The syntax-pragmatics interface and Finnish ditransitive verbs

Elsi Kaiser

This paper presents an analysis of the ditransitive constructions in Finnish, a language with flexible word order. I argue that the base-generated order of Finnish ditransitive structures, which permit both direct object-indirect object (DO-IO) order and IO-DO order, is in fact DO-IO. According to my analysis, IO-DO order is generated by discourse-driven scrambling of the IO. These claims are supported by evidence from reciprocal binding, idioms and pragmatic word order patterns.

1. Introduction

In this paper I present an analysis of the ditransitive constructions in Finnish, a language which permits both IO-DO (indirect object-direct object) and DO-IO order. I claim that the base-generated order of Finnish ditransitive structures is DO-IO, and that the IO-DO order is generated by scrambling the IO over the DO to a VP-external position. According to my analysis, this movement is driven by pragmatic factors.

In section 1 of the paper, I discuss some basic characteristics of Finnish ditransitives. In section 2, data from reciprocal binding in ditransitive constructions are analyzed. Section 3 provides an introduction to the pragmatic differences between DO-IO order and IO-DO order. Section 4 explores these distinctions in more depth and also includes the results of a preliminary corpus study, as well as a discussion of word order in idioms. Section 5 is a preliminary implementation of my analysis, and section 6 is the conclusion.

1.1 Finnish ditransitive constructions [1]

Finnish has canonical subject-verb-object (SVO) order, but all six possible word orders are grammatical in the appropriate contexts (Vilkuna 1995). Finnish has no articles, and word order helps to encode things such as definiteness, which are encoded by articles in other languages (see e.g. Chesterman 1991). In ditransitive structures, both IO-DO and DO-IO orders are possible. The direct object usually bears accusative or partitive case marking and the indirect object is usually marked with allative case. Finnish has no dative case, and the allative case "expresses movement 'towards a surface' or 'to someone' " (Karlsson 1999:119).[2] (In this section, the articles in the examples are left unspecified. The correlation between argument order and 'definiteness' is addressed in sections 3 and 4.)

(1)a. Minä annoin miehelle kirjan. (IO-DO)
I-NOM gave man-ALL book-ACC.
'I gave a/the man a/the book.'

(1)b. Minä annoin kirjan miehelle. (DO-IO)
I-NOM gave book-ACC man-ALL.
'I gave a/the book to a/the man.'

These characteristics raise a number of questions. First, given that Finnish allows both DO-IO and IO-DO orders and permits scrambling, we would like to know whether scrambling generates one of the two orders. If so, which order is base-generated? Furthermore, if one of the orders is generated by scrambling, what drives this movement, and where does the scrambled constituent land? The proposal I present in this paper – which extends and builds on Kaiser (2000b) – argues that DO-IO is the base-generated order, and IO-DO is due to scrambling of the IO to a position reserved for constituents related to the preceding discourse.

2. Binding

In this section, we analyze reciprocal binding data for Finnish ditransitive verbs, and we will see that the asymmetries we encounter are best explained by assuming

---

[1] I use the term 'ditransitive' to refer to Finnish verbs with two 'postverbal' arguments, in order to be as neutral as possible.

[2] The allative case is also used in 'non-ditransitive' constructions (see Karlsson 1999:119). Also, locative 'indirect objects' usually have illative case, which expresses " '(direction) into,' sometimes 'end point of a change or movement' " (Karlsson 1999:112).

(a) Minä lähetin kirjan Suomeen.
I-NOM sent book-ACC Finland-ILLAT
'I sent a/the book to Finland.'

underlying DO-IO order. As the examples in (2) illustrate, in DO-IO order, the DO can bind a reciprocal anaphor in the IO, and in the IO-DO order, when the IO binds a reciprocal anaphor in the DO, the sentence becomes more marked, but it is still grammatical. In the IO-DO order, the DO can bind a reciprocal anaphor in the IO, as shown in (3). However, in the DO-IO order, the IO cannot bind a reciprocal anaphor in the DO (ex. (3b)).[3]

(2)a. DO-IO$_{recipr.}$
Minä esittelin Liisan ja Marin toisilleen.
I-NOM introduced Liisa-ACC and Mari-ACC each-other-ALL-Px3[4]
'I introduced Liisa and Mari to each other.'

