

# Three-participant events in the languages of the world: towards a crosslinguistic typology<sup>1</sup>

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## *Abstract*

*Although one- and two-participant events, as expressed by intransitive and transitive constructions, have been extensively studied from a crosslinguistic perspective, little work has been done on three-participant events and the ways they operate in different languages. Where there is description and analysis it is typically confined to syntactic three-place predicates ignoring functional equivalent constructions in languages where such events may be realized with other argument configurations. Also, where analysis exists, it is typically limited to those three-participant events that get lexicalized as three-place predicates in English and other well-known languages. In this article, we explore the semantic categories of three-participant events and outline a range of different strategies for coding them crosslinguistically. We show that, as alternatives to syntactic three-place strategies, there are a variety of constructions that are syntactically two-place but express a third participant by some other means — morphological, syntactic, or pragmatic.*

## **1. Introduction**

Three-participant events present interesting and still-neglected problems for linguistic typology and theory. Much descriptive and theoretical linguistic research has focused on events with one or two participants as expressed by transitive and intransitive clauses. Expressions of events with three participants have been largely ignored or excluded as marginal. Honorable exceptions have been the extensive discussion of causative constructions, and the work by Newman (1996, 1997, 1998) on the crosslinguistic typology of the verb ‘give’.

This neglect is all the more surprising given the central role that various types of three-participant event play in the evolutionary emergence of human society and technology. The socially constitutive role of transactions

such as *giving* — involving a donor, a gift, and a recipient — has long played a central role in anthropology (Mauss 1969 [1925]; Strathern 1988; Davies 1992); more recently, the biological anthropologist Terrence Deacon proposed that the development of *promising* as part of an emerging social contract in early humans provided a key impetus to the development of language as a symbolic system, through the need to depict both reciprocity and future situations (see esp. Deacon 1997: 397–401). The productive use of tools, for example, using a knife to cut up meat, is likewise identified with the evolutionary emergence of humans (even though other species evince limited tool use), and again is typically a three-participant event, involving an agent, a patient and an instrument. Yet it remains striking that numerous approaches to describing language, even ones that are said to take a cognitively oriented perspective such as Cognitive Grammar (Langacker 1991), have little or nothing to say about three-participant events (see Newman 2000 for similar comments).

Despite this central social and evolutionary role of three-participant events languages vary widely in their methods of representing them. Whereas virtually every language in the world treats ‘hit’ as a straightforward transitive verb, there is enormous variation in the treatment of ‘give’. Newman (1997) contains a useful compilation of descriptions. Language-specific expressions range from clauses with three-place predicates through transitive clauses in which the third participant is represented in complex ways, down to languages with no clear verb for ‘give’ at all (e.g. the Papuan language Amele [see Roberts 1998]). While ‘give’ has been relatively well investigated, particularly through Newman’s work, there are in fact a large number of three-participant events and it is important to understand how this entire class of events is encoded. Any explanatory account of why three-place verbs behave the way they do (in a single language, or crosslinguistically) must tackle the prior question of why just some three-participant events are lexicalized into verbs that take three arguments, and why others are not.

If, for example, we just look at three-place constructions involving transfer, we cannot tell whether their properties follow from (among other factors) the fact that (a) there are three participants, (b) there is a theme, which is prototypically inanimate, and a recipient, which is typically human, (c) a transfer event is involved, or (d) there are typically at least two human participants in addition to a third participant. Property (a) will be shared with a whole range of three-participant events, to be investigated in this article. Property (b) is restricted to a small subset of three-participant events, centered around ‘give’; property (c) is shared by other events of spatial transfer, such as ‘put’, which only require a single human participant; property (d) is shared by other interpersonal three-

participant verbs like ‘deprive’ or ‘withhold from’. Properties (b) to (d) all distinguish ‘give’ from certain other three-participant events, such as those involving instrument use. In order to gauge the appropriate semantic generalizations, in terms of event characteristics that underlie particular syntactic behaviors, we need to cast our net wide enough to catch the full range of three-participant event types.

The highly variable treatment in how languages lexicalize different types of transactions, and in how grammars deal with three-participant events, suggests that human cognitive and linguistic abilities are challenged when it comes to representing interactions between three participants (consider Eisenbeiß 2002 and the references therein on children’s acquisition of datives). Many of the alternative strategies we will discuss amount to ways of reducing the number of arguments in the clause to two. This may be achieved by linking the expression of the third participant to one of the arguments, or to the situation-depicting verb (e.g. by coding information on one participant within the verb lexeme itself, or by a directional expression). Languages also may separate encoding of the event into two predications through serial verb constructions and distribute the participants as arguments over more than one verb.

Consider the event depicted by ‘give’, which involves the following components as discussed by Newman (1997: ix):

- interaction between a GIVER and a THING;
- an interaction between a RECIPIENT and a THING;
- a change in control over the THING, passing from the GIVER to the RECIPIENT;
- involvement (typically) of the hands of the GIVER and the RECIPIENT;
- motion of the THING.

Languages employ a number of means of grammatically backgrounding one of these components (as a dependent of another component). The interaction between GIVER and THING can be backgrounded by saying, as it were, ‘GIVER THING-having endowed RECIPIENT’; the interaction between RECIPIENT and THING can be backgrounded by saying ‘GIVER donated RECIPIENT’s THING’; and the interaction between THING and the motion event can be backgrounded by saying ‘GIVER THING-gave RECIPIENT’. The RECIPIENT may not be overtly represented, and left to be inferred from a directional: GIVER gave THING THIS WAY. Examples of these and other strategies will be discussed below.

The variability in encoding three-participant events relates to another problem area in linguistics. Even where languages readily encode three-

participant events as three-place verbs, they frequently exhibit variations in encoding them and show complex interactions between such factors as the grammatical function and animacy of the arguments. This variability in encoding makes it notoriously difficult to identify for example the true direct object of three-place verbs (cf. Hudson 1992 on English; Duranti and Byarushengo 1977 on Bantu languages), and it gives rise to great crosslinguistic variability in the marking of the two objects (cf. Dryer 1986; Baker 1997). It is likely that at least some of these problems arise from the fact that transactional predicates assume strong constraints on the linkage between *role* and *cast* (Evans 1997), in other words on the linking of different thematic or case roles (e.g. theme, recipient) to different ontological types (e.g. human vs. inanimate). This linkage creates problems for formal models of argument linkage, which normally assume that thematic roles and ontological types are independent.

We will assume the following framework for the representation of predicates and their associated semantic roles (e.g. filled by syntactic arguments or other NPs or adpositional phrases). One-place predicates take a single argument, which we will indicate as S (the particular semantics of the S nominal will not be of interest), two-place predicates take an agent-like argument A, and a non-agent-like argument P. Three-place predicates and other expressions of three-participant events take an agent-like A, a participant that will label R on the basis of its most common role as recipient (but that may also be a beneficiary, goal, addressee, location, or source), and a T (typically some thing or information conveyed by A to R). Languages with syntactic three-place predicates vary according to whether they treat R and T in the same way in their morphosyntax: *symmetrical* languages treat them alike, while *asymmetrical* languages have different coding or syntactic properties for R and T (Bresnan and Moshi 1990; Bresnan 2001).

Additionally, as discussed by Dryer (1986), languages differ in how they treat T and R with respect to the P of two-place predicates: some treat the T of three-place predicates like the P of a two-place predicate and different from R: these are languages that oppose *direct object* (DO) to *indirect object* (IO). Others treat R like the P, and the T differently: these are languages that oppose *primary object* (O1) vs. *secondary object* (O2). Some languages treat all of P, R and T the same; we will call these *neutral object* languages. Finally, it has been argued by Dryer (1986), Bowden (2000, 2001) and Siewierska (2003) that there exist *split object* languages, in which there are two types of object in two-place constructions, one aligning with the R and the other with the T (just as in split-S languages where there are two types of subject, one aligning with the A and the other with the P).

In this article we explore how languages represent the full range of situations involving three participants, and develop a descriptive typology of coding strategies against a typologically varied sample of languages. Crucially, in our approach we systematically distinguish the level at which events are characterized by the number of participants from the syntactic level at which verbs are characterized by the number of arguments. In the following we will use the term “three-participant event” (Margetts 1999, 2002) to refer to dynamic states of affairs that crucially involve three entities in their conceptualization.<sup>2</sup> Crosslinguistically such states of affairs are commonly encoded by predicates with three syntactic arguments. However, syntactic three-place constructions are not the only expressions of three-participant events and, maybe as commonly, languages encode such events by other means. In this article we aim at a crosslinguistic overview of strategies for the linguistic expression of three-participant events including what can be considered alternatives to syntactic three-place predicates.

## **2. Classes of three-participant events**

Most typologists and linguists in the generative tradition pick out ‘give’ as a typical instance of a three-place verb. So, Haspelmath (2001) presents a survey of ditransitive verbs in a large number of languages and relies entirely on evidence from ‘give’ verbs. As Comrie (2003) points out, however, and as evident in Newman (1997) ‘give’ is often irregular, suppletive, or subject to social and cultural restrictions crosslinguistically (see also Margetts 2007a).<sup>3</sup> As a result we must be careful about relying on ‘give’ as a typical three-place predicate and we extend our survey well beyond this verb in the present article. Crosslinguistically, we can identify a number of three-participant events that are frequently encoded as three-place predicates.

Now problems of delineating the object of our research in a nonarbitrary way become much more complex once we move from talking about three-place predicates — a syntactic grouping identifiable by formal tests — to three-participant events, a semantic grouping whose outer boundaries become fuzzy as we try to assess the role of various props like instruments or prototypically involved body parts, not to mention locales, purposes and so forth. We have therefore adopted the following heuristic in this article: an event type was included in our list of semantic classes of three-participant events in Table 1 below, if it is either (a) encoded in at least one language by a clear monomorphemic three-place predicate (each of whose arguments is capable of being fully referential and is available to

Table 1. *Semantic classification of three-participant events*


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<i>Agent causes recipient to receive theme:</i>
verbs of discrete or continuous causation of movement, typically verbs signifying acts of giving (give, pass, hand, . . .), verbs signifying a deictically specified direction (e.g. bring, take, . . .), or verbs of instantaneous causation of ballistic motion (e.g. throw, toss, kick, . . .)
<i>Agent causes theme to move to location:</i>
verbs of discrete or continuous causation of movement of an entity to or towards a location (put, place, put down, leave, . . .)
<i>Conditions of satisfaction imply that agent causes recipient to receive theme:</i>
verbs of giving with associated satisfying conditions (promise, lend, guarantee, owe, . . .)
<i>Agent acts to cause recipient to receive theme at some future point in time:</i>
verbs of future transfer (leave, bequeath, allocate, offer, . . .)
<i>Agent intends to cause recipient to receive theme:</i>
verbs of creation (bake, cook, make, write, . . .), verbs describing preparation for use (iron, lay out, book, . . .) and verbs of obtaining (get, grab, win, catch, hunt, . . .)
<i>Agent allows recipient to receive theme:</i>
verbs of permission and enablement (permit, allow, enable, sanction, . . .)
<i>Agent causes recipient not to receive or have access to theme:</i>
verbs of refusal (refuse, deny, distract, withhold, obstruct access to, . . .)
<i>Agent acts to communicate information to recipient:</i> <sup>5</sup>
verbs of explication (tell, explain, describe, teach, show, . . .)
<i>Agent/recipient takes possession of theme from source:</i>
verbs of receiving (receive, get, learn, . . .)
<i>Agent removes theme from recipient's possession:</i>
verbs of dispossession (rob, steal, snatch, deprive, . . .)
<i>Agent uses body part to impact on or make change to patient:</i>
verbs of physical input with body part instrument (kick, punch, lick, bite, gore, . . .)
<i>Agent uses non-body part instrument to impact on or make change to patient:</i>
verbs of physical input with non-body part instrument (skewer, shovel, snip, . . .)

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the principal morphosyntactic operations identifying arguments in the language under investigation) or (b) encoded in at least one language by a clear monomorphemic two-place predicate with a third participant expressed in its semantic representation, and in at least one other language by a crosslinguistically attested strategy for expressing three-participant events.

We take these two points as evidence that the event is, at least in some languages, conceptualized as having three participants, and that it is in fact conceptualized as a single event. An exact definition of eventhood remains elusive and we will not explore the topic here in more detail (see Bohnemeyer 2001, 2003 for some recent discussion). We take the above points as a sufficient criterion for identifying three-participant events and for delineating the scope of our discussion for the purpose of this article.

By this criterion we include tool and body-part using events, such as ‘to skewer’ or ‘to gore’, even though they do not appear in our sample as clear three-place predicates, with the instruments as arguments, in any of the languages we have surveyed. We include them in the discussion because they can clearly be expressed by monomorphemic verbs in many languages, including English, and because the strategies for expressing this event type crosslinguistically (e.g. representing the skewer or tooth as an instrumental adjunct, as an argument of a serialized verb, or by zero-conversion from noun to verb) are regularly attested strategies for dealing with core three-participant events such as ‘give’.<sup>4</sup>

We also include expressions that are synchronically monomorphemic even if diachronically they can be analyzed as consisting of more than one morpheme. (Cf. absorption strategy (d), which discusses verb stems that include information about an event participant by virtue of having absorbed what used to be a classifier morpheme.)

