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Syntactic Roles vs. Semantic Roles External Possession in Tukang Besi

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1. Introduction

This paper examines external possession (EP) constructions, and attempts to determine which is more salient in determining the grammaticality of a particular EP construction: the syntactic roles hierarchy (elsewhere referred to as the *grammatical functions hierarchy*, or the *obliqueness hierarchy*), or the thematic hierarchy, a ranked list of semantic (or thematic) roles. Evidence for the relative salience of one hierarchy over the other is drawn from an examination of the role that they both play in determining the grammaticality of EP in Tukang Besi, an Austronesian language from central-eastern Indonesia, and a brief look at EP in other languages.

Based on the data observed and the generalizations drawn from them, we conclude that a theory of grammar which is exclusively based on grammatical functions (or privileged structural positions which are underlying governed by the verb) cannot account for the restrictions observed. Neither is a theory purely based on semantic principles adequate for a model of the constraints on EP, and an attempt to formulate a model which combines features of both these approaches, within the framework of Lexical-Functional Grammar (LFG; Bresnan 1982; Andrews 1996; among others), is presented. The relevance of pragmatic information is highlighted, and a space in the model is made available for it, though this is not the focus of the discussion.

2. Semantic roles and grammatical functions

Various authors have made reference to the explanatory power of a thematic hierarchy, i.e., a ranked listing of the semantic roles that may be borne by arguments and adjuncts of a verb. One of the more recent of these proposals is that put forward by Bresnan and Kanerva (1989), with the following hierarchy:

agent > beneficiary > goal/experiencer > instrument > theme/patient > locative

The idea of this hierarchy as an explanatory tool in grammar is by no means uncontroversial; explicit arguments have been made against it by Schachter (1992) and Rugemalira (1994). Enough evidence exists, however, to assume that individual semantic roles do play a part in the grammars of languages (Simango 1995; M. Donohue 1996b). The working definitions of the different semantic roles I leave to Andrews (1985), but for the purposes of this article assume a definition of *theme* as 'the argument which is affected or undergoes a change of position as a result of the verbal activity' and *patient* as 'the argument which is a theme that further undergoes a change of state as a result of the verbal activity'. Other versions of a thematic hierarchy also exist, such as the version proposed by Foley and Van Valin (1984: 59):

agent > effector > locative > theme > patient

Foley and Van Valin's *effector* corresponds to *instrument* as I use the term; their *locative* corresponds to Bresnan and Kanerva's *beneficiary*, *goal*, and *locative*. See Bresnan and Kanerva (1992) for comments on the differences between these two hierarchies (and others), and justifications for some of the differences. I assume the version of the thematic hierarchy proposed in Bresnan and Kanerva (1989) for purely empirical reasons — see Donohue 1995b for details of the argumentation. I would like to modify it in one regard, in order to emphasize the difference between CORE (terms, nuclear, direct, sister to V or Spec position) and OBLIQUE (peripheral, case assigned by a P) arguments. To this end, noting that all occurrences of locative arguments are oblique, I would propose a subset of the hierarchy that applies to only core arguments, as below:

agent > beneficiary > goal/experiencer > instrument > theme > patient

Both core and oblique lists of arguments refer to positions on this hierarchy, but are in turn ranked with respect to each other — this is a point I shall return to in Section 6.

3. Tukang Besi

Tukang Besi is an aberrant Philippine-type language,¹ with a very mixed syntactic typology, based in Southeast Sulawesi. Orthographic {b} and {d} represent imploded stops; {ʔ} represents a glottal stop. The NOMINATIVE (in the sense employed by Bell 1976, 1983, and Kroeger 1993, to refer to the morphological means used to encode a grammatical subject) case *na* and non-nominative CORE case *te* are used to mark the core nominal arguments of the verb.² Prefixes indexing the person and number of the subject are obligatorily present on the verb, which also takes agreement markers for object (arguably (pronominal) clitics, but written here as affixes for simplicity; the analysis does not affect the issues discussed here) if the object argument is nominative. In addition to these two basic transitive sentence types,³ there is also a passive voice.⁴ The paradigm of voice alternations may be illustrated with sentences (1)–(4):

Basic transitive clause, object is nominative:

- (1) *No-ʔita-ʔe na ʔobu te kalambe.*
 3R-see-3OBJ NOM dog CORE girl
 'The /A girl saw the dog.'

Basic intransitive clause:

- (2) *No-wila-mo na ʔobu.*
 3R-go-PF NOM dog
 'The dog is going.'

Basic transitive clause, subject is nominative:

- (3) *No-ʔita te ʔobu na kalambe.*
 3R-see CORE dog NOM girl
 'The girl saw a/(the) dog.'

Passive clause:

- (4) *No-to-ʔita-mo na ʔobu.*
 3R-PASS-see-PF NOM dog
 'The dog was seen.'

In these sentences, the difference between (1), (3) and (4) is explainable through the assignment of degrees of prominence in the discourse; both (1) and (3) represent ongoing discourse strategies, and show focus on the dog and the girl, respectively. In (4), on the other hand, the emphasis is on the event, with no regard for the seer, and very little discourse prominence paid to the dog. Unlike

- (12) **No-peku te tolida-ʔu te ikoʔo.*
 3R-backfist CORE cousin-2SG.POSS CORE 2SG

In (12) grammaticality fails primarily because the verb selects for one non-nominative object, yet the clause contains two non-oblique, non-nominative arguments. This is not a universal restriction, since an underived verb like *huʔu* 'give', or many derived verb forms involving applicative or causative morphology, allow two (or more) non-nominative core arguments, as in (13).⁵

- (13) *No-huʔu te raja te tuduʔa.*
 3R-give CORE king CORE slave
 'They gave a slave to the king.'

An important restriction applies to the status of the object in an EP construction: it must be directly affected, adversely, by the action specified by the verb. Compare (11) with the ungrammatical (14):

- (14) **No-ʔita-ko na tolida-ʔu.*
 3R-see-2SG.OBJ NOM cousin-2SG.POSS
 'He saw your cousin.'
 (Good with the reading: 'Your cousin saw you.' for different reasons)

Even a pragmatic context to make the fact of being seen obviously adverse does not make an EP construction grammatical if the verb itself does not adversely affect the object. This is illustrated in the more extended piece of discourse given in (15). The '[A/B]' in this example, and examples following, is used when two minimally different alternatives are considered, and the grammaticality of each is judged.