(2)b. ? IO-DO$_{recipr.}$
? Minä esittelin Liisalle ja Marille toisensa.
I-NOM introduced Liisa-ALL and Mari-ALL each-other-ACC-Px3.
'I introduced to Liisa and Mari each other.'

(3)a. ? IO$_{recipr.}$-DO
? Minä esittelin toisilleen Liisan ja Marin.
I-NOM introduced each-other-ALL-Px3 Liisa-ACC and Mari-ACC.
'I introduced to each other Liisa and Mari.'

(3)b. * DO$_{recipr.}$-IO
* Minä esittelin toisensa Liisalle ja Marille.
I-NOM introduced each-other-ACC-Px3 Liisa-ALL and Mari-ALL
'I introduced each other to Liisa and Mari.'

A possible way of capturing this binding asymmetry is to posit that DO-IO is the underlying order, and that in sentences with IO-DO order, such as (3a), the indirect object has scrambled leftward over the direct object. This movement can create new binding relations (ex. (2b)), and thus patterns like A-movement. Now, to account for the grammaticality of ex. (3a), where the DO can bind a reciprocal anaphor in the IO although the surface order is IO-DO, we could posit that the IO can reconstruct below the DO (or that a copy of it is located there). In this regard, then, the movement patterns like A-bar movement. This co-occurrence of A and A-bar

---

[3] Takano (1998), citing Kitagawa (1994) and Pesetsky (1995), notes that English behaves in the opposite way:

(a) *I showed each other's mothers the babies. (IO-DO is ungrammatical)

(b) ?I showed each other's babies to the mothers. (DO-IO is marginal, almost grammatical.)

Kitagawa (1994) concludes that IO-DO is the underlying order, and cases like (b) involve reconstruction of the DO to a position below the IO. By the same logic, we can suggest that Finnish has DO-IO order.

[4] Px3 stands for 'third person possessive suffix.' Finnish has a system of possessive suffixes which are part of the morphology of reciprocals and reflexives, and also used to show possession in contexts such as 'John read his book.' (See Nelson 1998, *inter alia*)

properties has often been observed for scrambling (see e.g. Takano 1998 on Japanese). The ungrammaticality of (3b) is expected because no scrambling has occurred and the antecedent IO does not c-command the reciprocal DO.

It is worth noting that the binding asymmetries illustrated in (2) and (3) cannot be explained as straightforwardly under the assumption that IO-DO is the underlying order, or under the assumption that both orders are base-generated. The reasons for the grammaticality of (3a) and the markedness of (2b) are left unclear under these approaches (see Kaiser 2000b for detailed discussion).

Another way of testing binding relations in ditransitive structures is by means of variable binding. In Finnish, however, variable binding patterns differently from reciprocals in that it simply requires surface c-command relations to hold between the QuNP and the bound variable (at least when an overt possessive pronoun is used). In other words, when the binder does not precede the bindee in overt syntax, the sentence is ungrammatical (see Kaiser 2000a for examples). The reasons for the differences in the behavior of reciprocal anaphora and bound variables are not altogether clear. A possible reason could be the nature of the Finnish possessive system. In Finnish, possession is encoded by a system of possessive pronouns and possessive suffixes (Px's). The interactions between these two elements, combined with the fact that Finnish tends to disprefer cataphoric pronouns in general (Hakulinen and Karlsson 1988:317) may be part of the reason for the difference in the behavior of variable binding and reciprocals. In the variable binding examples, where overt possessive pronouns are present in addition to the possessive suffixes, surface order seems to play a more important role than in the reciprocals where there are no possessive pronouns. Clearly, further research is needed in this area.