Based on the same criterion, we exclude three-place verbs like *call*, *name*, or *declare* from the discussion as they do not express three-participant events according to our definition. In clauses like *They called her Hilda* or *I declare you the winner* the two objects are coreferential and therefore do not constitute two separate participants.

Table 1 gives a list of event types, drawing on Croft (1985), Goldberg (1995), Pinker (1989), and Levin (1993) (see also Crookston 1994; Beer-mann 2001; EAGLES 1996), augmented by our own work on Australian and Austronesian languages, and that of Nick Evans (pc. 2003) who contributed substantially to the discussion presented here. This rough semantic categorization will be used as a starting point for our crosslinguistic investigation.

### 3. Encoding strategies

We now turn to a descriptive typology of how languages encode three-participant events, based on preliminary analysis of a sample of languages. In terms of methodology, we took the list of events in Table 1 and compared how the semantic concepts or event types that are encoded as syntactic three-place constructions in at least one language are expressed in a range of other languages. In some cases the concepts were expressed by strategies other than three-place predicates, such as the class of transfer events that is regularly expressed by two-place predicates plus a directional morpheme in many Oceanic languages. We took stock of these alternative constructions and investigated what range of event types can be expressed by these strategies in the languages of our sample, for

example, verbs of creation can in some Oceanic languages take the same directional morphemes as basic transfer verbs. In this way we gradually extended both the list of event types considered in this study and the inventory of strategies used to express them. The strategies are laid out and exemplified in the following sections. In the discussion we display a certain bias towards event types that involve two animate participants but the proposed typology is not restricted to this and instruments, locations, etc. will also be considered possible event participants.

Probably found universally in all languages is what one might call discourse strategies of expressing situations with three participants where the expression of these participants is distributed over more than one clause, making maximum use of concepts like given information, as in the English sentence in (1). In this example the first clause expresses the agent and the theme and the second clause expresses the theme and the recipient.

(1) He sent off the parcel and I got it the next day.

For the purpose of this article, we will be focusing on strategies operating within a single clause, which means that we are neglecting, for the time being, possible discourse strategies of expressing three-participant events that expand over more than one clause. The interaction of the strategies listed below with such discourse strategies will require further research. Note also that we focus on strategies in which all three participants have some kind of morphological or syntactic manifestation within the clause; we have not considered cases here that rely on inference or context alone.

Before proceeding with the discussion, it is important to recognize that the distinction between arguments and adjuncts that will play a role in this typology is far from clear, both within particular languages and cross-linguistically (see Comrie 1993: 906–907; Allerton 1994: 4880; and Van Valin 2001: 92–94). Definitions of predicate transitivity, valency, or number of places (e.g. Trask 1993: 213) often speak of the number of constituents with which a predicate “can or must combine,” leaving unclear, for example, whether obligatory or possible occurrence of a constituent is necessary for determining that a predicate has three arguments. So, as Newman (2000) points out, ‘give’ is often presented as a prototypical three-place verb (with giver, gift and recipient all required to be expressed), yet as often discussed, the following seems to be perfectly acceptable:

(2) I always give to the Salvation Army (at Christmas).

Similarly, in many languages, the verb ‘put’ does not require a location to be expressed, unlike English where we need agent, theme and location all present. Compare the English example with the Saliba sentence in (4):

(3) \*Mary put the cup

Saliba (Oceanic, Papua New Guinea)<sup>6</sup>

(4) Keyaka                wa                ku    tole-Ø.  
 coconut.shell.cup    GIVEN    2SG put-3SG.OBJ  
 'Put the coconut shell cup (somewhere).'

If we consider true three-place predicates to be those that require rather than allow three syntactic arguments, their numbers may indeed be very restricted in the languages of the world. Obligatoriness must also be combined with other language-particular tests, such as restrictions that the predicate places on argument expression. For example Radford (1988: 192) notes that the recipient of English *give* is restricted to a prepositional phrase containing *to* and cannot be introduced by any other preposition. Similarly the gift of the verb *present* is restricted to a PP with the preposition *with*. The verb *hit* in contrast has no such restrictions. Another diagnostic of argument status in many languages is lack of freedom of ordering within the clause, compared to adjuncts that normally have freer positional possibilities.

Dative marked NPs, in particular, are often described as a category somewhere between syntactic arguments and adjuncts.<sup>7</sup> But similar considerations may apply to themes marked with a proprietive case — see for example Evans (1995: 98–99, 334–336) on reasons for considering certain proprietive-marked NPs in Kayardild as arguments rather than adjuncts, including their ability to feed reciprocal constructions, otherwise restricted to normal objects. With the oblique argument versus adjunct boundary still so hotly contested in English, it is obviously going to be even more difficult to draw the line in other languages that have been documented in less depth, and in this article we will not usually be able to resolve it.

We have adopted here the following working definition of terms: direct arguments are those arguments of the verb that are unmarked or marked by nominative, accusative, ergative, absolutive or dative case. Oblique arguments are arguments of the verb that are marked by adpositions or by cases other than those listed above, such as instrumental, allative, ablative, locative, comitative cases. Adjuncts are marked in much the same way as oblique arguments but differ in that they are not subcategorized for by the verb as shown in features like obligatoriness, raisability, movability, etc.

In the following we explore the inventory of constructions for expressing three-participant events across different languages. We draw primarily on data from Australian, Austronesian, and Indo-European languages but also from a number of other language families (including languages

from Africa, Southeast Asia, and the Americas). While we have not been concerned with proper typological sampling here and our language sample is limited in scope, the strategies described below constitute a first step towards an inventory and a crosslinguistic typology for the encoding of three-participant events. Table 2 gives an overview of the strategies discussed in the sections below.

Table 2. *Encoding strategies of three-participant events*

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*Three-place predicate strategy*

All three participants are expressed as syntactic arguments of the verb.

- a. *Direct argument strategy*  
All three arguments are expressed as direct arguments of the verb (which does not carry valence increasing morphology).
- b. *Causative strategy*  
The verb root is restricted to two arguments, with a third argument added by a causative affix.
- c. *Applicative strategy*  
The verb root is restricted to two arguments, with a third argument added by an applicative affix.

*Oblique and adjunct strategies*

The verb takes two arguments, a third participant is expressed as an oblique argument or an adjunct.

- a. *R-type obliques and adjuncts*  
The verb takes two arguments and a third, R-type participant is expressed as an oblique argument or an adjunct.
- b. *T-type obliques and adjuncts*  
The verb takes two arguments and a third, T-type participant is expressed as an oblique argument or an adjunct.
- c. *Oblique applicatives*  
The verb takes two arguments and an applicative-like marker, which licenses a third participant that is simultaneously marked as an oblique.

*Serial verb strategy*

Two (or more) verbs combine in a complex construction and share the three participants as arguments (or adjuncts) between them.

- a. *R-type serialized P*  
The serialized verb introduces an R-type participant.
- b. *T-type serialized P*  
The serialized verb introduces a T-type participant.

*Incorporation strategy*

One participant is expressed by an incorporated nominal.

- a. *Incorporated nouns with argument status*  
The incorporated noun is a syntactic argument of the verb (= subtype of direct argument strategy).
- b. *Incorporated noun with non-argument status*  
The incorporated noun is not a syntactic argument of the verb.

*Adnominal strategy*

The verb takes two arguments, a third participant is expressed as an adnominal dependent of one of the arguments.

Table 2 (Continued)

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a.	<i>Possessive strategy</i> The verb takes two arguments and the recipient is expressed as the possessor of the theme.
b.	<i>Proprietary strategy</i> The verb takes two arguments and the theme is expressed as the dependent of the agent.
	<i>Directional strategy</i> The verb takes two arguments and an adverbial directional marker indicating transactional orientation.
	<i>Absorption strategy</i> There are two arguments in the clause but the verb includes information about a further participant.
a.	<i>Direct lexicalization</i> The verb is formally distinct from any noun denoting the event participants, but its semantics include reference to one of the participants.
b.	<i>Zero derivation</i> The verb derives by zero-conversion from a noun denoting one of the participants.
c.	<i>Denominal derivation</i> The verb derives by overt derivation from a noun denoting one of the participants.
d.	<i>Absorbed classifiers or object markers</i> The verb takes two arguments but the verb stem has absorbed what used to be a classifier, or object marker which conveys information about a further participant.
e.	<i>Participant-based event classification</i> The verb stem carries information about one of the participants and characterises the event with respect to one of the participants.

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### 3.1. *Three-place predicate strategy*

In many languages three-participant events can be encoded as full three-place verbs with all three participants expressed as syntactic arguments. Within this strategy, it is useful to distinguish between predicates whose basic valency is lexically determined and derived predicates where a verb has its number of arguments increased by valency-changing processes. We distinguish three subtypes of the three-place predicates: underived three-place predicates (direct-argument strategy) and predicates derived by causative or applicative morphology.

3.1.1. *Direct-argument strategy.* In the direct-argument strategy all three participants are expressed as direct arguments of the underived verb (to be precise, it is actually not crucial that the verb should be underived, but that any derivation should not be related to argument expression). English is a language that employs this strategy, and it can encode most of the event types outlined in Table 1 above, except for verbs of dis-possession and the two instrumental types.



m-itiʔiŋ-ʔo.

1SG.IRR-show.to-2SG.OBJ

‘I will show you a picture of my sister.’

- (18) ʔáŋári            álu-Ø            i-siáu-ya.  
 canarium.nut    some-3SG.AD    3SG.REAL-ask.for-1SG.OBJ  
 ‘He asked me for some canarium nuts.’  
 (Lichtenberk 1983: 160)

Similarly, in Ewe there are only three verbs that can occur in what Essegbey (1999: 144) calls the canonical three-place construction, they are *ná* ‘give’, *fiá* ‘teach/show’, and *biá* ‘ask’. However, Essegbey presents an analysis of three-place “inherent complement verbs” (ICV) as syntactically equivalent to canonical three-place predicates. In earlier accounts such constructions were not considered “real” three-place constructions “because the verb plus complement encode states of affairs that are usually encoded by a simple verb in English or French” (Essegbey 1999: 166). Of interest here is that most of the Ewe examples are three-participant events according to our definition and that several of them express event types that we discuss in the absorption strategy in Section 3.7 with examples from other languages.

Ewe (Niger-Congo, Ghana)

- (19) Kofi da kó Komi.  
 Kofi ICV fist Komi  
 ‘Kofi dealt a blow to Komi.’
- (20) Kofi dé dze detsí.  
 Kofi ICV salt soup  
 ‘Kofi put salt in the soup.’  
 (Essegbey 1999: 166)
- (21) Kofi tó he Amá.  
 Kofi ICV knife Ama  
 ‘Kofi stabbed Ama.’  
 (Essegbey 1999: 174)
- (22) Kofi ká así kpé-á.  
 Kofi ICV hand stone-DEF  
 ‘Kofi touched the stone.’  
 (Essegbey 1999: 180)
- (23) Kofi da kpé xeví.  
 Kofi ICV stone bird  
 ‘Kofi threw a stone at a bird.’  
 (Essegbey 1999: 143)

Many Australian languages have an underived three-place verb meaning ‘withhold from, deny to, not give to, not share with’. An example is the

verb *kaybun* ~ *gaibun* in Bininj Gun-wok (Gunwinyguan). As with other three-place verbs in this language, the subject and “higher object” (the one that is prototypically more likely to be human, in this case the person being withheld from) are marked by a pronominal prefix, while the third argument is realized as a NP (unmarked for case) directly next to the verb, as in (24).

Bininj Gun-wok (Non-Pama-Nyungan, Northern Australia)

- (24) Wardi kan-kaybu-n man-me man-djay.  
 maybe 3/1PL-withhold-NPST class3-veg.food class3-tuber  
 ‘She mightn’t share any tubers with us.’ [Kuninjku dialect]  
 (Garde n.d.)

There are only around half a dozen underived three-place verbs in Bininj Gun-wok and besides ‘withhold from’ this class includes ‘show’, ‘give’, ‘give (daughter) in marriage’, and ‘deprive IO of O’, ‘promise O to IO’ (Evans 2003: 395).

In Bininj Gun-wok, as in a number of other languages across the world, one of the arguments of such constructions can alternatively be incorporated into the verb, without losing its syntactic argument status as shown, for example, by their ability to be modified.

- (25) Ngaban-warde-gaybo-ng.  
 1/3PL-money-withhold-PP  
 ‘I didn’t give them any money.’ [Gun-djeihmi dialect]  
 (Nick Evans p.c. 2003)
- (26) Aban-madj-bukka-ng.  
 1/3PL-swap-show-PP  
 ‘I showed the swap to them.’  
 (Evans 2003: 395)

While examples like this can be considered subtypes of the direct argument strategy as all three participants are arguments of the verb and the verb does not carry valence-increasing morphology, we discuss such constructions in more detail along with other types of incorporation in Section 3.4.

Another transaction, again sometimes lexicalized as an underived three-place verb in Australian languages, concerns the blocking or restricting of access to land: in Kayardild the verb *barrwaaaja* ‘block off, restrict access to (land, territory)’ takes two objects — the place, and the person to whom access is denied, as in (27). Note that the modal locative is the case assigned to objects of clauses in the ‘actual’ (realis).