- (15) *I molengo molengo atu, no-mai min(a) i ito.*
 OBL long.ago that 3R-come from OBL there:higher
 '(When it happened) back then, they came from the north.'
Te amai sanggila no-rato-lolaha, no-rato ako
 CORE 3PL pirate 3R-arrive-search 3R-arrive PURP
na-l[um]olaha-ʔe...
 3I-search.SI-3OBJ
 'Those pirates came searching, they came to hunt for ...'
na mi(a) u kampo. Kaʔasi, te iai-su
 NOM person GEN village alas CORE ySi-1SG.POSS
 '... the villagers. Alas, ...'

- [**no-ʔita-aku / no-ʔita-ʔe*] *te amai jaʔo. No-tangkapu-aku*
 3R-see-1SG.OBJ 3R-see-3OBJ CORE 3PL evil 3R-catch-1SG.OBJ
 '... that evil lot saw my little sister. They caught her / *me ...'
na iai-su maka no-ala-ʔe kua melai.
 NOM ySi-1SG.POSS and.then 3R-fetch-3OBJ ALL far
 '... and carried her off far away.'

In (15) it is clear that the fact that the narrator's sister was spotted by the pirates had very adverse consequences on the sister, and also by extension on the narrator as evidenced by the use of an EP construction at the end of the fourth line in *Notangkapuaku*. In spite of this, and in spite of the fact that the sighting of the sister by the pirates must be construed as adversely affecting the sister, and by extension the speaker, an attempt to substitute *noʔitaaku* for *noʔitaʔe* in the narrative is viewed as totally unacceptable. Clearly there is more than simple adverse-affectedness at work in determining eligibility for EP constructions. In addition to the pragmatic requirement that the possessor be construed as being affected by the verb clause, the possessum must also be directly affected; that is, it must bear a theme or patient semantic role.⁶

In (11) the possessive marking is still present on the original NP, as well as appearing on the verb; a clause with EP in which the possessum appears without possessive marking in the original NP (if the object is represented as a full NP, and not simply referred to by pronominal affixation alone, as in (15)) is ungrammatical, as seen in (16):

- (16) **No-peku-ko na tolida.*
 3R-backfist-2SG.OBJ NOM cousin

Faced with sentences such as these, *Tukang Besi* speakers *can* interpret the sentence to mean 'Your cousin backfisted you', but the sentence is clearly marked as a substandard production by a language learner, and not the sort of utterance to be produced by a native speaker (the grammatical version of the speakers' interpretation would be *Nopekuko te tolida*). Similarly, it is not possible to express the possessor in an independent noun phrase (*na ikoʔo* or *te ikoʔo* in (17)); it must be marked by a possessive suffix in the NP with the possessum, as in (11).

- (17) **No-peku-ko na tolida-ʔu [na / te ikoʔo].*
 3R-backfist-2SG.OBJ NOM cousin-2SG.POSS NOM CORE 2SG

This restriction means that, in effect, the only possessors that may appear in EP constructions are bound pronominals;⁷ there is no means by which a nominal possessor can appear in a clause and be interpreted as the possessor of an

argument, other than in an attributive genitive phrase, as seen in (18) and (19), which do not display EP. Sentences (20) and (21) show attempts at EP with full nominal possessors, with nominative or non-nominative possessums, respectively.⁸ Sentence (20) is ungrammatical because it contains two nominative NPs, with no grammatically expressed possessive link between them and no means of determining which is the subject. Sentence (21) similarly shows two NPs with no expressed possessive relationship between the two, but (because of the different case marking employed) is interpretable as a simple transitive clause.

- (18) *No-peku te tolida nu ama-su.*
3R-backfist CORE cousin GEN father-1SG.POSS
'He backfisted my father's cousin.'
- (19) *No-peku-?e na tolida nu ama-su.*
3R-backfist-3OBJ NOM cousin GEN father-1SG.POSS
'He backfisted my father's cousin.'
- (20) **No-peku-?e na tolida na ama-su.*
3R-backfist-3OBJ NOM cousin NOM father-1SG.POSS
'He backfisted your cousin.'
(equally bad for any other translation)
- (21) *No-peku-?e na tolida te ama-su.*
3R-backfist-3OBJ NOM cousin NOM father-1SG.POSS
**'He backfisted my father's cousin.'*
(Good with the non-EP reading 'My father backfisted the cousin,' not necessarily 'his cousin', compare with (14))

Finally, the possessum must refer to a body part or cosanguineal kin term in order to appear in an EP construction.⁹ Compare the grammatical EP constructions in (11) and (22) with the ungrammatical (23), and the more subtly ungrammatical (24). The latter of these two ungrammatical sentences has a kin term that is not cosanguineal, that is, is related only by marriage, and so is not eligible to appear in an EP construction.

- (22) *No-ban-siku-aku na talapihi-su.*
3R-BREAK-elbow-1SG.OBJ NOM temple-1SG.POSS
'He elbowed me in the temple.' (i.e., the part of my head to the side of my forehead)
- (23) **No-peku-ko na katumpu-?u.*
3R-backfist-2SG.OBJ NOM house.post-2SG.POSS
'He backfisted your house post.'

- (24) **No-peku-ko na sanggalapa-?u.*
3R-backfist-2SG.OBJ NOM wife's.sister's.husband-2SG.POSS
'He backfisted your brother-in-law-in-law.'

Interestingly, this same class of objects is also picked out by a restriction surrounding the incorporating verb *hoto-* 'have'. In this case, a construction with a body part or cosanguineal kin term is ungrammatical, but one with (for example) *katumpu* or *sanggalapa* is grammatical.