3. Pragmatic considerations

In this section, we will see that the DO-IO and IO-DO orders differ pragmatically and that the asymmetry can be most straightforwardly captured by positing underlying DO-IO order. The terms 'old' and 'new' information are central to this section, so let us briefly consider what they mean. In this paper, when an entity is described as 'old information,' it is discourse-old, i.e. it has already been mentioned in the discourse (Prince 1992). The term 'new information' is used for entities that have not yet been mentioned.[5]

[5] I am using this discourse-based, 'relativized' notion of information status because Finnish permits proper names to occur in either order (IO-DO or DO-IO). When a speaker refers to a person by name, it can be inferred that the speaker and the hearer know about that person, i.e. the person is not 'new information' to the speaker or the hearer. However, the person can be 'new information' to the current discourse in the sense that he/she has not been mentioned yet. In other words, information that is known to the hearer but has not been mentioned in the particular discourse at hand counts as 'new

The two possible word orders in ditransitives are not pragmatically equivalent. This becomes apparent when we consider question-answer pairs. Sentence (4b), with IO-DO order, is an appropriate answer to a question such as (4a) which asks for the direct object and treats the indirect object as 'known information'. In contrast, sentence (4d), with DO-IO order, is an appropriate answer to question (4c), which asks for the indirect object and treats the direct object as 'known.' The opposite pairing is infelicitous.

(4)a. Mitä sinä annoit miehelle?
What-ACC you-NOM gave man-ALL?
'What did you give to the man?'

(4)b. Minä annoin miehelle kirjan. (IO-DO)
I-NOM gave man-ALL book-ACC.
'I gave the man a book.'

(4)c. Kenelle sinä annoit kirjan?
Who-ALL you-NOM gave book-ACC?
'Whom did you give the book?'

(4)d. Minä annoin kirjan miehelle. (DO-IO)
I-NOM gave book-ACC man-ALL.
'I gave the book to a/the man.'

In sum, it seems that if one of the arguments is old, known information, and the other one is new information, the old one occurs first and the new one later. Similar phenomena are attested in other languages as well (e.g. see Givón 1984 on Israeli Hebrew).

However, the question-answer pairs leave an important question unanswered: What happens when both of the arguments are old, or both are new? What order do they occur in? Vilkuna (1989) suggests that "If two adjacent phrases A and B are equal in information status (both old or both new), their mutual order reflects their syntactically unmarked order" (Vilkuna 1989:66). This hypothesis receives support from the ordering facts of subjects and objects in transitive sentences, as illustrated in Table 1 (see Chesterman 1991).

Table 1: Information status and word order in Finnish

	Object-new	**object-old**
subject-new	SVO	OVS
subject-old	SVO	SVO

'information in the ditransitive construction – as does information that is new to the hearer. See Prince (1992) for further discussion concerning the distinction between hearer-new and discourse-new.

When a subject and an object have the same information status (both old or both new), they tend to occur in the order SVO. Moreover, if the subject is old information and the object is new information, the order is again SVO. The only time when OVS order is more felicitous than SVO order is when the subject is new and the object is old.

Let us now return to the ditransitives. On the basis of Vilkuna's suggestion, we would predict that when the two postverbal arguments of a ditransitive verb have the same information status, their ordering reflects the base-generated order. If DO-IO is the base-generated order, then we predict that two arguments of equal information status should occur most felicitously in DO-IO order. Alternatively, if IO-DO is the basic order, configurations in which both arguments have the same information status should occur with this order. If both orders are base-generated, then we would presumably predict that both orders are equally felicitous when the two postverbal arguments have the same information status. In the next section we will take a closer look at the pragmatic word order patterns of Finnish ditransitives , and we will see that the evidence lends support to the claim that DO-IO order is base-generated.

.

