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Kittilä, Seppo

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A typology of tritransitives: alignment types and motivations¹

SEPPO KITILÄ

Abstract

The present article discusses the syntax and semantics of tritransitive constructions. The label comprises constructions like a physiotherapist made the phonetician give a book to the bassoon player and a phonetician gave a book to the bassoon player for the physiotherapist and their equivalents in the languages of the world. The article proposes a formal typology, which is based on the formal similarities and differences in the Recipient and Beneficiary/Causee coding in ditransitive and tritransitive clauses. Four types are distinguished, all of which are illustrated by crosslinguistic data. The arguments either receive distinct formal treatment irrespective of clause type, or the differences may be confined to tritransitives (they may also be marked alike). Moreover, the attested differences can be divided into subtypes based on whether the relevant arguments bear marking not attested outside tritransitives, or whether their formal treatment is different in more general terms. In addition to the formal typology, the article also discusses the rationale behind the attested tritransitive types. The key feature here is Ambiguity Avoidance, which is compared to Case Hierarchy (see, e.g., Comrie 1975).

1. Introduction

The present article studies tritransitive constructions from a crosslinguistic perspective. I am using “tritransitive construction” to refer to monoclausal constructions expressing such events as ‘the journalist gave a book to the police officer for the performance artist’ or ‘the journalist made the police officer give the book to the performance artist’. In other words, the article is concerned with the linguistic coding of ditransitive events with an additional external Causer or an additional Beneficiary (Tharp [1996: 141] uses the same label in very much the same sense). The events in question involve an Agent, a Theme, a Recipient (or an Addressee in some cases)

and a Beneficiary or a Causee. The semantic roles corresponding to the relevant arguments are defined as illustrated in Figure 1:

Ditransitive event:

'the journalist gave a book to the police officer'
Agent V Theme Recipient (ditransitive)

Tritransitive event (Beneficiary role type)

'the journalist gave a book to the police officer for the performance artist'
Agent V Theme Recipient (tritransitive) Beneficiary

Tritransitive event (Causee role type)

'the journalist made the police officer give the book to the performance artist'
Agent CAUS Causee V Theme Recipient (tritransitive)

Figure 1. *Schematic illustration of the roles relevant to the discussion in this article*

As the illustration above shows, the roles of Recipient, Beneficiary and Causee are defined as is typical of Basic Linguistic Theory.² It should be noted that the semantic differences between ditransitive Recipients and tritransitive Recipients are very subtle at best, so I have labeled the corresponding argument based on the clause type it appears in, that is, the two types of Recipient are labeled as ditransitive Recipient and tritransitive Recipient. Two semantically distinct subtypes, labeled as Causee role type and Beneficiary role type, can also be distinguished, even though these differences are not central to the proposed formal typology at the highest level.

Figure 1 shows how the semantic roles relevant to the following discussion are defined in this article. An example of the formal coding of both role types is given in (1) and (2):

Tuvan; Causee role type:

- (1) ašak bajyr-dan saryg:ool-ga bižek-ti
old.man.NOM PN-ABL PN-DAT knife-ACC
ber-gis-ken.
give-CAUS-PAST
'The old man made Bajyr give a knife to Saryg-ool.'
(Kulikov 1994: 260)

Maori; Beneficiary role type:

- (2) i hoatu ahau i te maaripi ki tana
T/A give 1SG DO the knife PREP SG.GEN.3SG
hoa maa hone.
friend PREP John
'I gave the knife to John's friend for John.'
(Bauer et al. 1993: 272)

Both examples above have four overt arguments,³ and therefore they qualify as tritransitive constructions. The label “tritransitive” is used in a semantic sense in this article, which means that the label comprises all possible ways of coding the events noted above irrespective of the semantic differences the Causee role type and the Beneficiary role type have. All constructions with four arguments will be considered as long as they answer to the semantics of either role type of Figure 1.

In this article, I propose a formal alignment typology of tritransitive constructions based on the coding of the event types in Figure 1.⁴ At the highest level, the typology does not distinguish between the two role types. This means that Beneficiary and Causee are lumped together, because such a distinction is not necessary here, just as the roles of Recipient and Addressee are not distinguished in most studies dealing with ditransitives. Only in Section 3 will a more fine-grained distinction be made. On the other hand, ditransitive clauses with an additional adjunct such as a locative or an instrumental phrase, or double causatives will not be taken into consideration.⁵ This is also in line with most studies concerned with ditransitives, in which verbs like ‘put’ or causativized transitive clauses are usually not considered (see, e.g., Haspelmath 2001, 2004). It would be interesting to take a closer look at, for example, the potential differences between tritransitives (as the term is understood here) and double causatives in and across languages (see, e.g., Joppen-Hellwig 1999: 2–4), but this lies outside the scope of the present article. This also means that the results presented in this article are not meant to extend to any other construction type with four arguments. The proposed typology does, however, constitute a potential starting point for future studies of these constructions. The formal features of arguments relevant to the following examination are case marking (including both morphological cases, as in Latin or Finnish, and case-marking adpositions, as in Japanese or Maori), word order and verbal morphology (word order differences are relevant only to the discussion in Section 4). The primary focus lies on case marking. On the basis of similarities and differences in the coding of the studied roles, four types will be distinguished (see Section 2.1).

In addition to the formal typology, I also discuss the rationale behind the attested tritransitive alignment types. This means that I will explain the formal nature of the attested types based on semantic-functional criteria. Animacy is the key feature here. All of the relevant arguments usually refer to animate participants, which has clear consequences for the formal nature of tritransitives. For example, when a clause involves two animate arguments, their semantic roles are not retrievable nonlinguistically, which makes it necessary to resort to grammatical information (see also,

e.g., Joppen-Hellwig 1999: 2). The same applies at least to some extent to Differential Object Marking, which also occurs to resolve ambiguity (see, e.g., Foley 1999: 119). The Ambiguity Avoidance explanation will be contrasted to the Case Hierarchy explanation (see, e.g., Comrie 1975) in Section 4.

For the crosslinguistic survey, I have consulted approximately 300 reference grammars. In addition, I have consulted native speakers (usually with linguistic training) or trained field linguists for a number of languages (see Note 1). The main problem in data collection is that tritransitive constructions are only rarely discussed in reference grammars. The reason for this is probably that these constructions are very rare in speech and text, which of course makes it hard for a linguist working on a language to find examples for them. Despite these problems the proposed typology very likely covers all the language types found crosslinguistically. It is, however, not possible to present any reliable statistical information on the basis of such a small number of languages.

2. A taxonomy of tritransitive constructions

2.1. *Preliminaries*

In this section, a formal typology of tritransitive constructions is proposed. As noted above, the typology is based on the linguistic coding of the event types of Figure 1. In the typology, I compare the marking of ditransitive Recipient, tritransitive Recipient and tritransitive Beneficiary/Causee. The marking of Beneficiary/Causee outside tritransitives is also considered in order to determine whether the linguistic coding of the role is affected in tritransitives (this is relevant to all the alignment types except for the neutral alignment). On the basis of formal similarities and differences of the arguments, five alignment types can be distinguished, as shown in Figure 2 (A = Agent, T = Theme, R = Recipient, Ben/Caus = Beneficiary/Causee).⁶

In Figure 2, arguments inside a single circle are coded in the same way. This means, for example, that in the neutral alignment type all the relevant arguments bear identical coding, while in the tripartite alignment all of them receive a different formal treatment. I have been able to find examples of all the alignments except for horizontal alignment, which is utterly dysfunctional and thus unsurprisingly not attested in any language. Only the linguistic coding of Recipient, Causee and Beneficiary is taken into consideration in the examination below. This means that the marking of Agent and Theme is not relevant to the proposed typology.

Neutral alignment **Stable-recipient alignment** **Variable-recipient alignment** **Tripartite alignment** **Horizontal alignment** Figure 2. *The tritransitive alignment types*

The primary reason for this is that the marking of these arguments is consistent irrespective of whether they are parts of ditransitive or tritransitive clauses.⁷ Subtypes will not be distinguished based on whether a given language follows a nominative-accusative alignment or an absolutive-ergative alignment for coding the Agent and Patient of basic transitive clauses.⁸ It should also be noted that the proposed typology is a taxonomy of tritransitive constructions. As a consequence, its goal is not to classify languages, but constructions. A number of languages employ more than one of the alignment types for coding tritransitives. For example, the tritransitives of English can follow either the stable-recipient or the variable-recipient alignment depending on which of the clauses *a physiotherapist gave a book to the backstroke swimmer* or *a physiotherapist gave the backstroke swimmer a book* a given tritransitive construction is based on. This variation is, however, irrelevant to the proposed typology.

In the typology, I will pay the closest attention to case marking, even though features of verb morphology and word order are occasionally also considered. As was noted in passing in the introduction, the typology

below is meant as a taxonomy of alignment types. The typology is therefore based primarily on whether the relevant arguments receive an identical or a different formal treatment. This is in line with basic nominative-accusative or absolutive-ergative typologies, which are based on the identical vs. different formal treatment of S, A, and O irrespective of whether the identical vs. different coding uses cases, adpositions or verbal affixes (see, e.g., Mallinson and Blake 1981: 40 and Dixon 1994: 39, among many others). Moreover, as basic alignment types can be claimed to be based on an explicit distinction of core arguments (see, e.g., Song 2001: 156–159), the tritransitive alignment types discussed below can also be explained in a similar way (see Section 4). The examples in (3) are thus regarded as instances of the same alignment type (stable-recipient alignment):

Finnish:

- (3) a. *miimikko lähett-i kirja-n*
 mimic.NOM send-3SG.PAST book-ACC
fysioterapeuti-lle (foneetiko-n vuoksi).
 physiotherapist-ALL (phonetician-GEN for)
 'The mimic sent the book to the physiotherapist (for the phonetician).'
- b. *miimikko lähety-tt-i kirja-n*
 mimic.NOM send-CAUS-3SG.PAST book-ACC
fysioterapeuti-lle foneetiko-lla.
 physiotherapist-ALL phonetician-ADESS
 'The mimic made the phonetician send the book to the physiotherapist.'

In (3), the alignment type remains the same, because the ditransitive and tritransitive Recipient are treated alike (the Recipient invariably occurs in the allative) and differently from the Beneficiary/Causee. The differences in the coding of Beneficiary and Causee (Beneficiary surfaces as an adpositional phrase, while Recipient carries morphological case marking) are not considered as long as the alignment is retained, which occurs in (3). The strong focus on case marking also excludes features like passivization from further consideration. Moreover, arguments accommodated via applicativization or causativization are treated in the same way as arguments whose introduction does not necessitate any modification of verb morphology.

The organization of the present section is as follows. I begin by discussing languages that are claimed to lack tritransitive constructions. The reluctance to accept these constructions can be seen as a kind of continuum ranging from a complete lack to the use of unorthodox ways of accom-

Figure 3. *Summary of Section 2*

modating the relevant arguments. This is followed by a presentation of the tritransitive alignments, all of which are examined in light of data from a range of formally diverse languages. The organization of the section is summarized in Figure 3, which includes the names of the examined types followed by a name of an illustrative language along with the section in which the alignment type in question is examined.

2.2. *Languages without (genuine monoclausal) tritransitives*

Tritransitive constructions appear intuitively as formally complex and likely to be rare given the fact that even two lexical arguments are avoided in many languages (see, e.g., DuBois 1987).⁹ Therefore, it does not come as a surprise that constructions with four lexical arguments are rarely used in normal conversation or in texts. On the basis of the

complexity of tritransitive constructions we can make the prediction that there are languages which either lack the construction type completely (the constructions are ungrammatical) or in which tritransitives are formed using formal means different from those employed for accommodating Causees or beneficiaries elsewhere. This prediction is verified by crosslinguistic data. Languages lacking tritransitives are here divided into three types based on how complete the lack of tritransitives is and how this is formally manifested.

2.2.1. *Complete lack of tritransitives.* The extreme type of language without tritransitives is represented by languages that are claimed to lack the construction completely (this is what is stated in the sources cited below). Tritransitives are thus deemed ungrammatical. Languages reported to exhibit this blockage include Sesotho and Halkomelem Salish, in both of which the benefactive applicativization of ditransitive clauses is deemed ungrammatical, as shown in (4b) and (5c):

Sesotho:

- (4) a. ntate o-f-a bana lijo.
father AGR-give-FV children food
'My father gives food to the children.'
b. *ntata o-f-el-a morena bana lijo.
father AGR-give-APPL-FV chief children food
'My father gives food to the children for the chief.'
(Peterson 1998: 59, cited from Machobane 1989: 111)

Halkomelem Salish:

- (5) a. ni? ʔa:m-əs-θámʔʂ-əs ʔə kʷθə pukʷ.
AUX give-ADV-TR.1OBJ-3ERG OBL DET book
'He gave me the book.' (Recipient applicative)
b. ni? qʷəl-əʔc-θámʔʂ-əs ʔə kʷθə sce:ʔtən.
AUX bake-BEN-TR.1OBJ-3ERG OBL DET salmon
'He baked me the salmon.' (Benefactive applicative)
c. *ni ʔam-əs-ʔc-t-əs ʔə seni? kʷθə
AUX give-ADV-BEN-TR-3ERG DET woman DET
sqʷəméyʔ ʔə kʷθə sθʔamʔ.
dog OBL DET bone
'He gave the dog the bone for the woman.'
(Gerds 1998: 308, 314)

In Sesotho, two (zero marked) objects, and three arguments constitute the limit per clause. The valence of ditransitive verbs cannot be increased via applicativization, which renders (4b) ungrammatical (see Peterson 1998:

59, cited in Machobane 1989: 111).¹⁰ Halkomelem Salish has distinct applicative affixes for Recipient and Beneficiary, as shown in (5a) and (5b). The affixes are mutually exclusive, which makes (5c) ungrammatical (see Gerdtz 1998: 314). Similar restrictions on the formation of tritransitives have been reported for Babungu (Schaub 1985: 210) and Sanuma (Borgman 1990: 51). As noted in passing above, the existence of languages like those exemplified in (4) and (5) is unsurprising, and since tritransitives are rather rarely discussed in grammars, the list here is probably far from being exhaustive (see Dixon 2000: 59 for a similar remark).