We may conclude, then, that transitive verbs which allow EP are quite restricted in the form of the clause in which EP can be found. These restrictions can be summarized as follows:

- the possessor must be more salient than the possessum ('pragmatic focus')
- the object must be nominative (and so the verb must appear with object agreement)
- the object must be adversely affected *directly* by the action specified in the verb (that is, the possessum must be a theme or patient, the affectedness of which malefactively impinges on the possessor)
- the possessor must be pronominal, and expressed as a bound suffix
- the possessor must not appear in a separate NP
- the possessum must be a cosanguineal kin term or body part (the class of 'inalienable' possession) of the external possessor

Notice that there is no restriction as to the person/number categories that may be used in EP, as is found in some languages (e.g., Kanum, which restricts non-body part EP to first person singular only, while allowing body part EP for all persons); in Tukang Besi any person or number category may be represented.

4.2 Intransitive subjects

In this section we shall see that, in addition to the Os discussed above which are eligible for EP, certain intransitive subjects are also found with EP constructions.

Sentence (25) shows an intransitive subject with an affected theme argument, and (26) is the same sentence with EP; again, the same pragmatic factors apply as were discussed in 4.1; compare these sentences with (9)–(11).

- (25) *No-mobela na tolida-?u.*
3R-wound NOM cousin-2SG.POSS
'Your cousin is wounded.'
- (26) *?U-mobela na tolida-?u.*
2SG.R-wound NOM cousin-2SG.POSS
'Your cousin is wounded.'

Most of the restrictions listed at the end of Section 4.1 apply to intransitive EP as well, namely the requirement that the possessor may not appear in a separate NP (and may only be pronominal), that the possessive suffixes on the possessum be retained, and that the possessum be inalienable. These are illustrated in (27)–(29); compare (28) with (26).

- (27) *?U-mobela na iko'o [na / te] tolida-ʔu.
2SG.R-wound NOM 2SG NOM CORE cousin-2SG.POSS
'Your cousin is wounded.'
- (28) *?U-mobela na tolida.
2SG.R-wound NOM cousin
'Your cousin is wounded.'
- (29) *?U-mobela na sanggalapa-ʔu.
2SG.R-wound NOM wife's.sister's.husband-2SG.POSS
'Your wife's sister's husband is wounded.'

Regarding affectedness, we can state that not only must the possessum be affected, but it must bear a theme/patient semantic role; an affected experiencer is not eligible to appear in an EP construction, thus restricting intransitive EP to a subclass of the unaccusative verbs. Compare (26) above with (30), illustrating the ungrammaticality of agentive subjects in EP constructions; and (31) with (32), showing that experiencer subjects also may not appear in this construction (see M. Donohue 1996a for further morphological exemplification of this split):

- (30) *?U-koni na tolida-ʔu.
2SG.R-laugh/smile NOM cousin-2SG.POSS
'Your cousin is smiling.'
- (31) *?U-mo'aro na tolida-ʔu.
2SG.R-hungry NOM cousin-2SG.POSS
'Your cousin is hungry.'
- (32) *?U-ma'eka na tolida-ʔu.
2SG.R-afraid NOM cousin-2SG.POSS
'Your cousin is scared.'

We can conclude that in addition to the requirement that an intransitive argument must be adversely affected in order to display EP, it must furthermore be a theme or patient.

4.3 Restrictions: Semantic roles or syntactic roles?

We have seen that, in *Tukang Besi*, the principal determining factor for eligibility to trigger EP is the semantic role of the affected item; only arguments bearing a theme or patient semantic role may exhibit EP, and all such arguments appear eligible for EP construction, regardless of whether they are transitive objects or intransitive subjects. The only direct morphological effect that the syntactic role of the possessum has is in determining the position of the EP marking on the verb — as the examples show, when the possessum is the subject of the verb, the EP is marked with subject agreement on the verb; and when the possessum is object of the verb, the EP is marked with object agreement on the verb. In terms of the thematic hierarchy mentioned earlier, these are the lowest positions available for core arguments. The span of the thematic hierarchy that defines the set of arguments eligible for EP constructions is shown in (33):

- (33) The thematic hierarchy and EP in *Tukang Besi*
agent > beneficiary > goal/experiencer > instrument > theme > patient
└──────────┘
Available for EP

The ineligibility of non-affected themes to show EP has already been demonstrated for transitive verbs; the ungrammaticality of other semantic roles is shown in (34)–(37) (since no transitive verbs have agent or beneficiary objects in *Tukang Besi*, applicative verbs have been used in (34) and (35)):

Agent:

- (34) *?U-wila-ngkene-aku na tolida-su
2SG.R-go-COM-1SG.OBJ NOM cousin-1SG.POSS
'You went with my cousin.'

Beneficiary:

- (35) *?U-ala-ako-aku na tolida-su te kau rumpu
2SG.R-fetch-APPL-1SG.OBJ NOM cousin-1SG.POSS CORE firewood
'You fetched some firewood for my cousin.'

Goal:

- (36) *?U-hoti-aku na tolida-su
2SG.R-donate-1SG.OBJ NOM cousin-1SG.POSS
'You donated (food) to my cousin.'

Instrument:¹⁰

- (37) *?U-pake-aku na poda-su
 2SG.R-use-1SG.OBJ NOM knife-1SG.POSS
 'You used my knife.'

Intransitive sentences have been shown in (26) and (30)–(32); there are no intransitive verbs which take a beneficiary, goal or instrument subject. The absence of transitive subjects is also explained by reference to the semantic role information: there are no transitive subjects that are themes or patients, and so none satisfy the filter seen in (33).¹¹ There is no need to refer to the syntactic roles hierarchy in order to determine the eligibility of an argument for EP in *Tukang Besi*.

4.4 Restrictions: Grammatical functions and voice

From the evidence so far we might conclude that semantic role identity is the only factor playing a part in determining the grammatical status of EP in *Tukang Besi*. Nevertheless, it does appear that grammatical relations do play a role as well: as mentioned earlier, the language is a Philippine-type language, and displays the kind of voice system (a la Kroeger 1993) that can not be characterized in terms of syntactic roles (A, S and O). Rather, a pragmatically determined grammatical 'subject' is selected, and marked with NOMINATIVE case (the discourse basis of the two basic transitive clause types presented in Section 3). Importantly, the nominative argument is unique in terms of pragmatic salience and preferred grammatical function status.