4. A closer look at the pragmatics of word order

4.1 Informant judgments

To test informants' intuitions concerning the pragmatic ordering factors, I presented them with various ditransitive sentences with IO-DO and DO-IO orders, where the postverbal arguments were NPs, pronouns, NPs preceded by demonstratives etc. Based on their comments as to which interpretations were possible for each sentence and which sentences sounded ungrammatical, Table 2 below was constructed.[6]

As expected on the basis of the question-answer pairs, when the DO is old and the IO new, the most felicitous order is DO-IO (cell 2). Similarly, as expected, when IO is old and DO is new, the order tends to be IO-DO (cell 4). Moreover, according to my informants, the default order when both arguments have the same information status tends to be DO-IO (cells 1,3).[7] In light of these data and

[6] For reasons of space, I am unable to include the actual sentences that motivate Table 2 (see Kaiser 2000a for details). Only sentences with normal intonation and prosody were considered.

[7] It may be the case that the relative information status of two entities plays a role as well. In other words, an entity which was just mentioned in the preceding sentence may well be treated as more saliently 'older' than an entity that was mentioned five sentences ago – even though both are, strictly speaking, discourse-old. This is discussed more below.

Vilkuna's hypothesis about ordering and information status, it seems that DO-IO is the basic order, and IO-DO arises only when the IO is old and the DO new.[8]

Table 2: Information status and word order in ditransitives

	IO-new	**IO-old**
DO-new	DO-IO (1)	IO-DO (4)
DO-old	DO-IO (2)	DO-IO (3)

A possible way of capturing this pragmatic asymmetry is to treat DO-IO as the base-generated order and IO-DO as an order that is derived by pragmatically-motivated scrambling of an old IO. We could thus posit that, in general, the older of the two postverbal arguments scrambles leftward. When both arguments are old information, it seems that they have DO-IO order, which could be interpreted as a sign that both IO and DO have scrambled out of VP**.** We will discuss this proposal in more depth in section 5, but we will first take a look at the results of the corpus study to see if they support the informant judgments.

4.2 Preliminary corpus study

In this section, I present the results of a preliminary corpus study based on 149 examples of the verb *antaa* 'give' found in selections from three novels, two magazines, and a newspaper (available on-line at the University of Helsinki Language Corpus Server, <http://www.ling.helsinki.fi/uhlcs/>). The number of tokens in the corpus is fairly low because only cases where both IO and DO are postverbal are included in the analysis. This is done because, in sentences with [IO S V DO] or [DO S V IO] order, we simply cannot determine the relative (postverbal) ordering of DO and IO. Future work with a larger corpus is clearly needed, but even a small corpus can provide some indication of the validity of the informant judgments.

4.2.1 Pronominal forms

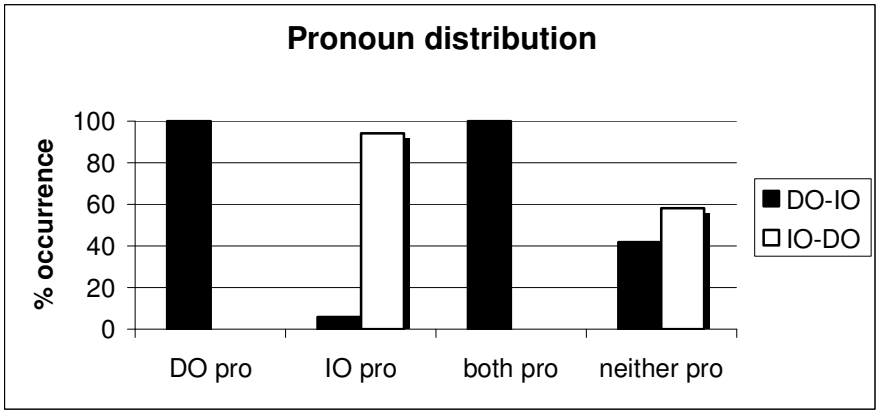
Table 3 presents a basic breakdown of the data in terms of the pronominal status of the arguments. Overall, the corpus data parallels informant judgments. Informants, when asked about sentences with one pronominal postverbal argument and one full NP postverbal argument, preferred to have the pronominal argument occurring to the left of the full NP argument. The same tendency was found in the corpus data. In cases where only DO is a pronoun, the order is DO-IO (3/3 occurrences), and in

