity. Which is a better analysis, or are both right?
2. My analysis of Rawang transitivity assumed a dependency between the individuation of the O and transitivity. In Qiang I argued that the agentive marker (which might be taken as a mark of transitivity) is used most often when the O is topical and the A is focal. Is there a relationship between what is going on in Rawang and what is going on in Qiang?
3. If adding an actor argument to an S=O ambitransitive makes the clause transitive, then what does adding the causative suffix do? Is it more transitive, or just a different type of transitive?
4. With the reciprocals, I have argued that they are intransitive, as there is generally only one direct argument, yet as can be seen in (18b), an adverbial phrase that seems to imply transitivity (it literally means 'one-agent one-patient') can be used in the clause. Should we rethink the intransitive analysis? (Compare Rawang reciprocals (LaPolla 2000), which are an inference from an overtly intransitivised clause with a dual or plural S.)

2.3 Tagalog

Tagalog (Austronesian; Philippines) has what is sometimes called the "Philippine-type focus system", where marking on the predicate and on one argument identify that argument as the topic (focus of attention) of the clause, here discussed as "pivot". Similar systems can be found in many languages of the Philippines, Taiwan, and Indonesia, and many of the morphological forms used are reconstructed to Proto-Austronesian (see Ross & Teng 2005:773).

- (19) a. *Itinanong ni Nicodemo sa kaniya*
 question:UP [REL PN]_A [LOC 3sgPERIPH]
 "Papaano maipanganganak ang tao=ng ma-tanda na?"
 [how will.be.born SPEC person=LNK STAT-old CSM]_{O/TOP}
 'Nicodemo asked him, "How can an old man be born?" (John 3:4)
- b. *Sumagot si Jesus "Katotohanan katotohanang sinasabi ko*
 answer:AP [SPEC PN]_{A/TOP} [truth truth:LNK saying:UP 1sgPOS
 sa iyo . . ."
 LOC 2sgPERIPH]_O
 'Jesus answered, "What I'm telling you is the truth, the truth".' (John 3:5)
- c. *Sinabihan ako ng nanay ko "Mamili ka!"*
 saying:LP [1sgTOP]_{TOP} [REL mother 1sgPOS]_A [choice:AP 2sgTOP]_O
 'My mother said to me, "You choose!" (esdimen.blogdrive.com)

(20) (*May nakita akong bag na sobrang ganda.*)

Binili ko Ø. Tapos bumili din ako
 buy:UP [1sgN.TOP]_A (the bag)_O finish buy:AP also [1sgTOP]_A

ng isa=ng klase=ng herbal na gamot para kina Ma at Pa.
 [REL one=LNK kind=LNK herbal LNK medicine for DAT.pl Ma and Pa]_O

'(I had seen an extremely beautiful bag.) I bought it_{TOP}. Then I_{TOP} bought a kind of herbal medicine for Ma and Pa.'

<http://jojox02.blogspot.com/2007/07/ang-saya-kahaponuna-gumising-ako-tpos.html>

(21) a. *Uminom ako ng Coke.* vs. b. *Nag-Coke ako.*
 drink:AP 1s1sgTOP REL coke AP-coke 1sgTOP
 'I drank Coke' 'I drank coke'

One way to analyse this system is to accept it as an alignment type, where the choice of the pivot is independent of questions of transitivity, and it is just a matter of which argument is chosen as the topic/pivot, much like Jarawara has an A-construction and an O-construction (Dixon 2000). In this view (19a), (19b), and (19c) are all transitive, and just differ in terms of which argument is taken as the topic of the clause, that is, the one from whose perspective the activity is profiled from, and in (20) the difference between the first glossed clause and the following clause is just a difference of whether what happened to the bag is what is of interest or what the actor did that is what is of interest. The difference between (21a) and (21b) (both adapted from Nolasco 2006) would be whether the non-actor argument is incorporated into the predicate or not.³

Another way to analyse the Tagalog system is to treat the actor focus clause as the active clause, and therefore transitive, and the non-actor-focus clauses as passives. This was the analysis of the early structuralists (e.g. Bloomfield 1917, Constantino 1965). In this view (19b) is active and (19a) and (19c) are both passive, and in (20) the first glossed clause is passive and the following clause is active.

