

## 5. Transfer, possession and the commercial transaction frame<sup>27</sup>

### 5.1. Ballistic motion and spatial transfer of possession

Ballistic motion also occurs in constructions expressing spatial transfer of possession, as in 1a-b:

- (1) a. *Sue threw the ball to Jack.*  
b. *Sue threw Jack the ball.*

Spatial transfer is not the same as spatial path traversal, although it is closely related to it. Nor is it identical to transfer of possession, although it is closely related to it as well.

The preposition *to* indicates a different sort of relationship than the simple spatial relation described by ballistic motion verbs as purely spatial verbs (see §4.5). With the preposition *to*, a successful conclusion to the event does involve some controlled action on the part of the Oblique referent governed by *to*. That is, in 1a-b, Jack is a recipient. However, 1a does not entail that Jack caught the ball; compare 2a. Surprisingly, nor does the analogous Ditransitive construction in 1b; compare 2b:

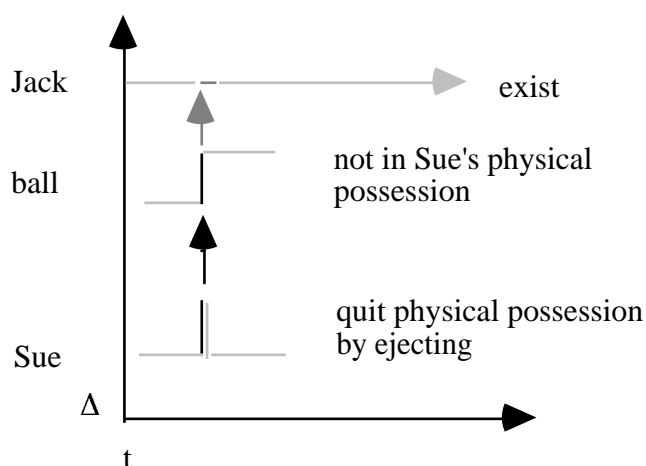
- (2) a. *Sue threw the ball to Jack, but he missed it.*  
b. *Sue threw Jack the ball, but he missed it.*

The same is true of *hand*, another spatial transfer verb which has more overtones of possession (imagine a relay race):

- (3) a. *Sue handed the baton to Jack, but he didn't grab it and it fell to the ground.*  
b. *Sue handed Jack the baton, but he didn't grab it and it fell to the ground.*

Spatial transfer of possession is represented in Figure 1 for example 1a:

Figure 1. Spatial transfer of possession



<sup>27</sup> §§5.2-5.7 are a revised and expanded version of Croft, Taoka & Wood 2000. I am grateful to Chiaki Taoka and Esther J. Wood for their contributions to the analyses in these sections.

Spatial transfer of possession represents a new construal of the agent and figure subevents in ballistic motion as involving physical possession. In example 1, Sue abandons physical possession by ejecting the ball, and the ball changes state from being in Sue's physical possession to not being in her physical possession. Since 1a does not entail Jack gaining physical possession of the ball, he is treated as not undergoing any change of state although the preposition *to* represents an attempt to carry out that particular change of state on Jack's part.

In contrast, transfer of "pure" possession, i.e. *give*, does entail that the recipient has received the gift:

- (4) a. \**Sue gave the book to Jack, but he refused it.*  
 b. \**Sue gave Jack the book, but he refused it.*

For this reason, I will distinguish **spatial transfer**, found in 1-3, from **possessional transfer**, found in 4. Spatial transfer is discussed in this section; the subsequent sections of this chapter will deal with possessional transfer.

*To* appears to be another preposition of less direct causation like *at* (see §3.5.2 and §4.5). Unlike *at*, *to* also requires at least some cooperation on the part of the recipient for successful transfer of possession. This is why the recipient can him/herself be construed as the initiator in verbs of obtaining and receiving (see §5.2). Such verbs focus on the erstwhile recipient's active controlled contribution to the success of the transfer of possession act. Of course, such verbs do denote the successful receiving or obtaining of the possessum by the recipient.

In particular, I argue the following complementary pair of verbs of obtaining are to be analyzed as spatial transfer rather than possessional transfer:

- (5) *He stole her bracelet from her.*  
 (6) *He robbed her of her bracelet.*

These verbs of possessional deprivation (Levin 1993:128-30) display the same alternation (in complementary distribution in 5-6) as verbs of removal (see §4.2). Unlike spatial transfer verbs, however, they do entail successful transfer (that is, obtaining), for the reasons given above. Examples 5 and 6 are represented in Figures 2 and 3 respectively:

Figure 2. Possessional deprivation in the Path construction

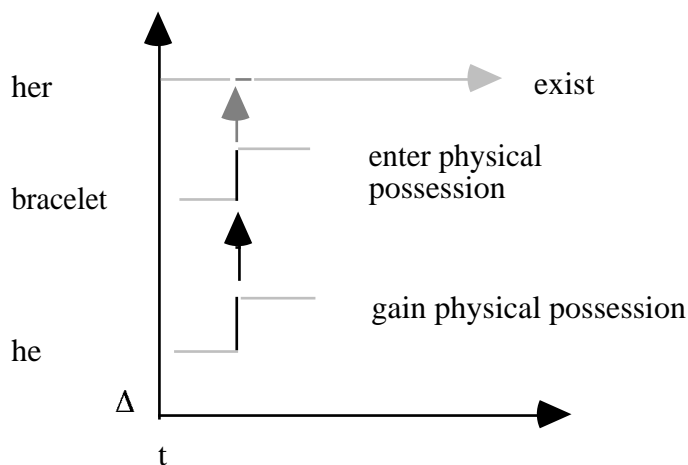
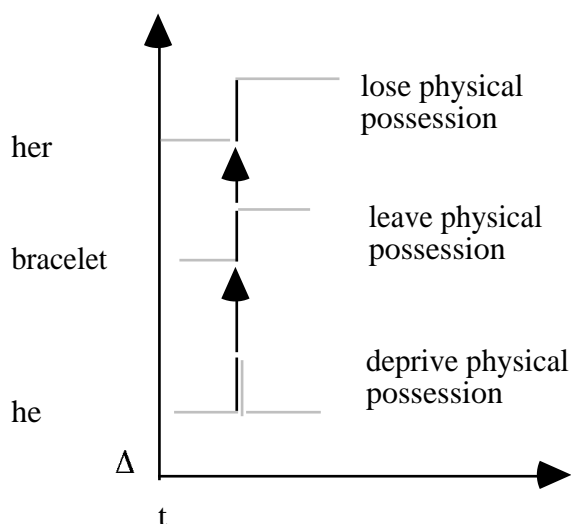


Figure 3. Possessional deprivation in the Of construction



Spatial transfer appears to be extended metaphorically to the transfer of information via language or via visual perception, as in *Sue told the news to Jack* and *Sue showed her new bracelet to Jack*. Events of actual or metaphorical spatial transfer vary as to the degree of control attributed to the (actual or metaphorical) recipient, and how much the recipient must do in order to receive the (actual or metaphorical) object. It is possible to imagine someone trying to receive a thrown or handed object (spatial transfer) and failing or missing it. If we now compare metaphorical spatial transfers, it becomes progressively more difficult to imagine the intended recipient to not try or even to refuse to accept the intended object (linguistic or visual information):

- (7) a. *Sue talked to Jack, but he wasn't listening and didn't hear a thing she said.*  
 b. *Sue told the news to Jack, but he wasn't listening and didn't hear it.*  
 c. *?Sue told Jack the news, but he wasn't listening and didn't hear it.*
- (8) a. *Sue showed her new bracelet to Jack, but he wasn't looking and didn't see it.*  
 (cf. "I showed it to you, but you just weren't looking")  
 b. *?Sue showed Jack her new bracelet, but he wasn't looking and didn't see it.*

It is more difficult to not listen, or to refuse to listen, and virtually impossible to imagine not seeing, or refusing to see, something shown to a person. Nevertheless, verbs such as *tell* and *show* still do not entail that the intended recipient actually receives the object (information), otherwise the following sentences would be nonsensical:

- (8) a. *Sue showed the bracelet to Jack, but she didn't know that he was blind and so he didn't see it.*  
 b. *Sue told the news to Jack, but she didn't know that he was deaf, and so he didn't hear it.*  
 c. *Sue told the news to Jack, but she didn't know that he didn't speak English, and so he didn't understand it.*

These examples show that the agent intends the recipient to receive the (actual or metaphorical) object, and does what she believes is sufficient for the recipient to receive the object; but the verb does not entail that the recipient in fact receives the object.