[8] See Vilkuna (1989) for a slightly different take on the pragmatics of Finnish ditransitives.

cases where IO is a pronoun, the order tends to be IO-DO (49/52 occurrences). There is only one example in which both DO and IO are pronouns, but, as predicted on the basis of informant intuitions, it has the order DO-IO.[9]

Table 3. Pronoun distribution

	DO-IO	**IO-DO**	**Total**
Only DO pronoun	3 (100%)	0 (0%)	3
Only IO pronoun	3 (5.8%)	49 (94.2%)	52
Both pronouns	1 (100%)	0 (0%)	1
Neither pronoun	39 (41.9%)	54 (58.1%)	93
Total	46	103	149



4.2.2. Full NP forms

Out of 149 examples, there are 93 cases in which both DO and IO are full NPs. If we exclude sentences with one or more idiomatic postverbal arguments,[10] we are left with 81 tokens. In these cases, one needs to look at the context in order to determine the relative information status of the two postverbal arguments. I coded the arguments as 'old', 'new' or 'known.' As mentioned earlier, an argument that is 'old' has already been mentioned in the preceding discourse. A 'new' argument is has not yet been mentioned. 'Known' arguments have not been mentioned but the

[9] When considering the word order patterns of pronouns, considerations of clitichood are clearly important. Stress-based tests suggest that Finnish pronouns in ditransitive constructions are not clitics, since it seems that both DO and IO pronouns can be stressed. These issues, however, would benefit from further research**.** Thanks to Kieran Snyder for bringing this to my attention.

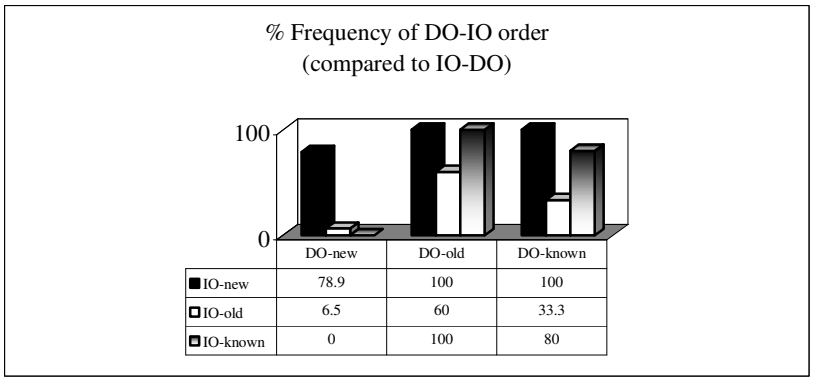
[10] It is not clear what kind of information status, if any, to assign to idiomatic arguments. See section 4.3 for a discussion of the idea that purely idiomatic constituents which are nonreferential have no real discourse status.

hearer/reader would be expected to know them (e.g. the name of the president) be able to infer their existence (cf. Prince 1981) from something that was already mentioned (e.g. mention of 'a book' makes 'the cover' inferrable).

The data for the full NP tokens is summarized in Table 4. If we compare these numbers to the informant judgements presented in Table 2, we see that, for the most part, the results are the same. As shown in cell 1 of Table 4, when both IO and DO are new, the order tends to be DO-IO (15/19 occurrences). When IO is new and DO is old (cell 2), the order tends to be DO-IO (3/3), and when IO is old and DO is new, the order is usually IO-DO (29/31), as shown in cell 4. So far, these ordering facts are what we would expect, given the data presented above.