2.2.2. *Languages blocking the expression of four overt arguments.* The second type of languages lacking genuine monoclausal tritransitives is illustrated by languages in which ditransitive verbs allow causativization or applicativization, but in which the number of overt arguments is not affected as a result of this; one of the non-subject arguments must be unexpressed (this corresponds to Kulikov's [1993: 142] "Causee₂ cannot be expressed at all"-type). Two examples are given in (6) and (7), both of which exemplify the Causee role type:

Awa Pit:

- (6) a. Na=na kuzhu piya
 1SG:NOM=TOP pig corn
 kwa-nin-ta-w.
 eat-CAUS-PAST-LOCUT:SUBJ
 'I let the pig eat corn.'
- b. demetrio=na carmen=ta pala kwin-ti-zi.
 PN=TOP PN=ACC plantain give-PAST-NONLOCUT
 'Demetrio gave Carmen a plantain.'
- c. na=na demetrio=ta pala
 1SG.NOM=TOP PN=ACC plantain
 kwin-nin-ta-w.
 give-CAUS-PAST-LOCUT:SUBJ
 'I made Demetrio give a plantain.' (or: 'I had a plantain given to Demetrio.')
- d. na=na carmen=ta pala
 1SG.NOM=TOP PN=ACC plantain
 kwin-nin-ta-w.
 give-CAUS-PAST-LOCUT:SUBJ
 'I made a plantain be given to Carmen.' (or: 'I made Carmen give a plantain.')
- (Impossible: 'I made Demetrio give a plantain to Carmen.')
- (Curnow 1997: 72, 162)

Songhai:

- (7) a. ali nga-ndi tasu di musa se.
 PN eat-CAUS rice the PN IO
 'Ali made Mousa eat the rice.'
- b. *garba neere-ndi bari di musa se ali se.
 PN sell-CAUS horse the PN IO PN IO
 'Garba made Ali sell the horse to Mousa.'
- c. garba neere-ndi bari di musa se.
 PN sell-CAUS horse the PN IO
 'Garba had Musa sell the horse.' or 'Garba had the horse sold to Musa.'

(Comrie 1975: 9f, cited in Shopen and Konaré 1970: 215)

In Awa Pit and Songhai, morphological causativization of ditransitive verbs is fully grammatical, as (6c)–(6d) and (7c) show (examples (6a) and (7a) are given to illustrate the causativization of transitive verbs). However, this does not affect the number of overt arguments of the causativized predicates in (6c)–(6d) and (7b)–(7c). The expression of four arguments is blocked. Only the number of participants in the described event increases from three to four. In Awa Pit and Songhai, either the Recipient or the Causee is mandatorily omitted and left to inference.

2.2.3. *Tritransitives formed in unorthodox ways.* The last language type lacking genuine tritransitives is represented by languages in which the morphosyntactic mechanisms employed for expressing the Beneficiary/Causee in tritransitives are radically different from the mechanisms used for this purpose elsewhere. It should be noted here that also the variable subtype of the stable-recipient alignment and the demoting subtype of the variable-recipient alignment can be thought of as involving unorthodox mechanisms, but I have opted for distinguishing between these two. The main reason for this is that in the cases discussed in this subsection the formal differences are more pronounced than in the two other types noted.

We can distinguish between two subtypes of the type at issue here. The first type involves tritransitives formed periphrastically instead of by the morphological means typical of the language in question elsewhere. This possibly yields biclausal constructions, even though it is also possible that the resulting constructions involve a complex predicate (but what is relevant here is that the employed mechanism of verbal causativization varies). Elsewhere, causativization/applicativization is a morphological process in languages of this type (languages in which only periphrastic causativization is possible do not exemplify this language type). Examples (of the Causee role type) are provided in (8) and (9):

Abkhaz:

- (8) a. yə-s-lə-r-šə-yt'.
it/them-me-she-CAUS-kill-AOR
'She made me kill it/them.'
- b. sarà barà a-ph^oəs à-ʒgab
I you.FEM the-woman the-girl
də-bə-l-ta-r+t (ə-)q'a-s-c'ə-yt'.
her-to-you.FEM-she-give it-*PREV*-I-make-AOR
'I made the woman give the girl to you.'
(Hewitt 1989: 82)

Tukang Besi:

- (9) a. *no-pa-hu'u te ana te
3*R*-CAUS-give CORE child CORE
iai-no te ana u riirii.
younger.sibling-3*POSS* CORE child GEN duck
'She made the child give the duckling to his brother.'
- b. no-tumpu-^e na ana oko na-[m]o'u te
3*R*-order-3*OBJ* NOM child COMP 3*I*-give.SI CORE
iai-no te ana u riirii.
younger.sibling-3*POSS* CORE child GEN duck
'She told the child to give the duckling to his brother.'
(Donohue 1999: 220)

In both Abkhaz and *Tukang Besi*, morphological causativization of ditransitive verbs is disallowed. This does not, however, exclude the causativization of ditransitive verbs altogether, but instead of using the typical causative affix for this purpose, Abkhaz and *Tukang Besi* resort to causative verbs, such as 'make' or 'order'. Because (8b) and (9b) consist of two predicates, the exemplified constructions are biclausal in nature and are thus less genuine tritransitives than those discussed in Sections 2.3.2–2.3.4 (in a similar vein, periphrastic causativization is viewed as less typical than morphological causativization in languages which allow both). The two clauses together amount to four arguments, but a single clause alone is not capable of this. It thus seems that the number of arguments allowed in single clauses is maximally three. Similar cases are attested at least in Basque (Agurtzane Elordui, p.c.) and *Epena Pedee* (Harms 1994: 90). Since the morphological causativization of transitive clauses is also rather restricted in many languages (see, e.g., Song 1996), it is unsurprising that some languages do not allow morphological causativization of ditransitive verbs.

In (8) and (9), ditransitive verbs are causativized periphrastically instead of with the morphological means used for intransitive and transitive

verbs. Another significant deviation from the canonical way of accommodating the Beneficiary/Causee is represented by the following example from Yimas:

Yimas:

- (10) a. yara ya-ka-kra-ŋa-r-akn.
 tree V.PL.T-1SG-cut-BEN(APPL)-PERF-3SG.D
 ‘I cut trees for him.’
- b. *anti
 ground.VIII.SG
 i-ka-pul-ŋa-ak-m-pn.
 VIII.SG.O-1SG.A-rub-BEN(APPL)-PERF-3SG.D-3DL.D
 ‘I rubbed ground on him for them.’
- c. anti i-ka-pul-c-akn mpu-nampan.
 ground VIII.SG.O-1SG.A-rub-PERF-3SG.D 3PL-toward
 ‘I rubbed ground on him for them.’
 (Foley 1991a: 372, 1991b: 309)

In Yimas, the canonical way of introducing Beneficiaries into a clause is to use the applicative affix *-Na-*, as in (10a). This increases the valency of the verb by one; in (10a) the result is a (ditransitive) construction with three arguments indexed in the verb. The use of the applicative affix is, however, blocked, if the number of the core arguments is three to begin with, as is the case with verbs ‘rub on’, ‘give’, ‘show’ and ‘tell’ (see Foley 1991b: 206). In this case, other mechanisms must be used, which in the case of Yimas means that the nominal Beneficiary appears as an adpositional phrase, as in (10c). Yimas differs from Abkhaz and *Tukang Besi* in that constructions like (10c) are monoclausal in nature. However, in (10c) the Beneficiary is a part of the clause periphery, since it is not indexed in the verb and it bears nonzero marking.

2.3. *A formal typology of tritransitives*

In this subsection, a formal typology of genuine tritransitives is proposed. This comprises a detailed discussion of the types of Figure 1 from a cross-linguistic perspective. The alignment types are discussed in the order they appear in Figure 2.

2.3.1. *Neutral alignment* ($R_{dtr} = R_{tritr} = Ben/Caus$). The first alignment type of genuine tritransitives is represented by languages in which the ditransitive Recipient, the tritransitive Recipient and the Beneficiary/Causee all bear the same marking. The type is thus labeled as *neutral* (see

also Haspelmath [2001, 2004] for a similar use of the label for ditransitives). Tritransitives following this alignment can be divided into two subtypes depending on whether changes in the verb morphology are needed for accommodating the Beneficiary/Causee. In the first type, there are no changes in the verb, so this subtype is called *nonverbal*. It is exemplified in (11) and (12), both of which exemplify the Beneficiary role type:

Lokono Dian:

- (11) a. da-siki-fa no ly-myn.
 I-give-FUT it he-BEN
 ‘I will give it to him.’
 b. da-soka to ada ly-myn.
 I-chop the tree he-BEN
 ‘I chopped the tree for him.’
 c. da-siki-fa no ly-myn by-myn.
 I-give-FUT it he-BEN you-BEN
 ‘I will give it to him for you.’
 (Pet 1987: 56)

Sulka:

- (12) a. ngora ka-en ngang e-pruo.
 1SG.FUT NPT-give to PN-Pruo
 ‘I will give (it) to Pruo.’
 b. ko-kol a-hor ngang e-pruo.
 1SG.PAST-get SG-leaf for PN-Pruo
 ‘I got a leaf for Pruo.’
 c. e-vate t-ka-en ngang e-pruo ngang
 PN-Vate 3SG.PAST-NPT-give to PN-Pruo for
 e-anis.
 PN-Anis
 ‘Vate gave (it) to Pruo for Anis.’
 (Tharp 1996: 131, 141)

Examples (11a)–(11b) and (12a)–(12b) illustrate the marking of Recipient and Beneficiary in isolation, while in (11c) and (12c) both arguments occur in a single clause yielding a tritransitive construction. In Lokono Dian, the relevant arguments are both marked with the suffix *-myn*, while in Sulka they are marked with the preposition *ngang*. The overt expression of Recipient and Beneficiary as parts of a single clause does not affect their marking in any way. (11c) and (12c) thus constitute combinations of ditransitives and clauses with a Beneficiary.

The other subtype of the neutral alignment type is represented by languages in which the overt expression of the Beneficiary/Causee is

accompanied by changes in the verb morphology. This type is consequently called *verbal*. Examples are given in (13) and (14); those in (13) from Kinyarwanda illustrate the Beneficiary role type, while (14) from Tarascan is an example of the Causee role type.

Kinyarwanda

- (13) a. umugabo y-a-haa-ye umugóre igitabo.
man he-PAST-give-ASP woman book
'The man gave a book to the woman.'
- b. umugóre a-rá-kor-er-a umugabo.
woman she-PRES-work-BEN-ASP man
'The woman is working for the man.'
- c. umukoóbwa a-rá-hé-er-a umugóre ábáana
girl she-PRES-give-BEN-ASP woman children
ibíryo.
food
'The girl is giving food to the children for the woman.'
(Kimenyi 1980: 31f)

Tarascan:

- (14) a. eratzini iwi-ra-s-Ø-ti chkári-ni
PN chop-CAUS-PERF-PRES-3.IND wood-OBJ
adrianu-ni.
PN-OBJ
'Eratzin made Adrian chop wood.'
- b. valeria arhi-s-Ø-ti ma wantantskwa
PN tell-PERF-PRES-3.IND a story
yuyani-ni.
PN-OBJ
'Valeria told Yuyani a story.'
- c. ricardu arhi-ra-s-Ø-ti ma wantantskwa
PN tell-CAUS-PERF-PRES-3.IND a story
valeria-ni yuyani-ni.
PN-OBJ PN-OBJ
'Ricardo made Valeria tell Yuyani a story.'
(Maldonado and Nava 2002: 168f)

Kinyarwanda exemplifies a language in which the Beneficiary is expressed with the help of the applicative affix *-er-*. This affix introduces the Beneficiary as a direct object. The mechanism is the same irrespective of clause type. Tarascan illustrates the Causee role type counterpart of (13); both the Recipient (Addressee) and the Causee are marked with the affix *-ni*, as shown in (14a)–(14b). Also definite Patients and Themes bear this affix, so in favorable conditions tritransitives have three identically marked

arguments. Kinyarwanda and Tarascan differ from each other in that in Kinyarwanda the three objects bear no overt case marking, while in Tarascan all nonsubject arguments bear nonzero coding.