The above remarks appear to apply to both the *To* recipient construction and the Ditransitive construction. However, I suggested above with my judgements that there is a slight favoring of the inference that the recipient did receive the object in the Ditransitive construction, at least with *tell*. It also seems to me that the Ditransitive versions of 9a-b are slightly less acceptable:

- (10) a. ?*Sue showed Jack the bracelet, but she didn't know that he was blind and so he didn't see it.*  
 b. ?*Sue told Jack the news, but she didn't know that he was deaf, and so he didn't hear it.*  
 c. ?*Sue told Jack the news, but she didn't know that he didn't speak English, and so he didn't understand it.*

Nevertheless, it is clear that there is not a sharp semantic distinction between the *To* recipient and the Ditransitive constructions, that would be captured by a systematic distinction in the semantic representation. Instead, in all cases the recipient should be represented as a less-affected entity. The Ditransitive constructions with *show* and *tell* should be represented in the same way as less-affected direct object verbs such as *watch* and *observe*.

The representation of the *To* construction occurrences of verbs of showing and telling are given in Figures 4-5 (both verbs involve extended causation of rest):

Figure 4. Showing as metaphorical spatial transfer

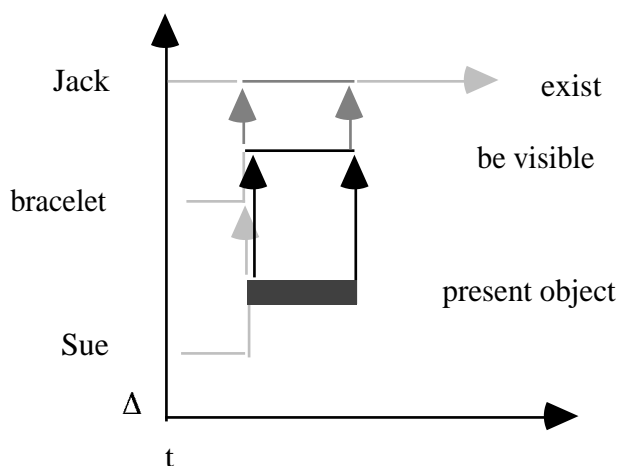
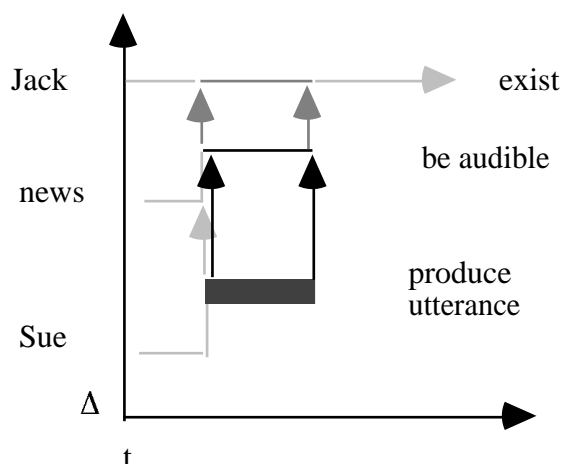


Figure 5. Telling as metaphorical spatial transfer



The representation of the ditransitive construction with verbs of spatial transfer will be discussed in chapter 6.

## 5.2. The representation of possession and transfer of possession

Possession, like other noncausal relations, does not involve transmission of force. So in principle the simple predication of possession allows linking of either argument to subject position, and in fact it does, in English (see 11a-b) and other languages (Croft 1991:210):

- (11) a. *I have a car.*  
b. *This car belongs to me.*

In more complex situations, there is typically a conventionalized construal of one participant as antecedent to the other participant even if the relation between the participants is not causal. The possessed item is conventionally construed as antecedent to the possessor, as can be observed in the following examples (Croft 1991:207):

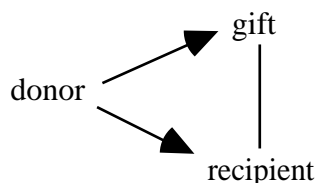
- (12) a. *The dean presented an award to the valedictorian.*  
b. *present<sub>1</sub>: Sbj dean → Obj award → to valedictorian*
- (13) a. *The dean presented the valedictorian with an award.*  
b. *present<sub>2</sub>: Sbj dean → with award → Obj valedictorian*

The situation type underlying 12 and 13 is that of a donor causing a possession relation to come about between recipient and a gift.

The argument linking pattern of 11a, in which the possessor is linked to Sbj and possessed to Object, is contrary to the cross-linguistically widespread possessed-possessor construal. In fact, 11a is an unusual construction for expressing possession in the world's languages, common only in the European area (Leon Stassen, pers. comm.). *Have* possessive verbs are typically derived historically from verbs of holding or grasping (Leon Stassen, pers. comm.). The source construction accounts for the argument linking pattern in *have* possession. Nevertheless, we may observe that at bottom, the possessed-possessor relation is noncausal and hence may be construed in either order in the linear causal chain.

The conceptual structure of the transfer of possession frame without the construal of gift (possessum) as antecedent to recipient (possessor) is represented in 14:

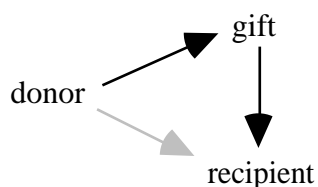
(14)



The Ditransitive construction found with verbs such as *give*, in which both the gift and recipient are coded as Objects (that is, prepositionless postverbal NPs), will be discussed in chapter 6 with other examples of the ditransitive construction.

The constructions in 12-13 and the construction based on directed motion (Goldberg 1995:89-95), illustrated in 15, represent a construal of the possession relation as antecedent-subsequent (cf. Croft 1991:206).

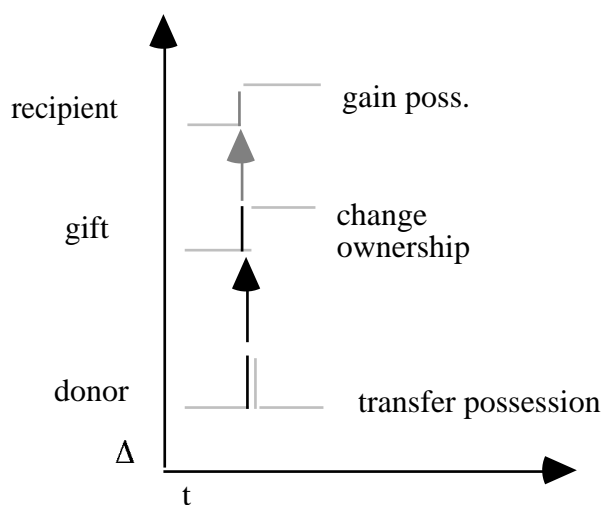
(15) *Tanya gave a book to Harry.*



The representation in 15 indicates that the donor-recipient relation is out of profile, and the noncausal gift-recipient relation is construed such that the gift is antecedent to the recipient. The resulting linear construal of the causal chain of 15 is presented in simpler form in 16, and its causal-aspectual representation is given in Figure 6:

(16) *give*: Sbj donor → Obj gift → *to* recipient

Figure 6. Giving



The causal-aspectual model, combined with the construal of complex events as linear causal chains via the construal operation of selection (see §3.1), allows us to represent the seemingly contrary linking pattern with *receive* (cf. Croft 1991:252) as yet another construal of the transfer of possession frame:

- (17) a. *Harry received a book from Tanya.*  
 b. *receive: from donor → Sbj recipient → Obj gift*

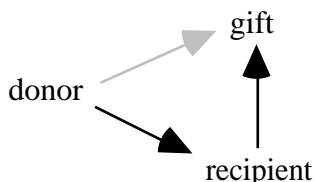
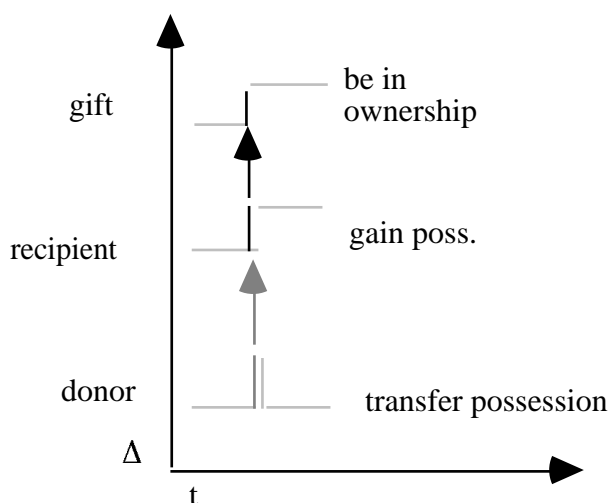


Figure 7. Receiving



The representation is interpretable as “[donor acts such that] recipient comes to possess gift”.

In this representation, *from* is analyzed as an antecedent oblique, like other metaphorical uses of ablative expressions (see Croft 1991:192-98). This analysis contrasts with the analysis of possessional deprivation in §5.1. There, possessional deprivation is analyzed as spatial transfer, and so *from* is a subsequent oblique, like other spatial path expressions. However, verbs of receiving are often historically derived from verbs of obtaining and possessional deprivation, and some verbs have both senses, as in *I got 5 CDs for my birthday* (receiving) vs. *I got a book from the shelf* (obtaining).