A third way of analysing this type of system is what is proposed by Reid and Liao (2004), and that is to analyse the system as ergative. In this analysis, the differences between the clause types are not inflectional, but derivational: the actor pivot clauses are intransitive, and only the undergoer pivot clause is a non-applicative transitive. The non-undergoer, non-actor pivot clauses are transitive, but with applicative derivations.⁴ According to Reid and Liao (2004:440), ". . . the number of complements that a construction has does not determine its transitivity. It is the *type* of the complements that a verb takes that determines its transitivity, not their number" (*italics in original*). Their view is based on a combination of Lexibase concepts (e.g. having only five grammatically defined case relations: PATIENT, AGENT, CORRESPONDENT, MEANS, and LOCUS), plus the concept of the macroroles Actor and Undergoer taken from Role and Reference Grammar (Foley and Van Valin 1984), though they explicitly state, "We differ from [Foley and Van Valin] in that we also assign undergoer role to the second argument of transitive 'activity' predicates, which do not carry undergoer

³ In this case the argument actually becomes the predicate, but in some cases an argument can be incorporated by linking it to a predicating word, such as in *Wala=ng tubig sa baso* [NOT.EXIST=LNK water LOC cup] 'There is no water in the cup.'

⁴ See also Hopper & Thompson 1980: 289, Mithun 1994, Starosta 1998, Liao 2004. Ross & Teng (2005) also argue for a similar analysis, but see the system as a 'voice' system: ". . . voice consists of alternate constructions which place either the A or the O in subject position. From this viewpoint, Philippine-type 'focuses' are clearly voices" (p. 760).

role in Role and Reference Grammar (Van Valin 1993:49)" (Reid & Liao 2004:435). A clause always has a Patient role, but that Patient role might be an actor or an undergoer. In intransitive clauses with two complements, there may be an actor and an undergoer, but not an Agent role; the actor in an actor-focus clause, which is said to be intransitive, takes the Nominative case marking, but is said to be Patient, and the undergoer takes the Genitive case marking and it is said this argument "carries the Correspondent case relation, and is typically interpreted as indefinite or partitive" (Reid & Liao 2004:441). A transitive clause is defined as one which has two complements, where the complement other than the Patient (the undergoer) is an Agent (the actor), which takes the Genitive case marking.⁵ The undergoer takes the Nominative case marking, and the actor takes Genitive case marking (Reid & Liao 2004:442). For Reid and Liao (and also Ross and Teng (2005)), the key factor determining whether a clause will take the transitive or intransitive form is the identifiability of the undergoer referent. In this view (19a) is transitive, (19b) is intransitive, and (19c) is transitive with applicative marking; in (20) the first glossed clause is active and the following clause is passive (i.e. the opposite of the early structuralist view); and (21a) and (21b) would both be intransitive.

Questions on transitivity in Tagalog:

1. What benefits might there be (related to our understanding of transitivity) in adopting the ergative analysis as opposed to a constructional analysis (accepting the "focus" system as a type of alignment system not related to nominative, ergative, active or neutral)?
2. What would the downside of either choice be?
3. The early structuralist and ergative analyses cut across voice and transitivity. Do we see parallels elsewhere?
4. In the ergative analysis we once again we see the question of transitivity being dependent on a topical O (though contrast (19a) and (19b), where the quoted speech is the O in both clauses, yet are said to differ in transitivity). Should transitivity be based on this factor alone (cf. the discussion of Hopper and & Thompson 1980 below).
5. Are there any other commonalities among the three languages just discussed?
6. Is there any problem with saying (21a) and (21b) are both intransitive? I they are both intransitive, what would the motivation be for having two different constructions?

3. Conceptions of transitivity

3.1 Collins English Dictionary

transitive *adj.* 1. Grammar: denoting an occurrence of a verb when it requires a direct object or denoting a verb that customarily requires a direct object. . . [. . . from Latin *trānsitus* a crossing over].

3.2 RMW Dixon (from draft of *Basic linguistic theory*, Part II, Chapter 13 "Transitivity")⁶

- "[T]ransitivity is a syntactic matter" (p. 2, italics in original), although semantics underlies some aspects of transitivity. ". . . [I]t makes little sense to say, for example, that a given verb is 'semantically transitive' or 'semantically intransitive'. It is more appropriate to describe it as having a semantic profile which is consistent with a certain transitivity profile at the syntactic level" (p. 2; also Dixon 1979, 1994; Dixon & Aikhenvald 2000).

⁵ This analysis is at least partly based on the ergative model within the system of transitivity propounded by MAK Halliday (see discussion below), though applied to all clauses of the language, not just one type.

⁶ My thanks to Bob Dixon for allowing me to cite from this unpublished work. It should be remembered that the book is still in draft form, and should not be further copied or cited without permission from Bob.