As noted in the introduction, the typology proposed in this article is primarily based on case marking. The verb morphology is less relevant in this regard, which has the consequence that cases like (13) and (14) are also included in the neutral alignment type. Arguments introduced without changes in the verb morphology can, however, be distinguished from arguments whose expression necessitates modifications of the verb morphology. The former constitute integral parts of verbs, while the latter are best regarded as peripheral arguments due to being unable to surface as core-like arguments (i.e., as subjects or direct objects) without modifications of the verb morphology. As a result, it may appear unjust to discuss cases like (13) and (14) as instances of the neutral alignment. However, due to the strong focus on case marking, I have opted for classifying languages like Kinyarwanda and Tarascan as instantiating the neutral alignment. Moreover, these languages are similar to Lokono Dian and Sulka, because their tritransitive constructions constitute combinations of ditransitive clauses and clauses with a Beneficiary/Causee. The relevant arguments are introduced in the same way irrespective of clause type in both subtypes of the neutral alignment.

2.3.2. *Stable-recipient alignment* ($R_{ditr} = R_{tritr} \neq Ben/Caus$). In the neutral alignment type discussed above, the relevant arguments receive the same formal treatment. In all other alignment types, the relevant arguments are formally distinct. In the stable-recipient alignment discussed in this section, the formal treatment given to the Recipient is consistent irrespective of clause type, while the Beneficiary/Causee is coded differently from the Recipient. In contrast to the neutral alignment, subdivision does not occur on the basis of whether the verb morphology is manipulated or not (this also applies to the variable-recipient alignment and the tripartite alignment). This follows from the focus on case marking; the arguments are case marked differently, and there is no reason for a subdivision on the basis of other features. In the neutral alignment, in turn, the case marking does not distinguish between arguments and the differences in verbal morphology were the only difference between the two subtypes. On the other hand, a subdivision of the stable-recipient alignment follows based on whether the formal differences of Recipient and Beneficiary/Causee are inherent, or whether they are attested only in tritransitives. The inherent subtype of the stable-recipient alignment is similar to the neutral alignment in that tritransitives of this kind can be seen as combinations of ditransitive clauses and clauses with a Beneficiary/Causee.

These two types differ from all other tritransitive types, in which the formal differences in the coding of Recipient vs. Beneficiary/Causee are confined to tritransitives. The noninherent differences can further be divided into two subtypes based on whether the Beneficiary/Causee bears marking not attested outside tritransitives or whether the marking is merely “frozen” in tritransitives.

The first subtype of the stable-recipient alignment is illustrated by languages in which the differences in the coding of Recipient and Beneficiary/Causee are inherent, meaning that the arguments are marked differently regardless of the clause type they appear in. The subtype is consequently labeled as *inherent*. The subtype is exemplified in (15) and (16):

Mupun:

- (15) a. n-sin takarda n-miskoom.
1SG-give book PREP-chief
‘I gave a book to the chief.’
b. mo seet kə brəŋ mbə miskoom.
3PL sell PREP horse PREP chief
‘They sold the horse because of the chief.’
c. n-sin siwol n-wur mbə laa fin.
1SG-give money PREP-3M PREP son 3M
‘I gave him money because of (for) his son.’
(Frajzyngier 1993: 203, 227)

Godoberi:

- (16) a. im-u-di jaš-u-č’u hamaXi
father-OBL-ERG girl-OBL-CONT donkey
č’inn-ali.
beat-CAUS.PAST
‘Father made the girl beat the donkey.’
b. wac-u-di di-li arsi iki.
brother-OBL-ERG 1SG.OBL-DAT money give.PAST
‘The brother gave me the money.’
c. im-u-di wac-u-č’u di-li
father-OBL-ERG brother-OBL-CONT 1SG.OBL-DAT
arsi ik-ali.
money give-CAUS.PAST
‘Father made the brother give the money to me.’
(Kibrik 1996: 121)

The examples from Mupun illustrate the Beneficiary role type. The relevant roles are consistently coded with prepositions, but it seems that the preposition used for the Recipient is bound to the noun it attaches to. The

examples from Godoberi constitute an instance of the Causee role type. The Recipient occurs in the dative, while the Causee appears in the concessive case (dative is a structural case, while concessive constitutes a semantic case in Godoberi). Examples (15) and (16) can also be thought of as combinations of clauses with a Recipient and a Beneficiary without any formal changes in the coding depending on the clause type they appear in. The tritransitives of English (both the Beneficiary role type and the Causee role type) also follow the stable-recipient alignment, if they are derived from ditransitives with an adpositionally coded Recipient.

An interesting example of the inherent subtype of the stable-recipient alignment is found in (17):

Qiang:

- (17) a. tʃhɛtsə-zə-ŋuəni qɑ the:-tɑ kəja.
 car-affair-TOP 1SG 3SG-LOC tell:1SG
 ‘I told him about the car.’
 b. mi-wu qɑ zə-dzi.
 person-AGT 1SG DIR-hit
 ‘Somebody hit me.’
 c. qɑ xumtʃi-wu ləyz-te-pen khumtsi-ta
 1SG Xumtʃi-AGT book-DEF-CL Khumtsi-LOC
 tə-xuɑ-zɑ:
 DIR-buy-CAUS-1SG:FUT
 ‘I’m going to make Xumtʃi buy the book for Khumtsi.’
 (LaPolla 2003: 577ff)

In (15) and (16), the Beneficiary/Causee receives an adjunct-like formal treatment, which distinguishes it from Agent, Theme, and Recipient. In Qiang, in contrast, the Causee bears the agentive suffix *-wu* also used for marking the Agent of basic transitive clauses in some cases, as in (17b), where the affix is used for resolving potential ambiguity. Despite the somewhat unorthodox formal nature of the Causee, the differences in the marking of Causee and Recipient are inherent in Qiang, hence Qiang is discussed here.

The other, perhaps linguistically more interesting, subtype of the stable-recipient alignment is represented by languages in which the formal differences in the coding of Recipient and Beneficiary/Causee are confined to tritransitives (or in which they are at any rate obligatory in tritransitives). It is important to note that these differences are restricted to form, which means that the roles referred to remain semantically constant regardless of their formal coding (this also applies to the variable-recipient alignment and the tripartite alignment discussed in the subsequent sections). Cases in which similar variation is semantically

conditioned are not considered here (see, e.g., Nikolaeva and Tolskaya 2001: 588 for Udihe, where the changes in the Causee coding are related to directness of causation). Two examples of the variable subtype of the stable-recipient alignment are given in (18) and (19):

Vietnamese:

- (18) a. *tôi đi cho cho mẹ.*
 I go market 'give' mother
 'I go to the market for mother.'
- b. *tôi mua cho giáp guyễn sách này.*
 I buy 'give' PN CLASS book DEM
 'I buy this book for Giap.'
- c. *bà đưa hình tôi cho bạn giúp tôi.*
 you.HON bring photo I 'give' friend 'help' I
 'Would you (honorific) please give this photo to my friend.'
 (Bisang 1992: 314f)

Bote:

- (19) a. *ama-ĩ bəcca-kemacho kʰw-a-ik.*
 mother-ERG child-DAT fish eat-CAUS-3SG.PAST
 'The mother fed the child fish.'
- b. *aite-ĩ gita-ke ciTʰi lekʰ-ik.*
 Aite-ERG Gita-DAT letter write-3SG.PAST
 'Aite wrote a letter to Gita.'
- c. *aite-ĩ sita-bʰi gita-ke ciTʰi*
 Aite-ERG Sita-ABL Gita-DAT letter
lekʰ-a-ik.
 write-CAUS-3SG.PAST
 'Aite made Sita write a letter to Gita.'
 (examples courtesy of Balaram Prasain)

The tritransitives of Vietnamese and Bote are basically identical to the tritransitives exemplified in (15)–(17), since all these constructions consist of a Recipient and a Beneficiary/Causee bearing different coding. Differences arise only if we consider the coding of the Beneficiary/Causee outside tritransitives. In (15)–(17), the differences are inherent, while in (18) and (19) the formal differences occur only in tritransitives.¹¹ In isolation, Recipient and Beneficiary/Causee bear identical coding. We may therefore say that, in Vietnamese and Bote, tritransitives represent a clause type of their own characterized by the unorthodox marking of the Beneficiary/Causee. Tritransitives are not mere combinations of ditransitive clauses and clauses containing a Beneficiary/Causee. The examples from

Vietnamese illustrate an instance of the Beneficiary role type, while (19) exemplifies an instance of the Causee role type. Example (19) exemplifies the paradigm case of causativization according to Case Hierarchy, in that the Causee always occupies the first slot available in the hierarchy of subject-object-indirect object-other obliques (see e.g., Comrie 1975).

In (18) and (19), the tritransitive Beneficiary/Causee occurs in a specific form not usually attested outside tritransitives. The last formal manifestation of the stable-recipient alignment is represented by languages in which the formal treatment of the tritransitive Beneficiary/Causee in more general terms is different from the formal treatment of the argument elsewhere. Two cases are given in (20) and (21):

Evenki (Nedjalkov 1997: 231f)

- (20) a. alagumni bejetken-me
 teacher boy-ACC.DEF
 unta-l-va-n
 fur.boot-PL-ACC.DEF-3SG.POSS
 olgi-vkon-e-n.
 dry-CAUS-NONFUT-3SG
 'The teacher made the boy dry his fur boots.'
- b. etyrken min-du uluki-l-ve
 old.man I-DAT squirrel-PL-ACC.DEF
 ga-pkan-e-n.
 take-CAUS-NONFUT-3SG
 'The old man let/made me take the squirrels.'
- c. nungan min-du oron-mo
 3SG.M 1SG-DAT reindeer-ACC.DEF
 bu:-re-n.
 give-NONFUT-3SG
 'He gave me a/the reindeer.'
- d. nungan (beje-ve) min-du oron-mo
 3SG.M (man-ACC.DEF) 1SG-DAT reindeer-ACC.DEF
 bu:-vken-e-n.
 give-CAUS-NONFUT-3SG
 'He made the man give me a/the reindeer.'

Nivkh:

- (21) a. ətək ɔla(-ax) vigud'.
 father child(-CAUSEE) go.CAUS.FIN
 'Father made/let the child go.'
- b. ətək ɔla(-ax) lep n'igud'.
 father child(-CAUSEE) bread eat.CAUS.FIN
 'The father made let the child eat the bread.'

- c. ōla lep p^hnanak ximd'.
 child bread his.older.sister give.FIN
 'The child gave his older sister the bread.'
- d. ətək ōla-ax lep p^hnanak
 father child-CAUSEE bread his.older.sister
 xim-gu-d'.
 give-CAUS-FIN
 'The father made/let the child give the bread to his older sister.'
 (Nedjalkov et al. 1995: 78)

The Causee can take two forms in Evenki and Nivkh without any necessary changes in the semantics of the Causee-role. In Evenki, the variation is between dative and definite accusative cases. In Nivkh, the Causee can either be unmarked or it is marked with the invariable Causee suffix *-ax*. In both Evenki and Nivkh, the Recipient is marked in one of the ways used for Causee marking; in Evenki the Recipient bears dative marking, while in Nivkh the Recipient is morphologically a zero marked argument. This potential formal identity has the consequence that the variation in the Causee coding is excluded in tritransitives: the Causee obligatorily bears the definite accusative affix in (20d), while the use of the Causee affix *-ax* is mandatory in (21d). In other words, the marking of the Causee is frozen, whence the label *freezing* used for the subtype. Also in the freezing subtype, the Recipient and the Beneficiary/Causee bear distinct coding in tritransitives, but in contrast to (18) and (19), the form the Causee takes is not restricted to tritransitives. The differences are thus inherent, but mandatory only in tritransitives. A similar case is attested also in Koromfe (see Rennison 1997: 69f), where the Recipient allows dative shift in both ditransitive and tritransitive clauses, while the marking of the Beneficiary is invariable.

2.3.3. *Variable-recipient alignment* ($R_{ditr} = Ben/Caus \neq R_{tritr}$). In the variable-recipient alignment, the marking of Recipient varies depending on the clause type (ditransitive vs. tritransitive), while the Beneficiary/Causee retains the marking it has in ditransitives and so is marked identically to the ditransitive Recipient (In Joppen-Hellwig's typology (see Joppen-Hellwig 1999: 8–10) this is the type in which the Causee is linked with the dative, while the Recipient is coded in a semantic case). The type constitutes the mirror image of the stable-recipient alignment. Three subtypes of the alignment type are distinguished below, based on whether the affected Recipient is demoted or promoted¹² and on whether the changes affect the case marking or the argument coding in more general terms.