There is a conceptual explanation for the shift in construal of the force-dynamic relations between participant roles that accompanies the shift in meaning from possessional deprivation or obtaining to receiving. In possessional deprivation, or simple obtaining, the ground or “victim” (in the case of possessional deprivation) is clearly affected by the event in a way that the donor in a receiving situation is not. Hence it is more natural to describe the victim of possessional deprivation or the ground object of obtaining as subsequent in the causal chain:

- (18) robber/obtainer → goods → victim/ground object

In contrast, in a receiving event, the reason that the goods come into possession of the recipient is because the donor gives them to her/him, and the recipient does not have to do anything to bring about the transfer of possession. Hence it is more natural to describe the recipient in a receiving situation as subsequent in the causal chain, and the donor as antecedent:

(19) donor (ex-ground/“victim”) → goods → recipient (ex-“robber”/obtainer)

It seems reasonable to say that *give* focuses on the donor’s action, while *receive* focuses on the recipient’s relation to the gift. These intuitions motivate the profiling of the relevant segments of the causal chain in 15 and 17 respectively. Moreover, the existence of a verb like *receive*, with recipient as subject, can be motivated by the fact that the recipient is a volitional being who is in a position to accept or reject the gift. If the “recipient” is not a volitional being, then a sentence with *receive* is unacceptable, since (as noted above) initiators of transitive events usually have some degree of control or responsibility for the outcome of the action:

(20) a. *I received a package from Bill.*  
b. \**My pigeonhole received a package from Bill.*

In fact, this motivation is only moderately strong for *receive*; *receive* can be used to describe inanimate undergoers in certain metaphorical uses, which will not be discussed here:

(21) *The building received a direct hit from the shelling.*

However, the motivation for alternative subject codings is much stronger for the exchange/commercial transaction frame, since there both the buyer and the seller must act volitionally and reciprocally for the event to successfully come about.

The possible construals of the transfer of possession frame appear to be remarkably unconstrained. In fact, the linguistic encoding of possession and transfer of possession must be liberal enough to allow the different argument linkings of *have*, *belong*, *give* (both the ditransitive and direct-motion constructions) and *receive*. A too restrictive model would be simply empirically inadequate. Nevertheless, we can establish three constraints on the coercion of a complex event structure into a linear causal chain for argument linking:

(i) The direction of transmission of force (literal or metaphorical) must not contradict any directionality in the conceptual structure. For example, the transfer of possession frame in 14 implies that there is no verb of transfer of possession which encodes the recipient as subject and the donor as direct object.

(ii) When three or more participants are involved in an event, the causal chain derived from the conceptual structure must represent a single connected path through the links in the conceptual structure. This is the constraint on nonbranching causal chains (see §3.3; see §6.8 for discussion of the Ditransitive construction with respect to this constraint).

(iii) The resulting causal chain should use appropriate antecedent or subsequent prepositions to link the participants to oblique positions. For example, *to* is a subsequent preposition and *from* is an antecedent preposition, a hypothesis based on examples such as *The house burned to cinders* and *The rabbit died from thirst* (Croft 1991:194-95). In *The house burned to cinders*, the Oblique referent of *to* describes the resulting state of the house, and in *The rabbit died from thirst*, the Oblique referent of *from* describes the cause of the death of the rabbit. We may therefore conclude that *to* should be subsequent and *from* should be antecedent in the exchange/commercial transaction frame as well.

Constraints (i) and (iii) follow from the universals of argument linking given in §3.2, namely the orientation of Subject and Object referents with transmission of force (Linking Rules 1-2) and the division of Oblique referents, and their grammatical markers, into

antecedent and subsequent types (Linking Rule 3). Constraint (ii) follows from the hypothesis, also well supported across languages, that single verbs represent causally unified events (Croft 1990, 1994). Needless to say, verbs encoding events in the exchange/commercial transaction frame are predicted to conform to the same universals as verbs encoding events of other types.

In the next section, I analyze the meaning of the English preposition *for*, which is also used in the exchange/commercial transaction frame, and then turn to the conceptual structure of the frame itself and its manifestation in English, Russian and Japanese.

### 5.3. The semantics of *for*

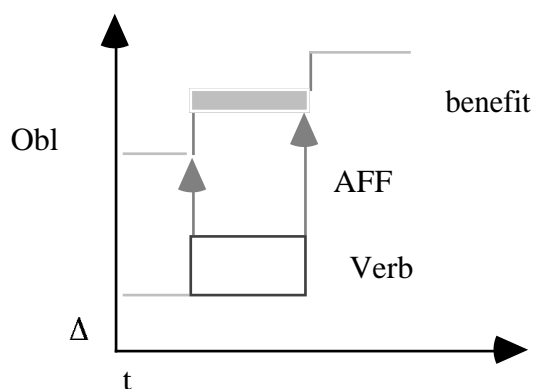
Jackendoff (1990:183-84) argues that *for* is (at least) three ways polysemous. Jackendoff's distinctions are largely correct, but his analysis must be modified in certain ways.

The first meaning of *for* described here is **beneficiary *for***. Beneficiary *for* indicates that the event profiled by the verb beneficially affects its Object. The examples below are taken in part from Jackendoff:

- (22) a. *Bill sang a song for Mary.*  
 b. *Bill sold a book to Harry for Mary.*  
 c. *Bill emptied the garbage for Harry.*

The representation of beneficiary *for* was given in §3.4 (Figure 11), repeated here as Figure 8:

Figure 8. English beneficiary *for*



Beneficiary *for* is clearly a subsequent preposition: the action denoted by the main verb causes a benefit to accrue to the object of *for*.

The second meaning of *for* is **purpose *for***, a subtype of which Jackendoff calls the ***for of benefit***. Jackendoff gives the example in 16 and describes the *for* of benefit such that 'the object of *for* is the benefit that the subject intends to receive by performing the action' (Jackendoff 1990:183).

- (23) *Bill sang a song for fun.*

Jackendoff defines the *for* of benefit as having the subject "receive" in some sense the object of *for* (in 26, fun).

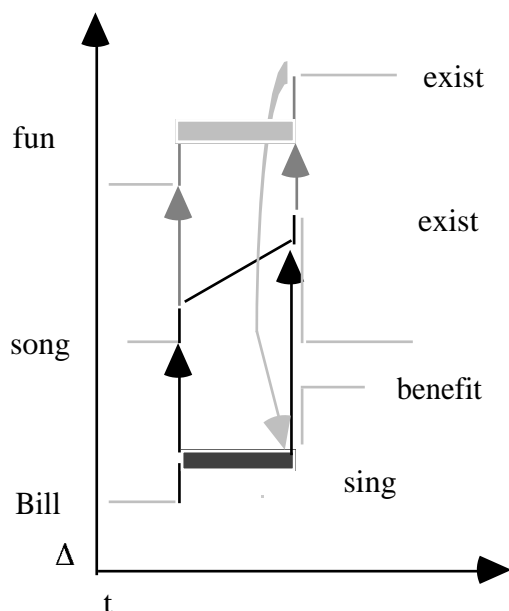
Jackendoff lists a range of other uses of *for* which he describes as involving intended goals or purposes (ibid., 184):

- (24) a. *Bill headed for home.*  
 b. *Bill looked for Harry.*  
 c. *Bill aimed for the target.*  
 d. *What is this machine for?*  
 e. *What do you do for a stiff neck?*

The *for* of benefit and the unclassified examples of Jackendoff's all represent the purpose or goal of the action. In 16 for example, the purpose of the action is (to have) fun. In general, one may describe purpose *for* as implying the existence of an action ultimately brought about by the action denoted by the verb, whose endpoint is the object of *for*. This definition will apply even to 17e, which baffled Jackendoff: the action (what you do) will result in a change of state affecting the stiff neck, namely eliminating it. I will call all these subsenses of purpose *for*.