Table 4. Pragmatic ordering tendencies (Examples with idioms or pronouns not included. Underling indicates the most frequent order for each configuration.)[11]

	DO-new	**DO-old**	**DO-known**	**Total**
IO-new	DO-IO 15, IO-DO 4 (cell 1)	DO-IO 3, IO-DO 0 (cell 2)	DO-IO 1, IO-DO 0 (cell 3)	DO-IO 19, IO-DO 4
IO-old	DO-IO 2, IO-DO 29 (cell 4)	DO-IO 3, IO-DO 2 (cell 5)	DO-IO 1, IO-DO 2 (cell 6)	DO-IO 6, IO-DO 33
IO-known	DO-IO 0, IO-DO 12 (cell 7)	DO-IO 2, IO-DO 0 (cell 8)	DO-IO 4, IO-DO 1 (cell 9)	DO-IO 6, IO-DO 13
Total	DO-IO 17, IO-DO 45	DO-IO 8, IO-DO 2	DO-IO 6, IO-DO 3	DO-IO 31, IO-DO 50



When we consider cases where both IO and DO are old (cell 5), the hypothesized pattern seems to hold only very weakly. In 3 out of 5 cases, the order is DO-IO, as we would predict on the basis of informant judgments. In other words, there seem to be two counterexamples to the generalization that if both arguments are old, they have the order DO-IO. The numbers are so small that it is difficult to

[11] It is worth emphasizing that many of the numbers in this table are obviously very small, and further work with a larger corpus is needed. The data presented here are intended to serve merely as a starting point for a larger-scale corpus study.

draw firm conclusions one way or the other, but it is worth taking a closer look at these sentences, as they raise some interesting questions.

(5)a. Siellä olisi tilaa antaa vaikka joka tytölle oma huone.
There be-COND room-PART give-INF even each girl-ALL own room.
'There's enough space so that we could give each girl a room of her own.'
(from a novel by Joensuu 1986)

b. UKK:n kaveri Kalle Kaihari on 25 vuoden ajan säilyttänyt
UKK-GEN friend-NOM K. K. is 25 years-GEN time-GEN kept
'UKK's friend Kalle Kaihari has for 25 years kept
omana tietonaan tosisuurta salaisuutta: Kuka antoi
own-ESS knowledge-ESS-Px3 huge-PART secret-PART: Who-NOM gave
a huge secret: Who gave
Kekkoselle ratkaisevan 151 äänen presidentinvaaleissa
Kekkonen-ALLAT decisive-ACC 151st vote-ACC president-elections-INESS
Kekkonen the decisive 151st vote in the presidential election…'
(from Helsingin Sanomat, file hs2)

Example (5a) has the order IO-DO and both postverbal arguments are discourse-old. However, it is worth noting that the sentence contains a scopal element 'each girl' as well as the NP 'own room.' Even though 'own room' is not bound by 'each girl' in a binding-theoretic sense, the meaning of the sentence is such that 'each girl' has scope over 'own room' (i.e., there are multiple girls, each with her own room). If we were to reverse the word order, this scopal interpretation would not be ruled out but it would become more difficult. Thus, the use of IO-DO word order when both arguments are discourse-old can presumably by induced by the 'scopal needs' of a particular sentence. In fact, in light of (5a) and the examples of reciprocal binding discussed earlier, it seems reasonable to hypothesize that syntactic or semantic factors, such as binding or certain scopal readings, can override the pragmatic ordering preferences.

The second potential counterexample, (5b), also has IO-DO order with both postverbal arguments being 'old' information. However, they have different degrees of relative oldness: the IO was mentioned very recently in the preceding text, whereas the DO was mentioned much earlier in the article. If we think of 'oldness' in terms of saliency or degree of activation of the referent, then the IO in (5b) is more salient than the DO. In this configuration, then, it is not surprising that IO precedes DO. In fact, it might well be the case that instead of defining arguments as 'old' or 'new', we would do better to define them in more gradient terms relative to each other. We could thus reformulate the notion 'old' as 'more salient/more recently mentioned than the other postverbal argument.' This focus on the importance of *relative* – as opposed to absolute – oldness of two arguments is

not a new claim, and has been discussed by Birner (1994) with respect to inversion in English, and also by Birner & Mahootian (1996) for Farsi inversion, *inter alia*.