The least controversial instances of the variable-recipient alignment are those in which the tritransitive Recipient is syntactically demoted in the same way as the Beneficiary/Causee in (18) and (19), for example. This subtype of the variable-recipient alignment is here labeled as *demoting*, and is exemplified in (22) and (23):

Svan:

- (22) a. dede-d katak'ärne dena-s k'or.
 mother-ERG open.CAUS.AOR girl-DAT door.NOM
 'Mother made the girl open the door.'
 b. dena-d kalaxwem mare-s diar.
 girl-ERG give.AOR man-DAT bread
 'The girl gave bread to the man.'
 c. eze-m kalaxawodnune dena-s diar
 he-ERG give.CAUS.AOR girl-DAT bread.NOM
 mare-š-t'.
 man-GEN-for
 'He made the girl give bread to the man.'
 (Sumbatova 1993: 256f)

Tukang Besi:

- (23) a. ku-hu'u-ke na iai-su te
 1SG-give-3OBJ NOM younger.sibling-1SG.POSS CORE
 sede.
 taro
 'I gave my sister some taro.'
 b. ku-hu'u-ako-‘e na ina-su te
 1SG-give-APPL-3OBJ NOM mother-1SG.POSS CORE
 sede di iai-su.
 taro OBL younger.sibling-1SG.POSS
 'I gave my sister some taro for my mother.'
 (Donohue 1999: 259)

In both Svan and *Tukang Besi*, the tritransitive Recipient is treated differently from the ditransitive Recipient. Moreover, the tritransitive Recipient bears adjunct-like marking in (22c) and (23b) instead of the dative case used for its coding in ditransitives. In Svan, the Causee “inherits” the marking of the (ditransitive) Recipient in tritransitives, while in *Tukang Besi* the same applies to the Beneficiary.¹³ The Recipient and the Beneficiary/Causee bear identical coding outside tritransitives (in Svan this is confined to ditransitive clauses). This has the consequence that the marking of one of the arguments needs to be modified in tritransitives. In contrast to the stable-recipient alignment, the marking of the Recipient is affected in (22) and (23).

A somewhat different manifestation of the variable-recipient alignment is attested in Kabardian. In Kabardian, the marking of the Recipient is also manipulated in tritransitives, but in contrast to (22) and (23), the Recipient is promoted in status. The subtype is consequently labelled as *promoting*. Consider:

Kabardian:

- (24) a. sa a-bə wa
 I 3-OBL you
 wə-q'ə-y-a-s-ga-a-ɬaag°-n-s.
 you-HOR-3-DAT-I-CAUS-CON-see-FUT-AFF
 'I might show you to him/her.'
- b. sa a-bə wa a-ha-r
 I 3-OBL you 3-PL-ABS
 ø-q'ə-w-a-y-a-s-ga-a-t-ag-ha-s
 3-HOR-you-DAT-3-DAT-I-CAUS-CON-give.PAST-PL-AFF
 'I made him/her give them to you.'
- (Colarusso 1989: 333, 338)

(24a) exemplifies the ditransitive construction of Kabardian. The Theme is zero marked, while the Recipient occurs in the oblique case. Example (24b) illustrates a causativized ditransitive clause. In (24b), the Causee takes the oblique slot away from the Recipient, which has consequences for the Recipient coding too. In contrast to Svan and *Tukang Besi*, the Recipient is, however, promoted rather than demoted in status, because in (24b) the Recipient is marked in the same way as the Theme (and Patient). Despite this, the Recipient is cross-referenced by a dative affix in (24b), the same affix that also cross-references the Causee. Also in Kabardian, the formal changes yield a tritransitive construction in which Recipient and Beneficiary/Causee are marked distinctively. The fate of the Recipient is, however, different from that in Svan and *Tukang Besi*.

Similarly to the stable-recipient alignment, the variable-recipient alignment also displays a freezing subtype, in which the variation in the coding of the ditransitive Recipient is excluded for the tritransitive Recipient. This is illustrated in (25) and (26):

Lango:

- (25) a. lócə òmɬyò dákô búk.
 man 3SG.give.PERF woman book
 'The man gave the woman the book.'
- b. lócə òmɬyò búk bòt dákô.
 man 3SG.give.PERF book to woman
 'The man gave the book to the woman.'

- c. án àdɔkkiɪ dákô.
 1SG 1SG.go back.BEN.PERF woman
 'I went back for the sake of the woman.'
- d. lóçə òmɪɪyɪ àtɪn búk bòt dákô.
 man 3SG.give.BEN.PERF child book to woman
 'The man gave the book to the woman for the child.'
 (Noonan 1992: 120f)

Fulfulde:

- (26) a. mi winnd-ii leeter faa-de e aamadu.
 1SG write-ASP letter go-INF PREP PN
 'I have written a letter to Amadu.'
- b. musa wind-an-i fatima patakewool.
 PN write-GOAL-ASP PN letter
 'Musa wrote Fatima a letter.'
- c. mi winnd-an-ii demmba leeter faa-de e
 1SG write-GOAL-ASP PN letter go-INF PREP
 takko.
 PN
 'I wrote a letter for Demmba to Takko.'
 (Heusing 1997: 64)

Lango and Fulfulde both have two ways of coding the ditransitive Recipient. Lango exhibits a rather typical "dative shift" attested also in English (i.e. the ditransitive Recipient can be coded as a direct object or it can be preceded by a preposition). In Fulfulde, the Recipient can be either a direct object-like argument (introduced via applicativization), or it can appear as a part of a serial verb construction. The Beneficiary is invariably introduced via applicativization in both Lango and Fulfulde. The Recipient is thus potentially marked identically to the Beneficiary, because both arguments may be zero marked. This has the consequence that the tritransitive Recipient mandatorily surfaces as an adpositional phrase (Lango) or as a part of a serial verb construction (Fulfulde). The freezing of the Recipient marking in tritransitives is predicted, since the only way of accommodating Beneficiaries is via applicativization, while the ditransitive Recipient allows variation in its coding. It is more economical to freeze the Recipient coding than to develop a new technique for coding the Beneficiary in tritransitives. Both of these mechanisms suffice for disambiguation.

Examples (25) and (26) constitute the paradigm case of the freezing subtype in that the variation in the Recipient coding is altogether excluded in tritransitives. A somewhat less evident manifestation of the freezing subtype is found in Manipuri. Consider:

Manipuri:

- (27) a. əy-nə ma-bu sel pi.
I-NOM he-ACC money give
'I gave him money.'
- b. əy-nə maŋon-də sən-du-bu pi.
I-NOM he-LOC cow-that-ACC give
'I gave that cow to him.'
- c. məhak-nə əyŋon-də / əy-bu kəp-həl-li.
he-NOM I-LOC / I-ACC cry-CAUS-NONFUT
'He made me cry.'
- d. tombə-nə əy-bu maŋon-də sel
PN-NOM I-ACC he-LOC money
pi-həl-li.
give-CAUS-NONFUT
'Tomba made me give money to him.'
- e. tombə-nə əyŋon-də ma-bu sel
PN-NOM I-LOC he-ACC money
pi-həl-li.
give-CAUS-NONFUT
'Tomba made me give him money.'
- (Bhat and Ningomba 1997: 109, 113)

As shown above, Manipuri allows variation in the coding of both Recipient and Causee; both arguments may occur in the accusative or in the locative. These cases are in principle in free variation in isolation, even though the marking is conditioned by certain principles. For example, the locative marking of the Recipient is more frequent in clauses with a definite Theme in the accusative, as in (27b). This follows from the avoidance of (formal) ambiguity or syntactic doubling. Similar principles determine the marking of Recipient and Beneficiary/Causee in tritransitives. Formal ambiguity may arise in tritransitives, since the Recipient and the Beneficiary are potentially coded alike. As a result, free variation in the Recipient and Causee coding is excluded in tritransitives. In contrast to Lango and Fulfulde, both the Recipient and the Causee may appear in both of the forms they have outside tritransitives. However, tritransitives only allow one object in the accusative, which means that tritransitives always have one argument in the accusative and one in the locative. The order of the arguments in tritransitives is always Causee-Recipient, regardless of argument marking. We may say that the Causee determines the marking of the Recipient, since the form of the Causee is decided first. The marking of the Causee is thus variable, while the marking of the Recipient is more restricted. The Recipient only has one option

with regard to its marking: it takes the case marker left unoccupied by the Causee.

2.3.4. *Tripartite alignment* ($R_{ditr} \neq R_{tritr} \neq Ben/Caus$). The tripartite alignment is characterized by a three-way distinction of ditransitive Recipient, tritransitive Recipient and Beneficiary/Causee. As was noted above, I have not (yet) come across a language that consistently marks the three arguments differently at the level of case marking. The closest equivalents to a genuine tripartite alignment are represented by the freezing subtype of the tripartite alignment, illustrated in (28) and (29):

Fongbe:

- (28) a. kɔkú ná àsíbá àsɔn.
 PN give PN crab
 ‘Koku gave Asiba crab.’ (word order is free)
 b. kɔkú sɔ àsɔn ɔ ná àsíbá.
 PN take crab DEF give PN
 ‘Koku gave the crab to Asiba.’
 c. kɔkú sɔ àsɔn ɔ ná àsíbá nú sɪká.
 PN take crab DEF give PN for PN
 ‘Koku gave the crab to Asiba for Sika.’
 d. *kɔkú ná àsíbá àsɔn nú sɪká.
 PN give PN crab for PN
 ‘Koku gave Asiba crab for Sika.’
 (Lefebvre and Brousseau 2002: 445–448)

Sundanese:

- (29) a. titin rek mere buku ka desi.
 PN will ACT.give book to PN
 ‘Titin will give a book to Desi.’
 b. guru mere murid buku.
 teacher ACT.give pupil book
 ‘The teacher gave the student the book.’
 c. rusdi nga-jual mobil ka dewi pikeun hasan.
 PN ACT-sell car to PN for PN
 ‘Rusdi sold the car to Dewi for Hasan.’
 d. rusdi mang-jual-keun hasan mobil ka dewi.
 PN DER-sell-TRANS PN car to PN
 ‘Rusdi sold the car to Dewi for (the benefit of) Hasan.’
 (Müller-Gotama 2001: 25, 27, 31)

The relevant arguments display distinct morpho-syntactic traits in (28) and (29), even though they do not bear distinct cases. In Fongbe, the

ditransitive Recipient is introduced either as a part of a serial verb construction, as in (28b), or it is a zero marked argument, as in (28a) (only a handful of verbs may have zero marked Recipients, see Lefebvre and Brousseau 2002: 445). The Beneficiary bears adpositional marking irrespective of clause type. In tritransitives, both the Recipient and the Beneficiary are mandatorily coded with adpositions.¹⁴ This is perhaps a bit uncommon, because due to the mandatory oblique marking of the Beneficiary, the relevant arguments would be formally distinct irrespective of Recipient coding. However, clauses like (28d) are uninterpretable, cf. “this follows from the analysis that the goal is interpreted as a Recipient: the prepositional phrase in (28d) prevents *Asiba* from being interpreted as a Recipient, the only thematic role that it is allowed” (Lefebvre and Brousseau 2002: 447). The formal traits of the relevant arguments in Fongbe are as follows: the ditransitive Recipient can either bear zero marking or it can be a part of a serial verb construction, while only the latter is possible for the tritransitive Recipient. The Beneficiary, in turn, invariably bears noncore marking formally distinct from the Recipient. In Sundanese, the situation is very similar, but with the difference that the variation in the Beneficiary coding is possible in both ditransitive and tritransitive clauses. The marking of the Recipient is, however, more restricted in tritransitives, which distinguishes the tritransitive Recipient from the ditransitive Recipient, which can take two forms. Both possible manifestations of the Recipient are formally distinct from the Beneficiary.

As was noted in Section 2.3.1, arguments accommodated via applicativization or causativization are thought of as formally identical to arguments accommodated without any changes in the verb morphology. As a result, examples (13) and (14) were thought of as instantiating the neutral alignment. It was also noted in this connection that it would be possible to make a distinction between examples (11)–(12) and (13)–(14), because (direct object-like) arguments introduced via applicativization are not parts of the original valency of verbs. If we consider this, the examples in (23) can also be included in the tripartite alignment:

Tukang Besi:

- (23') a. ku-hu'u-ke na iai-su
 1SG-give-3OBJ NOM younger.sibling-1SG.POSS
 te sede.
 CORE taro
 'I gave my sister some taro.'
- b. ku-hu'u-ako-'e na ina-su te
 1SG-give-APPL-3OBJ NOM mother-1SG.POSS CORE

sede di iai-su.
 taro OBL younger.sibling-1SG.POSS
 'I gave my sister some taro for my mother.'
 (Donohue 1999: 259, repeated here for convenience)

Tukang Besi was earlier classified as an instance of the variable-recipient alignment with regard to case marking. However, applicativization vs. the lack of it enables a distinction between the ditransitive Recipient and the Beneficiary, if so desired. Applicativization is needed only for expressing the Beneficiary. In addition, the tritransitive Recipient is marked differently from both of the two other relevant arguments, which makes (23') a marginal instance of the tripartite alignment. With regard to case marking alone this analysis is not justified. The subtype in question is thus labelled as *verbal* in accordance with the label used for such languages as Kinyarwanda and Tarascan (see [13] and [14]).