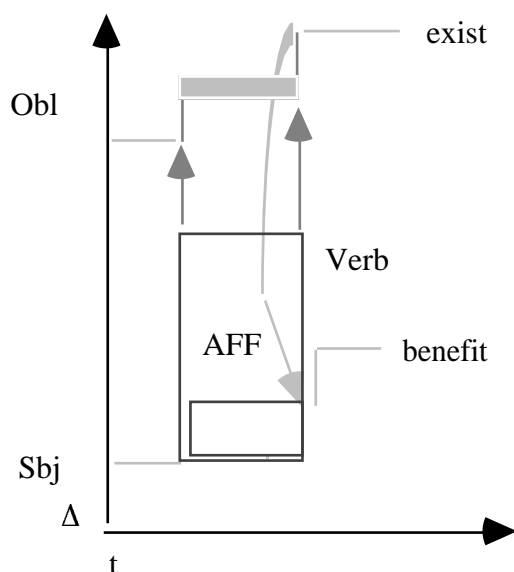
Purpose *for* is basically a subsequent preposition type, as should be clear from the description of its semantics in the preceding paragraph. This is predicted since a single preposition should describe roles that are all of the same type. However, the analysis of purpose *for* is in fact more equivocal. The purpose of the action is to have some effect on the Oblique referent; in this sense, purpose *for* is a subsequent participant role. However, the effect on the Oblique referent is intended to benefit the Subject referent. That is, there is a projected course of events involving affective causation from the change of state of the Oblique referent to benefit the Subject referent. This additional force-dynamic relationship is represented in Figure 9 for example 16:

Figure 9. Situation with purpose *for*



More generally, the representation of purpose *for* is as in Figure 10, with the boxes again representing schematic situations:

Figure 10. Purpose for



Since the affective force-dynamic relationship between the Oblique referent and the Subject referent is only a projected course of events—it may be that the purpose is never realized—I do not ordinarily represent it in the three-dimensional model (see §2.4). However, it is worth noting that it weakens somewhat the subsequent status of the Oblique referent in the situation. In the projected course of events, the Oblique referent is antecedent to the Subject referent, and hence is also like an antecedent participant. In fact, the purpose role is occasionally coded as an antecedent Oblique (Croft 1991:190). This fact is an apparent problem for Linking Rule 3, which largely prohibits antecedent and subsequent participant roles from being encoded by the same case marker. But antecedent coding of the Oblique purpose referent is partially motivated by the causal chain in the projected course of events, and this motivation is a superior explanation to the one that I offered (Croft 1991:293, fn 6).

Jackendoff gives the example in 25 in order to show that there is an ambiguity between beneficiary *for* and (for us) purpose *for*:

(25) *Bill would do anything for a pretty face.*

Example 18 is ambiguous between Bill doing anything to benefit someone with a pretty face vs. Bill doing anything to have a pretty face himself. In our analysis, *for* is indeed ambiguous, but all of the possible readings of *for* involve a participant subsequent in the causal chain from the event denoted by the main verb.

The last type of *for* that Jackendoff describes is the *for* of exchange, which he illustrates with the following examples:

- (26) *Bill bought/rented a lawnmower from Harry for \$25.*  
 (27) *Bill sold/rented a lawnmower to Harry for \$25.*  
 (28) *Bill paid \$25 to Harry for a lawnmower.*  
 (29) *Bill traded a lawnmower to Steve for a weedeater.*

Jackendoff defines the *for* of exchange as follows: ‘the object of *for* denotes the theme of the countertransfer’ (Jackendoff 1990:183). But there are a number of problems with this analysis. In 26-27, the so-called countertransfer in the commercial transaction is the money,

whereas in 28 it is the goods. In 27 and 29, the Subject referent receives the item denoted by the *for* Oblique referent (money or goods), but in 26 and 28, the Subject referent gives up the item denoted by the *for* Oblique referent. And in 26 and 28, the Subject referent is the recipient, while in 27 the Subject referent is the donor. Although it is clear that some of the differences in semantic relations among the participants must be abstracted away from in order to analyze *for* in these sentences, I believe that we should not subsume all of these examples under a single type of *for*. In fact, some of the exchange/transaction constructions involve another type of *for* which is independently motivated outside the exchange/transaction frame. This is **substitution *for***, which is illustrated in 30-32:

- (30) *The director substituted Mary for Janet in the lead role.*  
 (31) *John stood in for Mary.*  
 (32) *I feel for you.*

The Object of substitution *for* is the former or original occupier of some designated role. In 30, Janet is the original person in the lead role, now taken by Mary. In 31, Mary is the occupier of the role now taken by John. Example 32 is probably another example of substitution *for*, in that I am empathetically taking on the role of sufferer of which you are the original occupier.

It is also possible that 22c, and even 22b, are examples of substitution *for*. If it is normally Harry's role to take out the garbage, then in 22c Bill is doing it in Harry's stead. Presumably, Harry also benefits from Bill taking out the garbage (it frees him from that onerous duty). But this is not necessary for substitution *for*: in 30, Janet may not benefit from being replaced by Mary. Nevertheless, the overlap between being substituted for in a situation and benefiting from the substitution is probably the semantic motivation for substitution and benefit being described by the same preposition.

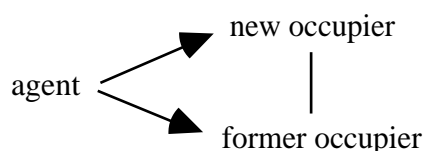
There is also evidence that substitution *for* is construed as a subsequent participant role. First, in 30-32, the new occupier of the role is linked to Subject (31-32) or Object (30), both of which positions denote participants antecedent to a subsequent Oblique. Second, *substitute* alternates with *replace* in the expected manner:

- (33) *The director replaced Janet with Mary in the lead role.*

In 33, the new occupier of the role is governed by the antecedent preposition *with*, showing that the new occupier is treated as antecedent to the former occupier (which is linked to Object).

Substitution events involve a noncausal relation between the former and the new occupier of the role: they are equated with each other as alternative occupiers of the same role. In sentences like 30 and 33, there is also an agent who brings about the switch in roles. The event structure for 30 and 33 and the conventional construal of new occupier as antecedent to the old occupier are given in 34 and 35 respectively:

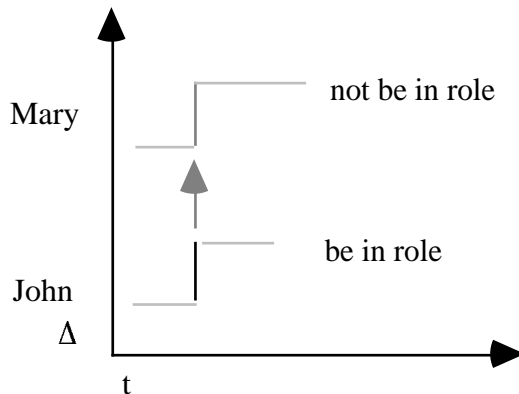
(34)



(35) agent → new occupier → former occupier

Thus, the proper representation of substitution *for* as in example 31 is Figure 11:

Figure 11. Substitution for



In some sense, substitution *for* is a correlated change, not unlike the correlated motion (see §4.4). The entering of the new occupier into the role is correlated with the departure of the old occupier from that role. It is not entirely clear to me that this relationship should be represented as a force-dynamic one. However, I will use the directed force-dynamic link in the representations in order to represent the conventional construal of the new occupier as antecedent to the old occupier.

In the next section, the distinction between purpose *for* (including beneficiary *for*) and substitution *for* is used to account for the patterns of argument linking found in English exchange and commercial transaction verbs.

#### 5.4. Exchange and commercial transaction verbs in English

Exchange and commercial transaction verbs in English can be divided into two types. The first type are *give* type verbs—the Subject referent comes to have the *for* Oblique referent:

- (36) *Bill sold/rented a lawnmower to Harry for \$25.*  
 (37) *Bill paid \$25 to Harry for a lawnmower.*  
 (38) *Bill exchanged/traded (in) his weedeater for a lawnmower.*

The *for* in *give* type verbs is purpose *for* (in fact, it is Jackendoff's narrower category of the *for* of benefit). That is, there is an action causally subsequent to the one denoted by the main verb which has an effect on the *for* Oblique referent, namely, the Subject referent obtains the *for* Oblique referent.

The second type of exchange and commercial transaction verbs are the *get* type verbs—the Subject referent comes to have the Object referent:

- (39) *Bill bought/rented a lawnmower from Harry for \$25.*  
 (40) *Harry got a lawnmower from Bill for \$25.*  
 (41) *Bill got/received \$25 from Harry for his lawnmower.*  
 (42) *Jacques accepted a sixpack of Red Tail Ale for mowing around our cabin.*

The *for* in *get* type verbs is substitution *for*: the Oblique referent is the former occupier of the role of “good owned by subject” (in 42, the “good” is a more abstract beneficial value which is made up for by the donation of the beer).

There is at least one verb in which there is an ambiguity between purpose *for* (construed broadly to include beneficiary *for*) and substitution *for*:

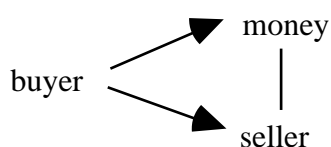
(43) *Randy obtained some food for his dog.*

In the purpose *for* reading of 43, Randy's action was intended to cause a further action which would (beneficially) affect his dog, namely the food will be given to the dog. In the substitution *for* reading of 43, Randy traded his dog for some food.