- An intransitive clause has one core argument, S, and a transitive clause has two core arguments, A and O. "Briefly, that argument whose referent is most likely to be relevant to the success of the activity is identified as A. And that argument whose referent is most likely to be saliently affected by the activity will be in O function." (p. 3).
- There are also extended intransitive and transitive clauses, which have a second or third core argument, respectively, E. (p. 4)
- "Almost every language has some surface grammatical mechanism(s) for marking core and peripheral arguments so that they may be recognized—and the discourse understood—by listeners." (p. 5)
- Recognition of S, A, O, and E based on grammatical coding and behaviour, e.g. *John gave his old coat_O to a beggar* vs. *John gave the winner_O a prize*. (p. 28)
- In a nominative alignment system, "S is marked in the same way as A, that argument of a transitive clause whose referent is most likely to be relevant to the success of the activity." In an ergative system, "S is marked in the same way as O, that argument of a transitive clause whose referent is not likely to initiate or control (it may be significantly affected by the activity)." (p. 7)

Questions:

1. Is transitivity purely a syntactic and straightforward yes or no matter (compare the view of Hopper & Thompson, §3.6 below)? If so, how do we deal with the range of morphosyntactic phenomena that show that transitive clauses are not all alike (see the sections below)?
2. Does the marking of transitivity arise for the sake of disambiguation, or for some other reason(s) (possibly as well as disambiguation)?
3. In this chapter A and O are linked to semantic characterisations, but are treated as syntactic relations (and it was stated unequivocally by Alexandra Aikhenvald in notes passed to members of the RCLT after the talk that "A, S, O, etc. are abbreviations for syntactic functions (NOT for semantic relations." (*sic*)). How should we use these terms, if at all (see Mithun & Chafe 1999 for criticism of the use of use of A, S, and O)?
4. Does the characterization of alignment systems above, which seems to suggest a semantic basis for the alignments, make us rethink the Tagalog ergative analysis, where the actor of an actor focus clause is said to be marked the same way as the undergoer of the undergoer focus clause? Where would the semantic connection be in such a system? Or is it purely syntactic, and so semantics don't matter?
5. Part of the chapter under discussion here is not strictly about transitivity, but about nominative vs. ergative alignment, which seems to imply that transitivity and alignment are part of one phenomenon. In this presentation what I am talking about is transitivity, not syntactic alignment, though we have seen that for some of the analyses of individual languages (e.g. the ergative analysis of Tagalog) the assumption of a particular alignment leads them to a particular view of transitivity, or possibly a particular view of transitivity leads them to analyse a language as having a particular alignment. To what extent do we want to say they are one phenomenon or two separate phenomena/systems that interact?

3.3 Role and Reference Grammar (abbreviated from Van Valin and LaPolla 1997, §4.2)

The syntactic valence of a verb is the number of overt morphosyntactically-coded arguments it takes. The semantic valence of the verb refers to the number of semantic arguments that a particular verb can take. These two notions need not coincide. The two notions of valence are contrasted in Table 4.1.

In (4.7) and (4.8) *mangiare* ‘eat’ has two arguments, *Anna* and *(gli) spaghetti* ‘(the) spaghetti’, and, as the temporal adverbials indicate, it is an activity in (4.7) and an active accomplishment in (4.8). Hence there are two uses of an apparently transitive verb with distinct *Aktionsarts*. Do the two versions of *mangiare* behave alike syntactically? We will look at two constructions, passive and participial absolutes (Rosen 1984). Italian, like English, has a very productive passive construction, and it would be expected that a transitive verb like *mangiare* would occur in it; this, however, is true only in part, as (4.9) shows.

- (4.9) a. Gli spaghetti sono stat-i mangia-t-i da Anna in cinque minuti.
 the be.3plPRES be.PSTP-Mpl eat-PSTP-Mpl by in five minutes
 ‘The spaghetti was eaten by Anna in five minutes.’
 b. *Spaghetti sono stati mangiati da Anna per cinque minuti.
 are been eaten by for
 ‘Spaghetti was eaten by Anna for five minutes.’
 b’. *Sono stati mangiati spaghetti da Anna per cinque minuti.

Surprisingly, only the active accomplishment form of *mangiare* can occur in a passive; the activity form cannot, regardless of whether *spaghetti* occurs preverbally or postverbally. This is completely unexpected, if one assumes that having two arguments in the syntax is equivalent to being transitive. The second construction, participial absolutes, is illustrated in (4.10).

- (4.10) a. Mangia-t-i gli spaghetti, uscir-ono.
 eat-PSTP-Mpl the went.out-3pl
 ‘Having eaten the spaghetti, they went out.’
 b. *Mangiati spaghetti, uscirono.
 ‘Having eaten spaghetti, they went out.’

Here again there is no reason to expect that the two-argument activity form of *mangiare* should behave any differently from the active accomplishment form, and yet (4.10b) is impossible. The behavior of the active accomplishment version of *mangiare* in (4.9a) and (4.10a) is typical of canonical transitive verbs in Italian, and consequently because of the failure of the two-argument activity version of *mangiare* to manifest the same behavior, it must be concluded that the number of syntactic arguments alone does not correlate with transitivity.