2.4. *Alignment splits*

The languages illustrated so far code either of the relevant role types following one of the tritransitive alignments, but there are also languages that allow variation in this regard. This means that a single language uses (at least) two of the alignment types discussed above for coding either tritransitive subtype (the Beneficiary role type *or* the Causee role type; differences in the coding of the subtypes are discussed in Section 3). In principle, any language with some kind of dative shift can be regarded as displaying splits in the coding of tritransitives. For example, the Causee role type of English can follow either the stable-recipient alignment, or the variable-recipient alignment depending on which of the clauses *a person sent an entity to an individual* and *a person sent an individual an entity* the corresponding tritransitive is based on. However, the following discussion concerns only cases in which the variation is confined to tritransitives, with the underlying ditransitive constructions kept consistent. Examples of tritransitive alignment splits are given in (30)–(32):

Punjabi:

- (30) a. alii ne suniiti nūū kataab ditti.
 PN ERG PN DAT book give.PAST.SG.FEM
 'Ali gave a book to Suniti.'
- b. shaam ne ramesh nūū kataab
 PN ERG PN DAT book.SG.FEM

paRaàii.

read.CAUS.PAST.SG.FEM

‘Sham caused Ramesh to read the book.’

- c. bənde ne mastər nüü kàni mwyndyã nüü
man ERG teacher DAT story boys DAT
swn-vã-i.

tell-CAUS-PAST

‘The man made the teacher tell the story to the boys.’

- d. bənde ne mastər nal kàni mwyndyã nüü
man ERG teacher by story boys DAT
swn-vã-i.

tell-CAUS-PAST

‘The man made the teacher tell the story to the boys.’

(Bhatia 1993: 239; Comrie 1975: 12)

Kashmiri:

- (31) a. me dits mohn-as kita:b.
I-ERG gave.FEM.SG Mohan-DAT book.FEM.SG
‘I gave a book to Mohan.’
b. su d’a:vina:vi me mohn-as kita:b.
he gave.CAUS.FUT I.DAT Mohan-DAT book.FEM.SG
‘He will make me give a book to Mohan.’
c. bi d’a:vina:van su mohn-as
I give.CAUS.FUT he.NOM Mohan-DAT
kita:b.
book.FEM.SG
‘I will make him give a book to Mohan.’
d. bi d’a:vina:vi təmisathi mohn-as
I gave.CAUS.FUT he.DATby Mohan-DAT
kita:b.
book.FEM.SG
‘I will make him give a book to Mohan.’
(Wali and Koul 1997: 214f)

Thai:

- (32) a. dɛɛŋ sɔɔn lêeg hâj sùdaa hâj phýan.
PN teach math ‘give’ PN ‘give’ friend
‘Deng teaches Sudaa math for a friend.’
b. dɛɛŋ sɔɔn lêeg kɛ sùdaa hâj phýan.
PN teach math PREP PN ‘give’ friend
‘Deng teaches Sudaa math for a friend.’
(Bisang 1992: 367, cited from Pongsri 1970: 123)

As shown in (30a) and (30b), in Punjabi both the Recipient and the Causee occur in the dative in isolation. This formal identity can be retained also in tritransitives, as shown in (30c). Punjabi thus follows the neutral alignment in its tritransitive coding. However, in contrast to, for example, Lokono Dian and Kinyarwanda, the marking of the tritransitive Causee may be modified, as illustrated in (30d). This example is an instance of the stable-recipient alignment. In Kashmiri, the situation is very similar, with the difference that the Causee may take three forms; the dative, the nominative, and it may also be followed by a postposition. In the first case (dative marking), the alignment is neutral, while in the other cases the marking follows the stable-recipient alignment. Thai also allows neutral alignment, as shown in (32a). Differently from Punjabi and Kashmiri, the potential variation is between neutral alignment and the variable-recipient alignment in that the marking of the Recipient is optionally modified.

3. Language-internal variation in the alignment of the Causee role type and the Beneficiary role type

In this section, I will briefly examine the similarities and differences in the alignment types of the two semantically distinct role types of tritransitives. I will examine whether the role types are coded invariably by only one of the alignment types examined in Section 2.3., or whether the role types receive distinct formal treatment. Languages also diverge with regard to how acceptable the two constructions are.

3.1. *Beneficiary role type = Causee role type*

The first language type to be discussed here comprises languages which code the role types uniformly by one of the tritransitive alignment types. Hup and Finnish are examples of this. Consider:

Hup:

- (33) a. ?esterima paulina-an hɔp d'oʔ-nɔʔ-ũh-ũy
 Esterimar Paulina-OBJ fish take-give-APPL-IMP
 yubinu-an
 Jovino-OBJ
 'Esterimar gave the fish to Paulina for Jovino.'
- b. hosay denisi-an tih=dɔʔ-an
 Rosalino Denise-OBJ 3SG=child-OBJ

d'oʔ-be-yæh-æy teresa-an.
 take-show-order-IMPF Teresa-OBJ
 'Rosalino made Denise show the child to Teresa.'
 (examples courtesy of Patience Epps)

Finnish:

- (34) a. limnologi lähett-i kirje-en
 limnologist.NOM send-3SG.PAST letter-ACC
 foneetiko-lle perfomanssitaiteilija-n vuoksi.
 phonetician-ALL performance.artist-GEN for
 'The limnologist sent the letter to the phonetician for the
 performance artist.'
- b. limnologi lähety-tt-i kirje-en
 limnologist.NOM send-CAUS-3SG.PAST letter-ACC
 foneetiko-lle performanssitaiteilija-lla.
 phonetician-ALL performance.artist-ADESS
 'The limnologist made the performance artist send the letter to
 the phonetician.'

In Hup, the relevant arguments all bear the (stressed) suffix *-an*. The alignment type is thus neutral irrespective of the role type. In Finnish, the Recipient invariably bears allative marking, while the Causee and the Beneficiary are coded differently from the Recipient. The alignment type is thus stable-recipient. There are formal differences in the marking of Causee and Beneficiary; the former is a case-marked argument (in the adessive), while the latter surfaces as an adpositional phrase. However, these formal differences are not relevant, since the alignment type is retained irrespective of the coded role type.

3.2. *Beneficiary role type* ≠ *Causee role type*

In the second language type, the alignment type varies according to the role type. Examples are provided in (35) and (36):

Japanese:

- (35) a. Hanaya-wa gengogakushya-ni koukogakushya-ni
 florist-TOP linguist-DAT archaeologist-DAT
 hon-wo atae-sase-ta.
 book-OBJ give-CAUS-PAST
 'The florist made the linguist give the book to the
 archaeologist.'

- b. Hanaya-wa koukogakushy-no kawarini gengogakushya-ni
 florist-TOP archaeologist-in.place.of linguist-DAT
 hon-wo atae-ta.
 book-OBJ give-PAST
 'The florist gave the book to the linguist on behalf of the
 archaeologist.'
 (examples courtesy of Junichi Toyota)

Georgian:

- (36) a. kac-ma bič-s c'ign-i misca
 man-ERG boy-DAT book-NOM he.gave.it.to.him
 masc'avlebl-is-tvis.
 teacher-GEN-for
 'The man gave the book to the boy for the teacher.'
- b. kac-ma bič-s kal-is-tvis c'ign-i
 man-ERG boy-DAT woman-GEN-for book-NOM
 mi-ø-a-cem-in-a.
 PV-IO3.SG-PRV-give-CAUS-S3.SG.AOR
 'The man made the boy give the book to the woman.'
 (examples courtesy of Nino Amiridze)

Example (35a) illustrates the coding of the Causee role type in Japanese. Both the Causee and the Recipient bear dative marking, which means that the alignment type is neutral. The Beneficiary role type, on the other hand, follows the stable-recipient alignment, because the Beneficiary is coded differently from the Recipient. In Georgian, either the Beneficiary, as in (36a), or the Recipient, as in (36b) is coded adpositionally, while the Recipient or the Causee occurs in the dative. In (36a), the alignment type is stable-recipient, while (36b) exemplifies the variable-recipient alignment. Based on (35) and (36) we may conclude that Japanese and Georgian do not code tritransitives uniformly, but the role type is relevant to the tritransitive coding. In Japanese, the variation is between the neutral alignment and the stable-recipient alignment, while Georgian exhibits variation between the stable-recipient alignment and the variable-recipient alignment.

3.3. *Variation in the degree of acceptability of the role types*

In (33)–(36), the formation of tritransitives is allowed regardless of the coded role type. The examined languages only code the role types following different alignment types. In addition, there are languages in which the degree of grammaticality related to tritransitives varies depending on

the role type. This means that constructions coding one of the role types are either ungrammatical or are formed in unorthodox ways (cf. Section 2.2.3). One example of each of these is given in (37) and (38):

Tswana:

- (37) a. *kì-f-éts-í* *màlume* *dí-q^hòmu*
 1SG-give-APPL.PERF-FIN 1.uncle.1SG 8/10-cow
li-tswái.
 5-salt
 ‘I gave salt to the cows for my uncle.’
- b. **kí-f-is-its-í* *màlume* *dí-q^hòmu*
 1SG-give-CAUS-PERF-FIN 1.uncle.1SG 8/10-cow
li-tswái.
 5-salt
 ‘I made my uncle give salt to the cows.’
 (Creissels 2004: 9; Denis Creissels, personal communication)

Burushaski:

- (38) a. *ustáat-e* *thám-e* *gáne* *biTán-ar*
 musician-ERG king-GEN for shaman-DAT
kitáap
 book(ABS)
i-cchí-m-i.
 3MXYSG.REC-give(YSG.PAT)-PRET-3MXSG.AG
 ‘The musician gave the book to the shaman for the King.’
- b. *thám-e* *ustáat* *biTán-ar* *kitáap*
 king-ERG musician(ABS) shaman-DAT book(ABS)
i-chhí-as
 3MXYSG.REC-give(YSG.PAT)-INF
é-t-im-i.
 3MXYSG.PAT-make-PRET-3MXSG.AG
 ‘The King made the musician give the book to the shaman.’
 (examples courtesy of Bertil Tikkanen)

Tswana only allows the Beneficiary role type to be expressed. Causativization of ditransitive verbs is not possible, which renders (37b) ungrammatical (similar cases have also been reported for Iranian Azari and Persian, see Denghani 2000: 234f, 245). In Burushaski, both role types can be expressed, but the mechanisms used for their expression vary. The Beneficiary role type is coded by introducing a Beneficiary into a ditransitive clause in the canonical way as an adpositional phrase, which corresponds to the stable-recipient alignment. But, morphological causativization of

ditransitive verbs is not possible (this is at least the case with ‘give’); periphrastic means are needed for this purpose. Hence, in contrast to Tswana, the Causee role type can also be coded by a grammatical construction, but the formal means used for its coding make it a less typical tritransitive construction. A similar case is attested in *Tukang Besi*, as the examples in (9) and (23) show. It should be noted here that all the languages in which only one of the role types can be coded in the expected way disallow the (canonical) coding of the Causee role type. The reason for this may be found in the core-like nature of the Causee, and since many languages shy away from four core arguments, the Causee role type needs to be coded in a way which prevents four core arguments from surfacing. Beneficiaries, on the other hand, are more easily expressed as adjuncts, and their introduction does not necessarily increase the number of core-like arguments. In the same way, locative adjuncts can be introduced into ditransitive clauses without restrictions.

3.4. *The case of Korean (unclassified)*

In Sections 3.1–3.3 I have discussed languages in which the two role types either belong to the same alignment type or not. In this section, I will briefly examine one language that presents special problems, namely Korean.

Similarly to Burushaski, only the Beneficiary role type can be coded in the expected way in Korean, while the Causee role type only allows periphrastic formation. In addition to the differences in the coding of the role types, the coding of the Causee role type displays significant variation. Consider:

Korean:

- (39) a. *chikwauysa-ka enehakca-taysin/-lul-uyhay*
dentist-NOM linguist-in.place.of/-ACC-on.behalf.of
sensayng-nim-kkey chayk-ul cwu-ess-ta.
teacher-HON-HON.DAT book-ACC give-PAST-IND
‘The dentist gave the book to the teacher for the linguist.’
- b. *enehakca-ka chikwauysa-eykey sensayng-nim-kkey*
linguist-NOM dentist-DAT teacher-HON-DAT
chayk-ul cwu-key ha-ess-ta.
book-ACC give-PURP do-PAST-IND
‘The linguist made the dentist give the book to the teacher.’
- c. *enehakca-ka chikwauysa-ka chayk-ul*
linguist-NOM dentist-NOM book-ACC

- sensayng-nim-kkey cwu-key ha-ess-ta.
 teacher-HON-HON.DAT give-PURP do-PAST-IND
 ‘The linguist made the dentist give the book to the teacher.’
- d. enehakca-ka chikwauysa-eykey sensayng-nim-ul
 linguist-NOM dentist-DAT teacher-HON-ACC
 chayk-ul cwu-key ha-ess-ta.
 book-ACC give-PURP do-PST-IND
 ‘The linguist made the dentist give the book to the teacher.’
 (examples courtesy of Jae Jung Song)

Example (39a) illustrates the coding of the Beneficiary role type in Korean. The construction belongs to the (inherent subtype of) stable-recipient alignment, because the Beneficiary is coded differently from the Recipient. The examples in (39b)–(39d) represent different ways of coding the Causee role type. As can be seen, ditransitive verbs only allow periphrastic causativization. In addition, the case marking of the arguments of the Causee role type varies enormously. In (39b), the two arguments are both marked in the dative. The alignment is thus neutral. In (39c), the marking follows the stable-recipient alignment; the Causee occurs in the nominative, while the Recipient bears dative marking. Example (39d), in turn, can be regarded as belonging to the variable-recipient alignment. In (39d), the Recipient occurs in the accusative, while the Causee appears in the dative, and it is marked in the same way as the ditransitive Recipient (accusative coding is also possible for the ditransitive Recipient, but for the sake of this argument, (39d) is seen as an example of the variable-recipient alignment). Both the Recipient and the Causee may take a variety of forms in Korean, which results in massive variation in the coding of the Causee role type. Moreover, we should also note that the two role types do not necessarily represent different alignment types, which distinguishes Korean from Japanese, for example. A similar case is attested in Kashmiri, where the Causee role type belongs either to the neutral alignment or the stable-recipient alignment (see the examples in [31]), while only the stable-recipient alignment is available for the Beneficiary role type.