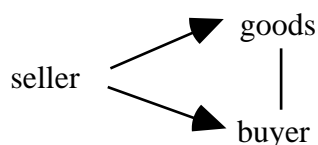
The analysis of exchange/commercial transaction verbs into two types, the *give* type and the *get* type, is motivated by the polysemy of *for* in verbs of other event classes, and the ambiguity of *for* in 43. The division into *give* type and *get* type verbs allows us to give a consistent mapping of the participant roles into argument positions for the English exchange/commercial transaction verbs.

The exchange/commercial transaction frame essentially involves two transfers of possession: a transfer of money from the buyer to the seller, and a transfer of the goods from the seller to the buyer. (In nonmonetary exchange, it is another good that is being transferred from the "buyer" to the "seller".) These two transfers are represented separately in 44 and 45:

(44)

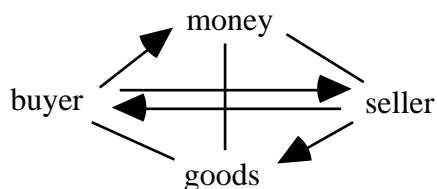


(45)



In addition, there is an equivalence (substitution) relation between the money and the goods—the whole idea behind a commercial transaction is that the money and the goods are equal in value (likewise for exchange). If we combine the diagrams in 44-45 for the buyer's transfer and the seller's transfer, and the equivalence relation between money and goods, we get the following conceptual structure for the commercial transaction frame:

(46)



All of the exchange/commercial transaction verbs can be analyzed as construals of the conceptual structure in 46. None of the construals violates the constraints on construals given above (with one possible exception; see §6.8). We should also expect that if substitution *for* is found (i.e. in *get* type verbs), it will profile the equivalence relation between goods and money in 46, without violating the constraint that a single connected linear causal chain is

selected by the construal. If purpose *for* is found (i.e. in *give* type verbs), it will profile the last event in the linear causal chain selected from the conceptual structure in 46.

We will now analyze each of the main commercial transaction verbs. The argument structure construction is given in the (b) part of each example. The preposition *for* is specified as substitution [sub] *for* or purpose [purp] *for*. The linear causal chain profiled by the clause (verb plus Oblique phrases) is presented below the (b) part of each example. Finally, the figure gives the three-dimensional representation of the situation.

Our first example is *buy*. *Buy* occurs in two argument structure constructions; the first is given in 47:

- (47) a. *Bill bought a lawnmower from Harry for \$25.* [= 39]  
 b. *buy*<sub>1</sub>: *from* seller → Sbj buyer → Obj goods → *for* [sub] money

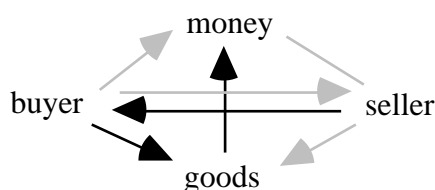
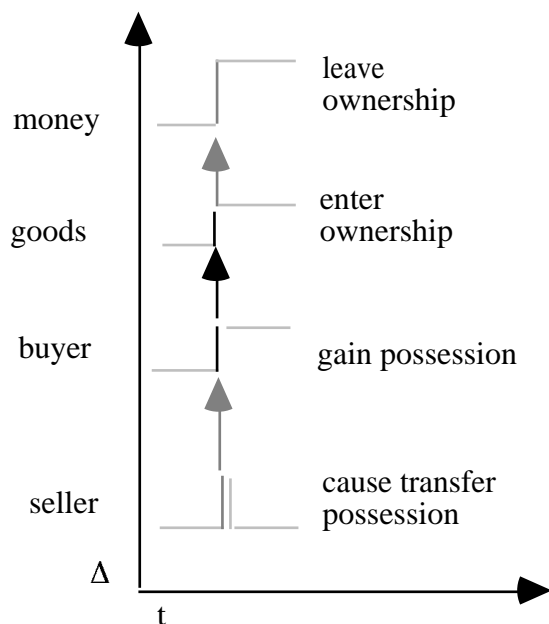


Figure 12. English buy, monetary value



*Buy*<sub>1</sub> is a *get* type verb. Hence, it uses substitution *for*, which profiles the equivalence relation between the money and the goods. It would not make sense to analyze *for* in 47a, because the buyer's purpose in obtaining an item is not to give money to the seller. The seller is found with the antecedent preposition *from*, as expected. The subevents describe the transaction from the buyer's perspective. This is expected in a choice of a verb that calls for encoding the buyer as the Subject, because that choice implies that the speaker is empathizing with the buyer (Kuno & Kaburaki 1977).

Actually, the argument structure for *buy* in 47 and Figure 12 is only possible when the money is expressed as a monetary value. If the money expression describes the form of the money (cash, check, currency etc.), then the argument structure in 48 and Figure 13 is used:

- (48) a. *Bill bought a bottle of port from the shopowner with his last Portuguese escudos.*  
 b. *buy*: from seller → Sbj buyer → with money → Obj goods

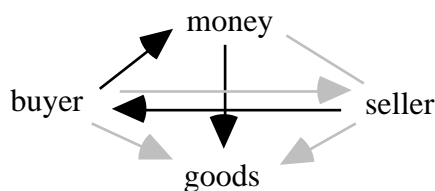


Figure 13. English buy, form of money

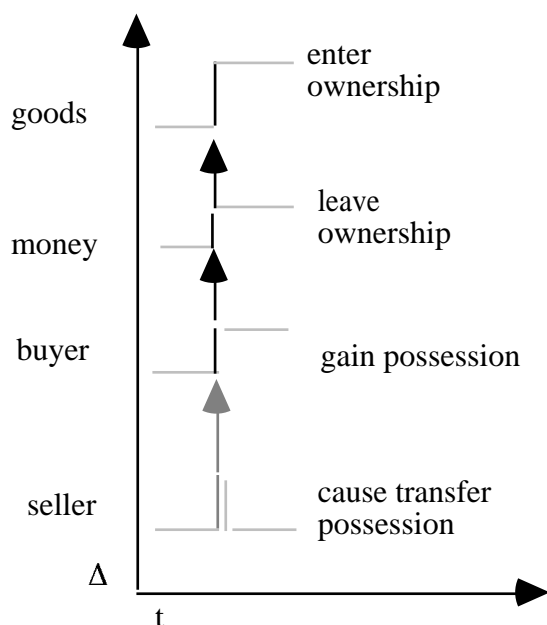


Figure 13 differs from Figure 12 in exchanging the order of money and goods, and the verb profiles the last subevent. As in Figure 12, the last subevent is construed in empathy with the buyer Subject.

English *pay* also occurs in two different argument structure constructions depending on how the money is described. Example 49 and Figure 14 illustrate *pay*<sub>1</sub>:

- (49) a. *Bill paid \$25 to Harry for a lawnmower.* [= 37]  
 b. *pay*<sub>1</sub>: Sbj buyer → Obj money → to seller → for[purp] goods

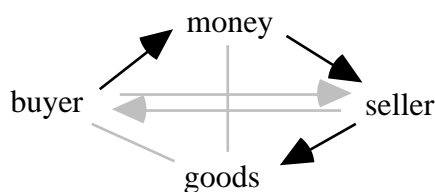
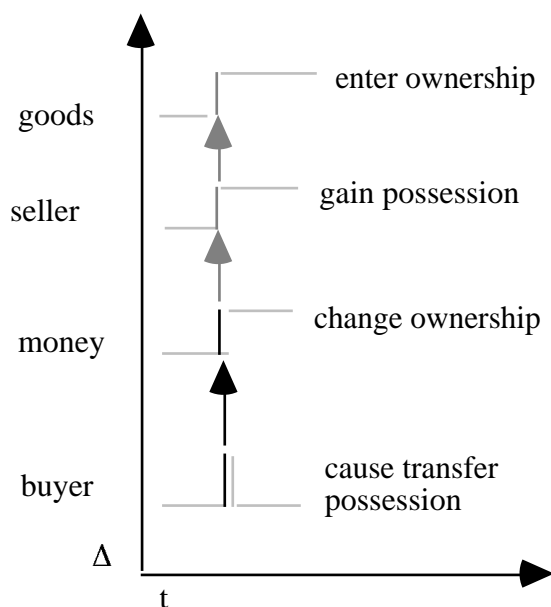


Figure 14. English pay, monetary value



*Pay* is a *give* type verb. Hence, it uses purpose *for*, which is the last segment in the causal chain selected by the verb. The description of the subevents for buyer, money and seller are straightforward, following from transfer of possession (see §5.2). The seller is found with the subsequent preposition *to*, as expected. The description of the goods subevent is again in the perspective of the Subject buyer, because purpose *for* describes the intended benefit resulting from the acquisition of the goods.

*Pay* is used when the money is described in terms of its form.