What is the crucial difference between the two versions of *mangiare* that could explain their differential syntactic behavior? Active accomplishment *mangiare* has two syntactic arguments, and it also takes two macroroles, an actor and an undergoer. Likewise, activity *mangiare* has two syntactic arguments, but does it also have two macroroles? Recall from §3.2.3.3 that the second argument in an activity logical structure is very different from all other arguments: if it is an inherent argument, as in [*The man is chopping wood/The man is wood-chopping*], it is necessarily non-referential and serves to characterize the action rather than pick out any of the participants; if it is a referential argument, as in [*The man is plowing in the field*], then it is an oblique.⁷ In these examples the verb is intransitive. *Spaghetti* in (4.7a), (4.9b,b’) and (4.10b) is non-referential and therefore functions as an inherent argument. If it does not refer to any specific participant in a state of affairs, it cannot be an undergoer, because undergoer arguments refer to the participants which are viewed as primarily affected in the

⁷ See Van Valin & LaPolla, §3.2.3.3 for discussion.

state of affairs; accordingly, undergoers must be referential. Consequently, the activity version of *mangiare*, unlike its active accomplishment counterpart, has only one macrorole argument, an actor. Having a single actor macrorole is a feature of canonical *intransitive* activity verbs like *run*, *cry* and *fly*. Thus, two-argument activity verbs like *mangiare* and its English counterpart *eat* behave like intransitive, rather than transitive verbs, despite having a syntactic valence of 2. This is perhaps clearest in ergative languages, in which the actor arguments of this type of multi-argument activity verb appear in the absolutive rather than the ergative case, absolutive being the case of intransitive subjects and ergative the case of transitive subjects; in the corresponding active accomplishment forms, they appear in the ergative case. With the vast majority of activity verbs, the second argument is realized either as an inherent argument (and incorporated in those languages with noun incorporation) or as an oblique core argument.

Transitivity, then, cannot be characterized in terms of the number of syntactic arguments a verb takes (its syntactic valence) but must rather be defined in terms of the number of *macroroles* that it takes. We will, therefore, distinguish between S-TRANSITIVITY, the number of syntactic arguments, and M-TRANSITIVITY, the number of macroroles, following the proposal in Narasimhan (1995). In discussing transitivity hereafter, the default use of the term will refer to M-transitivity; whenever S-transitivity is intended, it will be specified explicitly. Given this definition, the facts regarding *mangiare* discussed above are to be expected, since activity verbs are intransitive, regardless of the number of syntactic arguments that appear with them. There are three transitivity possibilities in terms of macroroles: 0, 1, or 2. Zero macrorole verbs are terms ‘M-atransitive’. This is represented in Table 4.2.

	Semantic Valence	Macrorole Number	M-transitivity
<i>rain</i>	0	0	Atransitive
<i>die</i>	1	1	Intransitive
<i>eat</i> [activity]	1 or 2	1	Intransitive
<i>eat</i> [active acc.]	2	2	Transitive
<i>kill</i>	2	2	Transitive
<i>put</i>	3	2	Transitive
<i>give</i>	3	2	Transitive

Table 4.2: Macrorole number and M-transitivity

The numbers in the ‘Semantic Valence’ column refer to the number of argument positions that a verb has in its logical structure. There is no notion of ‘ditransitive’ in terms of macroroles, since there are only two of them. Examples involving these verbs of different transitivity are given in (4.11). (‘ \emptyset ’ = not a macrorole, ‘AJT’ = adjunct)

- (4.11)a. It \emptyset rained.
 b. The horse_{UNDGR} died.
 c. The bird_{ACTOR} flew around in the room_{AJT}.
 d. The boy_{ACTOR} drank milk \emptyset for an hour_{AJT}.
 e. The boy_{ACTOR} drank the bottle of milk_{UNDGR} in twenty seconds_{AJT}.
 f. The wolves_{ACTOR} killed the deer_{UNDGR}.
 g. The deer_{UNDGR} was killed by the wolves_{ACTOR-AJT}.
 h. Larry_{ACTOR} put the watch_{UNDGR} on the table \emptyset .
 i. The nurse_{ACTOR} handed the scalpel_{UNDGR} to the doctor \emptyset .
 j. The nurse_{ACTOR} handed the doctor_{UNDGR} the scalpel \emptyset .