4. The motivation

4.1. Preliminaries

In this section, the rationale behind the attested tritransitive alignment types will be discussed. The stable-recipient alignment (the variable sub-

type and the freezing subtype), the variable-recipient alignment, and the tripartite alignment are central to the following discussion, since in all these cases the coding of the relevant arguments varies depending on the clause type. The question I try to provide an answer for is why the attested changes occur in tritransitives and not elsewhere. My claim is that the changes follow from animacy and the potential ambiguity it produces. All of the relevant arguments usually refer to animate participants, which potentially leads to ambiguity, especially in cases where the arguments bear identical coding. Most of the cases discussed in Section 2 may be explained by Ambiguity Avoidance (see Section 4.3 for an elaboration of Ambiguity Avoidance).

The contribution of Ambiguity Avoidance to the marking of tritransitive constructions has not been discussed in any detail in the linguistic literature. The only works dealing with a similar topic I am aware of are Comrie (1975) and Joppen-Hellwig (1999). Song (1996: Ch. 6) also discusses reasons for the more restricted causativization of transitive verbs as opposed to intransitive verbs, but Song does not examine similar constraints on the causativization of ditransitive verbs. Comrie's explanation is based on Case Hierarchy, which explains the fact that in many languages ditransitives are causativized differently from other verbs. Joppen-Hellwig also recognizes the central role of animacy (see, e.g., Joppen-Hellwig 1999: 2, 7–9), but does not provide any thorough or uniform discussion of the phenomenon. In the discussion that follows I will focus on the Case Hierarchy explanation and contrast it to the Ambiguity Avoidance explanation. Note that the Case Hierarchy is based solely on the marking of Causees, while Ambiguity Avoidance argued for below also considers Beneficiaries. This does not, however, present any serious problems for the following discussion. First, animacy is the feature focused on and this feature is common for Causees and Beneficiaries. Second, the following discussion could be based solely on the Causee role type, and the results would be very close to those presented below. However, since the article is concerned with both role types, a more holistic approach to the problem is favored here. Before proceeding to the discussion itself, it is necessary to illustrate the two competing explanations. These are illustrated in Sections 4.2 and 4.3, after which I proceed to the comparison in Section 4.4.

4.2. *The Case Hierarchy explanation*

In his 1975 article, Comrie proposes a Case Hierarchy for explaining the formal differences in the causativization of intransitive, transitive and

ditransitive verbs.¹⁵ The main principle of the Case Hierarchy is that the Causee always occupies the first free slot in the hierarchy of subject — direct object — indirect object — other obliques. This hierarchy determines the marking of the Causee, for example, in Turkish. Consider:

Turkish (Comrie 1975: 5ff)

- (40) a. ali öl-dü.
 PN.NOM die-PAST
 ‘Ali died.’
- b. ali hasan-ı öl-dür-dü.
 PN.NOM PN-ACC die-CAUS-PAST
 ‘Ali killed Hasan.’
- c. müdür mektub-u imzala-dı.
 director.NOM letter-ACC sign-PAST
 ‘The director signed the letter.’
- d. dişiçi mektub-u müdür-e (*-ü)
 dentist letter-ACC director-DAT (*-ACC)
 imzala-t-tı.
 sign-CAUS-PAST
 ‘The dentist made the director sign the letter.’
- e. müdür hasan-a mektub-u göster-di.
 director.NOM PN-DAT letter-ACC show-PAST
 ‘The director showed the letter to Hasan.’
- f. dişiçi hasan-a mektub-u müdür tarafından
 director.NOM PN-DAT letter-ACC director by
 göster-t-ti.
 show-CAUS-PAST
 ‘The dentist made the director show the letter to Hasan.’

In Turkish causativized intransitive clauses, the Causee occupies the direct object slot, as predicted by Case Hierarchy. In causativized transitives, the slot occupied by the Causee is the slot of the indirect object, which is also in accordance with the Case Hierarchy. The Causee surfaces as an oblique (postpositional) phrase in causativized ditransitives, since there are no other slots available. Moreover, the Causee does not skip a slot in Turkish, which means, for example, that in (40b) the Causee cannot occur in the dative, since this is not the first slot available.

The Turkish examples constitute the paradigm case of Case Hierarchy. However, as Comrie himself points out, the minority of languages are like Turkish with regard to their Causee coding (see also Song 1996: 166ff for a similar criticism). First, some languages do allow syntactic doubling of one (or more) of the positions in the Case Hierarchy. Second, some languages allow demotion of the Causee only to a certain level of the hi-

erarchy, which has the consequence that causativization of certain clauses is blocked, or the mechanisms used are different from the canonical ones (Comrie states that languages may use analytic means to express essentially the same information). Languages displaying causative blockage conform in many ways to the paradigm case, but with the crucial difference that the demotion of the Causee to an adjunct is not allowed.

Two things are of the utmost importance for the discussion in Section 4.4. First, each slot in the Case Hierarchy may be occupied only by one argument in the paradigm case, as in (40). There is thus a conflict if two noun phrases are competing for a single slot. In languages like Turkish, the conflict is resolved by modifying the marking of the Causee, as in (40f), where the Causee is a postpositional phrase. Second, Case Hierarchy is based on a presumed innate UG, which is thought to incorporate the Case Hierarchy. In contrast, the Ambiguity Avoidance explanation proposed below is purely semantic. The paradigm case of the Case Hierarchy will be focused on in Section 4.4, where the two ways of explaining the nature of tritransitive constructions are compared to each other. In addition, features of syntactic doubling and causative blockage will be regarded as violations of Case Hierarchy.

4.3. *Ambiguity Avoidance explanation*

The Case Hierarchy explanation discussed above deals very well with languages such as Turkish, as shown above. However, an alternative explanation to the same problem is also possible, and, more importantly, it better captures the rationale behind the attested tritransitive alignment types. The explanation proposed here is that the formal nature of tritransitives as well as “tritransitivization blockage” can be explained on the basis of Ambiguity Avoidance (note that also Comrie [1975: 14] states that some of his informants reject the causativization of ditransitives on the basis of unclarity [see also Joppen-Hellwig 1999: 2, 7–9]). Animacy is the key feature of this explanation. The roles coded by the relevant arguments are usually borne by animate entities. This has the consequence that nonlinguistic cues do not necessarily suffice for disambiguation. On the basis of this we can formulate the following hypothesis.

- *Ambiguity Avoidance hypothesis (for tritransitive constructions)*: If the roles of Recipient and Beneficiary/Causee are coded in the same way in tritransitives, ambiguity can arise due to the equal animacy of the coded roles. Additional grammatical information is then needed to assure the intended reading of clauses. If the roles of Recipient and

Beneficiary/Causee inherently bear different coding, grammatical information always disambiguates the semantic role assignment of the arguments in tritransitives irrespective of their equal animacy. No further formal differences are necessary in this case.

Ambiguity Avoidance predicts that deviant coding of the relevant arguments is confined to cases in which the formal differences are needed for disambiguation. The principle can be seen as one manifestation of the underlying economy principle of language use (see, e.g., Kibrik 1985: 271). In contrast to Case Hierarchy, Ambiguity Avoidance is primarily semantic-functional in nature. The relevance of Ambiguity Avoidance (at a more general level) becomes more evident if we take the nature of canonical ditransitives into consideration. In contrast to tritransitives, the semantic role assignment of Theme and Recipient is clear in ditransitives due to differences in animacy in most cases. This means that clauses like *the teacher gave the linguist a book* are unambiguous, since only the animate object can bear the role of Recipient. As a result, identical coding of the two objects (as in typical double object constructions) is permitted (see also [41] and [42] below). This, however, is not the case in ditransitives (e.g. *the teacher showed the baby to the child*) or tritransitives with two animate arguments, which means that grammatical information is needed to resolve the ambiguity. The most important formal features used for this are (case) marking and the order of arguments.

4.4. *Contrasting the two explanations*

In what follows, I will compare the two explanations noted above with each other. The goal is to show that Ambiguity Avoidance is capable of explaining a greater number of the discussed cases. This is not to say that Case Hierarchy should be abandoned altogether; it is also applicable to a number of cases.

In the comparison that follows, we have four possibilities (AA refers to Ambiguity Avoidance, CH to Case Hierarchy):

1. AA and CH are equally capable of explaining the problem;
2. AA explains the problem better than CH;
3. CH explains the problem better than AA;
4. Neither AA nor CH is capable of explaining the problem in any satisfactory manner.

All possibilities will be discussed below. The order of the presentation is the same as above and the subsections are numbered accordingly. In the presentation below, I refer to the relevant examples and types of tritransi-

tives by the number they bear in Sections 2 and 3. The examples are not repeated for the sake of saving space. Additional data is also discussed occasionally.

4.4.1. *Case 1 (AA = CH)*. There are three types of languages in which the treatment of tritransitive constructions is explained equally well by both relevant explanations. These are discussed in this subsection.

First, both explanations deal with languages that lack tritransitives in one way or another (see Section 2.2). The Case Hierarchy explanation is valid if we take account of the causative blockage that allows the demotion of the Causee to a certain point only. This excludes the causativization of tritransitives in some languages and thus explains why there are languages like Sesotho and Awa Pit, for example (see [4] and [6]). Ambiguity Avoidance is a valid explanation here as well, since it blocks the formation of tritransitives in a number of languages. This is explicitly stated for, for example, Epena Pedee (see Harms 1994: 90), in which both the Recipient and the Causee occur in the dative, and two identically coded animate objects are not permitted in the language. In all the languages in which tritransitivization is blocked, the relevant arguments bear identical coding in isolation. If this were not the case, Case Hierarchy should be regarded as a superior explanation, because this would falsify the prediction made in Section 4.3. However, this is not attested in any language for which I have data.

Second, the occurrence of the inherent subtype of the stable-recipient alignment is compatible with both explanations. There are slots open for all four arguments, and since linguistic cues assure the intended semantic role assignment of the animate arguments, ambiguity does not arise. Languages like Mupun and Godoberi (see Examples [15] and [16]) do, however, deviate from the paradigm case of Case Hierarchy in that the demotion is inherent and the Causee does not occupy the first available slot (Comrie (1975: 19ff) regards similar cases as “extended demotion”). In Godoberi, for example, the Causee appears in the concessive case also in causativized transitives, even though according to Case Hierarchy it should carry a dative affix. If we consider this, Ambiguity Avoidance can be claimed to better capture the nature of tritransitives in languages such as Mupun and Godoberi.

The third type of languages compatible with both explanations is represented by languages which correspond to the paradigm case of Case Hierarchy. This comprises languages in which the marking of the Beneficiary/Causee (stable-recipient alignment) or the marking of the Recipient (variable-recipient alignment) is modified in tritransitives (see also [40] from Turkish). As expected, Case Hierarchy easily deals with these lan-

guages, since the explanation is primarily based on them. Ambiguity Avoidance also makes a significant contribution here, since, as predicted above, formal changes occur when nonlinguistic cues do not suffice for disambiguation, which is the case if two animate arguments bear identical coding.

Even though both explanations are capable of dealing with languages following either the stable-recipient alignment or the variable-recipient alignment, we may claim that Ambiguity Avoidance explains the variable-recipient alignment better. Case Hierarchy predicts that the marking of the Causee should be modified in tritransitives, but in variable-recipient alignment it is the marking of the Recipient changes. Ambiguity Avoidance does not make any predictions about which of the identically coded arguments changes its marking as long as disambiguation is assured. Further indirect evidence for the superiority of Ambiguity Avoidance is provided by languages in which changes similar to those in tritransitives also occur in ditransitives. Two examples are given in (41) and (42):

Lango:

- (41) a. *lócə òmìyò dákô búk.*
 man 3Sg.give.PERF woman book
 ‘The man gave the woman the book.’
 b. *lócə òmlye bòtə.*
 man 3SG.give.PERF.3SG to.1SG
 ‘The man gave him (e.g. a slave) to me.’
 (Noonan 1992: 121)

Kikuyu:

- (42) a. *mũthuri ūriā mukūrū nīanengerire mūtumīa ihūa.*
 man ? old gave woman flower
 ‘The old man gave the woman the flower.’
 b. *mūtumīa nīanengerire mwarī wake gwī kahī.*
 woman gave daughter her to boy
 ‘The woman gave her daughter to the boy.’
 (Blansitt 1973: 11)

In Lango and Kikuyu, Theme and Recipient carry the same marking if differences in animacy suffice for disambiguation, as in (41a) and (42a) (in Lango the indirect object may also be marked with the preposition *bòt*). However, in cases where the disambiguation does not follow directly from differences in animacy, formal changes occur to assure the intended reading of clauses. In other words, the changes occur in order to avoid potential ambiguity. In Lango, the Recipient is an adjunct not capable of being coded in the verb in (41b) (Noonan 1992: 121), while in Kikuyu the Recipient mandatorily surfaces as an adpositional phrase in (42b).