Kayardild (Non-Pama-Nyungan, Northern Australia)

- (27) Dulk-uru-ya                      dangka-ya                      barrwaa-ja  
 country-PROP-MOD.LOC    person-MOD.LOC    block.off-ACT  
 dulk-i.  
 land-MOD.LOC  
 '(He) barred the land to its rightful owners.'  
 (Evans 1995: 649)

We mentioned in Section 1 above that in *neutral object* languages both objects are treated equivalently. An example is the Australian language Diyari (cf. Austin 1981: 115). In (28) the agent is encoded as an ergative in the same way as the agent of a two-place predicate, while the recipient and theme both appear in the accusative case:

Diyari (Pama-Nyungan, Central Australia)

- (28) Ngathu    nhinha                      walypala    nhinha-ya  
 ISG.ERG    3SGNF.ACC    whiteman    3SGNF.ACC-this  
 marda                      yingki-lha    nganayi.  
 money.ACC    give-FUT    AUX  
 'I'll give the white man this money.'  
 (Austin fieldnotes)

More subtle examination, however, often reveals asymmetries even where both objects receive the same case marking. For example, in Martuthunira (Dench 1995: 217), the verb *murnta-L* 'take from', takes two accusative objects, denoting the theme and the source. However, unlike other transfer verbs it does not allow the source to appear as the subject of a passive clause.

We mentioned above that English lacks exponents of the direct argument strategy for many verbs of deprivation — a gap filled crosslinguistically by examples from some Australian languages, as with the 'withhold', and 'block' verbs shown in (24), (25), and (27). The other significant gap in English, in terms of which event types it can express with the direct argument strategy, is in instrument-using events. This gap appears to be widespread or even universal: we have yet to find clear examples of languages that employ the direct argument strategy so that both patient and instrument of instrumental events are encoded as object arguments.

While the direct-argument strategy is wide spread crosslinguistically, and is the strategy most widely discussed in the generative literature, there are a number of languages that do not have any root three-place verbs. In such languages syntactic three-place predicates either do not exist at all or, more commonly, they are derived by causative or applicative morphemes.

3.1.2. *Causative strategy.* In the causative strategy a third argument, the causing agent, is added to a two-place verb by a derivational morpheme, as illustrated by the following examples from Saliba:

Saliba (Oceanic, Papua New Guinea)

- (29) a. Ku kita-ya-ko.  
2SG see-3SG.O-PRF  
'You already saw it.'
- b. Tautau wa ya he-kita-go.  
picture GIVEN 1SG CAUS-see-2SG.O  
'I showed you the picture.'
- (30) a. Mata ku lao-ma ... se unui-go se  
if/lest 2SG go-towards.SPKR 3PL kill-2SG.O 3PL  
kai-go.  
eat-2SG.O  
'If you had come ... they would have killed and eaten you.'
- b. Niu ka he-kai-di.  
coconut 1EXCL CAUS-eat-3PL.OBJ/POSS  
'We feed them coconuts.'

Because there is an extensive literature on causative constructions we do not explore these further in this article, but refer to the reader to Song (1996) and references therein for further discussion.

3.1.3. *Applicative strategy.* In the applicative strategy a third argument, which tends to be an R-type participant or an instrument, is added to a two-place verb by an applicative process. Applicatives deriving three-place predicates from two-place predicates occur in a wide range of the world's languages, including Bantu, Austronesian, Australian, and Amerindian languages. The following examples from Kinyarwanda show an applied benefactive argument in (31a) and an applied goal argument in (31b).

Kinyarwanda (Bantu, Eastern Africa)

- (31) a. Umukoôbwa a-ra-som-er-a umuhuûngu  
girl she-PRS-read-BEN.APPL-ASP boy  
igitabo.  
book  
'The girl is reading a book for the boy.'  
(Kimenyi 1980: 32)
- b. Úmwáalímu y-oohere-jé-ho ishuûri igitabo.  
teacher he-send-ASP-LOC.APPL school book  
'The teacher sent the book to the school.'  
(Kimenyi 1980: 94)

In Taba, 'give' is derived by applicativizing two-place verbs: either from *ot* 'get', with the applicative adding a recipient, as in (32), or from *atada* 'do for the benefit of', with the applicative adding the theme, as in (33):

Taba (Austronesian, Eastern Indonesia)

- (32) a. Banda n=ot yan bakan.  
 Banda 3SG=get fish be.big  
 'Banda caught a big fish.'
- b. Banda n=ot-ik yak yan.  
 Banda 3SG=get-APPL 1SG fish  
 'Banda gave me some fish.'
- (33) a. L=ha-tada yak?  
 3PL=CAUS-presentation 1SG  
 'He gave you lots of money, didn't he?'
- b. N=ha-tada-k meu pipis lloci  
 3SG=CAUS-presentation-APPL 2PL money much  
 pa ne?  
 or PROX  
 'He gave you lots of money, didn't he?'
- (Bowden 2001: 209)

The same pattern is found in Tzotzil (Aissen 1987) where *ak'* 'give' must take the applicative *-be* if the recipient is to be mentioned in the clause.

Tzotzil (Mayan, Mexico)

- (34) 7a li Xun-e, ba y-ak'-be chitom li  
 TOPIC the Xun go A3-give-APPL pig the  
 7antz-e.  
 woman-CLF  
 'Xun went to give the pig to the woman.'  
 (Aissen 1987: 105)

In the Nez Perce example in (35), the applicative adds a benefactive argument to the verb 'make'.

Nez Perce (Penutian, Northwest USA)

- (35) Wálc páa-ny-a'n-ya ááyato-na.  
 knife 3SUBJ.3OBJ-make-BEN.ALLP-PST woman-OBJ  
 'He made the woman a knife.'  
 (Rude 1991: 186)

Applicatives are also frequently used to introduce instruments as arguments. Example (36) illustrates this for Dalabon.

Dalabon (Non-Pama-Nyungan, Northern Australia)

- (36) Dulh kah-marnu-biwka,  
 stick 2/1REAL-BEN.APPL-bend.PRS  
 ngah-ye-kurnnh-dulubuyan  
 1/3REAL-INST.APPL-ground-poke.FUT  
 ngahling-kurnh-binjiyan.  
 1/3REAL.SEQ-ground-dig.FUT  
 ‘You bend the stick for me, I’ll poke the ground with it, I will dig  
 the ground.’  
 (Nick Evans p.c. 2003)

Similarly, in Kinyarwanda an instrument can be added as an argument by an applicative suffix on the verb.

Kinyarwanda (Bantu, Eastern Africa)

- (37) Umukoôbwa a-ra-andik-iish-a íbárúwa íkárámu.  
 girl he-PRS-write-INST-ASP letter pen  
 ‘The girl is writing a letter with the pen.’  
 (Kimenyi 1980: 32)

In Taba we find a similar construction where an applicative suffix on the verb introduces an argument with the semantic role of instrument. This instrument NP may optionally be marked by a preposition. So in Taba, the applicative and the prepositional marker may optionally co-occur. We will come back to this type of construction in Section 3.2.3.

Taba (Austronesian, Eastern Indonesia)

- (38) Yak k=goras-ak kapaya (ada) kobit.  
 1SG 1SG=shave-APPL papaya (with) knife  
 ‘I took the seeds out of the papaya with a knife.’  
 (Bowden 2001: 208)

Three-place predicates can also be built up, in some languages, from base intransitives through the successive application of two applicatives. Bininj Gun-wok, which has two applicatives (benefactive and comitative) is such a language: from *durnde* ‘return’, *yi-rrurnde* ‘return with O, bring/take back O’ is derived by addition of the comitative applicative. From this *marne-yi-rrurnde* ‘return with O for, bring O back for’ is derived by addition of the benefactive applicative (Evans 1997: 411).

Bininj Gun-wok (Non-Pama-Nyungan, Northern Australia)

- (39) Bi-marne-yi-rrunrnd-i wurdurd.  
 3/3PST-BEN.APPL-COM.APPL-return-PP children  
 ‘(S)he brought the kids back for him/her.’  
 (Evans 2003: 438)

A similar example is (40) where the theme object is incorporated into the verb:

- (40) Kandi-marnekanj-yi-lobme-ng.  
 3AUG/1-BEN.APPL-meat-COM.APPL-run-PP  
 ‘They drove (back) with the meat for us.’  
 (Evans 2003: 395)

While the comitative applicative adds a T argument as the second participant in these two examples, it is the benefactive applicative that derives the verbs into tree-place constructions. Apart from Taba we have found no examples where a T argument is added as the third participant by an applicative morpheme.

### 3.2. *Oblique and adjunct strategies*

In the oblique strategy the verb takes only two direct arguments and the third participant is expressed as an oblique, typically in a NP marked by oblique cases, such as locative, comitative, instrumental, etc., or an adpositional phrase. In principle it is possible to distinguish the oblique strategy from the adjunct strategy as oblique arguments are in principle distinguishable from adjuncts in that they are subcategorized for by the verb. In practice this distinction is often extremely difficult, particularly where we draw on languages beyond our direct expertise. For this reason we discuss these two strategies here together and present examples of both types. We leave a detailed discussion of the argument or adjunct status of the third participant to language specific descriptions of these strategies.

Languages, or constructions within languages, vary according to whether it is the R-type or T-type participant that is an oblique or adjunct. R-type obliques and adjuncts appear to be more common and T-type obliques and adjuncts seem to occur more readily in languages or constructions with primary-secondary alignment rather than direct-indirect alignment.

English allows the oblique strategy with the prepositions *to* and *for* as an alternative to the direct-argument strategy for a wide range of verbs in what is known as the *dative alternation*, as in (41) to (48):

- (41) Mary told the story to Harry.  
 (42) John gave a present to Mary.  
 (43) Lisa kicked the ball to Bart.  
 (44) Salmah took the book to Ali.  
 (45) The father promised a toy to the child.

- (46) The heiress bequeathed her estate to her children.  
 (47) John baked a cake for Mary.  
 (48) She got a present for her mother.

Other English verbs do not allow the direct-argument strategy but require the oblique strategy to express a three-participant event. Levin (1993) discusses verbs taking obliques marked with the prepositions *to* (Levin 1993: 46–47) and *for* (Levin 1993: 49), and a further class can take obliques introduced by *from* (Levin 1993: 52):

- with *to*: “Say verbs” including: *admit, communicate, confess, declare*;  
 “Verbs of putting with specified direction” including: *drop, hoist*;  
 “Verbs of fulfilling” including: *credit, entrust, issue, present*;
- with *for*: “Obtain verbs” including: *acquire, borrow, collect, grab, obtain*;  
 “Verbs of selection” including: *indicate, prefer, pick, select*;  
 “Create verbs” including: *compose, construct, create, fabricate*;  
 “Steal verbs” including: *capture, confiscate, extort, extract, grab*;
- with *from*: “Remove verbs” including: *delete, discharge, dismiss, eject, omit*;  
 “Banish verbs” including: *banish, deport, evacuate, expel, remove*;  
 “Steal verbs” including: *abduct, capture, confiscate, extort, extract*.

Many of these verbs are of Latin origin (typically stressed on the second syllable); however not all are and the particular characteristics of individual lexical items appear to be largely unpredictable. (As discussed in Section 3.1.1, in many Australian languages, such as Bininj Gunwok, some verbs of dispossession use a direct argument strategy, rather than the oblique or adjunct strategy.)

English also has an oblique strategy with a number of verbs of transport and verbs of application of substances, and an alternation between different types of obliques (termed the *locative alternation*) depending on whether the T or the R (understood as a location) is coded in the same way as P of transitive verbs. Consider the classic examples in (49) to (52):

- (49) Harry loaded the truck with hay.  
 (50) Harry loaded hay on the truck.  
 (51) John sprayed the wall with paint.  
 (52) John sprayed paint on the wall.

Similarly, Dryer (1986: 830) notes that verbs like *supply*, *provide*, *furnish*, and *present* show an oblique alternation between (a) marking the theme as P and the recipient as oblique with *to*, and (b) marking the recipient as P and the theme as oblique taking the preposition *with*, as in (53) and (54).

- (53) Our firm supplies bandages to the hospital.  
 (54) Our firm supplies the hospital with bandages.

The general set of strategies just exemplified can be classified in terms of which participant receives special coding, the R participant or the T. (Recall that we are subsuming sources and locations under R as well as recipients and beneficiaries). We divide our discussion below on this notion of R-type obliques/adjuncts and T-type obliques/adjuncts.

3.2.1. *R-type oblique/adjunct strategy.* In this strategy the verb takes two direct arguments (A and T) and the R participant is expressed in a special form reserved for three-participant events, typically as an oblique case-marked NP or adpositional phrase. This is a common strategy crosslinguistically.

A wide variety of case options are found across languages for the marking of R-type participants. In Finnish, recipients of ‘give’ can take the allative case, as in (55).

Finnish

- (55) Minä            annoin    miehelle    kirjan.  
       1sg.NOM    gave        man.ALL    book.ACC  
       ‘I gave the book to the man.’  
       (Kaiser 2000: 1)

In the Tibetan example in (56) the recipient is in the locative case:

Tibetan (Tibeto-Burman)

- (56) Kho-s        blo=bzang-la    deb    cig    sprad-song.  
       He-ERG    Lobsang-LOC    book    a    give-PRF  
       ‘He gave Lobsang a book.’  
       (DeLancey 2001)

In Paamese the R-type participant is marked by a preposition that Crowley (1982: 197) calls the areal dative:

Paamese (Oceanic, Vanuatu)

- (57) Onom vilmemun nesa:ni ven  
 ono+mo vileme+mune na+saani+e veni  
 POSS.2SG film.additional 1SG.give.3SG AREAL.DAT

Rei Kalima.

rei kalimaa

Ray Gillmore

‘I delivered your film to Ray Gillmore’s too (though I didn’t give it to him personally).’