These examples reinforce the point made in §4.1 that macroroles are distinct from grammatical relations: actor is subject in (c-f) and (h-j) and an adjunct in (g), undergoer is subject in (b) and (g) and object in (e-f) and (h-j), and non-macrorole elements are subject in (a) and object in (d). They also highlight an important fact about the morphosyntactic realization of macrorole arguments: they are normally direct arguments of the verb, usually subject or object, and they are oblique *only* in voice constructions, e.g. the actor may be an adjunct in a passive, as in (4.11g).

Is there any systematic relationship between the number of arguments in logical structure and the transitivity of a verb? The answer is 'yes', and the basic principle is very simple: the number of macroroles that a verb has is less than or equal to the number of arguments in its logical structure. That is, a verb can have fewer macroroles than it has arguments, e.g. *give* and *put*; it can have the same number, e.g. *die*; but, not surprisingly, it cannot have more macroroles than it has arguments. For verbs that take 0 or 2 macroroles, the identity of the macroroles is unambiguous, but what about verbs that take 1? The macrorole can be either actor or undergoer. Does the identity of the macrorole with intransitive verbs follow from any sort of general principle? Again, the answer is 'yes', and the basic principle is very simple: the single macrorole with an intransitive verb is actor if the verb has an activity predicate in its logical structure; otherwise it is undergoer.

These principles are summarized in (4.14).

(4.14) Default Macrorole Assignment Principles

- a. Number: the number of macroroles a verb takes is less than or equal to the number of (non-inherent) arguments in its logical structure
 1. If a verb has two or more arguments in its LS, it will take two macroroles.
 2. If a verb has one argument in its LS, it will take one macrorole.
- b. Nature: for verbs which take one macrorole,
 1. If the verb has an activity predicate in its LS, the macrorole is actor.
 2. If the verb has no activity predicate in its LS, the macrorole is undergoer.

Questions:

1. If we accept the M-transitivity view, we are making transitivity dependent on there being an individuated O, similar to the situation we saw in the languages in Section 2. Does this view then justify any of the analyses given for those languages?
2. Does the underlined statement above affect our view of Rawang, Qiang, or Tagalog?

3.4 Thon mi Sambhoṭa's analysis of Tibetan (Tillemans & Herforth 1989)

Thon-mi Sambhoṭa, a 7th century Tibetan grammarian, as interpreted by the 18th century grammarian Si-tu Paṅ-chen Chos kyi 'byuñ-gnas, analysed a transitive clause as representing "an act which is directly related with a distinct agent", and an intransitive clause as representing "an act which is not directly related with a distinct agent" (translations from Tillemans & Herforth 1989: 4). As explained by Si-tu, the agent includes the primary agent (*byed pa po gtso bo*) and the secondary agent (*byed pa po phal ba*) (the instrument). They both take the same marker (*byed sgra* 'agentive expression'; the ergative/instrumental marker). A transitive clause is divided into 'self' (*bdag*), which includes the agents (primary and secondary) and the action (*bya*, or effort *rtsol ba*) of the agents, and 'other' (*gžan*), which includes the entity (*dnos po*) involved in an action and the act (*las*) that the entity undergoes. The 'other' is also called the 'focus of the action' (*bya ba'i yul*). To use Si tu's example, if a woodcutter cuts wood to pieces with an axe, the woodcutter, the axe, and the action of the

woodcutter are all 'self', while the wood and the falling to pieces is the 'other', the focus of the action. (exx. from Timmans & Herforth 1989: 82-82)

- (1) Intransitive: '*chad, chad* (PERFECT) 'something falls off, decays, wears down'
śiñ dum.bu = r chad = do
 wood bit = ILLATIVE fall: PERFECT = SFP
 'The wood has fallen to pieces [through some natural process]'
- (2) Transitive: *gcod, bcad* (PERFECT), *gcad* (FUTURE), *chod* (IMPERATIVE) 'cut, discontinue sthg'
śiñ.mkhan = gyis sta.re = s śiñ dum.bu-r gcod = do
 woodsman = ERG axe = ERG wood bit-ILLATIVE cut = SFP
 'The woodsman cuts the wood into pieces with an axe.'

Questions:

1. What significance is there in the Tibetan view that a transitive differs from an intransitive in having an A, compared to the traditional Western view that a transitive differs from an intransitive in having an O?
2. Why would the two cultures/languages involved come up with such difference analyses?