Also in (41b) and (42b), the equal animacy of two objects triggers the illustrated changes. The conditioning factor is thus the same as in tritransitives (i.e. avoidance of animacy-driven ambiguity), and its manifestation is identical in Lango (see [25b]).

4.4.2. *Case 2 (AA > CH)*. I finished the previous subsection by discussing a couple of cases in which indirect evidence favors Ambiguity Avoidance. In this subsection, further examples of this are examined.

First, languages following the neutral alignment in their tritransitive coding are favored by Ambiguity Avoidance rather than Case Hierarchy. In languages such as Lokono Dian and Kinyarwanda (see Examples [11] and [13]), syntactic doubling of the (indirect) object relation is possible, but the order of the animate arguments is frozen if this occurs. These languages clearly violate Case Hierarchy in that the Beneficiary/Causee is not demoted to the first free slot. On the other hand, despite the presence of two identically coded animate arguments their semantic role assignment is disambiguated by their rigid order of appearance. Ambiguity Avoidance thus makes a contribution here. Since the demotion to a lower slot in the case hierarchy is not possible, the freezing of the word order is the most economical way of resolving potential ambiguity.

A case similar to that in, for example, Lokono Dian and Kinyarwanda is attested in Korean (I thank Jae Jung Song for providing me with this information). In Korean too, the order of Recipient and Causee is rigid in tritransitives. However, in contrast to languages such as Lokono Dian or Kinyarwanda, Recipient and Causee allow variation in their coding (they may both occur in the nominative, accusative, and dative; see [39]). Moreover, the cases are not mutually exclusive, which means that both arguments may bear the same case marker in a single clause. This may occur, since regardless of case marking, the first animate object argument is always interpreted as the Causee.¹⁶ What makes Korean even more interesting is that in clauses with a Recipient and a Beneficiary, the order of the arguments is less determined. This follows from the inherently different coding of Recipient and Beneficiary, which prevents ambiguity from arising. Moreover, the order of Theme and Recipient is also free, because differences in animacy disambiguate the semantic roles of these arguments irrespective of their coding (they may both occur in the accusative and the nominative). Put together, the order of the object-like arguments is rigid only if neither animacy nor linguistic cues disambiguate the semantic role assignment of arguments. This is exactly what Ambiguity Avoidance predicts.

Further cases best explained by Ambiguity Avoidance are provided by languages like Lango, Fulfulde, Sundanese, Fongbe and Manipuri (see

Examples [25]–[29]), in which at least one of the roles may be coded in multiple ways in isolation, but the variation is excluded in tritransitives. The most probable reason for the invariable Recipient coding in tritransitives is Ambiguity Avoidance. The marking is frozen to avoid identical coding of two animate arguments. The adpositional marking of the Recipient outside tritransitives disfavors a Case Hierarchy explanation for these cases. It is unjustified to conclude that the Recipient is coded by an unorthodox strategy or that its marking would be modified for taking the first free slot available in (25)–(29). The Recipient does bear adjunct-like marking, but the languages do not resort to atypical ways of coding, which is clearly the case in languages like Bote and Vietnam (see Examples [18] and [19]). We are entitled to say that the changes follow from Ambiguity Avoidance, because an unambiguous reading of clauses is not assured if both of the animate object arguments carry identical marking. In (25)–(29), the formal means employed for disambiguation are present outside tritransitives, but they are mandatorily used only in tritransitives.

The third type of tritransitives favored by Ambiguity Avoidance is represented by languages like Punjabi, Kashmiri, and Thai, which allow variation in the coding of tritransitives (see Examples [30]–[32]). These languages deviate from the paradigm case of Case Hierarchy in (optionally) permitting the syntactic doubling of the indirect object relation. Here we may claim that the optional changes in the Causee coding serve the function of disambiguation. It seems more plausible that these optional changes occur for resolving ambiguity rather than to avoid syntactic doubling. If the latter were the case, we would not expect these languages to allow identical coding of Recipients and Beneficiary/Causees at all.

The last type of language to be discussed here is represented by languages in which syntactic doubling of the indirect object relation is possible, but is confined to cases in which the indirect objects differ in animacy. Syntactic doubling is thus possible, but only in cases in which inherent properties (i.e., differences in animacy) disambiguate the semantic role assignment of the relevant arguments. Several illustrative examples are given in (43) and (44):

Alamblak:

- (43) a. na yima-r yemrë-m nëngay-t
 1SG person-3SG.M meat-3PL plate-3SG.F
 këmbri-hay-më-an-r.
 put.into-BEN-REC.PAST-1SG-3SG.M
 ‘I put meat into a plate for a man.’

- b. *na yifem-r yën-r
 1SG father-3SG.M child-3SG.M
 gëbrërna-hay-më-an-r hëhrampa-m.
 rub-BEN-REC.PAST-1SG.3SG.M medicine-PL
 ‘I rubbed a child (with) medicine for the benefit of his father.’
- c. *na yifem-r yën-r
 1SG father-3SG.M child-3SG.M
 hay/ha/kagëbrërna-hay-më-an-r hëhrampa-m.
 CAUS-REC.PAST-1SG.3SG.M medicine-PL
 ‘I caused father to rub the child (with) medicine.’
- d. *na yifem-r yën-r
 1SG father-3SG.M child-3SG.M
 gëbrërna-hay/nho-më-an-r hëhrampa-e.
 rub-BEN-REC.PAST-1SG.3SG.M medicine-INSTR
 ‘I rubbed a child with medicine for the benefit of his father.’
- e. na yën-r wura-t hëhrampa-m rmëntha-e
 1SG child-3SG.M leg-3SG.F medicine-PL cloth-INSTR
 gëbrërna-hay-më-an-r.
 rub-REC.PAST-1SG.3SG.M
 ‘I rubbed medicine (on) the leg (of) a child with a cloth.’
 (Bruce 1984: 232f)

Tukang Besi:

- (44) a. ku-simbi-ako te tuha-su te sede
 1SG-slash-APPL CORE family-1SG.POSS CORE taro
 (te kabali).
 (CORE machete)
 ‘I slashed at the taro (with a machete) for my family.’
- b. ku-hu’u-ke na iai-su te
 1SG-give-3OBJ NOM younger.sibling-1SG.POSS CORE
 sede.
 taro
 ‘I gave my sister some taro.’
- c. ku-hu’u-ako-‘e na ina-su te
 1SG-give-APPL-3OBJ NOM mother-1SG.POSS CORE
 sede di iai-su.
 taro OBL younger.sibling-1SG.POSS
 ‘I gave my sister some taro for my mother.’
 (Donohue 1999: 259, [44b]–[44c] are repetitions of 23’)

Example (43a) illustrates a typical instance of syntactic doubling. The clause has, in Bruce’s terms, two outer objects (the label comprises all objects other than direct objects). The clause is grammatical, because the

two objects differ in animacy, as a result of which the semantic role assignment of the clause is unambiguous. What makes Alambalak highly relevant to the discussion here is the ungrammaticality of (43b)–(43d). All the examples in (43b)–(43d) also have two outer objects. However, in contrast to (43a), the animacy of the outer objects matches in (43b)–(43d), which makes the clauses ungrammatical. According to Bruce (1984: 232f) the restrictions on the doubling of objects (or any other syntactic relation) are semantic. This can be seen in (43d), which cannot be made grammatical by reducing the number of outer objects, since two Beneficiaries (father and child) remain in the clause. In contrast (43e) is grammatical despite having two outer objects. A similar case is attested in Awa Pit, where the Causee cannot appear overtly in a clause denoting a tritransitive event, while inanimate arguments, like instrumentals can be expressed freely (see Curnow 1997: 164f). In *Tukang Besi*, even three identically marked objects are possible, as in (44a), as long as their semantic roles are retrievable from their intrinsic nature and the semantics of the predicate verb. But syntactic doubling is prohibited if this is not possible, which occurs if the two objects are equal in animacy. As a result, the Recipient is preceded by an oblique adposition in (44c). The effects of animacy are evident also in ditransitives, as can be seen in (45):

Tukang Besi

- (45) a. *no-‘ema-ako te ina-no te
 3R-answer-APPL CORE mother-3POSS CORE
 polisi.
 policeman
 ‘He answered the policeman for his mother.’
- b. no-‘ema te polisi ako te
 3R-answer CORE policeman BEN CORE
 ina-no.
 mother-3POSS
 ‘He answered the policeman for his mother.’
 (Donohue 1999: 227)

The use of the applicative affix is not allowed in (45a) due to the animacy of the two objects. Instead, the Beneficiary must be preceded by a benefactive affix which disambiguates the semantic roles of the objects. A further piece of evidence for the relevance of Ambiguity Avoidance in *Tukang Besi* is found in underived ditransitives in which the order of Recipient and Theme is rigid if both of them have an animate referent (see Donohue 1999: 55).

Cases similar to those in (43) and (44) are also attested in Evenki and Nivkh (see [20] and [21]). In Evenki, the Causee occurs either in the dative

or the definite accusative case. Only the latter is possible in tritransitives. The reason for this is that a tritransitive clause would otherwise have two animate arguments in the dative. In Evenki syntactic doubling of objects (in the definite accusative) is also possible, as long as the objects differ in animacy. As a result, Theme and Recipient may both occur in the definite accusative in a single clause, but only one animate object may bear dative coding at a time. In Nivkh, the Causee may be zero marked or it may bear the specific Causee suffix. The use of the marker is optional in causativized intransitive and transitive clauses but obligatory in tritransitives, where the affix is needed for disambiguation. In contrast to languages like Lango, Sundanese, Fulfulde and Manipuri (see Examples [25]–[27] and [29]), syntactic doubling of the indirect object relation is possible for the cases discussed here, but it is excluded for two animate objects. It is therefore not possible to explain the avoidance of syntactic doubling by strict formal (nonsemantic) requirements of a language.

4.4.3. *Case 3 ($AA < CH$)*. In the previous section, I examined cases which are best explained by Ambiguity Avoidance. I hope to have shown that the great majority of tritransitives are compatible with Ambiguity Avoidance. However, it would not be justified to stop there and ignore the cases with which Ambiguity Avoidance is not compatible and which are better explained by Case Hierarchy.

The leading principle of Ambiguity Avoidance (as the label is used here) is that the observed formal changes in tritransitives occur to resolve potential ambiguity. This naturally implies that the resulting constructions must not be ambiguous. As a result, tritransitives in languages such as Awa Pit and Songhai (see Examples [6] and [7]) cannot be explained by Ambiguity Avoidance. This follows, since a ditransitive verb is causativized opening four slots, only three of which can be overtly filled. Moreover, since Recipient and Causee bear identical coding, the semantic role of the overt animate argument is not retrievable grammatically. Also animacy is useless here, since the two arguments rank equally for animacy in the scale of inanimate < animate < human. On the other hand, Case Hierarchy seems more applicable here. First, Awa Pit and Songhai do not allow syntactic doubling, which is compatible with the paradigm case of Case Hierarchy. Second, the complete omission of an argument can be regarded as the extreme case of an unorthodox way of expressing arguments. Adjuncts are usually freely omissible, but in Awa Pit and Songhai the omission is mandatory. As a result, of the two competing explanations, only Case Hierarchy can deal with cases like (6) and (7).

4.4.4. *Case 4 ($-AA = -CH$)*. I have so far examined tritransitives that can be accounted for by either or both competing explanations

examined in the present article. I close the discussion by considering cases not covered by either explanation.

The literature contains some cases of tritransitives which are ambiguous (and therefore not accounted for by Ambiguity Avoidance), but which deviate from the paradigm case of Case Hierarchy. Two examples are given in (46) and (47):

Tagalog:

- (46) mag-pa-bigay ka ng pera kay rosa kay maria.
 ACT-CAUS-give you DO money IO PN IO PN
 ‘Have Rosa give the money to Maria.’ or ‘Have Maria give the
 money to Rosa.’
 (Comrie 1975: 13)

Retuarã:

- (47) diyerũ ko-re ki-peata-rõhe-rape
 Money 3FEM.SG-TERM 3MASC.SG-return-CAUS-PAST
 yi-re.
 1SG-TERM
 ‘He made me return the money to her.’ or ‘He made her return the
 money to me.’
 (Strom 1992: 123)

The examples in (46) and (47) have two identically coded indirect objects, making (46) and (47) typical examples of the neutral alignment. However, in Tagalog and Retuarã, the order of Recipient and Causee is free, making two readings possible. Animacy is not helpful here, since both arguments are animate. The doubling of the (indirect) object relation makes Case Hierarchy inapplicable, while the ambiguity of the examples makes Ambiguity Avoidance useless here. This means that neither of the competing explanations is fully capable of explaining the occurrence of cases such as (46) and (47). It should, however, be noted that even though (46) and (47) are not compatible with Ambiguity Avoidance in a strict sense, languages do tolerate ambiguity also elsewhere. The ambiguity in (46) and (47) may be resolved by context, because of which (seeming) ambiguity is tolerated in (46) and (47). However, whenever languages do resort to extra coding in tritransitives (as in the cases discussed in Section 4.4.2), this is due to avoiding ambiguity.