(Crowley 1982: 197)

In Saliba R-type participants can be marked by a complex postposition *kali-PRO-wai*. (In [58] the theme *moni* ‘money’ is incorporated into the verb *kaibwada* ‘ask for’.)

Saliba (Oceanic, Papua New Guinea)

- (58) Se kaibwada-moni kali-gu-wai.  
 3PL ask.for-money toward-1SG.POSS-towards  
 ‘They ask me for money.’

Benefactive adpositions are attested in Chrau (59 and 60) and Jalonke (61).

Chrau (Mon-Khmer, Viet Nam)

- (59) Aɲ op pih nəh iɲ.  
 1SG give field 3SG BEN  
 ‘I gave a knife to him.’
- (60) Aɲ op rɔm nəh iɲ.  
 1SG make field 3SG BEN  
 ‘I make a field for him.’
- (Thomas 1971: 71)

Jalonke (Mande, Guinea)

- (61) E band-εε ɲin-ma nxo bε bui  
 3PL food-DEF cook-IPFV 1PL.EXCL for DISC  
 ‘They are cooking food for us, woah!’
- (Lüpke 2005: 211)

Jalonke also has R-type participants that are marked by a locative postposition, like the source in (62):

- (62) E mɔntur-na muga Mainuma ma.  
 3PL watch-DEF steal Maimuna at  
 ‘They stole a watch from Maimuna.’
- (Lüpke 2005: 202)

3.2.2. *T-type oblique/adjunct strategy.* Though the overt marking of themes as the third participant is familiar from only a few English verbs of transfer (e.g. *present with*), as well as certain verbs of physical impact (e.g. *cover with*, *paint with*), crosslinguistically the set of verbs employing similar strategies is much more extensive.

As an alternation to (62) above, the Jalonke verb ‘steal’ allows the theme to be marked as a locative adjunct when the source participant is expressed as the object.

Jalonke (Mande, Guinea)

- (63) E        Mainuma    muga    mɔntur-na    ma.  
       3PL    Maimuna    steal    watch-DEF    at  
       ‘They stole a watch from Maimuna.’ (lit. They stole Maimuna at  
       a watch.)  
       (Lüpke 2005: 202)

In many languages, the basic verb for ‘give’ includes, among its case frames, at least one in which the theme is marked with a preposition, or a case such as the instrumental, proprietive or comitative. The Dyirbal example in (64) shows the theme in the instrumental case:

Dyirbal (Pama-Nyungan, North-Eastern Australia)

- (64) Bayi                    bangun            banggum            wugan.  
       that.ABS.MSC    that.ERG.F    that.INST.VEG    give  
       ‘She gave it (e.g. food) to him.’  
       (Dixon 1972: 300)

Notice that in Dyirbal there is an alternation between this oblique instrument strategy and marking the recipient as dative. The recipient is coded like P (*bayi* ‘him’ in [64]) if the theme is marked as the oblique instrument, but the recipient is in the dative (*bagul* ‘to him’ in [65]) if the theme is coded like P:

Dyirbal (Pama-Nyungan, North-Eastern Australia)

- (65) Balam                    bangun            wugan    bagul.  
       that.ABS.VEG    that.ERG.F    give    that. DAT.MSC  
       ‘She gave it (e.g. food) to him.’  
       (Dixon 1972: 300)

Kayardild has a special “verbal donative” case, primarily used with the theme of three-place predicates (with the recipient in the accusative) to indicate ‘give as an act of kindness’:<sup>10</sup>

Kayardild (Non-Pama-Nyungan, Northern Australia)

- (66) Ngada            ngumban-ji            wumburu-u-ja  
       1SG.NOM    2SG-MOD.LOC    spear-V.DON-ACT

kiyarr-wu-ja            wuu-ja.  
 two-V.DON-ACT    give-ACT  
 ‘I gave you two spears.’  
 (Evans 1995: 336)

In Section 3.5.2 we discuss another strategy widely used in Australian languages with verbs of transfer — the marking of the theme with the proprietive or a similar case. In Kayardild this can be used for the themes of both transfer verbs and verbs of dispossession such as *marndija* ‘deprive of, take from’ and *miilatha* ‘delouse’. Because this structure initially suggests an adnominal structure, in which an adnominal proprietive modifies the agent, it will be discussed there along with other adnominal strategies. However, the status of the proprietive marked NP is not always clear and it may in fact constitute an example of the oblique strategy.

A further strategy, involving the marking of the theme with an oblique case, is found with verbs of deprivation: in several languages, including Modern Greek and Russian, the theme is marked by the genitive case, as in (67):

Russian  
 (67) Sud                    liši-l                    Annu                    svobody.  
       court.NOM    deprive-PST.M.SG    Anna.ACC    freedom.GEN  
       ‘The court deprived Anna of her freedom.’  
       (Marina Tchoumakina p.c. 2006)

3.2.3. *Oblique “applicative” strategy.* Discussions of applicatives frequently treat them as “advancement” strategies whereby an oblique or adjunct NP is promoted to direct argument status, in absence of any oblique case or adposition. Though this may be the common overall pattern, there are languages in which it is possible to have both an applicative affix on the verb and some form of oblique marking on the NP.<sup>11</sup> In this way the encoding of the third participant shares features both with oblique nouns and with applied objects. This strategy was illustrated in (38) above with an example from Taba where the applied object can optionally be marked by a preposition.

A similar scenario is found in Dalabon. We saw in Section 3.1.3 above that Dalabon can use an instrumental applicative to promote instruments to argument status. However, while the applicative allows the instrument NP to omit the instrumental suffix, as with *djarlk* ‘grass type’ in (68a), it does not force this, and double marking is possible, that is, the instrument may be marked by both the instrumental applicative and the instrumental case marker, as in (68b).

Dalabon (Non-Pama-Nyungan, Northern Australia)

- (68) a. Djarlk ngurrah-ye-bimbu-n kanh rarrk.  
 grass.type 1pl/3-INSTR.APPL-paint-PRS DEM painting  
 ‘We use djarlk (a type of grass stem) to do those paintings; we  
 paint those paintings with djarlk.’
- b. Nûnda dulhno-balarra djoh kahnûn  
 DEM branch-3POSS acacia.sp DEM  
 yila-h-yema-ng,  
 1PL/3-REAL-pick.up-PRS  
 yilah-ye-barhdû-ng munmun-yih  
 1PL/3-INSTR.APPL-soak.up-PRS pounded.bark-INSTR  
 duninjh.  
 real  
 ‘We used (branches of) that tree to pick up the honey, and use  
 pounded bark to sponge it up.’  
 (Nick Evans p.c. 2003)

Obligatory combination of applicative and oblique marking can also be found. In West Greenlandic (Fortescue 1984), the theme can be coded like the P, with the recipient appearing in the allative case. However, in this case the verb must bear a special suffix, as in (69a). This is an alternative to the oblique theme strategy in (69b) where the recipient is the object and the theme is marked by the instrumental case.

West Greenlandic (Eskimo-Aleut, Greenland)

- (69) a. Aningaasa-t Niisi-mut  
 money.ABS.PL Niisi-ALL  
 tunni-up-pai.  
 give.3SGA.3PL.OBJ-SUFF-IND  
 ‘He gave the money to Niisi.’
- b. Niisi Aningaasa-nik tunni-vaa.  
 Niisi money.INST.PL give.3SGA.3SG.OBJ-IND  
 ‘He gave Niisi money.’  
 (Fortescue 1984: 88–89)

The Oceanic language Teop uses the direct-argument strategy for *hee* ‘give’ where the verb is followed first by the recipient and then the theme, as in (70). Alternatively, when the theme is pragmatically more salient, it can be coded like the object of a transitive verb while the recipient is marked by the preposition *te*. But this is only possible if the verb takes the applicative marker *ni*, as in (71) and (72). (The same applicative morpheme is used with intransitive and transitive verbs to promote an oblique or adjunct participant to object function.)

Teop (Oceanic, Bougainville)

- (70) Eam toro hee e beera bono kahoo guu.  
 2PL must give ART chief ART head pig  
 ‘You must give the chief the pig’s head.’
- (71) Eove paa hee ni bona maa iana te iaa.  
 3SG PST give APPL ART PL fish PREP mum  
 ‘She gave the fish to Mum.’
- (72) Hee ni-o rapisi te-ve.  
 give APPL-ART knife PREP-3SG  
 ‘Give him the knife.’  
 (Ulrike Mosel p.c. 2003)

### 3.3. *Serial verb strategy*

In the serial verb strategy the three-participant event is expressed through two verbs that combine in a complex construction sharing the three participants between them. This strategy is found, for example, in Southeast and East Asian languages, in West African languages, many Papuan languages, and also in some Austronesian languages.

Apart from structural types, such as same-subject versus different-subject serialization, we can distinguish types of serialization based on which participant is introduced by the serial verb, the R or the T participant (parallel to the distinction between R-type and T-type obliques and adjuncts discussed above).

3.3.1. *R-type serialized P.* In R-type serialization, a serialized verb like ‘give’ introduces a direct object argument specifying an additional semantic role such as a recipient, beneficiary or goal. Unifying the two verbs in one clause and each bringing their respective object results in two object-like arguments for the serialized construction as a whole. Consider examples (73) to (81), which all demonstrate the use of the verb ‘give’ as a serial verb adding a benefactive or recipient argument:

Cantonese

- (73) Ngóh sailóu gei-jó fung seun béi ngóh.  
 1SG brother mail-PRF CLF letter give 1SG  
 ‘My brother mailed me a letter.’
- (74) Kéuih maaih ga che béi léih.  
 3SG sell CLF car give 2SG  
 ‘He’s selling a car to you.’  
 (Matthews and Yip 1994: 138, 139)

## Lao (Tai-Kadai, Laos)

- (75) Khòòj5 si0 song1 lot1-cak2 haj5 phòò1.  
 1SG IRR send motorcycle give father  
 'I'm going to deliver a motorcycle to Dad.'
- (76) Man2 saaj3 nang3 haj5 kuu3.  
 3SG screen movie give 1SG  
 'She screened a movie for me.'  
 (Enfield, this volume)

## Yoruba (Niger-Congo, West Africa)

- (77) Ó tà-á fún mi.  
 he sell-it give me  
 a.) 'He sold it to me.' b.) 'He sold it for me.'
- (78) Mo dé filà fún.  
 I put.on cap give.him  
 'I put a cap on his head.'  
 (Lord 1993: 35)

## Kéo (Austronesian, Eastern Indonesia)

- (79) Ja'o tendo jawa ti'i 'iné.  
 1SG plant corn give mum  
 'I'm planting corn for Mum.'
- (80) Pembé mena rada 'oto né'é mendi ti'i guru.  
 place there road vehicle and carry give teacher  
 'I placed it at the side of the road and took it to the teacher.'  
 (Louise Baird, p.c. 2003)

While 'give' is the most commonly serialized verb in these constructions, there is a range of other verbs that can introduce R-type arguments including 'show', 'present', 'do for', and 'help'. Examples (81) and (82) from *Tukang Besi* illustrate the verb 'do for' adding a beneficiary.

*Tukang Besi* (Austronesian, Sulawesi)

- (81) No-wila kua dao a ako te ina-no.  
 3R-go ALL market do.for CORE mother-3POSS  
 'They went to the market for their mother.'  
 (Donohue 1999: 187)
- (82) No-helo'a-ke-mo ako te ina-no.  
 3R-cook-3OBJ-PRF do.for CORE mother-3POSS  
 'They cooked it for their mother.'  
 (Donohue 1999: 201)

In (83) and (84) from *Twi*, the serial verbs 'show' and 'present' introduce a recipient.

Twi (Niger-Congo, Eastern Africa)

- (83) Mi-ka ašəm mi-kyeɾə no.  
 I-speak word I-show him  
 ‘I told him something.’  
 (Riis 1854: 30, cited in Lord 1993: 33)
- (84) O-de ade kye n’emfəfo iɲiara.  
 he-take thing present(v.) his.friends all  
 ‘He gave presents to all his friends ...’  
 (Riis 1854: 97, cited in Lord 1993: 75)

In Saliba the serialized verb ‘help’ introduces a ‘helped’ as a third argument (the object argument of the first verb is preferably incorporated into the verb).

Saliba (Oceanic, Papua New Guinea)

- (85) Eso ya niu-tutu-sagu-i-Ø.  
 Name 1SG coconut-pound-help-APPL-3SG.OBJ  
 ‘I help Eso to pound coconuts (i.e. pounding copra into a bag).’  
 (Margetts 2005: 84)

In the examples above, the two verbs share the same subject argument but as shown in (86) to (88), where the serialized verb introduces a goal, this is not necessarily the case. The argument status of the third participant in these examples is not always clear. While the goal directly follows the verb in (86), in the Paamese examples in (87) and (88) the goal is marked by the spatial preposition *eni*. But the serialized verb (‘descend’, ‘go’, and ‘exist’) seems to be required in order to introduce the goal NP into the clause.<sup>12</sup>

Mangap-Mbula (Oceanic, Papua New Guinea)

- (86) Zin ti-ur i-su toono.  
 3PL 3PL-put 3SG-descend ground  
 ‘They put it down on the ground.’  
 (Bugenhagen 1995: 166)

Paamese (Oceanic, Vanuatu)

- (87) Kai mulu: la:t ti-n va:  
 kaie Ø-muluue laati ti-ne Ø-vaa  
 3SG 3SG.REAL-vomit go.out intestine-3SG 3SG.REAL-go  
 en ateli.  
 eni atelii  
 SP basket  
 ‘S/he vomited his/her intestines into the basket.’