3.5 MAK Halliday (1994, 2004 §5.7): transitive vs. ergative models of transitivity

- Halliday argues that there are two possible ways to view clause structure in English within the system of transitivity: using a transitive model of transitivity and using an ergative model of transitivity. Both are properties of the single system of transitivity. These essentially involve profiling the situation expressed by the clause in different ways.⁸
- In the transitive model, a 'process and extension' model, the emphasis is on an Actor, coded as Subject, doing something, and that action may or may not be extended ('carry across') to another participant (a Goal or Range). That is, the one required argument is the Subject, and Actor in the unmarked case. This argument is seen as the source of the action. E.g. *The lion chased the tourist* relates to *The lion ran*, and either the lion's running didn't extend to another participant (intransitive *the lion ran*), or it did extend to another participant (transitive *the lion chased the tourist*). This is most clear in clauses with S=A labile verbs, such as *the tourist hunted / the tourist hunted the lion*. There are one or two core arguments, and other arguments must be introduced with prepositions.
- The Goal or Range can also be made the Subject of the clause in a passive construction.

Everyone	sang	that song.	
Actor	Process	Range	
That song	was sung		by everyone.
Range	Process		Actor
Subject	Predicator	Complement	Circumstantial Adjunct

⁸ Note that what is being referred to here as "ergative" is not morphosyntactic ergative alignment, but a semantic model of event profiling. That is, it is a conception of the nature of transitivity, whether a transitive clause is one with an added patient or is one with an added agent, and not directly related to any alignment systems. The term ergative is used because of the similarity of the conceptualization of this model to the morphosyntactic pattern of morphosyntactic ergative alignment, as can be seen from the discussion of the Tibetan grammarian view above in §3.4.

- Consider also clauses with S=O labile verbs:

I broke the chair. (transitive)

The chair broke. (intransitive)

Both contrast with *The chair was broken by me* (passive).

- In the non-passive intransitive form, there is no assumption that anyone caused the chair to break. In the passive there is an assumption that someone broke the chair, though that aspect is not necessarily highlighted (the *by me* phrase can be dropped).
- The Complement of the transitive use is the same referent as the Subject of the intransitive use.
- In the ergative model, we look at the same situation from the point of view of 'instigation of a process' rather than extension. Looking at it this way, we can say that there is some process (an action or state, and one referent, the Medium (the medium through which the process is actualised), and the question is whether the process is brought about by that participant, or by some other entity (an Agent). E.g. *The lion chased the tourist* in this view relates to *the tourist ran*, and either the tourist's running was self-motivated (*the tourist ran*) or it was instigated by some other entity (*the lion chased the tourist*).

The chair	broke.	
Medium	Process	
I	broke	the chair.
Agent	Process	Medium (Complement)
The chair	was broken	(by me)
Medium	Process	Actor/(Circumstantial Adjunct)

- The Medium is not defined in semantic terms, that is, it isn't the doer or the causer necessarily, but the one that is critically involved in the clause (which will be different with different process types).⁹
- The two semantic models complement each other within the system of transitivity in all registers in English, but are foregrounded to different degrees in different registers. In traditional narratives, the transitive model is more often foregrounded, while in scientific English and casual conversation the ergative model is more often foregrounded.¹⁰
- The transitivity model is linear, but the ergative / non-ergative model is not. The Medium + Process (e.g. *the boat + sail*) is the nucleus of the clause, and may be realized as a clause alone, or can appear with other participant and circumstantial functions, and it can be extended indefinitely by adding Agents (e.g. *John made Mary sail the boat*).
- Halliday talks about these two semantic models simply as two different interpretations, but as argued by Davidse (1992) the two models represent two clause types that differ in their syntactic behaviour:

⁹ Compare Mithun's (1994:255-7) discussion of the nature of absolutive arguments and the privileged semantic relationship they have with the verb they appear with.

¹⁰ See the discussion of Hopper and Thompson's view of transitivity in §6.6 below, particularly their recent findings about the genre specificity of their correlation of transitivity features with foregrounding. See also Martin's (2004) analysis of Tagalog.

- Only the transitive action processes can appear in clauses such as *This ice cream scoops out easily*, and only those of the ergative type can appear in "possessor-ascension" clauses such as *The cooling system burst a pipe*.
- A Beneficiary, such as in *The bell tolls for you*, or a Range, as in *The boat sailed the ocean blue*, can also appear in the clause.¹¹ Semantically these roles are like participants but also like circumstances, and this is reflected in the fact that they can appear with or without prepositions in many clauses. In the transitive model, a Range argument can be an entity-type Range or it can be a process-type range, but the ergative model can only take an entity-type range, it cannot take a process-type range. For example, we cannot say *The door opened an opening*, the way we can say *sing a song* or *die a horrible death* with the transitive structure.
- The Agent (instigator) in the ergative model cannot appear in an *of*-complement of a nominalization with the same meaning (*John opened the door* vs. *the opening of John*) whereas the Actor of the transitive model can (*The hunters shot the tiger* vs. *the shooting of the hunters*).