We have seen that there is a restriction in *Tukang Besi* that the argument which exhibits EP must be in nominative case, whether it is an O or (trivially) an S. This point has already been exemplified in (9), and shall not be repeated here. What is worth noting, however, is that, since this voice system operates on the basis of pragmatic salience, we have clear morphosyntactic evidence that EP in *Tukang Besi* depends on pragmatics as much as it does on semantic roles,¹² and that syntactic roles such as the usually defined '(grammatical) subject' (S and A) and 'object' (O), or structural positions corresponding to these notions, do not play a role in this construction.¹³

5. The grammatical status of the possessor and the possessum

Having established the semantic, pragmatic and syntactic restrictions placed on the possessum in an EP construction, we need to examine the grammatical status of both the possessum and the possessor. Although the possessum is marked with nominative case (see (11) and elsewhere for examples), the position of the possessor might be expected to be the (syntactically) nominative argument. Compare (11) with (38):

- (38) *No-peku-ko (na iko'o).*
 3R-backfist-2SG.OBJ NOM 2SG
 'He backfisted you.'

We are then faced with, superficially, two morphologically nominative arguments, when only one syntactically nominative argument (= grammatical subject) is allowed per clause. A test for grammatical subjecthood that is fairly robust in Philippine-type languages is the ability to launch floating quantifiers; this test is also valid in *Tukang Besi*. Examples (39) and (40) illustrate the ability of the nominatively marked argument in a simple clause to launch a quantifier, and the inability of that floated quantifier to refer to a non-nominative argument:

- (39) *Saba'ane no-lemba-?e na kaluku te amai.*
 all 3R-carry.on.shoulder-3OBJ NOM coconut CORE 3PL
 'They carried all the coconuts.'
 *'All of them carried the coconuts.'
- (40) *Saba'ane no-lemba te kaluku (na amai).*
 all 3R-carry.on.shoulder CORE coconut NOM 3PL
 'All of them carried the coconuts.'
 *'They carried all the coconuts.'

In a clause with EP, it is clearly the possessor that launches the floating quantifier, not the possessum.

- (41) **Saba'ane no-peku-ko na tolida-?u.*
 all 3R-backfist-2SG.OBJ NOM cousin-2SG.POSS
 'He backfisted all of your cousins.'
- (42) *Saba'ane no-peku-komiu na tolida-miu sa-mia.*
 all 3R-backfist-2PL.OBJ NOM cousin-2PL.POSS 1-CLASS
 'He backfisted the cousin of you all.'

We must therefore conclude that the morphological nominative case on the possessum NP is not a reflection of grammatical subject status, which is assigned

to the possessor. The appearance of a morphological nominative case on arguments without grammatical subject status has precedents in other parts of the grammar; in a passive clause, for instance, the 'subject' is marked with nominative case, but does not display any nominative syntactic properties:

- (43) (**Saba'ane*) *no-to-lemba* *na kaluku.*
 all 3R-PASS-carry.on.shoulder NOM coconuts
 '(All of) the coconuts were carried.'¹⁴

Another argument against the possessum bearing the grammatical subject relation is that in combination with reciprocal prefixes, the possessum appears without nominative case marking, though this cannot be fully explored here.

The core/oblique status of these morphologically nominative but syntactically non-subject possessed arguments is difficult to determine; all that can be said with certainty is that they are outside the VP.

6. Models of EP eligibility

Looking beyond the *Tukang Besi* data, it appears that EP only rarely applies to arguments other than the core arguments of the verb; I shall take as a working hypothesis the assumption that sentences such as (44) are of at best marginal grammaticality in other languages, just as they are ungrammatical in *Tukang Besi*.¹⁵

- (44) I-put-you [the rice] [in [your pot]]

- (45) **Ku-tau-ko* *te bae i pansi-?u.*
 1SG-put-2SG.OBJ CORE rice OBL pot-2SG.OBJ
 'I put the rice in your pot.'

This non-occurrence of EP from an oblique possessum is predicted from semantic factors that are inappropriate for EP in this sort of example (low affectedness of the possessor, wrong alienability relationship). This non-occurrence may therefore not necessarily represent a core / oblique distinction, but nevertheless gives an empirical basis for us to restrict our search to non-oblique arguments.

I shall briefly compare the EP construction in *Tukang Besi* with that in a sample of other languages which display substantially different restrictions on EP. These languages have been selected on the basis of an examination of EP constructions in a much wider range of languages, and are each representative of a 'class' of EP constructions found cross-linguistically.

6.1 *Tzotzil*

In *Tzotzil* (Mayan, data from Aissen 1987),¹⁶ it appears that EP applies only to the object of the verb, but that there is not such a range of restrictions as to the semantic nature of the verbal activity. The following sentences show similarities between the *Tukang Besi* and *Tzotzil* EP constructions (examples (46)' and (47)' have the same translations as (46) and (47)):

Object with and without EP:

Tzotzil:

- (46) *A-mil* *k-ol.*
 2SG.ERG-kill 1SG.POSS-child
 'You killed my child.' (1987: 141)
- (47) *A-mil-b-on* *jutuk k-ol.*
 2SG.ERG-kill-APPL-1SG.ABS one 1SG.POSS-child
 'You killed my child.' (1987: 126)

Tukang Besi translations:

- (46') ?*U-hoko-mate-?e* *na ana-su.*
 2SG.R-FACT-die-3OBJ NOM child-1SG.POSS
- (47') ?*U-hoko-mate-aku* *na ana-su.*
 2SG.R-FACT-die-1SG.OBJ NOM child-1SG.POSS

The differences between the two languages are shown in the contrast in grammaticality between (48) and (48)', illustrating EP with an unaccusative verb,¹⁷ and (49) and (49)', illustrating the ability for non adversely-affected objects to appear in EP structures in *Tzotzil*, but not in *Tukang Besi* (the translations are the same in both languages). In both languages EP with an unergative verb is ungrammatical. These data are summarized in Table 1:

Tzotzil:

- (48) **L-i-cham-be* *j-tot.*
 COMP-1SG.ABS-die-APPL 1SG.POSS-father
 'My father died.' (1987: 138)
- (49) *L-a-j-nup-be* *ta be l-a-tot-e.*
 COMP-2SG.ABS-1SG.ERG-meet-APPL on road the-2SG.POSS-father-CL
 'I met your father on the road.' (1987: 126)

Tukang Besi:

(48') *Ku-mate na ama-su.*
1SG-die NOM father-1SG.POSS

(49') **Ku-po-ʔawa-ngkene-ko te ama-ʔu i tonga*
1SG-REC-get-COM-2SG.OBJ CORE father-2SG.POSS OBL middle
nu sala.
GEN road

Table 1: Extension of EP constructions in Tzotzil and Tukang Besi:

	O		S		A
	unaffected	affected	affected	unaffected	unaffected
Tzotzil	✓	✓			
Tukang Besi		✓	✓		

Syntactic role-based and Semantic role-based systems

These data show us that different languages have different tolerances for syntactic or semantic role identity in EP constructions. In the next sections I shall present representative examples of different restrictions on EP eligibility in different languages.

6.2 Northern Pomo

The ability of affected theme/patient intransitive subjects (but not agentive ones) to appear in EP constructions is not limited to Tukang Besi; similar facts have also been reported for Northern Pomo. O'Connor (1992: 262–284) discusses the use of the term 'Absolutive' as a description of the range of arguments that may display EP (p. 276–277), and notes that the semantic relation between the possessed body part and the possessor is such that 'any affect (sic) on a body part beyond basic physiological sensations will still, due to the normal undetachability of a body part, have consequences, pragmatic, social or otherwise, for the possessor' (p. 267).

O'Connor does mention the possibility of an agentive argument as a possessor (p. 267), but later (p. 276) notes that 'Agentive subjects may also be ruled out ...' A careful check of the whole book reveals that none of the EP examples that she quotes include any agentive possessors. We thus find languages like Tukang Besi and Northern Pomo, in which the semantic role of the

possessum is the most important factor in determining eligibility to appear in an EP construction, and ones like Tzotzil (and many others; see papers in this volume), in which the determining factor is objecthood: the lowest ranked (core) syntactic role, as opposed to the lowest ranked (core) semantic role(s).

6.3 Choctaw

Looking in the other direction, we also find languages in which EP extends to include the entire range of intransitive verbs; grammatically equivalent sentences comparable to (47)–(49) are given in (50)–(53) from Choctaw (Muskogean, Davies 1986) (similar facts are explicitly reported for Southern Tiwa by Allen et al. 1990).¹⁸

Choctaw: Object with EP; affected possessor:

(50) *Miko am-ofi-t takkon i-apa-tok.*
chief 1POSS-dog-NOM apple 3DAT-eat-PAST
'My dog ate the chief's apple.' (1986: 51)

Non-affected:

(51) *Alla towa ī-chim-pila-li-tok.*
child ball 2DAT-3DAT-throw-1NOM-PAST
'I threw your ball to the child.' (1986: 59)

Subject with EP; unaccusative/affected possessor:

(52) *Iyyi-t ā-hottopa-h.*
leg-NOM 1DAT-hurt-PRED
'My leg hurts.' (1986: 46)

Unergative / non-affected:

(53) *Sa-shki hoshi-t ī-hika-tok.*
1POSS-mother bird-NOM 3DAT-fly.SG-PAST
'My mother's bird flew.' (1986: 59)

Tukang Besi allows EP constructions in situations analogous to (50) and (52), but does not permit EP with a non-affected object possessum like that in (51), or with a non-affected possessum subject such as that in (53). Although Choctaw allows a wider range of intransitive subjects in EP constructions than Tukang Besi, neither permits EP with transitive subjects.

6.4 *Kanum*

Many languages, exemplified here with Kanum ('Pama-Nyungan', southern New Guinea; M. Donohue 1997) shows a highly restricted (proto-typical?) form of EP, in which the possessum must be both object of the verb, and an affected theme/patient, as seen in the following set of examples. In (54) and (55) the object prefix and subject suffix, respectively, are appropriate for the possessum object and the subject. In (56) we see an object prefix that indexes the person and number values of the possessor; this is not possible for the non-affected object in (58). In (57) the person/number values of the possessor may not be reflected in the subject suffixes, or the form of the verb (which in this case shows different forms for singular and plural subjects), showing that EP is not possible for unaccusative subjects, even when affected.

Kanum: No EP:

- (54) *Nsâne klawo s-nkw-nt.*
1SG.DAT child OBJ-hit.linearly-T.PAST.SG.SUBJ
'S/he hit my child.'
- (55) *T-ayngkângk-ns mllä-ny nsâne yempoka klawo.*
UNACC-fall.PL-T.PAST.PL.SUBJ stone-LOC 1SG.DAT two child
'My two children fell on the stone.'

Object with EP:

- (56) *Nsâne klawo b-nkw-nt.*
1SG.DAT child 1SG.OBJ-hit.linearly-T.PAST.SG.SUBJ
'S/he hit my child.'

No EP possible:

- (57) **T-ayngkânt-y mllä-ny nsâne yempoka klawo.*
UNACC-fall.SG-T.past.SG.SUBJ stone-LOC 1SG.dat two child
'My two children fell on the stone.'
- (58) **Nsâne klawo byew-y.*
1SG.DAT child 1SG.OBJ:see-T.PAST.SG.SUBJ
'S/he saw my child.'

Kanum is clearly the most restrictive language examined so far in terms of the range of situations that allow EP; both semantic role information (affected theme/patient) and syntactic role information (object of a transitive verb) are required in order to judge the grammaticality of an utterance. Translations of all

of the grammatical Kanum EP constructions are also grammatical in *Tukang Besi*, which additionally allows EP with a sentence such as (57) (which is comparable to (48')). In the next section we shall examine a language with extremely unrestricted EP, *IIKeekonyokie Maasai*.