- (88) Nitero:-ni hel  
 ni-teroo-ni-e he-le  
 1SG.DIST.FUT-draw-TR-3SG 3SG.DIST.FUT-exist  
 en ve:va.  
 eni veevaa  
 SP paper  
 ‘I will draw it on paper.’  
 (Crowley 2002: 69–70)

3.3.2. *T-type serialized P.* In this strategy, a serialized verb introduces a T-type argument. The two verbs may or may not share the same subject. We found this in Papuan and Austronesian languages. Consider the examples from Barai and Taba with the serialized verbs ‘take’ and ‘use’ respectively:

Barai (Non-Austronesian, Papua New Guinea)

- (89) Fu burede ije sime abe ufu.  
 he bread DEF knife take cut  
 ‘He cut the bread with a knife.’  
 (Foley and Olson 1985: 44)

Taba (Austronesian, Eastern Indonesia)

- (90) N=pun bobay pake sandal.  
 3SG=kill mosquito use thong  
 ‘He killed the mosquito with a thong.’  
 (Bowden 2001: 308)

In examples (91) and (92) from the Oceanic languages Paamese and Yabem the serialized verb is ‘accompany’:<sup>13</sup>

Paamese (Oceanic, Vanuatu)

- (91) Inau namun si:n dal tonik.  
 Inau na-muni siine Ø-dali tonike  
 1SG 1SG.REAL-drink gin 3SG.REAL.accompany tonic  
 ‘I drank gin with tonic.’  
 (Crowley 2002: 75–76)

Yabem (Oceanic, Papua New Guinea)

- (92) Tinoc geno btc gjwin mo.  
 mother.1SG 3SG.cook pig 3SG-accompany taro  
 ‘My mother cooked pig with taro.’  
 (Bradshaw 1983: 182)

In many languages what starts out as a serial verb grammaticalizes into either an applicative or an adposition (cf. Durie 1988), which is proof

of the fluidity that can exist between the strategies for encoding three-participant events. For further discussion of serial verbs the reader is referred to Lord (1993) and Crowley (2002), which also include detailed diachronic scenarios.

### 3.4. *Incorporation strategy*

In this strategy one of the three participants is expressed by a noun stem that is incorporated into the verb and may retain or lose its status as a syntactic argument. The cases where the incorporated noun retains its argument status can be considered as a subtype of the direct argument strategy (cf. Section 3.1.1) as the verb is accompanied by three syntactic arguments. We describe this strategy here under Section 3.4.1 because of the morphological features shared with the other type of incorporation strategy where the incorporated noun loses its argument status (Section 3.4.2), but also because the boundaries between these two strategies is blurred in the encoding of three-participant events in more than one language, as we discuss in Section 3.4.3. In all cases it is the T-type participant that is incorporated, the verb-external argument can be an R-type participant or an instrument.

3.4.1. *Incorporated nouns with argument status.* In many languages with what Mithun (1984) calls Type III and Type IV noun incorporation, incorporated nominals retain full argument status — they may be referential, and may be modified, for example by demonstratives, numerals or possessives. An example is Bininj Gun-wok, in which incorporated objects may be modified by external possessive pronouns, as in (93). The corresponding example without incorporation is given in (94). (See also the examples in Section 3.4.3.)

Bininj Gun-wok (Non-Pama-Nyungan, Northern Australia)

(93) Gamak gan-bolk-bukka-n ge.  
 good 2/1-country-show-NPST your  
 ‘It’s good that you will show me your country.’  
 (Evans 2003: 452)

(94) Gamak gan-bukka-n gun-bolk ge.  
 good 2/1-show-NPST class4-country your  
 ‘It’s good that you will show me your country.’  
 (Nick Evans p.c. 2003)

In examples such as these from Bininj Gun-wok we are not dealing with a special incorporation strategy to bring in further participants — rather,

we have a direct argument strategy, in which one of the arguments happens to be realized as an incorporated nominal. In Biniñ Gun-wok the verbal morphology is set up so that the subject and one of the objects are marked on the verb as pronominal prefixes, while the other object may be encoded as an incorporated nominal or occur as an unmarked NP.

3.4.2. *Incorporated nouns with nonargument status.* In other languages, nominal incorporation actually alters the argument structure, under what Mithun (1984) calls Type II incorporation. As Mithun (1984: 856) puts it, “when a transitive V incorporates its direct object, then an instrument, location or possessor may assume the vacated object role,” with the result that one participant is encoded by the incorporated nominal and two more by regular arguments.

In Blackfoot (Frantz 1971, 1991), the transfer expression ‘provide with’ can be expressed by incorporating the theme into the verb ‘acquire’, and using the object pronominal slot to indicate the recipient:

Blackfoot (Algonquian, Canada)

- (95) Nit-ohpokón-sskoawa nóko’sa.  
 I-ball-acquire.him my.child  
 ‘I provided my child with a ball.’  
 (Frantz 1971, cited in Mithun 1984: 858)
- (96) Nitsináánsskoayaawa  
 nit-inaan-Ihko-a:-yi-aawa  
 1-possession-provide-DIRECT-3PL-PRO  
 ‘I got something for them.’  
 (Frantz 1991: 109)

While noun incorporation is well attested in Oceanic languages, the resulting constructions typically express only two participants, an agent and an incorporated theme, the resulting verb being intransitive. There are a few cases, however, in which the incorporation strategy is used to express three-participant events and where the object slot vacated by the incorporated theme is filled by another participant. In the Niuean example (97), the verb has two syntactic arguments, the agent ‘child’ and the instrument ‘charcoal’, but the incorporated noun ‘picture’ indicates a third participant in the event.

Niuean (Oceanic, Polynesia)

- (97) Kua tā fakatino he tama e malala.  
 PRF draw picture ERG child ABS charcoal  
 ‘The child has been drawing pictures with charcoal.’  
 (Seiter 1980: 267)

In the type of incorporation discussed here, the incorporated noun stem specifies the meaning of the verb by indicating the type of theme involved. The noun is not referential and has no syntactically independent status but it allows us to infer that a third participant with certain characteristics takes part in the event.

3.4.3. *Blurring the boundary between incorporation types.* We distinguished at the beginning of this section between noun incorporation that realizes an argument (as in (93) above from Bininj Gun-wok), and noun incorporation that expresses a participant within the verb, without being an argument. These differences are generally held to align with the difference between what Mithun (1984) called “Type II” and “Type III” incorporation: in Type II incorporation, “the N loses its syntactic status as a distinct argument of the clause,” while in Type III it is still a distinct argument, can be modified by external material, has nonincorporated agnates and so forth. However, there are some tantalizing pieces of evidence that this distinction can become blurred in the case of three-participant events, and we give two brief examples here.

Consider first Southern Tiwa (Allen et al. 1984, 1990; Rosen 1990), which has two pronominal argument prefixes on the verb, and additionally allows nominal incorporation. This is essentially Type III incorporation as, first, incorporated nominals can be modified by external material like the numeral ‘two’ in (98a) or the demonstrative ‘that’ in (99a), and second, normally there are alternative constructions where the noun occurs as a free argument, as in (98b) and (99b):

Southern Tiwa (Kiowa Tanoan, Southwestern USA)

- (98) a. Wisi bi-seuan-mû-ban.  
 two 1SG.AGR:B-man-see-PST  
 ‘I saw two men.’  
 b. Wisi seuan-in bi-mû-ban.  
 two man-PL 1SG.AGR:B-see-PST  
 ‘I saw two men.’  
 (Rosen 1990: 683)
- (99) a. Ti-‘u-mu-ban yede.  
 1SG.AGR:A-child-see-PST that  
 ‘I saw that child.’  
 (Allen et al. 1990: 330)  
 b. Ti-mu-ban ‘uide.  
 1SG.AGR:A-see-PST child  
 ‘I saw the child.’  
 (Allen et al. 1990: 332)

However, with syntactic three-place verbs, only one of these two Type III properties holds: the incorporated noun can still be modified by an external demonstrative, as in (100), but, unlike with two-place verbs like ‘see’ above, incorporation is now obligatory and there is no alternative construction where the noun is external, as shown in (101a) and (b).

- (100) Seuanide ta-‘u-wia-ban yede.  
 man 1SG.AGR:A-child-give-PST that  
 ‘I gave the man that child.’  
 (Allen et al. 1990: 330)
- (101) a. Ka-’u-wia-ban.  
 1SG.AGR:A/2SG-child-give-PST  
 ‘I gave you the child.’  
 b. \*‘Uide ka-wia-ban.  
 child 1SG.AGR:A/2 SG-give-PST  
 ‘I gave you the child.’  
 (Allen et al. 1990: 331)

Second, consider again the Australian language Bininj Gun-wok. In this language there is a strictly closed set of around forty incorporable nominals, whose only human member is *yaw* ‘baby, child’. However, just in the case that the verb is a three-place predicate (basic, or derived by an applicative) it is possible to extend the set of incorporable nominals, adding the four human nouns *bininj* ‘man’, *daluk* (~*rraluk*) ‘woman’, *wur-dyaw* ‘child (of female)’, *beywurd* ‘child (of male)’. Two examples are given in (102) and (103):

Bininj Gun-wok (Non-Pama-Nyungan, Northern Australia)

- (102) Nga-marne-beywurd-berrebbom.  
 3/3H-BEN.APPL-son/daughter-promise.PP  
 ‘I promised him/her my daughter/son.’  
 (Evans 1997: 420)
- (103) Bi-rraluk-yi-bom.  
 3/3H-woman-COM.APPL-hit.PP  
 ‘He hit him over the woman.’  
 (Evans 1997: 415)

What the behavior of these two languages suggests is that, specifically with three-place predicates, languages may favor nominal incorporation as a strategy for the third argument, either by making it compulsory (as in Southern Tiwa), or by extending the range of nominals for which it is possible (Bininj Gun-wok), even though this does not lead to a loss of argument status.

3.5. *Adnominal strategy*

In the adnominal strategy, the verb has two syntactic arguments and the third participant is expressed as an adnominal dependent of one of the arguments. There are two possible patterns, which again parallels the distinction between R-type and T-type obliques and serialized objects: in the possessive strategy, the R-type participant is encoded as a grammatical dependent of the theme; while in the proprietive strategy, the theme is encoded as a dependent of the agent. There are ample examples, cross-linguistically, of the possessive strategy, whereas the few cases known to us that seem to appear to involve a proprietive strategy can all be given alternative analyses in which the proprietive NP has been raised to clause level (oblique strategy), rather than being a clear adnominal dependent as we discuss below.

3.5.1. *Possessive strategy.* In this strategy the agent and the theme are expressed as syntactic arguments of the verb, while the R-type participant, which will be the beneficiary with transfer verbs but the source with verbs of dispossession, is expressed as a grammatical dependent of the theme, namely as its possessor. With verbs of dispossession, such as English *steal*, this is an extremely common strategy (*They stole his money*), whereas with transfer verbs one has to look a little further to find examples. This strategy is well documented in Oceanic languages (Song 1997, 1998; Lichtenberk 2002; Margetts 2002, 2004; Thieberger 2006).

Tamambo (Oceanic, Vanuatu)

- (104) Mo loli na vanua harama atea no-ni  
 3SG make ART house new one POSS.CL-LINK  
 votambaluhi-na.  
 wife-3SG.POSS  
 ‘He made his wife’s new house/He made a new house for his wife.’  
 (Jauncy 1997: 248)

Balawaia (Oceanic, Papua New Guinea)

- (105) Tama-gu tari-gu ge-na gio  
 father-SG.POSS brother.1SG.POSS CL-SG.POSS spear  
 kalato.  
 he.made  
 ‘My father made my brother’s spear/My father made a spear for my brother.’  
 (Kolia 1975: 160)

Examples are also attested in a number of other language families (cf. Croft 1985). Consider the examples in (106) to (109):

Gayo (Austronesian, Sumatra)

- (106) Ke mera kam n-eñah awal=ku urum  
 BCKGR want 2PL AO-take banana=1POSS and  
 gadung=ku?  
 cassava=1POSS  
 ‘Would you like to get some bananas and cassava for me?’  
 (Eades 2005: 206)

Kobon (Non-Austronesian, Papua New Guinea)

- (107) Nipe win yad g-ab.  
 3SG bow 1SG.POSS do-3SG  
 ‘He is making a bow for me.’  
 (Davies 1981: 112)

Hixkaryána (Carib, Brazil)

- (108) Rokrahani yonyhoryeye Waraka.  
 my.bow he.made.it Waraka  
 ‘Waraka made a bow for me.’  
 (Derbyshire 1979: 94)

Tzotzil (Mayan, Mexico)

- (109) 'i-j-meltzan-be y-ot li Romin-e.  
 PF-1ERG-make-APPL 3ERG-tortilla the Romin-ENC  
 ‘I made Romin’s tortillas/I made tortillas for Romin.’  
 (Aissen 1980, cited in Croft 1985: 50)

Typically, the literal possessive interpretation and an interpretation of the grammatical possessor as the beneficiary are semantically compatible with each other and there is no conflict or competition between these two readings. At times it is unclear whether a given example is an instance of the possessive strategy or the oblique strategy, reflecting difficulties in determining whether a genitive nominal or NP is embedded within another (possessive strategy), or is a clause-level adjunct or oblique. This seems to be the case for (110) from Dyirbal. Dixon (1980: 322) describes that constructions like the one given in (110) are only used with verbs of ‘giving’ where the beneficiary is specified as becoming possessor.