5. Summary and conclusions

The present article has examined tritransitive constructions from a cross-linguistic perspective. The notion comprises monoclausal constructions

that express externally caused ditransitive events or ditransitive events with an additional Beneficiary. In this article, I have proposed a formal alignment typology of the construction type, and I have also discussed the rationale behind the attested tritransitive types. In this section, I briefly summarize the most important findings of the article before going on to mention a few potential topics for future research.

In Section 2, tritransitives were classified based on the marking of Recipient and Beneficiary/Causee. Even though the examined tritransitives comprise two semantically distinct role types, labelled as the Causee role type and the Beneficiary role type, the two types were not distinguished at the highest level of the typology. The proposed typology was based on a comparison of the marking of ditransitive Recipient, tritransitive Recipient and Beneficiary/Causee. Languages can mark these arguments alike (neutral alignment), or there may be formal differences in the coding, as in the stable-recipient alignment, variable-recipient alignment and tripartite alignment. The last type is not attested at the level of case marking alone, but other formal features of the arguments need to be considered. The proposed typology was in many respects similar to any basic alignment typology, since only the differences and similarities in the argument coding were taken account of irrespective of whether the identical or different coding uses cases, adpositions etc.

In Section 3, a more fine-grained distinction between the Causee role type and the Beneficiary role type was made. The languages can either code tritransitives uniformly following one of the alignment types, or there may be differences in the coding of the role types. The latter kind of languages was further divided into two, depending on whether both constructions are possible but formally distinct or whether there are differences in their degree of acceptability. Japanese and Georgian represent the former type, while Burushaski and Tswana exemplify the latter type. What is noteworthy here is that, in all the cases in which only one role type is permitted or in which either type is formed in an unorthodox way, it is always the Causee role type that is not allowed or is formally deviant. This is manifested at least in Tswana, Iranian Azari, Persian, Burushaski, and Tukang Besi. The list is not very long due to limited data, but there are no counterexamples. The reason for this might be the more core-like nature of the Causee. Some languages shy away from four core-like arguments, which restricts the morphological causativization of ditransitive verbs. A beneficiary, in turn, is a more peripheral argument, and it is thus introduced to the clause periphery. This is line with Comrie's (1975: 14) claim that the lower an argument is on the Case Hierarchy the more easily it is doubled.

Tritransitives illustrate an interesting construction type, since they involve two animate (indirect) object arguments (understood in a broad

sense). This has clear consequences for the formal nature of tritransitives in a number of languages. This was examined in Section 4, where two competing explanations, namely Ambiguity Avoidance and Case Hierarchy were contrasted. Both explanations deal with a number of tritransitives, but I hope to have shown that a larger number of cases can be explained by Ambiguity Avoidance. The most evident examples of this are illustrated by languages in which the syntactic doubling of the indirect object relation is possible but is excluded in the case of two animate arguments. Ambiguity Avoidance reflects the underlying economy principle of language use rather directly, since unorthodox means of coding are confined to cases in which grammatical information is needed for assuring the intended reading of clauses.

The tritransitive alignment types can also be distinguished based on the semantic features of the roles they stress. The neutral alignment naturally focuses on the similarities of the relevant semantic roles. The most evident of these features is animacy. Moreover, Recipient and Beneficiary have in common that they in many cases benefit from events they partake in, so it does not come as a surprise that these roles receive identical coding in a number of languages. The stable-recipient alignment is primarily based on the semantic differences of the roles involved in tritransitives. This is most evident in the inherent subtype of the alignment in which the roles are coded differently irrespective of the clause type they appear in. It is not unduly surprising that there are languages that accord the roles distinct marking given the semantic differences between Recipients and Causees, for example. The variable subtype of the stable-recipient alignment alongside the variable-recipient alignment and the tripartite alignment resemble the neutral alignment in recognizing the common semantic features of the relevant roles in isolation. The roles are coded distinctively in tritransitives, but these differences are determined by Ambiguity Avoidance rather than by the semantic differences between the relevant roles.

The most notable difference between the stable-recipient alignment and the variable-recipient alignment is found in the semantic role borne by the affected argument: in the former type, the marking of the Beneficiary/Causee is affected, while in the latter the marking of the Recipient is modified. The stable-recipient alignment appears intuitively as more natural, since the argument that is not a part of the verb's basic valency surfaces as an adjunct. In the variable-recipient alignment, in contrast, the Recipient, which constitutes an integral part of the valency of verbs like 'give' or 'send', suffers the same fate. This unorthodox nature of the alignment is reflected in its rare crosslinguistic occurrence. It seems to exist as a pure type almost exclusively in a number of absolutive-ergative

languages of the Caucasus; *Tukang Besi* is the only clear example of it outside of the Caucasus (see Joppen-Hellwig [1999: 8ff] who states that all ergative languages code tritransitive [4-place] verbs following the variable-recipient alignment). Many languages (like *Lango* and *Fulfulde*) do exhibit this pattern indirectly. What is also interesting is that I have not come across languages in which the coding of the Beneficiary role type would follow this alignment. This may follow from the more peripheral nature of the Beneficiary noted above. The Causee constitutes a more core-like argument, and so it removes the Recipient from its original position in tritransitives. This difference is manifested in Georgian, where the Causee role type follows the variable-recipient alignment while the Beneficiary role type is coded according to the stable-recipient alignment.

Tritransitives constitute an interesting construction type since they exceed the limits of ditransitivity, which is, to best of my knowledge, the highest number of obligatory arguments required by any lexical verb in any language. Many languages employ unorthodox means to accommodate the fourth argument, as has been shown in this article. However, the present article has not studied the correlation of formal transitivity of a language and the nature of its tritransitive coding (Joppen-Hellwig 1999 studies the effects of the basic (nominative-accusative or absolutive-ergative) alignment on the coding of 4-place verbs). We may predict that languages with double object constructions are more reluctant to accept genuine tritransitives, especially if the Beneficiary/Causee is accommodated as a direct object (possibly via applicativization or causativization). Song's (1996) generalization may serve as a starting point here: Song states that languages with formally ditransitive constructions (like the English double object construction) causativize transitive verbs yielding ditransitive constructions, while languages that lack these constructions instead code the Causee as a peripheral argument. Because no language has verbs that allow four core arguments (without modification of the verb), we can predict that constructions with three direct object-like arguments are rare. They do exist (see, e.g., Examples [13] and [14] from *Kinyarwanda* and *Tarascan*), but are outnumbered by other tritransitive constructions. The avoidance of four core-like arguments is also evident in the existence of languages like *Abkhaz* and *Tukang Besi* (see Examples [8] and [9]) in which tritransitives need to be formed in a biclausal manner. The number of core arguments per clause is three. Moreover, we do not expect to come across a language in which ditransitives are causativized morphologically but intransitive verbs only allow periphrastic causativization.

What future studies can add to the present study is more detailed illustrations of the frequencies of the different alignment types and the

similarities/differences in the coding of the two role types. The data I have access to are too limited to make any valid generalizations in these respects. Based on the rather limited data accessible to me at present, it seems that the neutral alignment and the stable-recipient alignment outnumber the other alignments crosslinguistically. Variable-recipient alignment is rather rare outside of the Caucasus, while tripartite alignment is not attested as a consistent, case-marking type in any language. The most important reasons for the higher frequency of the two first types lie in the economy and the low overall frequency of tritransitives. Neutral alignment is possible if the word order is frozen, which occurs in the majority of languages following the neutral alignment. In the stable-recipient alignment, disambiguation is assured by modifying the case marking of the arguments. The contribution of economy becomes evident in comparison with the tripartite alignment in which the relevant arguments bear distinct marking. This is regarded as uneconomical even at the level of transitive clauses. As a result, it is rather unlikely that this kind of pattern would emerge for an infrequent construction type, such as tritransitives. In contrast to the variable-recipient alignment, the neutral alignment and the stable-recipient alignment appear intuitively more natural, since they accord deviant marking to the argument that is not a part of the verb's valency.

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Appendix. Abbreviations

ABL	Ablative
ABS	Absolutive
ACC	Accusative
ACT	Active
ADESS	Adessive
ADV	Recipient marker
AFF	Affirmative
AG/AGT	Agent marker
AGR	Agreement marker
ALL	Allative
AOR	Aorist
APPL	Applicative
ASP	Aspect
AUX	Auxiliary

BEN	Benefactive
CAUS	Causative
CLASS	Classifier
COMP	Complementizer
CON	Converb
CONT	Contessive
CORE	Core argument
D/DAT	Dative
DEF	Definite
DEM	Demonstrative
DER	Derived transitive
DET	Determiner
DIR	Directional
DL	Dual
DO	Direct object
ERG	Ergative
F/FEM	Feminine
FIN	Finite
FUT	Future
FV	Final vowel
GEN	Genitive
GOAL	Goal applicative
HON	Honorific
HOR	Hortative
I	Irrealis
IND	Indicative
INF	Infinite
INSTR	Instrumental
IO	Indirect object
LOC	Locative
LOCUT	Locutor
M/MASC	Masculine
NOM	Nominative
NONFUT	Nonfuture
NONLOCUT	Nonlocutor
NPT	Nonpast
O/OBJ	Object
OBL	Oblique
PAST	Past tense
PAT	Patient
PERF	Perfective
PL	Plural
PN	Personal name
POSS	Possessive
PREP	Preposition

PRES	Present tense
PREV	Preverb
PRV	Preradical vowel
PV	Preverb
R	Realis
REC	Recipient
REC.PAST	Recent past
SG	Singular
S/SUBJ	Subject
T	Theme
T/A	Tense aspect marker
TOP	Topic
TR/TRANS	Transitive
V	Verb
X/Y	Verb classes of Burushaski

Notes

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2. The label is used in accordance with Dixon (see, e.g., Dixon 1997: 132): “Basic Linguistic Theory is the fundamental theoretical apparatus that underlies all work in describing languages and formulating universals about the nature of human language.” The roles relevant to the discussion in the present article are defined as kinds of semantic notions coded differently by different languages.
3. The label *argument* is used here in reference to any formal manifestation of the semantic roles studied in the present context. The differences between complements and adjuncts are neutralized. The label adjunct is, however, occasionally used when it is necessary to highlight the peripheral nature of a constituent.
4. Comrie (1975), Dixon (2000), and Joppen-Hellwig (1999, 2001) present other studies concerned with tritransitives from a crosslinguistic perspective.
5. Readers interested in double causatives are advised to consult Kulikov (1993: 142ff) for examples.
6. For another kind of formal typology of tritransitives, see Joppen-Hellwig (1999: 19).
7. The marking of the original agent/subject is naturally affected as a result of causativization, but the agent/subject relation is retained, because the introduced external causer occupies the subject slot.
8. Readers interested in the effects of the basic alignment of languages on the nature of the tritransitive constructions are advised to consult Joppen-Hellwig (1999).

9. As shown by Joppen-Hellwig (1999), tritransitives (4-place verbs in the terminology of Joppen-Hellwig) with pronominal arguments differ formally from tritransitives with lexical arguments. The focus of this article lies on lexical arguments whenever possible.
10. It should be noted that (4b) only shows that the benefactive applicativization of ditransitives is excluded; there may be other ways of expressing the Beneficiary in ditransitives.
11. It should be noted here that it would be possible to analyze the data from Bote somewhat differently. We could also claim that the changes in the marking of the Causee in (19c) follows from affectedness. In other words, we could say that the ablative marks a Causee that is somehow more directly affected by the denoted event. Unfortunately, I lack the relevant data to state explicitly whether the change in the coding of the Causee follows from affectedness or from syntactic properties of the clause in question. I have adopted the latter view in this article.
12. The demotion of an argument is here understood as a movement downwards in the argument hierarchy subject – direct object – indirect object – other obliques (see, e.g., Comrie 1975: 2). Promotion constitutes the opposite of this.
13. It should be noted here that in *Tukang Besi* the formation of tritransitives in the way illustrated in (23b) is possible only with the Beneficiary-role type. In the Causee-role type periphrastic means are used (see Example [5] above).
14. A similar case can be claimed to exist in English, too, if we consider clauses such as *a person gave an individual an entity/a person gave an entity to an individual* vs. *a person gave an entity to a person for another person*, which manifest a tripartite tritransitive alignment. What distinguishes English from Fongbe is that in English this variation is optional.
15. It has been brought to my attention by Martin Haspelmath that Comrie was not the first linguist to study these kinds of restrictions on causativization, but a similar explanation was proposed by Nedjalkov and Sil'nickij in 1969. I have, however, not been able to locate this article; therefore the following illustration of the Case Hierarchy is based on Comrie (1975) unless indicated otherwise.
16. This may follow from some kind of thematic ranking of Causees and Recipients as well. Causees may be claimed to outrank Recipients in this hierarchy due to their more agentive nature, which may also explain the placing of the Agent before other animate arguments. However, in this context Ambiguity Avoidance explanation is favored.

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