6.5 *IIKeekonyokie Maasai*

In *IIKeekonyokie Maasai* (Payne 1997) it appears that EP may occur with any argument of a verb, including possessums which are transitive subjects. Interestingly, the possessor in an EP construction is always expressed as the object of the verb (with a verbal prefix for first (*áa-*) or second (*(ε)kí-*) person object; this analysis of the prefixes differs from that in Payne), even when the possessum is the subject (third person, or plural, arguments have no corresponding object prefix; although these possessors may appear in EP constructions with object possessums (p. 403–404), Payne does not give examples of a third person nominal possessor in an EP construction with a subject possessor).

This construction can be seen in (59), showing the two interpretations possible for an EP construction in a transitive clause in *IIKeekonyokie Maasai*. The 1SG marked on the verb can be interpreted as the possessor of either the subject or the object of the clause.

- (59) *Áa-ból ol-páyyàn ɔ-sandúkù.*
1SG.OBJ-open MASC.SG-man.NOM MASC.SG-box.ACC
(i) 'My husband will open the box.'
(ii) 'The man will open my box.' (414–415)

Given that *IIKeekonyokie Maasai* allows even transitive subjects to be the possessum in an EP construction, it is worthwhile noting that there do not seem to be any restrictions on the semantic roles or affectedness of the possessum; given that transitive subjects are the least affected arguments in any clause, and that they typically bear semantic roles associated with the highest parts of the semantic hierarchy, this is to be expected. Other examples show that EP is not restricted in terms of the intransitive subjects it can take, nor the degree of affectedness of the object of a transitive verb:

- (60) *Áa-búák en-kínè.*
1SG.OBJ-shout FEM.SG-goat.NOM
'My goat will bleat.'

(grammatical for *IIKeekonyokie Maasai*; 411, 413)

- (61) *Áa-dól éñ-káyná.*
 1SG.OBJ-see FEM.SG-arm.ACC
 'He/she/they see my arm.' (403)

Clearly, IKeekonyokie Maasai has very few restrictions on the semantic or syntactic role that the possessum must bear, requiring only that it not be an oblique. (Payne 1997: 406 explicitly notes that "in no dialect, however, can EPs be interpreted as owning obliques.")

6.6 Summary and models

The five different types of EP that I have described are summarized in Table 2, indicating that a wide range of restrictions on external possession constructions is found, extending from the most highly restricted cases in which only highly affected objects are available for EP constructions, to the more liberal Choctaw pattern in which any argument apart from a transitive subject may appear in an EP construction, regardless of the semantic roles involved, and the highly liberal IKeekonyokie Maasai form of EP.

Table 2: *The range of arguments eligible for EP*

	O		S		A
	unaffected	affected	affected	unaffected	unaffected
Tukang Besi		✓	✓		
Kanum		✓			
Tzotzil	✓	✓			
Choctaw	✓	✓	✓	✓	
IKe. Maasai	✓	✓	✓	✓	✓

To model this within a formal theory of grammar, we will need to have both semantic role information and information concerning the grammatical function present at the same level of grammar; in M. Donohue (1996b) I argue for this need with regard to relativization strategies, following Andrews (1996). A proposed entry for a verb such as 'see' is that given in (62), in which both a semantic specification of the content of the verb and the semantic roles of the verb participants are given. These participants can be mapped onto argument position in the verb's subcategorization frame following the conventions of Lexical Mapping Theory (Bresnan and Moshi 1990):

- (62) PRED: $\left[\begin{array}{l} \text{LCS 'see' (Semantics of 'see')} \langle \text{experiencer, theme} \rangle \\ \text{TERM LIST} \end{array} \right]$
-

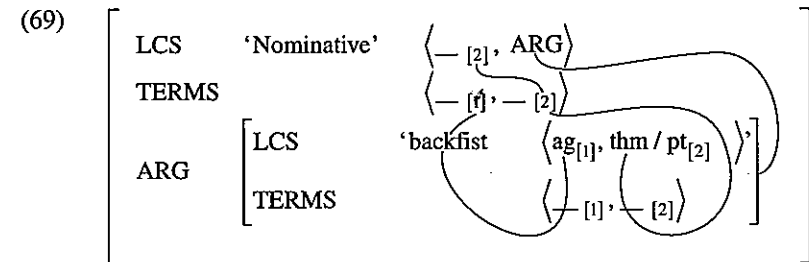
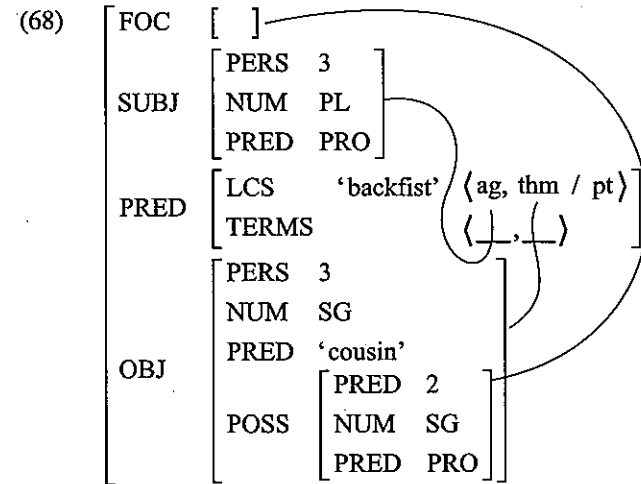
Given the four different language types (with respect to semantic role or syntactic role restrictions on EP) shown in Table 2, we can model the different restrictions on EP in terms of these two lists: the subcategorization list and the thematic hierarchy list. This is shown in (63)–(67). *Tukang Besi* only refers to the semantic role of an argument regardless of its syntactic position, whereas *Tzotzil* and *Choctaw* only refer to the position in the subcategorization list. *Tzotzil* specifies the position that is outranked by at least one other argument, thus delimiting the argument which has the grammatical function OBJECT; *Choctaw* specifies the lowest ranked argument position (which may or may not be outranked by another argument), thus specifying the absolutive position. *Kanum* requires reference to both the thematic hierarchy (specifying the lowest set of semantic roles), and the subcategorization list (functioning as *Tzotzil* and *Choctaw*, respectively, in specifying object and absolutive positions). Finally, *IKeekonyokie Maasai* simply refers to transitive arguments that are subcategorized for by the verb; beyond this stipulation, there is no need to refer to either semantic role (on the thematic hierarchy list) or syntactic role (on the subcategorization list) for two participant verbs.