Questions:

1. Does this conceptualisation help us understand Language (or individual languages) better? That is, is it useful to have two conceptions of transitivity or does one conception cover all clause types?
2. If we choose to only have the traditional actor and extension transitive model, how do we then characterize or explain the S=O ambitransitive uses of verbs within this model?
3. If we accept the two models, should we treat them simply as different interpretations, or should we recognize two different clause types, even in one language?
4. If so, what underlies the two types?
5. How does Halliday's analysis compare to the traditional Tibetan analysis?

3.6 Hopper and Thompson (1980)

- Transitivity is seen as "a relationship which obtains THROUGHOUT A CLAUSE" (p. 266, emphasis in original), and is a continuum defined by a set of parameters, with features related to each parameter being seen as associated with high or low transitivity (see Table 1, below). The transitivity of a clause involves all of the parameters; presence or absence of an overt O is only one of them. One result of this view is that a clause with two arguments but which manifests a number of low transitivity features (e.g. *Jerry likes beer*) is considered less transitive than a single argument clause that has high transitivity features (e.g. *Susan left*).
- "[T]he transitivity features can be manifested either morphosyntactically or semantically" (p. 255).
- "Whenever an obligatory pairing of two Transitivity features occurs in the morphosyntax or semantics of a clause THE PAIRED FEATURES ARE ALWAYS ON THE SAME SIDE OF THE HIGH-LOW TRANSITIVITY SCALE" (p. 254, emphasis in original).
- ". . . the arguments known to grammar as INDIRECT OBJECTS should in fact be Transitive O's rather than what might be called 'accusative' O's, since they tend to be definite and animate" (p. 259).

¹¹ Halliday (1994, Ch. 5) makes a clear distinction between Goal, the affected argument of an action (cf. the concept of Undergoer in RRG discussed above), and Range (or Scope), which is the argument that delimits or marks the domain of the activity expressed in the proposition. Range is further divided into entity-type Range, that is, an entity that exists, such as the mountain in *I climbed the mountain (in one day)*, and process-type range, that is, the name of the activity (often a nominalization of the verb), such as golf in *I played golf*. A clause with an entity type Range often has an agnate form with a locative expression, e.g. *I played (the) piano*, vs. *I played on the piano*. Notice that in some conceptions of transitivity this would involve a difference in transitivity, while in others they would both be considered intransitive.

- (Talking about split ergativity in Yukulta (Queensland), where the absolutive/dative/intransitive pattern is used when the action is inverse on the nominal saliency hierarchy): "The Transitivity of the clause is reduced when there is an anomalous A-O relationship, viz. when the O is higher than the A on the hierarchy" (p. 273).

Question: If this is a fact, does it affect our thinking about Morse's analysis of Rawang?

	High	Low
A. Participants	2 or more participants, A and O	1 participant
B. Kinesis	action	non-action
C. Aspect	telic	atelic
D. Punctuality	punctual	non-punctual
E. Volitionality	volitional	non-volitional
F. Affirmation	affirmative	negative
G. Mode	realis	irrealis
H. Agency	A high in potency	A low in potency
I. Affectedness of O	O totally affected	O not affected
J. Individuation of O	O highly individuated	O non-individuated

Table 1: Parameters of transitivity (Hopper & Thompson 1980:252)

- "We have shown that the properties associated with high Transitivity, which correlate in grammars of every language we have looked at, also turn out to predominate in the foregrounded portions of discourse" (p. 292).
- "In a recent study (Thompson and Hopper 2001), however, we have concluded that the transitivity theory presented in our earlier work loses much of its cogency when conversational data are included in the picture. In conversation simple transitive clauses are quite rare. Instead, much of ordinary conversation is couched in non-eventive language that expresses subjective attitudes and observations. Since conversation has been seen as a basic genre (Bakhtin 1986), perhaps even a pre-genre (Swales 1990), the rarity of cardinal transitivity in conversation poses questions about the sources of transitive marking. Our recent findings seem to suggest (1) that grammatical marking is divorced from usage, and (2) that transitivity is relevant not for a language as a whole but only for certain genres." (from abstract of Hopper 2003)

Questions:

1. "If semantic transitivity is not pervasive in all human discourse, why are the semantic-grammatical correspondences so widespread and consistent in human languages?" (from Hopper 2003)
2. Is there a relationship between foregrounding and transitivity?
3. What is the motivation for the marking?
4. Does Halliday's differentiation of transitive/intransitive and ergative/non-ergative models help us solve the problem for Hopper & Thompson's view of transitivity and foregrounding of genre specificity?