- (50) a. *Bill paid the shopkeeper for the port with a debit card.*  
 b.  $pay_2$ : Sbj buyer  $\rightarrow$  *with* money  $\rightarrow$  Obj seller  $\rightarrow$  *for* [purp] goods

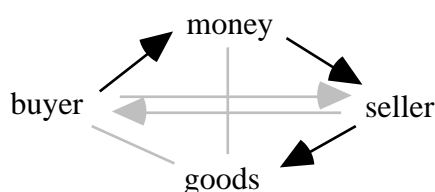
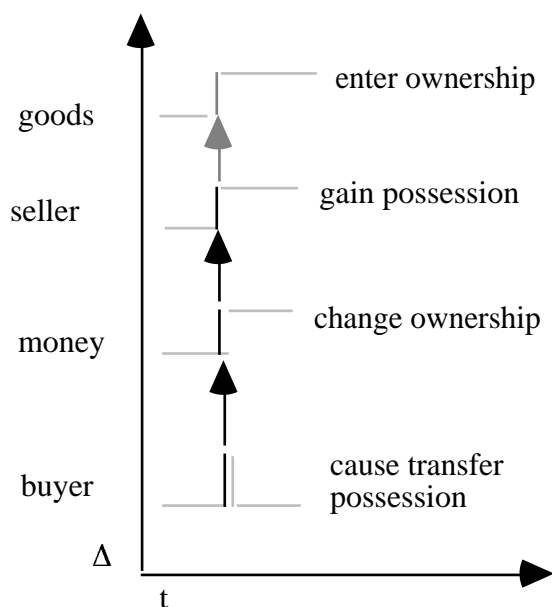


Figure 15. English pay, form of money



In this case, the only difference between Figures 14 and 15 is the verbal profiling of the seller subevent.

*Sell* is also a *give* type verb, and is analyzed the same way as *pay*, except for the reversal of the buyer and seller:

- (51) a. *Bill sold a lawnmower to Harry for \$25.* [= 36]  
 b. *sell*: Sbj seller → Obj goods → to buyer → for [purp] money

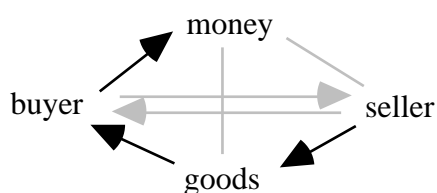
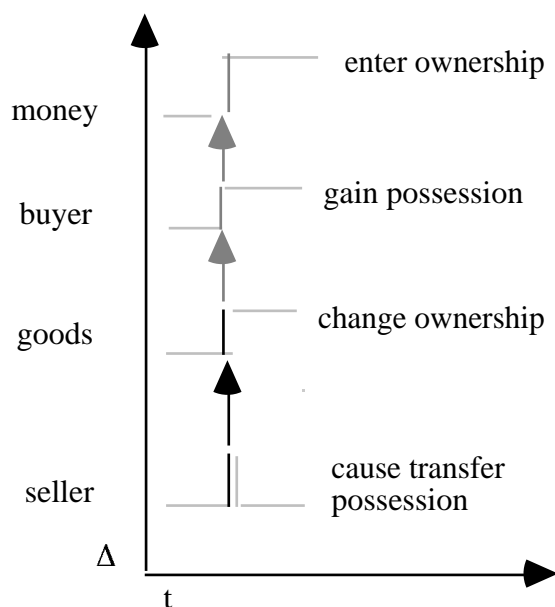


Figure 16. English sell



As with *pay*, the analysis of the transfer of possession of the goods from the seller to the buyer is straightforward. This time, the purpose is for the seller to come into possession of the money, and the subevent of the *for* Oblique referent is for it to enter into the seller's ownership, as intended by the seller Subject.

*Get* and *receive* allow for two mappings from participant roles to argument structure. In one mapping, the seller is linked to Subject:

- (52) a. *Bill got/received \$25 from Harry for his lawnmower.* [= 41]  
 b. *get/receive*<sub>1</sub>: from buyer → Sbj seller → Obj money → *for* [sub] goods

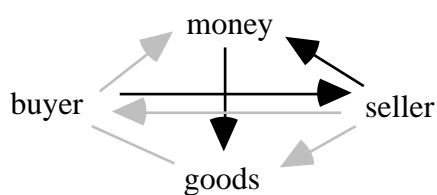
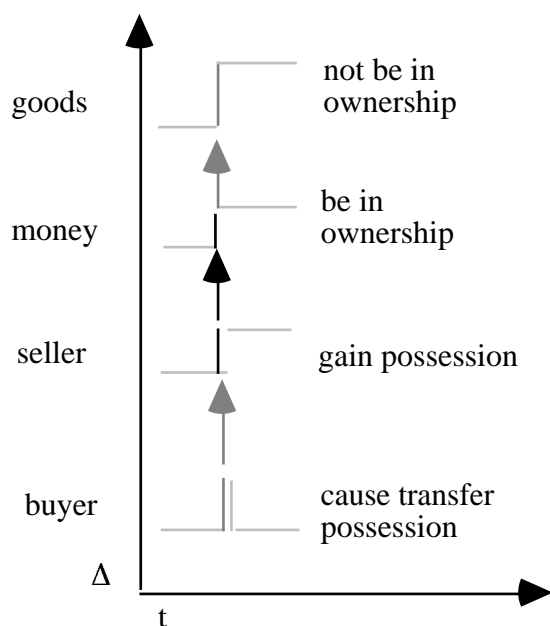


Figure 17. English get/receive, seller Subject



As *get* type verbs, *get* and *receive* use substitution *for*, which profiles the equivalence relation between money and goods. As with *buy*, an analysis of *for* in 52a as purpose *for* does not make sense: Bill didn't obtain the money for the purpose of giving Harry his lawnmower.

The same is true, *mutatis mutandis*, of the other mapping of participant roles with *get/receive*, where the buyer is the Subject:

- (53) a. *Harry got a lawnmower from Bill for \$25.* [= 40]  
 b. *get/receive<sub>2</sub>: from seller → Sbj buyer → Obj goods → for [sub] money*

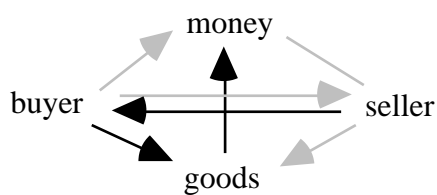


Figure 18. English get/receive, buyer Subject

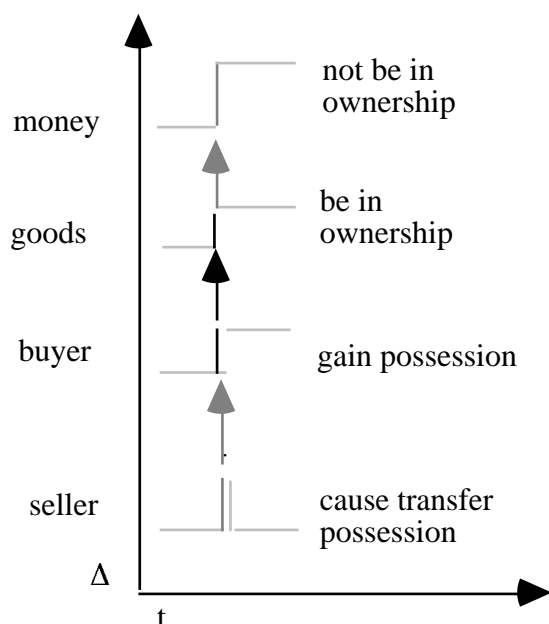


Figure 18 is in fact exactly the same as Figure 12 for *buy*<sub>1</sub>.

### 5.5. Commercial transaction verbs in Russian

Russian encodes commercial transaction verbs in essentially the same way as English does. Examples of Russian counterparts to 40-44 are given below:

- (53) *Ja zaplatil bratu za knigu rubl'*  
 I paid brother:DAT for book:ACC ruble:ACC  
 'I paid a ruble to my brother for the book.'
- (54) *On kupil knigu ot sestry za rubl'*  
 he bought book:ACC from sister:GEN for ruble:ACC  
 'He bought the book from his sister for a ruble.'
- (55) *On poluchil den'gi ot fabriki za rabotu*  
 he got money:ACC from factory:GEN for work:ACC  
 'He got money from the factory for his work.'
- (56) *Ja prodal knigu sestre za rubl'*  
 I gave book:ACC sister:DAT for ruble:ACC  
 'I sold the book to my sister for a ruble.'

Russian uses the Dative case without a preposition in analogous fashion to English subsequent *to*. The Russian dative without a preposition governs the objects of certain verbs and is used for the recipient role in transfer of possession verbs:

- (57) *Ja dal knigu bratu*  
 I gave book:ACC brother:DAT  
 'I gave the book to my brother.'