- (63) EP in *Tukang Besi*
 TERMS $\langle \dots, \text{thm/pt}, \dots \rangle$
 |
 Available for EP
- (64) EP in *Kanum*
 TERMS $\langle _, \text{thm/pt} \rangle$
 |
 Available for EP
- (65) EP in *Tzotzil*
 TERMS $\langle _, _ \rangle$
 |
 Available for EP
- (66) EP in *Choctaw*
 TERMS $\langle (_), _ \rangle$
 |
 Available for EP

- (67) EP in IKeekonyokie Maasai
 TERMS < ..., —, ... >
 |
 Available for EP

Notice that the final specification for availability to EP does not have to refer to notions such as subject or object, but merely specifies the relative position on an ordered subcategorization list of (core) verbal arguments, and in some cases also requires reference to the specific semantic roles borne by that argument.

With the conventions for availability to EP relegated to a language-specific level, all we need ensure is that all the information required is present at the same level of the grammar. In addition to the information schematized in (63)–(67), the model also needs to refer to a degree of pragmatic salience. While I believe that a separate level of pragmatic information representation (a pragmatic-structure, suggested by Bresnan and Mchombo 1987) is the correct solution to the problem of pragmatic input to syntax, given a conventional LFG framework we can represent a pragmatic component in the functional structure. In this way we arrive at an EP structure as seen in (68) (based on C. Donohue 1996). The presence or absence of pragmatic focus determines the choice of which set of features (those of the possessor, or those of the possessum) appears expressed as the direct grammatical function. Reference to the semantic role information of the arguments, specified in the lexical conceptual structure of the verb, determines availability from a semantic role standpoint; and also rules out the transitive subject from consideration in most languages, since transitive subjects are the most highly ranked arguments in any subcategorization frame. For some languages the possessor, if expressed, must be assigned more pragmatic focus than the object; this is the case reported for Maung, mentioned earlier. In other languages, such as *Tukang Besi*, the focus may be on either the possessor or the possessum. In *Tukang Besi* the choice of pragmatic focus is made morphologically explicit through the assignment of the grammatical subject properties, assumed to be modeled by a structure like that in (69), representing the voice system typical of most Philippine-type languages (in this case, an Object Voice).



The functional structure in (68), which follows the conventions in Andrews 1996, shows the value of representing the semantic role information as equally accessible as the syntactic role information (which is deducible from knowledge of positioning in the subcategorization frame). The linking conventions, shown here as lines linking positions in the functional structure, indicate that the identity of the subcategorized-for object of the verb has not changed; but that pragmatic factors, namely focus, have overridden the normal assignment of this argument to be the alternative to the agent in the voice system. In (68) the linking is from the possessor to the focus position, rather than from the possessum, and so the possessor is taken as the nominative argument.

The fact that pragmatic factors such as focus have a strong correlate with voice selection is well known (see, among others, Givón ed. 1994); thus,

information on focus feeds into the voice system, presented in (69). *Tukang Besi* has a Philippine-style focus system, but with two core arguments regardless of the choice of actor voice or object voice; this is represented in the term list of the 'nominative predicate', which is an obligatory derivation on any verbal predicate.

7. Conclusion: EP and the informational content in grammar

From the preceding discussion we can see that an account of EP in *Tukang Besi* does not refer to the syntactic roles hierarchy, but only needs to refer to the thematic role of the possessum. A cross-linguistic look at variation in EP shows that different languages do not necessarily rely on the thematic hierarchy to determine eligibility for an EP construction, but can take the syntactic roles hierarchy as their starting point (in most languages conflated with the notion of grammatical subjecthood, or 'pivot' versus 'non-pivot'), or a combination of syntactic roles and semantic roles. Importantly, based on the evidence presented in the previous section, we cannot assign either one of these hierarchies as the dominant factor cross-linguistically, nor account for the variation with just one or the other of the two hierarchies.

Abbreviations

Abbreviations used in this paper (some portmanteau morphemes are glossed with a combination of these, such as *Tukang Besi -ko* '2SG.OBJ', second person singular object): 1 first person, 2 second person, 3 third person, ABS absolutive, ACC accusative, APPL applicative, ARG argument of predicate, ART article, BREAK forceful verbaliser, CAUS causative, CL class, CLASS classifier, COM comitative (agentive applicative), COMP completive, CORE (non-nominative) core, DAT dative, EP external possession, ERG ergative, FEM feminine, FOC focus, GEN genitive, I irrealis, LCS lexical-conceptual structure, LOC locative, MASC masculine, NI noun incorporation, NOM nominative, NUM number, OBJ object, OBL oblique, PA paucal, PASS passive, PAST past, PERS person, PF perfective, PL plural, POSS possessive, PRED predicate, PRO pronominal, PURP purposive, R realis, SG singular, SI subject infix, T.PAST today's past, TERMS core verbal arguments, TOP topic, UNACC unaccusative.

Notes

- 1 By this I refer to the morphosyntactic patterns found in the majority of the indigenous languages of Taiwan, the Philippines, Madagascar and western Indonesia (particularly Borneo).
- 2 For the rest of this article I shall refer to the core arguments of the verb as subject and object with something approaching the traditional use of these labels, referring to S and A vs. O, respectively (I shall use Dixon's (1979, etc.) terms A, S and O for convenience, to refer to what

are also known as transitive subject, intransitive subject, and transitive object, respectively. For a more rigorous, empirical, definition, see Andrews 1985: 68).

- 3 The antipassive analysis of the Philippine voice system does not work, certainly not for *Tukang Besi*. It could be argued that there is really only one basic transitive clause type, the form shown in (1), and that (3) is an 'antipassive' derivation from it; indeed, similar analyses have been proposed for other Philippine-type languages. Problems with this analysis for *Tukang Besi* are that we have to assume that there is no explicit antipassive morphology on the verb, whereas there is explicit passive morphology in the passive voice, with the prefix *to-*; that the 'antipassive', not the active, clause is used as input to the passive derivation, which cannot appear with object suffixes; that the *by*-phrase in the 'antipassive' is still a core argument of the verb, not an oblique (demonstrable by time-adverb placement restrictions, and case-marking choices); and that the derived 'subject' of an antipassive clause (the seer, in (3)) behaves differently with respect to relativization than does either the derived subject of a passive clause, or the subject of an intransitive verb. For these reasons I have adopted the analysis of *Tukang Besi* as showing a voice system which I describe as being 'Philippine-type', not adequately characterizable as either nominative-accusative with passives or ergative-absolutive with antipassives.