6.7 L. J. Xu: Distinguishing between ambitransitive uses of verbs and elliptical structures with zero arguments

L.J. Xu (ms. 2005) takes the English verb in (1a) to be transitive and the one in (1b) to be intransitive, but takes the corresponding Chinese verb in both (2a) and (2b) to be transitive.

- (1) a. *He ate apples.*
 b. *He ate.*
- (2) a. *Ta chi-le pingguo.*
 3sg eat-PFV apple(s)
 b. *Ta chi-le.*

In his analysis, the difference between (2a) and (2b) is that the verb takes an overt object in the former and an empty object in the latter. So in Chinese a transitive verb must take an object, but the object may take a null form, whereas in English a transitive verb must take an overt object, but it may have an intransitive homonym that does not take an object. Spanish is like English and Portuguese is like Chinese. Some languages can omit the object and other languages cannot. The difference is well documented in the literature.

Supporting the claim is the observation that in languages like English the transitive and the intransitive homonym are semantically different. In the case of *eat*, the implicit argument of the intransitive verb has to be something conventionally edible, whereas the overt object of the transitive verb can be anything, for instance, a shoe. In languages like Chinese, whether an object is overt or null, the verb has the same meaning. So what was eaten in (2b) is understood as whatever referent is relevant in the context, edible or inedible.

But Xu argues this is an oversimplification. Not all of the English ambi-transitives are alike. Some of them are more like those in Chinese. Compare the following Chinese sentences and their English translations.

- (3) a. *Tamen tongguo-le kaoshi.*
 3pl pass-PFV exam
 ‘They passed the exam.’
- b. *tamen tongguo-le ___.*
 ‘They passed.’

In the English translation of (3b) the implicit argument cannot but be interpreted as a specific exam in the context known to both the speaker and the hearer. Conceptually, things that are “passable” do not form a class the way things that are edible do. So the English sentences in (3a) and (3b) mean the same thing, just as their Chinese counterparts do. The difference between Chinese and English in this regard is neither in structure nor in interpretation. So even in the same language some ambi-transitives are truly amphibious, while others are always transitive, even though the object may take a null form.

Question:

Given the fact that a zero might be understood as representing something specific or representing some unmarked patient in the types of clauses discussed above, and that this correlates with transitivity, do we need to say transitivity is at least partly a matter of semantics or pragmatics?

4. Questions to ask about transitivity in individual languages

The following are a few approachable questions that can be asked about individual languages. These might be questions people could think about in writing their papers for the Workshop. I would appreciate other questions or concerns I haven't mentioned here or above.

1. Are there some morphological or syntactic constructions in the language you are working on that can be explained using the concept of transitivity (however it is defined)?
2. If so, how must transitivity be defined for it to help you in understanding the language you are working on?
3. What do you think the motivation for the transitivity-related constructions is?
4. Do they correlate with referent tracking (alignment and voice)?
5. Are they involved in disambiguation other than referent tracking?
6. Are they affected by the individuation of the actor argument or the non-actor argument?
7. Do they correlate with foregrounding or backgrounding?
8. Do they correlate with the clause's Aktinosart?
9. Are there any other dependencies between transitivity and other systems? (For the kind of dependencies I mean, see Aikhenvald & Dixon 1998.)

Abbreviations

1sgN.TOP	first person singular non-topic pronoun	INTR.PAST	3rd person intransitive past marker
1sgPOSS	first person possessive pronoun (=1sgN.TOP)	LNK	linker
1sgTOP	first person singular topic pronoun	LOC	locative marker (also used for dative, purpose)
1sgU	first person singular undergoer verb suffix	LP	locative (dative) pivot
2sgPERIPH	second person peripheral argument pronoun	M	masculine
2sgTOP	second person singular topic pronoun	N.1	non-first-person actor
2sgU	second person singular undergoer verb suffix	N.PAST	non-past marker
3sgPERIPH	third person peripheral argument pronoun	O	patient of a prototypical transitive clause
A	actor of a prototypical transitive clause	PFV	perfective marker
ADV	adverbial marker	pl	plural
AGT	agentive marker	PN	proper name
AP	actor pivot (actor focus)	PSTP	past participle
CAUS	causative marker	PUR	purposive nominaliser
CL	classifier	RECIP	reciprocal marker
CSM	change of state marker	REL	relational marker
DAT	dative marker	R/M	reflexive/middle marker
DEF	definite marker	S	single direct argument of an intransitive verb
DIR	direction/orientation marker	SFP	sentence final particle
GEN	genitive marker	SPEC	marks argument as specific, generally marks topic of clause
ERG	ergative marker	STAT	stative prefix
HS	hearsay marker	TNP	3rd person transitive non-past marker
INST	instrumental	TOP	topic marker
INTR	intransitivising prefix	TR.PAST	transitive past marker

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