The Russian Dative is also used with other goal-type roles such as the person spoken to or taught (Pulkina & Zakhava-Nekrasova n.d.:81-82). On the basis of this evidence, it can be concluded that the Dative case is a subsequent Oblique case.

Russian uses the preposition *ot* + Genitive case analogous to English antecedent *from*. The preposition *ot* is used for cause or reason:

- (58) *On umer ot rany*  
 he died from wound:GEN  
 'He died from a wound'
- (59) *Ona drozhala ot xoloda*  
 she trembled from cold:GEN  
 'She was trembling from/with cold.'

The preposition *ot* is also used for the source of motion, a common metaphorical source of antecedent prepositions (Croft 1991:194). Thus, *ot* appears to be an antecedent preposition.

Russian also uses the preposition *za* + Accusative case which appears to be analogous to the English subsequent preposition *for*. If the Russian argument linking of commercial transaction verbs is essentially like the English pattern, then one would expect to find that *za* is used for both purpose/beneficiary and substitution functions. This is in fact what is found. Examples 60-61 are examples of purpose *za* and substitution *za* respectively:

- (60) *On srazhalsja za rodinu*  
 he fought for country:ACC  
 'He fought for his country.'
- (61) *Segodnja ja rabotaju za tovarishcha*  
 today I work for friend:ACC  
 'Today I am working for (instead of) my friend'

In sum, Russian commercial transaction verbs encode the participants with the same event construals and argument linking patterns as English. In particular, Russian uses a preposition (*za* + accusative) with both purpose and substitution meanings in the same contexts that English uses purpose *for* and substitution *for* respectively.

## 5.6. Commercial transaction verbs in Japanese

Japanese is rather different from both English and Russian in its linking of participant roles to argument positions. Japanese is essentially a verb-final language, and uses case markers (usually written as separate words) postposed to NPs in order to indicate grammatical argument positions. The case markers corresponding to English subject and object in argument linking are *ga* [Nominative] and *o* [Accusative] respectively. In the following examples, *ga* is replaced with *wa* [Topic] in order to render the examples slightly more natural. (Of course, one would almost never encounter sentences of four-argument verbs with all four arguments expressed as full NPs.)

The oblique case markers corresponding to English subsequent *to* and antecedent *from* are *ni* and *kara* respectively. *Ni* behaves in many respects like a subsequent case marker, being used for purpose, resulting state and goal roles:

- (62) *Inu no sampo ni itta*  
 dog GEN walk for went  
 'He took the dog for a walk.'

- (63) *kanojo no musume wa isha ni natta*  
 she GEN daughter TOP doctor to became  
 ‘Her daughter became a teacher.’
- (64) *watashi wa kanojo ni subete no himitsu o hanashita*  
 I TOP she to all GEN secret ACC told  
 ‘I told her all the secrets.’

*Ni* indicates direction towards a goal, which is a common metaphorical source of subsequent markers (Croft 1991:194). *Ni* also has some antecedent uses, such as the agent of a passive (Martin 1956:47). But *ni* is also used as a locative, which is a source of some antecedent role markers (Croft 1991:196).

*Kara* is used to indicate source of motion, and also for cause (Martin 1975:46):

- (65) *Kisya no tukare kara sugu nemutta*  
 train GEN weariness from right fell.asleep  
 ‘I fell right to sleep with weariness from the train.’

Other uses of *kara* include material genitive, agentive passive and ‘because’ (Martin 1975:45). Thus, *kara* appears to be an antecedent preposition.

The differences between English and Japanese come with the case markers used for money and goods. As we have seen, English uses substitution *for* and purpose *for*, both subsequent prepositions, in various constructions. Japanese uses the Instrumental case marker *de* and two specialized postpositional phrases: *no daikin to shite* ‘as a price for’ and *to hikikae ni* ‘in exchange for’. These are abbreviated as EXCH in the representation of the causal chains in the following examples.

Instrumental *de* is an antecedent case marker, as in its instrumental function:

- (66) *Kono naihu de keki o kitta*  
 this knife INST cake ACC cut  
 ‘He cut the cake with this knife.’

Instrumental *de* is also used for material genitive, means, means of transportation, medium of communication, cause and agent (Martin 1975:42-43), all typical antecedent participant roles.

It can be argued that the two exchange postpositional phrases are also antecedent case markers. Although they do not occur in other contexts, in one construction, *de* can be substituted for the exchange postpositional phrases, which suggests that all three are antecedent. And the assumption that the exchange postpositional phrases encode antecedent roles allows for a consistent construal of the commercial transaction frame for each verb, in conformity with the constraints given above. Compared to English (and Russian), Japanese typically reverses the position of money and goods in the linearized causal chain that results from the construal of the commercial transaction frame. The format here will follow the presentation of the English examples.

I begin with *kau* ‘buy’:

- (67) a. *Harry wa Bill kara hon o \$5 de kat-ta*  
 Harry TOP Bill from book ACC \$5 INST buy-PST  
 ‘Harry bought the book from Bill for \$5.’  
 b. *kau*: seller *kara* → buyer *ga* → money *de* → goods *o*

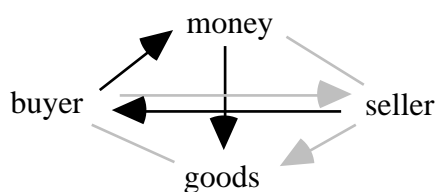
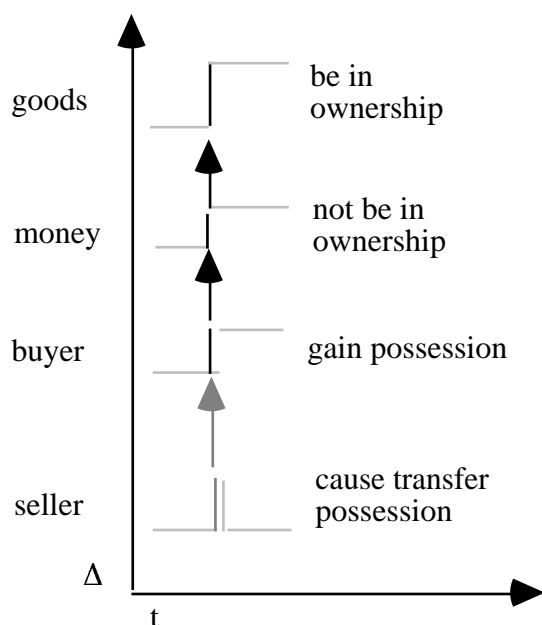


Figure 19. Japanese *kau* 'buy'

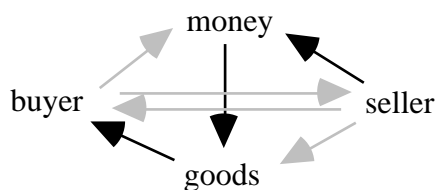
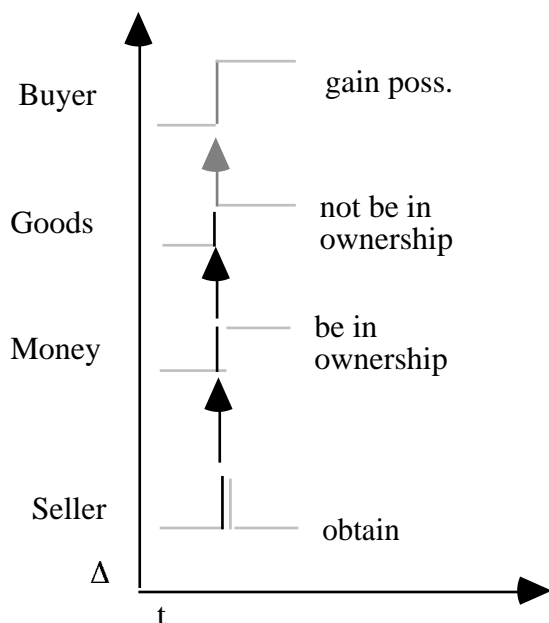


In Japanese, the money is governed by the instrumental *de*, and so occurs antecedent to the goods (the Object). If we compare 67 and Figure 19 with the representation of the English example of *buy*<sub>1</sub> in 47 and Figure 12, we can see how the conventional construal of the relation between money and goods is reversed. This reversal is allowed because there is no causal transmission of force between the money and the goods: the equivalence relation is a noncausal, stative relation.

In fact, Figure 19 is identical to Figure 13 for English *buy*<sub>2</sub>. However, English *buy* cannot be used for monetary value, unlike Japanese *kau*: \**I bought the port with \$45*. In other words, the difference between English *buy* and Japanese *kau* is specifically with the description of monetary value.