- 4 Although the derived subject of the passive verb is marked by the nominative *na*, it bears none of the syntactic properties normally associated with such an argument.

- 5 It is worth noting that applicative morphology is *not* permitted with EP constructions; compare (11) with (11'):

(11') **No-peku-ako-ko na tolida-ʔu.*
 3R-backfist-APPL-2SG.OBJ NOM cousin-2SG.POSS
 'They backfisted your cousin.'

This sentence is not valid as a benefactive applicative clause either (*'They backfisted your cousin for you.'). since the base object of the verb, cousin, is marked nominatively, when, given the existence of an applied object, that object will appear in nominative case. A grammatical applicative construction would be that shown below, with non-nominative case marking on *tolida-ʔu*.

No-peku-ako-ko te tolida-ʔu
 3R-backfist-APPL-2SG.OBJ CORE cousin-2SG.POSS
 'They backfisted your cousin for you(r benefit).'

Equally important is the fact that (11) without the NP (that is, *Nopekuko* only) is the normal way to say 'He backfisted you.' and that the NP is required for the EP reading, an unusual finding for a language like *Tukang Besi* with extensive zero anaphora and many verb-only clauses.

- 6 Of course, a claim about the kinds of semantic roles that an argument may bear is equivalent to a claim about the event structure of the verb; and so the restriction may be explained in terms of verbal types. There is no difference between these two approaches other than the terminology used.

- 7 Equally, any bound pronominal (first, second or third person, singular or plural) may show EP. The examples in this paper concentrate on first and second person singular possessors, since they are the possessors most frequently found in EP constructions, but examples like

(11'') *No-peku-kita na tolida-nto*
 3R-backfist-1PL.OBJ NOM cousin-1PL.POSS
 'They backfisted our cousin.'

are perfectly acceptable. EP with a third person possessor is harder to demonstrate, since the object clitic representing the possessor will necessarily be *-ʔe*, the same as that used for the possessum; but variation in the interpretation of reciprocal constructions shows that this, too, is

- a grammatical option (Donohue 1995a:289–291).
- 8 It is worth noting at this point that EP is not recursive in *Tukang Besi*, and that it is not possible, for instance, for the possessor of *ama* in (19) to exhibit external possession and be marked on the verb:
 (19) **No-peku-aku na tolida nu ama-su.*
 3R-backfist-1SG.OBJ NOM cousin GEN father-1SG.POSS
- 9 Note that in the case of a body part there is no question of ‘construal of affectedness’ on the part of the speaker, since a possessor is necessarily affected by an action affecting any of her or his body parts.
- 10 Evidence that *na podasu* in (37) bears an instrumental role, and not a theme role, is found in the restrictions on different relative clause strategies, as reported in M. Donohue (1996b).
- 11 There is not a requirement that the transitive subject bear a particular semantic role in order for EP to be grammatical. The object of a verb like *raho* ‘affect’ may exhibit EP, even though the subject is clearly not an agent, as long as the object is highly affected.
No-raho-ko na tolida-ʔu te kinda.
 3R-affect-2SG.OBJ NOM cousin-2SG.POSS CORE lightning
 ‘The lightning struck your cousin.’
- 12 This cannot be taken as a universal principle, however. In Maung, Capell and Hinch (1970: 62) note that EP is obligatory in all cases where possessive prefixes may be used on nouns (body parts and certain kinship relations). For example, we may cite
ʔan-ejan da ʔa-wija
 1SG.OBJ-see ART.CL.IV 1SG.POSS-hair
 ‘You see my hair.’
 which apparently does not have a paraphrase with internal possession.
- 13 Other languages, such as Tagalog (Kroeger 1993:32–33), seem to refer to the grammatical status (grammatical subject) of the possessed argument as well as its syntactic/semantic roles, allowing only nominative affected Os to show EP.
- 14 The ‘agreement’ on the verb in this example is somewhat misleading, since a verb in a passive clause does not need to agree with its erstwhile subject, and may always display a third person ‘dummy’ agreement marker:
Notosepamo na iaku is as acceptable as *Kutosepamo (na iaku)*
 3R-PASS-kick-PF NOM 1SG 1SG-PASS-kick-PF NOM 1SG
 for ‘I was kicked.’
- 15 For instance, Davies (1986:60) mentions that ‘possessors cannot ascend from hosts bearing oblique relations’, and cites the fact that in Choctaw sentences such as
Chokka chim-ia-li-tok
 house 2DAT-go-1NOM-PAST
 can only mean ‘I went to the house for you’, and not *‘I went to your house’. Choctaw, interestingly, has constraints AGAINST the appearance of ‘most kinship terms marked with the inalienable prefix’ (1986:58):
 **Ishki-t ā-himmita-h*
 mother-NOM 1DAT-young-PRED
 ‘My mother is young.’
 For Northern Pomo, O’Connor (1992:283) mentions a possible counter to the claim that EP must be related to a core argument, but does note that ‘not all such sentences are acceptable’, suggesting that this is not a productive EP construction.

- 16 From my limited sample, it appears that Tzotzil is (at least treated as) representative of the majority of languages with EP constructions.
- 17 See Merlan (1985) and Mithun (1991) for discussion of the range of parameters that can reflect the unergative / unaccusative distinction in a given language.
- 18 It is probably significant that the EP constructions in Choctaw and Southern Tiwa use the dative agreement set to index the possessor on the verb and not the accusative set of affixes, which (in the main) mark more highly affected arguments. More cross-linguistic work on the differences between EP constructions with accusatively marked possessors and datively marked possessors is needed to verify this as a correlate of the data, or accident of the sample.

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