Dyirbal (Pama-Nyungan, Northeastern Australia)

- (110) Bala barri baŋgun yibiŋgu wugan  
 it.ABS axe.ABS she.ERG woman.ERG give.PRS  
 baŋul yaragu.  
 he.GEN man.GEN

‘The woman is giving the axe to the man.’  
(Dixon 1980: 322)

Though Dixon (1980: 322) states that the genitive NP ‘the man’ functions “as alienable possessor to the O NP ‘the axe’, exactly as it does in the possessive construction”, an alternative analysis would be that it is a ‘relational’ (clause-level) NP taking the genitive. The clinching data would come from observing what happens when the clause is antipassivized: on Dixon’s adnominal analysis, the genitive NP should then pick up the dative case that gets assigned to the objects in antipassives, by *Suffixaufnahme*, whereas on an oblique analysis it should just remain in the genitive. Unfortunately the parlous state of Dyrbal makes it impossible now to check these alternatives.

Other languages give clearer evidence of a tendency for the benefactive interpretation to grammaticalize into a distinct oblique construction where, ultimately, an adnominal possessive reading is not possible anymore. This is the case in South Efate, where the benefactive and the possessive construction employ the same morphology but differ in word order.

South Efate (Oceanic, Vanuatu)

- (111) a. U=sat                      nafuṃkas    ga                      mai.  
          1EXCL.REAL=take    flower            3SG.POSS    hither  
          ‘We brought his flowers.’
- b. U=ga                                      sat    nafuṃkas    mai.  
          1EXCL.REAL=3SG.POSS    take    flower            hither  
          ‘We brought flowers for him.’  
          (Nick Thieberger p.c. 2003)

3.5.2. *Proprietary strategy.* In the proprietary strategy, a T-type participant is expressed as the adnominal dependent of the agent. Proprietary cases, in many Australian languages like Kayardild, are the rough converse of possessives: if a man has a boomerang, we can express the boomerang as the head and mark the man as the (adnominal) possessor by saying *dangka-karra wangalk* [man-GEN boomerang(NOM)], or we can make the man the head and the boomerang the adnominal possessee by saying *wangalk-uru dangka-a* [boomerang-PROP man-NOM] ‘the man with [having] the boomerang’. It is therefore interesting to find three-participant events coded, in several Australian languages, by what appears to be the structural converse of the possessive construction, with the recipient coded as P and the theme as proprietary. An example from Kayardild in which the proprietary case marks the theme is (112).

Kayardild (Non-Pama-Nyungan, Northern Australia)

- (112) Niya marndi-jarra kanthathu-na wirrin-kuru.  
 3sg.NOM deprive-PST father-PST.OBJ money-PROP  
 ‘He took money off his father.’  
 (Evans 1995: 420)

As in the case of the Dyrbal construction in (110) above, we face the question of whether the proprietive-marked argument is really an adnominal construction, this time modifying the subject. (In other words, is the structure of (112) something like ‘he, [ultimately] money-having, deprived his father’.) In favor of this analysis, the proprietive marked NP behaves like the subject in eschewing the tense/mood-sensitive case-marking (“modal case”) that appears on ‘father’. Even clearer evidence of the link to the subject comes from the closely related language Yukulta, where proprietive themes of three-participant verbs agree with their subjects in taking the ergative case:

Yukulta (Non-Pama-Nyungan, Northern Australia)

- (113) Kunawuna=nganda wuu-ja kulthangarra-urlu-ya.  
 child.ACC=1SG.ERG.PST give-IND flying.fox-PROP-ERG  
 ‘I gave the flying fox to the child.’  
 (Keen 1972: 421)

However, neither of these facts forces an analysis of the proprietive NP as an adnominal dependent, since case agreement is also found with secondary predicates linked to subjects. (In fact it also occurs, in a limited range of cases, on other oblique arguments (see Evans 1995: 416–423).<sup>14</sup>

One argument that could be brought to bear on this issue would employ auxiliary placement — in many Australian languages a good test for constituency — to see whether it can treat the sequence subject + proprietive theme as a single unit. Unfortunately when Nick Evans (p.c. 2003) tried to test this in 1984 there were no longer any sufficiently fluent Yukulta speakers left to deliver a clear judgment, and the healthy languages that employ second-position auxiliaries don’t have the proprietive theme construction.

We are left, then, with a situation where adnominal proprietives remain a logical possibility for a distinct substrategy, but where the languages using proprietive themes possibly follow a strategy of employing the proprietives as secondary predicates on the subject rather than as straightforward adnominal modifiers. Nonetheless, given that secondary predicates frequently involve units that can elsewhere serve as adnominal modifiers, the constructions are closely related.

3.6. *Directional strategy*

In the directional strategy the verb takes two syntactic arguments and in addition a directional marker indicating transactional orientation (e.g. towards speaker, towards addressee). In this way the verb may implicate that the R-type participant is a first, second or third person. Consider (114) and (115) from Saliba:

Saliba (Oceanic, Papua New Guinea)

(114) Leta wa ye hetemali-ya-ma.  
 letter GIVEN 3SG send-3SG.OBJ-towards.SPKR  
 'He sent me/us the letter.'

(115) Leta wa ye hetemali-ya-wa.  
 letter GIVEN 3SG send-3SG.OBJ-towards.ADDR  
 'He sent you (SG/PL) the letter.'  
 (Margetts 2002: 627)

The examples in (114) and (115) do not entail that the speaker or the addressee comes to possess the theme, as the directionals do not entail a recipient as such but only the direction of the transfer (i.e. towards first or second person). That there is a recipient participant is only implicated and therefore defeasible. Nevertheless, the directional marking is clearly used as a means of expressing a third participant in the event as it gives details about the person of the recipient (see Margetts 2007a for a more detailed discussion of the Saliba directionals and their use in expressing transfer events).

Across the Oceanic language group there are a number of languages that use this strategy, particularly to express transfer events, but they vary in their inventory of deictic markers. In Mokilese, as in Saliba, there is a contrast between the directionals *do(a)* 'towards speaker' and *we* 'towards addressee' (or in a direction known to both speaker and addressee).

Mokilese (Oceanic, Micronesia)

(116) Ngoah pirin ken kadam-dah-we-hng koawoa epwi.  
 1SG FUT then send-up-TO.ADDR-to things few  
 'I'll have to send a few up to you.'  
 (Harrison 1976: 200)

In Maori the deictic particle *mai* 'hither/towards speaker' contrasts with *atu* 'thither/away from speaker' (which does not entail directionality towards a speech act participant). While the directional *mai* 'hither' can be the only indication of a recipient, as in (117), it also commonly combines with a preposition, as in (118).

Maori (Oceanic, New Zealand)

- (117) Naa te kurii i mau mai te raakau.  
 ACTGEN the dog TAM bring hither the stick  
 ‘The dog brought me a stick.’
- (118) Naa hone i hoo-mai te paaoro ki ahau.  
 ACTGEN the TAM give-hither the ball to 1SG  
 ‘John gave the ball to me.’  
 (Bauer 1993: 474)

A further example of the directional strategy comes from the Australian language Ilgar (Iwaidjan family, Non-Pama-Nyungan), where verbal prefixes have portmanteau forms showing a three-way directional contrast (neutral, towards speaker, away from speaker) in addition to marking the person, number and gender of subject and object. Marked directional choices can be used literally to mark direction of movement, or location of action close to or away from speaker, as in (119a) and (119b), but the ‘towards’ forms may also be used to implicate benefit for the speaker or a group containing the speaker, as illustrated in (120).

Ilgar (Non-Pama-Nyungan, Northern Australia)

- (119) a. Gun-adba-n  
 2/3.towards-cook-NPST  
 ‘Boil it here!’  
 b. Gan-adba-n  
 2/3.away-cook-NPST  
 ‘Boil it (a bit further away)!’
- (120) Gun-adba-njing raga yinyali.  
 2/3.towards-cook-OPT DEM yam  
 ‘Cook the yam for us.’  
 (Nick Evans p.c. 2003)

### 3.7. *Absorption strategy*

In this strategy there are two syntactic arguments in the clause but the verb itself includes information about a further participant — for example, a goal or an instrument. This information can lie in the verb root itself (Section 3.7.1), or be provided by a nominal root designating one participant from which the verb is derived by zero derivation (Section 3.7.2), or by overt denominal morphology (Section 3.7.3). It can be the result of the loss of morpheme boundaries through historical absorption into the verb stem of what used to be independent morphemes, such as an object

marker or classifier (Section 3.7.4), or it can result from person-based suppletion in the form of the verb root (Section 3.7.5).

An interesting question is whether subtypes of the absorption strategy like the zero-conversion and denominal derivation are equally common for all three participants. It seems likely that locations and instruments or themes are more commonly absorbed in this way than social agents, but this needs a detailed crosslinguistic study.

The problem in discussing the absorption strategy is the question of where to draw the line in determining what counts as information “included” in the verb. Does only entailed information qualify or also information implicated by the verb? How about verbs, such as *slap* or *cut*, which entail an instrument of a certain shape or with certain characteristics (like a sharp edge), as opposed to a specific instrument, as in the case of *kick*? We cannot attempt to give a full account here but despite the difficulties in describing this strategy exhaustively it seems necessary to mention it in the list of constructions that are available to express three-participant events.

3.7.1. *Inherent lexical meaning.* In this strategy the verb itself inherently includes information about an instrument participant. There are only a few verbs in English in which the root carries information about an involved instrument. Examples with relatively explicit information about the instrument involved include verbs like *kick*, *punch*, *bite* and *lick* and also *gore*, which is described as ‘pierce or stab with a horn or tusk’ in the concise Oxford English Dictionary.

In the Australian language Dalabon there is a verb *ngobka* ‘break with foot’ and similarly in Bininj Gun-wok there is a verb *melme* ‘touch with foot’, both indicating the instrument involved in the event.

Dalabon (Non-Pama-Nyungan, Northern Australia)

- (121) Kanh dulk wubulu-ngobka.  
 DEM tree 3PL/3SG.APREH-break.with.foot.PRS  
 ‘They might break the tree (the wood of the root) with their foot.’  
 (Evans et al. 2004: 290)

Bininj Gun-wok (Non-Pama-Nyungan, Northern Australia)

- (122) (Gun-denge-be) a-melme-ng alege  
 class4-foot-ABL 1SG/3SG-touch.with.foot-PP F.DEM  
 daluk.  
 woman  
 ‘I touched the girl with my foot.’  
 (Nick Evans p.c. 2003)

3.7.2. *Zero derivation.* In this strategy the verb, which is derived by zero conversion from a noun stem, again includes specific information about a further participant in addition to the two syntactic arguments. The third participant can be an R-type, a T-type or an instrument. In English zero conversion is a common means of deriving such verbs from nouns. In (123) to (125) the source noun denotes the goal of the transfer event (a container); in (126) and (127) it denotes the theme.

- (123) We shelved the books.  
 (124) I boxed all our old stuff.  
 (125) They bottled the wine.  
 (126) He watered the flowers.  
 (127) She saddled the horses.

Examples (128) and (129) give similar examples from the Austro-Asiatic language Mundari though this time the source noun functions as theme or instrument in the derived verbal construction: the noun *ba* ‘flower’ yields the transitive verb *ba* ‘put flowers on’, and the noun *laTab* ‘scissors’ yields the transitive verb *laTab* ‘cut with scissors’.

Mundari (Austro-Asiatic, India)

- (128) *ba=ja-d-ko-a=e?*  
 flower-PROG-TR-3plO-IND=3SG.SUBJ  
 ‘(S)he is putting flowers on them.’  
 (Nick Evans, p.c. 2003)
- (129) *Soma kaTa-re-q*  
 Soma leg-LOC=3SG.SUBJ  
*laTab-ja-n-a.*  
 cut.with.scissors-INCEP-INTR-IND  
 ‘Soma cut his leg with scissors.’  
 (Evans and Osada 2005: 374)

Saliba has a root *tuha* ‘(use) poison root’, which can function as a noun or an intransitive verb. In (130) it occurs as a transitivized verb stem ‘to poison something with poison root’. The patient of the poisoning occurs as the object.<sup>15</sup>

Saliba (Oceanic, Papua New Guinea)

- (130) *Se lau yama se tuha-i-di.*  
 3PL go fish 3PL poison.root-TR-3PL.OBJ/POSS  
 ‘They go and poison the fish with poison root.’

3.7.3. *Derivation with overt denominal morphology.* It is also extremely common to represent three-participant events by verbs built up from

nominal roots using some sort of derivational process. In all our examples it is the T-type participant that is expressed by the verb. Example (131) from Kayardild takes the nominal root *wajurr-* ‘armpit’ and adds the verbalizing suffix *-jurrija* to give a transitive verb meaning ‘apply sweat from armpit to [obj]’, used for various rituals where spiritual strength is passed on from one person to another.