I now turn to *uru* 'sell':

- (68) a. *Bill wa Harry ni hon o \$5 de ut-ta*  
 Bill TOP Harry DAT book ACC \$5 INST sell-PST  
 'Bill sold the book to Harry for \$5.'  
 b. *uru*: seller *ga* → money *de* → goods *o* → buyer *ni*

Figure 20. Japanese *uru* 'sell'

Again, the money is encoded by the antecedent Instrumental case marker *de*, and hence is antecedent to the goods (which is Object). The buyer takes the subsequent *ni*, as expected. If we compare example 68 and Figure 20 to English *sell* in example 51 and Figure 16, we find a somewhat greater difference between the two. English *sell* uses purpose *for*, and so does not profile the equivalence relation between money and goods. Japanese *de* does profile the equivalence relation (albeit “buried” inside the profile of the main verb).

There is a similar contrast between English *pay* and Japanese *harau* ‘pay’:

- (69) a. *Harry wa hon no daikin to shite/to hikikae ni Bill ni \$5 o harat-ta*  
 Harry TOP book as a price for/in exchange for Bill DAT \$5 ACC pay-PST  
 ‘Harry paid \$5 to Bill for the book.’  
 b. *harau*: buyer *ga* → goods EXCH → money *o* → seller *ni*

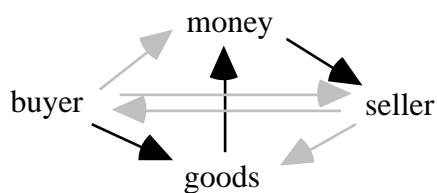
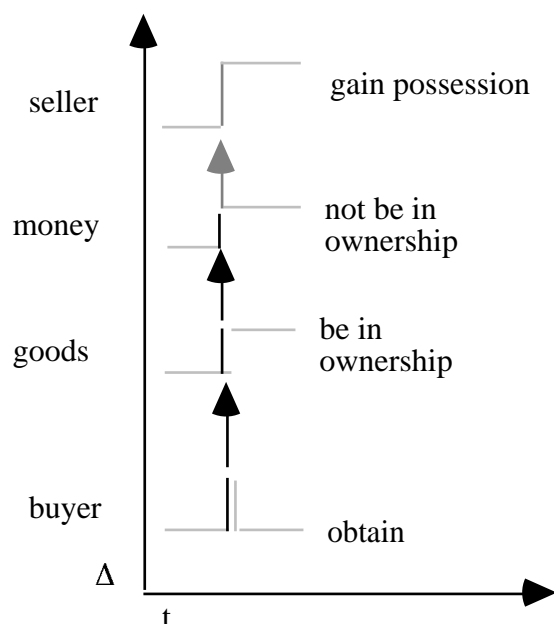


Figure 21. Japanese *harau* 'pay'

For Japanese *harau* 'pay', we find the exchange postpositional phrases instead of the instrumental case marker. If we assume that the exchange phrases are antecedent markers, then the analysis is unproblematic. Again, the difference between Japanese and English is greater than with *buy* because English uses purpose *for* rather than substitution *for* with *pay*: neither *pay*<sub>1</sub> nor *pay*<sub>2</sub> correspond to the construal of Japanese *harau* in Figure 21.

Finally, Japanese *eru* 'obtain'/'receive' allows two mappings of participant roles onto argument positions, like *get/receive*. The first mapping links the seller to Subject position, as with English *get/receive* in 52 and Figure 17:

- (70) a. *Bill wa hon no daikin to shite/to hikikae ni Harry kara \$5 o e-ta*  
 Bill TOP book as a price for/in exchange for Harry from \$5 ACC obtain-PST  
 'Bill obtained \$5 from Harry for the book.'  
 b. *eru*<sub>1</sub>: buyer *kara* → seller *ga* → goods EXCH → money *o*

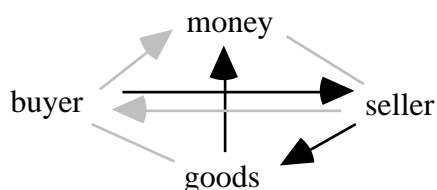
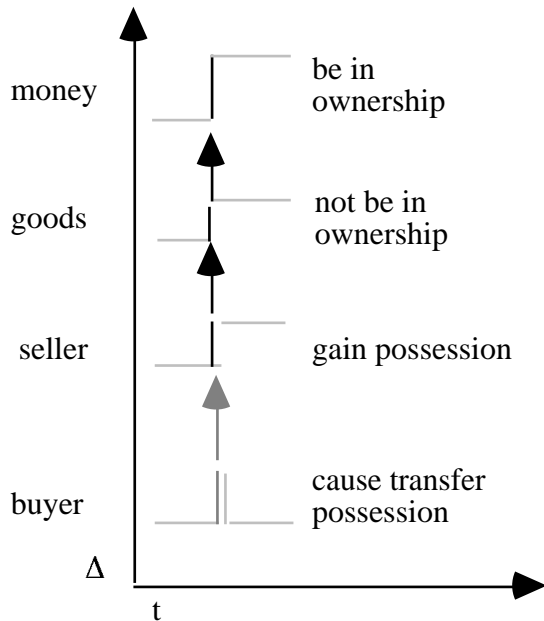


Figure 22. Japanese *eru* 'obtain, receive', seller Subject

If we compare the linearized construed causal chain in 70 with that for the English equivalent in 52b, we see that the position of money and goods is once again reversed in the chain. This is expected, as English uses (subsequent) substitution *for*, while Japanese uses the (antecedent) exchange phrases.

In the second mapping, the buyer is linked to Subject position:

- (71) a. *Harry wa \$5 de/to hikikae ni Bill kara hon o e-ta*  
 Harry TOP \$5 INST/in exchange for Bill from book ACC obtain-PST  
 'Harry obtained the book from Bill for \$5.'  
 b. *eru*<sub>2</sub>: seller *kara* → buyer *ga* → money *de/EXCH* → goods *o*

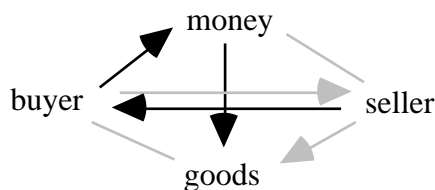
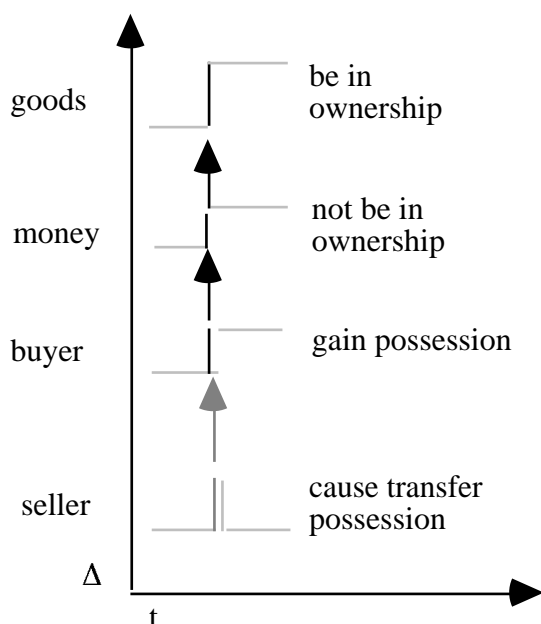


Figure 23. Japanese *eru* 'obtain, receive', buyer Subject

This construction allows either the instrumental case marker *de* or the exchange phrase *o hikikae ni*. This alternation is evidence that the exchange phrases are antecedent obliques. Again, in comparison to the English construal in 53b, the position of money and goods in the linearized causal chain in 71 is reversed, since English uses substitution *for*. The representation of *eru*<sub>2</sub> in Figure 23 has the identical construal as Japanese *kau* 'buy', just as English *get/receive*<sub>2</sub> has the identical construal as *buy*<sub>1</sub>. In fact, if *de* is used in 71a, then *eru*<sub>2</sub> has exactly the same structure as *kau*.

## 5.7. Conclusion

Verbs denoting exchange and commercial transactions are problematic for most argument linking theories because there is a wide latitude of linkings of buyer, seller, money and goods to subject, object and oblique argument positions. Most theories take a too-restrictive approach to argument linking and cannot account for all of the patterns. Other theories (such as Jackendoff's) are more liberal in their possibilities for argument linking, but do not exploit the structure of their verbal semantic representations in order to account for other event classes where argument linking patterns are indeed restricted.

The model of argument linking developed in chapter 3 and earlier work imposes significant constraints on possible verbs and argument linking patterns. But it also allows for the wide range of linking possibilities found in the exchange/commercial transaction frame, because the commercial transaction frame involves a complex network of causal and noncausal relations among buyer, seller, money and goods. Yet the model of the commercial transaction frame presented in this chapter allows us to capture the systematic character of the argument linking patterns found in English, Russian and Japanese, and the similarities and differences in those patterns across the three languages.