Kayardild (Non-Pama-Nyungan, Northern Australia)

- (131) Ngada            wajurrjurri-j                            kunawuna-y.  
 1.SG.NOM    apply.sweat.from.underarm-ACT    child-OBJ  
 ‘I put sweat from my armpit on the child.’  
 (Nick Evans p.c. 2003)

Another Kayardild example is *munirrija* ‘give one’s breast to [child:obj], breast-feed [child-obj]’, derived from the noun *munirr-* ‘breast’ by the verbalizing suffix *-(w)ija* ‘deliberate action with body part’ (Nick Evans 1995: 739, p.c. 2003).

Nahuatl (Tuggy 1997: 54–56) derives a number of transitive verbs denoting three-participant events by the causativizing suffix *-tia*. Examples are *axka-tia* ‘bequeath to, give as an inheritance to’ from *axka-* ‘owned thing, possession’, and *tlakual-tia* ‘give food to, feed’ from *tlakual-* ‘food’. Tuggy (1997: 54–55) points out that these constructions make more sense if *-tia* in these forms is analyzed as meaning not just ‘cause to be N’ but rather ‘cause to have N’.

3.7.4. *Absorbed classifiers or object markers.* A further subtype of the absorption strategy involves erstwhile verbal morphology that becomes unproductive and gets reanalyzed as part of the verb stem. There are at least two types of examples of this.

The first involves absorbed classifiers, as in Navajo, Apache and Cherokee, which provide information about the theme. In Cherokee there are around 30 verb stems (King 1975; Pulte 1975, cited in Mithun 1986: 392–393) including specific properties of their patients, such as *gakaneha* ‘he’s giving him a living thing’, *ganehneha* ‘he’s giving him some liquid’, *adeha* ‘he’s giving him a long, rigid object’, or *ganvneha* ‘he’s giving him a flexible object’. A number of these, at least, appear to contain relics of what were once incorporated nominals; the *ne* in the ‘give liquid’ verb, for example, is cognate with the Northern Iroquoian noun stem *-hnek-* ‘water’.

The second involves “dead gender markers” that once showed agreement with the gender of the object, but which have become uncoupled from the agreement system and essentially provide partial referential information about one event participant, with the grammatical object now expressed by other means (e.g. a free pronominal). Such markers are a

feature of the Iwaidjan languages, such as Ilgar, Iwaidja and Maung (Evans 2000: 115–16). Example (132) illustrates a standard gender use of the object prefix *ɔŋ-* in Ilgar: the masculine object prefix *yi-* is used with a male (or generally unspecified) object, whereas the form *ɔŋ-*, originally a “terrestrial” gender in proto-Iwaidjan, is used where the seen object is a place, water, or tract of country, as in (132b).

Ilgar (Non-Pama-Nyungan, Northern Australia)

- (132) a. I-w-ayan.  
 3M.OBJ-3PL.A-see.NPST  
 ‘They see him.’  
 b. *ɔŋ*-b-ayan.  
 3ANG.OBJ-3A-see.NPST  
 ‘They’re looking at the place.’  
 (Evans 2000: 116)

In (133), on the other hand, the object is denoted by an external pronoun, while the *ɔŋ*-prefix adds a meaning something like ‘with respect to location — e.g. where to go’, i.e. information about an R-type participant. The exact interpretation of these prefixes is lexically specific.

Ilgar (Non-Pama-Nyungan, Northern Australia)

- (133) *ɔŋ*-bu-ldaginu-ng                    nuyi / ngabi.  
 3ANG.ABS-3PL.A-ask-PP    you    me  
 ‘They asked you/me where to go.’  
 (Nick Evans p.c. 2003)

These prefixes — there is also a dead “vegetable” gender prefix *ma-* with a wide range of uses — are not phonologically absorbed into the root, since according to the person and number value of the subject they may adjoin it or be separated by the transitive subject prefix. But they form a lexical unit with it, and allow the representation of a third participant (country, place, water, etc.) as a nonargument semantically specified by the verb.

3.7.5. *Participant-based event classification.* This subtype of the absorption strategy involves person-based suppletion in the form of the verb root where an event participant — typically a recipient — is encoded through the root. This form of the absorption strategy can result from a preference for distinct lexical roots to be used with different speech-act participants that becomes conventionalized to the point where there is person-based suppletion in the paradigm of the verb. Comrie (2003) discusses examples from a number of languages where there are different

stems for ‘give’ according to whether the recipient is the speaker, addressee or a third person.

Typically the suppletive split is between first and second person recipients on the one hand and third person recipients on the other, as for example *tadi*:- ‘give to third person’ versus *kej*- ‘give to first or second person’ in Kolyma Yukaghir (Northeastern Siberia, Maslova 2002, cited in Comrie 2003: 267), or *byi* ‘give to third person’ and *bo* ‘give to first or second person’ in Lepcha (Tibeto-Burman, Mainwaring 1876: 127–128). Margetts (2007a) presents an account of the suppletive paradigm of ‘give’ in Saliba that also shows such a split: first and second person recipients take the stem *le*, third person recipients the stem *mose*.

Saliba (Oceanic, Papua New Guinea)

- (134) Bosa kesega ye le-ya-ma.  
basket one 3SG give-3SG.OBJ-towards.SPKR  
‘He gave me/us one basket.’
- (135) Bosa kesega ye le-ya-wa.  
basket one 3SG give-3SG.OBJ-towards.ADDR  
‘He gave you (SG/PL) one basket.’
- (136) Bosa kesega ye mose-i-Ø.  
basket one 3SG give-APPL-3SG.OBJ  
‘He gave her one basket.’  
(Margetts 2007a)

The Saliba paradigm combines the absorption strategy with the directional strategy for first and second person recipients, and with the applicative strategy for third person recipients. This results in a difference in argument structure within the paradigm of ‘give’. See Margetts 2007a for further discussion.

While the first and second versus third person split appears to be more common, there are also cases of splits between first person versus second and third person, such as *tír* ‘give to second or third person’ and *dén* ‘give to first person’ in Dongolese Nubian (Eastern Sudanic, Armbruster 1960: 315).

After this overview of strategies for expressing three-participant events we now turn to investigate some of the patterns and limitations in the possible co-occurrence of the strategies discussed above.

#### 4. Strategy choice and co-occurrence

A number of questions that still require intensive crosslinguistic study relate to strategy co-occurrence and to the choice between different

strategies when encoding an event with three participants. Do languages or language families show preferences for certain strategies? Which strategies tend to co-occur in a language? Which strategies can combine and co-occur within the same clause? What is the motivation for the choice between different strategies? Are there lexical preferences so that some situations are more likely to be coded in one way than another?

Most languages draw on a variety of strategies and one cannot speak of language types as such on the basis of what strategies are found in a given language. It may be possible, however, to establish language types in terms of the preferred choice of strategies for expressing three-participant events, and this is another area that requires further study.<sup>16</sup> Combination of more than one strategy within the same clause is very common for some strategies but quite rare for others.<sup>17</sup> Some strategies appear to compete with each other while others freely combine. For example, languages with verb serialization may combine this strategy with the causative, applicative or directional strategy if one of the serialized verbs carries such markers. In Saliba we find that the adnominal possessive strategy can co-occur with most other strategies. So, it is possible to ‘make the child drink its tea’ (benefactive and causative strategy), to ‘give you your cake’ (benefactive and applicative strategy), or to ‘send me my parcel’ (benefactive and directional strategy). However, it seems that co-occurrence of the possessive and the directional strategy, as in (137), is particularly common.

Saliba (Oceanic, Papua New Guinea)

- (137) Yo-m                      leta      gagili-na                      ya  
 CL1-2SG.POSS      letter      small-3SG.POSS      3SG  
 kuli-ya-wa.  
 write-3SG.OBJ-towards.ADDR  
 ‘I wrote a short letter to you.’

The preference for combining these two strategies may be explained by the formal status of the third participant in these two strategies. Neither the possessive nor the directional strategy encodes the recipient as an argument of the verb. Both strategies rely to some extent on pragmatics to identify the recipient as a participant in the event. By itself, the possessive strategy also allows a reading where the grammatical possessor is the owner but not the recipient of the theme, as in ‘He sent/posted my letter’ (e.g. the one that I wrote). The directional strategy, by itself, allows a reading where the directional indicates a location rather than a recipient, as in ‘He sent it here/to where I am’ (but not for me). Combining the two strategies promotes the one reading that they both share: the grammatical possessor as the recipient of the theme. Both strategies can also occur

independently and in this case the choice seems to be dependent on whether the speaker wishes to highlight the transfer or the benefactive aspect of the event.

So, while there are lexical idiosyncrasies associated with coding in most languages,<sup>18</sup> it is also clear that some of the strategies carry a semantic flavor of their own that makes them more likely to be used for certain types of events than for others. In practice, three-participant events tend to include more than one of these semantic aspects (e.g. causing a beneficiary to do something, transfer of a theme to a beneficiary) and therefore strategy choice can be a matter of highlighting different aspects of the event, for example, the causation, transfer or benefit. But languages differ in whether they conceive, for example, of ‘give’ or ‘send’ primarily as transfer events or as cases of ‘cause to have’. The question of how languages choose to express and lexicalize types of three-participant events is the topic of ongoing research and clearly needs further crosslinguistic study. Ultimately, as strategies grammaticalize and lose more and more of the semantic restrictions they have inherited from their source construction they tend to become more open to express events of all types. But there may still be a preference for expressing events that involve causation by the causative strategy, or for transfer events to be expressed by the directional strategy, etc., if such strategies are available in the language.

## **5. Is three the limit?**

A final issue we will address here is the question of limitations regarding the number of event participants that can be expressed in a clause. In theory any number of participants can be involved in an event and it is well known that the number of adjuncts in English clauses is in principle limitless. There is technically no limitation — apart from human processing capacities — to express the recipient, instrument, beneficiary, source and other participants involved in an event in a single clause. This could be done by means of the adjunct strategy or possibly by combining several of the strategies discussed above. However, as we observed in Section 4, strategies are often combined in a clause, not in order to express different participants but to reinforce the expression of one and the same event participant. Apart from the adjunct strategy it seems that most strategies may indeed be geared to express no more than three participants in a clause.

Three syntactic arguments appear to be the maximal number that an underived lexical verb can take, but there are instances of verbs derived

by valence-increasing morphology that can take four arguments when the input verb is a three-place predicate. Causativization of three-place verbs more commonly results in one of the arguments being expressed as an oblique or adjunct, as for example in Turkish (Comrie 1981: 169), but there are some rare examples with four arguments, where the clause contains two indirect objects, as in the following sentence from Punjabi:

Punjabi (Indo-Iranian, India)

- (138) Bənde ne maʃtər nū kəni mwɳɖyā nū  
 man SUBJ teacher IO story boys IO  
 swɳ-vā-i.  
 tell-CAUS-PST  
 'The man made the teacher tell the story to the boys.'  
 (Comrie 1975: 12)

The applicative strategy is another attested method for adding a fourth argument to syntactic three-place predicates in some languages. Thus Sasak (Austin 1999, 2001) allows three-place predicates to be applicativized, to create sentences such as (139). Not surprisingly, there are no examples in the Sasak corpus where all four arguments are full NPs; generally at least one is a pronoun as in the given example.

Sasak (Austronesian, Eastern Indonesia)

- (139) Ahmat sadéq-ang ite Nazir kelambi ini.  
 Ahmat give-APPL 3 Nazir shirt this  
 'Ahmat gave Nazir this shirt for him (Ali).'

Similarly, in Manam a benefactive applicative can add a fourth argument to a three-place predicate, as in (140) and (141):

Manam (Oceanic, Papua New Guinea)

- (140) Nátu údi té'e-Ø  
 child banana one-3SG  
 g-iá-Ø-a-n-a.  
 2SG.IRR-give-3SG.OOBJ-BF-BEN-1SG.OBJ  
 'Give one banana to the child for me.'
- (141) Tanépwə maŋ mi-an-Ø-á-ŋ-'o.  
 chief chicken 1SG.IRR-give-3SG.OBJ-BF-BEN-2SG.OBJ  
 'I will give a chicken to the chief for you.'  
 (Lichtenberk 1983: 167)

The same is true in Kinyarwanda (Kimenyi 1980), where a three-place verb can take a benefactive applicative. If no external noun phrases are present, all four arguments can be indexed on the verb, as in (143):

Kinyarwanda (Bantu, Eastern Africa)

- (142) Y-a-kí-mú-bá-hé-er-eye.  
 he-PST-it-him-them-give-BEN.APPL-ASP  
 ‘He gave it to him for them.’
- (143) Tw-a-bí-bá-gú-shub-ir-iye.  
 we-PST-them-them-you-give.back-BEN.APPL-ASP  
 ‘We gave them back to them for you.’  
 (Kimenyi 1980: 181)

Further, Kimenyi (1980) gives examples of double applicatives where a single verb takes two applicative derivations, an instrumental and a locative in the following example, to create a predicate with four expressed syntactic NP arguments (see also Gerdts and Whaley 1993):

Kinyarwanda (Bantu, Eastern Africa)

- (144) Úmwáalímu y-a-andik-iish-ijé-ho  
 Teacher he-PST-write-INSTR.APPL-ASP-LOC.APPL  
 ikíbáho imibáre íngwa.  
 board math chalk  
 ‘The teacher wrote math on the blackboard with chalk.’  
 (Kimenyi 1980: 107)

This seems to be highly unusual and even where languages do allow double applicatives (as in Halkomelem Salish, British Columbia [Donna Gerdts p.c. 2003]) the resultant clauses do not normally contain more than three arguments. It is unclear whether the Kinyarwanda construction can be replicated in any other language.

For serial verbs it is in principle possible to encode more than three arguments in a clause if there are three or more transitive verbs in a series and they each share only one of their two arguments with the preceding verb. Such constructions seem to be quite rare but examples of this type are attested. Consider the following text example from Lao:

Lao (Tai-Kadai, Laos)

- (145) Caw<sup>4</sup> pòon<sup>4</sup> khaw<sup>4</sup> haj<sup>5</sup> luuk<sup>4</sup> haj<sup>5</sup> khòj duu<sup>2</sup>.  
 2SG feed rice give child give me PART  
 ‘You please feed the child the rice for me.’  
 (Nick Enfield p.c. 2003)

Incorporation of the type where the incorporated noun is not an argument of the verb is most common with two-place predicates that become syntactically one-place through the process of incorporation. As mentioned above, expressions of three-participant events with the incorporation strategy are less common and we are not aware of any clear

examples of this strategy encoding more than three participants. Such an analysis could possibly be argued for the Mohawk example in (146), which includes two incorporated nouns, *ia't* 'body' and *hah* 'path' besides the two verb-external arguments (the first person singular agent and the second person singular recipient):

Mohawk (Northern Iroquoian, Canada)

- (146) Enkonია'thahónnien.  
 en-kon-ia't-hah-onni-en-'  
 FUT-1SG.AGT>2SG.PAT-body-path-make-BEN-PRF  
 'I shall make a path for you.'='I shall guide you.'  
 (Mithun and Corbett 1999: 69)

But it is unclear whether both of the incorporated nouns can be considered event participants (e.g. whether they can be referential and have agnate free NPs). Mithun and Corbett suggest that this very rare double incorporation most likely came about in several diachronic stages and that *-ia't-* 'body' was incorporated only after *-hah-onni* 'path-make' was already lexicalized. The translation of (146) suggests only three participants being involved in the event. (However, the noun stem *ia't* 'body' could possibly be interpreted as an instrument here.) This type of example suggests that the encoding of a fourth participant may in principle be possible with the incorporation strategy.

Both subtypes of the adnominal strategy again seem to be restricted to express a third, non-argument participant in a transitive clause. When these constructions appear with three-place predicates they typically do not imply an additional event participant. Rather they simply modify one of the existing arguments (as being possessed or as "having" something), as in reading (a) in (147), where the theme is marked as possessed. There is no indication that the possessor is a participant in the giving event.<sup>19</sup> Alternatively the possessor can refer to an event participant, as in reading (b), but this participant is simultaneously expressed as a syntactic argument and therefore the expression of the possessor does not augment the number of participants expressed in the clause.

Saliba (Oceanic, Papua New Guinea)

- (147) Yo-na                    leta    ya    mose-i-Ø.  
 CL1-3SG.POSS    letter    1SG    give-APPL-3SG.OBJ  
 (a) 'I gave him<sub>i</sub> his<sub>j</sub> letter.' (b) 'I gave him<sub>i</sub>; his<sub>j</sub> letter.'

The directional strategy and the absorption strategy seem to be restricted in a similar way. Although it is conceivable that they may combine with valence-changing strategies like the causatives or applicatives, we have

not yet found examples where they are used to express more than three participants in a clause.

All in all, most of the strategies discussed here seem tailored to express a maximum of three participants and only very few can push beyond the threshold of encoding three participants per clause. The notable exceptions are the adjunct strategy, and to a lesser extent, the causative strategy, the applicative strategy, and the serial verb strategy. The latter three can, in principle, be used to express four syntactic arguments in a single clause but such cases seem exceedingly rare crosslinguistically.

## 6. Conclusions

Although intransitive and transitive constructions expressing one and two-participant events have been extensively studied from a crosslinguistic perspective, little work has been done on three-participant events and the ways they operate in different languages. Additionally, where there is description and analysis it is typically confined to syntactic three-place predicates or just to the verb 'give'. Some theoretical approaches ignore three-participant events all together and reduce them to variants of transitive constructions.

In this article we have outlined the range of different strategies for coding three-participant events that we found across a number of languages. We primarily investigated data from Australian, Austronesian (particularly Oceanic) and Indo-European languages (particularly English) but we have also drawn on data from a range of other language families. It remains to be seen whether closer investigation of further languages will reveal additional strategies for the encoding of three-participant events beyond the strategies we presented here.

We have shown that besides a number of syntactic three-place strategies (and a range of cases where the argument status of the third participant is disputable), there is a variety of alternative constructions in which the third participant is not a syntactic argument in the clause. In some strategies the third participant is evoked essentially by pragmatic means and the clause's reading as expressing a three-participant event may be defeasible.

Across several of the strategies we find a choice of which participant, the R or the T, is more closely associated with the verb and which is encoded as the third participant. This choice, which is also found in the distinction between primary object languages and direct object languages, is reflected in the different types of the oblique strategy, in the choice of which type of participant is added by a serial verb, and also in the two

Table 3. *Treatment of R-type and T-type participants*

Strategy	Marked treatment of R	Marked treatment of T
Direct argument strategy	Indirect object	Secondary object
Oblique/adjunct strategy	R-type oblique/adjunct	T-type oblique/adjunct
Serialized verb	R-type serialized P, added by 'give', 'show', 'go', 'descend', ...	T-type serialized P, added by 'take', 'use', 'accompany', ...
Adnominal strategy	Possessive adnominal R marked as possessor of T	Proprietary adnominal T marked as dependent of A

types of adnominal strategies: possessive vs. proprietary.<sup>20</sup> In each case we can describe substrategies that treat the R as the less privileged and more overtly marked participant, and others that treat the T in this way, as shown in Table 3.

We find that the language families we have primarily investigated here differ in the range of strategies they use and in the preference they show across the strategies available to them. While English employs a relatively large set of underived three-place predicates, Oceanic languages tend to have only a very small class of root three-place verbs if they have such predicates at all. While Australian languages commonly have underived three-place verbs employing the direct-argument strategy for verbs like 'withhold from, deny to' in English these concepts are not found with three direct arguments but are expressed by the oblique strategy. While Oceanic languages commonly make use of the directional strategy for transfer events, in English these events are again typically expressed by three-place verbs. Since even the limited sample of languages investigated in this study reveals differences in the choice of strategies, further preferences and restrictions of this type need to be researched. In order to identify which strategies are being used universally, commonly or rarely, we need to establish an inventory of strategies found in individual languages and language families.

Future studies may investigate whether strategy preferences are relatively stable across time and so whether they hold across whole language families or only for individual languages. Are strategies for expressing three-participant events readily borrowed in cases of language contact and are certain strategies more readily borrowed than others? Further research may also explore whether strategy preferences for the encoding of three-participant events can be used as a feature for the typological classification of languages and if so whether it correlates with other typological characteristics.<sup>21</sup>

We have shown that three participants per clause is the limit for most of the strategies we discussed and this shows the importance of three-participant events as a concept for linguistic theory and description.

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## Notes

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2. Besides the dynamic states of affairs that we consider, there are also certain stable states, such as 'be between, extend from-to, be responsible for', which necessarily involve three participants — A is between B and C, A extends from B to C, or A was responsible to B for C — but for reasons of space we exclude them from further consideration.
3. This point is also made forcefully by Borg and Comrie (1985: 123): "in many languages ... 'give' is syntactically a very atypical ditransitive verb ... more care needs to be taken in the choice of the most typical ditransitive verb, selection of 'give' always requiring cross-checking with a variety of other verbs of similar valency."
4. In languages with light verbs, such as Kalam (Pawley 2006) and other Papuan highland languages (but also Hindi/Urdu and many other South Asian languages), it is common to encounter what appear, *prima facie*, to be syntactic three-place predicates expressing propositions that would be expressed by two-place verbs in most other languages. In Kalam 'X hear Y' is expressed as 'X Y ear perceive' and 'X like Y' as 'X Y thought good perceive' (Pawley 2006). Should these be considered three-participant events and added to the semantic groupings listed in Table 2? In our view such constructions should only be considered as expressing three-participant events if the third (quasi-) nominal (i.e. 'ear', 'thought', etc.) can be used referentially within the construction, that is, can be made definite, or modified by a possessive pronoun or demonstrative. If this is not the case the (quasi-) nominal is better analyzed as a

denominal coverb in the relevant lexeme. In the cases known to us, these conditions are not satisfied, which is why we have not added such events to our list of three participant events. However, cases like these do demonstrate the difficulties of coming up with a crosslinguistically watertight delineation of three-participant events, and we would not be surprised to encounter languages that extend the above semantic set in various ways.

5. A further type of communication event that at first glance may appear to involve three participants is that denoted by verbs of naming such as *call*, *name*, or *address*, for example, *She called Bertie a bastard* or *I named him my successor*. We do not include these, though, because the relevant NP (a bastard, my successor) is actually a secondary predicate or object complement rather than an argument; it cannot be referential, and, syntactically, cannot combine with demonstratives like *this* or *that* except when they are direct quotations (*\*She called him that bastard* vs. *She called him "that bastard"*.)
6. Saliba examples are taken from Margetts' fieldnotes unless otherwise indicated. Abbreviations follow the Leipzig Glossing Rules; in addition the following abbreviations have been used: A = transitive subject, ACT = actual ("realis"), ACTGEN = actual genitive, AD = adnominal, ADDR = addressee, AGR:A = agreement class A, AGR:B = agreement class B, AO = actor orientation, APPREH = apprehensive, ASP = aspect, AUG = augmented, BCKGR = backgrounding, BF = buffer, CORE = non-nominative core article, DISC = discourse marker, ENC = enclitic, H = higher object, ICV = inherent complement verb, INCEP = inceptive, IO = indirect object, IP = independent pronoun, LINK = linker, MOD = modal, NF = non-feminine, NPST = non-past, OPT = optative, PART = particle, PP = past perfective, PROD = product, PROP = proprietive case, REAL = realis, SEQ = sequential, SPKR = speaker, TAM = tense, aspect, mode, V.DON = verbal donative.
7. Company (2001: 3) discusses in detail the "mixed formal and functional status" of datives that locates them between full arguments and adjuncts. Beermann (2001: 1) argues that some datives should be understood "not as arguments of the verb, but as arguments of the construction as such".
8. Levin lists three more groups under this category: "appoint verbs", "dub verbs" and "declare verbs". As discussed above, we do not consider constructions with these groups of verbs here as they do not express three-participant events according to our definition. In clauses like *They called her Hilda* the two objects are coreferential and therefore do not constitute two separate participants.
9. The examples in (33) have the same translation in the Taba grammar. John Bowden (p.c. 2006) explains that they can have the same meaning, if in the case of (33a) there was a presupposition that lots of money changed hands. This example says less about the actual transfer of something and rather makes a statement about the changed relationship between giver and recipient. If no particular context is given the best way of translating (33a) might be to say 'He made a presentation (of something significant) to you (and this presentation was such that you now owe him something)'. While (33b) might be translated as 'He presented you with lots of money (and as a result of this you owe him something)'.
10. This case derives diachronically from a verb meaning 'give', but now behaves like a normal case suffix, and shows agreement across all words in the NP, as illustrated in this example.
11. This strategy corresponds to the "anti-dative" proposed by Dryer (1986), except for the fact that an overt marker must appear on the verb of the theme-as-O clause type.
12. In some cases such goals can be described as semantic arguments of the motion verb, cf. Margetts (1999: Section 3.4.1).

13. One of the anonymous referees of this journal pointed out that this form of multiple object serialization is rather rare in the languages of the world.
14. Note also that the proprietive does not normally appear adjacent to the NP it is linked to (see (112) above); given the fairly free word order of these languages this is not fatal to the adnominal analysis, but it doesn't help it either.
15. The transitive suffix *-i* on the stem *tuha* in (130) is transitive rather than nominalizing it as the root can also appear as an intransitive verb without any derivational morphology (otherwise it would be an example of strategy 3.7.3).
16. See Margetts (2002) for a discussion of preferred strategies in Saliba and Margetts (2007b) for preferred strategies in Oceanic.
17. Some of the strategies discussed above are in themselves combinations of two strategies, for example, the oblique applicative strategy.
18. See, for example, the discussion in Sections 3.1 and 3.2 of English verbs that fall into three classes: those that allow direct arguments only, those that allow both direct arguments and obliques (the dative alternation verbs), and those that only allow obliques to encode the third participant.
19. The possessor is not interpretable as a fourth participant here because the possessive relation is not affected by the event. The possessive strategy is typically used with verbs expressing activities that either change the extra-linguistic possessive relation or that create this relation in the first place (i.e. verbs expressing the creation of the possessed object as in *He baked my cake*).
20. It is conceivable that the same kind of distinction can also be made for the applicative strategy but as discussed above, so far we have not found examples of an applicative deriving a three-place construction by adding a T-type argument to a two-place verb. The added arguments in our examples are either R-types or instruments.
21. For example, Margetts (1999: 341) suggests that preferred intransitive languages as discussed by (Nichols 1982, 1984a, 1984b) may have a tendency to use strategies other than the direct argument strategy (and possibly even other than three-place verbs in general) for the expression of three-participant events and instead prefer strategies such as the directional strategy or the possessive strategy (cf. Margetts 2007b for a discussion of Oceanic languages).

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