In addition, another factor that is relevant when considering examples such as (5b) is the length of the constituents. Snyder (2000) found that in English, when the IO is 'old' information, the heaviness of the arguments (measured in syllables per NP) influences their ordering, such that "in cases where the recipient is not hearer-new, the heavier of the two objects occurs in the second position" (Snyder 2000:11). Even though the pragmatic patterns of Finnish ditransitives do not seem to be exactly the same as those of English (see Snyder 2000, Arnold *et al.*, 2000 for details), it seems likely that heaviness plays a role in Finnish as well. Thus, it might be the case that in configurations where one argument is significantly longer than the other and both are 'old' information, the longer argument occurs last.

Thus, it is not clear whether the counterexamples really are counterexamples. They raise a number of interesting questions, and suggest that the pragmatic ordering tendencies – while important – are not the only factors which influence argument order in ditransitive constructions. Clearly, a lot of work remains to be done and the discussion in this section is only speculative.

Let us now consider what happens if one of the arguments is 'known' information. As mentioned above, 'known' arguments are ones that have not been mentioned but that the hearer/reader would be expected to know, or arguments whose existence can be inferred from something that was already mentioned. Intuitively, one might expect 'known' information to fall somewhere between 'new' and 'old' – although it has not yet been mentioned in the discourse (like 'old' information), it is not altogether 'new' to the hearer. Indeed, the numbers in Table 4 show that, when a known argument is compared to a new argument, it behaves like 'old' information, but when a known argument is pitted against an old argument, it patterns like 'new' information**.**

4.3 Some speculation about idioms

Further support for the pragmatic ordering tendencies, as well as the claim that DO-IO is the base-generated order,[12] comes from idioms. Consider (15a), which literally means to give someone a pair of gloves, but idiomatically means to turn down a proposal, an invitation to dance etc. In light of the scrambling analysis

[12] Scope asymmetries also provide evidence in support of this claim, as discussed in Kaiser (2000b). Finnish ditransitives with DO-IO order permit both surface and inverse scope, but ditransitives with IO-DO order only have surface scope. Given that, in Finnish, the IO in IO-DO order (e.g. 'I gave girl-ALL every-ACC book-ACC') must be interpreted as discourse-old (i.e. referring to a certain girl, it is not surprising that it cannot be distributed over scopally (see Kaiser 2000b). See Brandt (1999) regarding this phenomenon in English.

presented in this paper, we might hypothesize that idiomatic constituents cannot scramble since they are not really referential and have no information status. This, combined with the claim that DO-IO is the basic order, predicts that in a sentence with an idiomatic DO, the order IO-DO arises when IO is old and has scrambled leftward, and the order DO-IO occurs when IO is new and has not scrambled. In other words, in sentences with an idiomatic reading of 'gloves,' the discourse status of the IO is predicted to be constrained by the word order.

(5)a. antaa jollekulle rukkaset
give someone-ALL gloves-ACC
'to give some gloves' (*idiom*: turn down a proposal/ invitation to dance, etc.)

b. IO-DO_{idiom}
Liisa antoi kerjäläiselle rukkaset.
Liisa gave beggar-ALL gloves-ACC
'Liisa gave the/a beggar gloves.'

c. DO_{idiom}-IO
Liisa antoi rukkaset kerjäläiselle.
Liisa gave gloves-ACC beggar-ALL
'Liisa gave gloves to the/a beggar.'

This prediction is indeed supported by informant judgments. When (5b) has an idiomatic reading, the beggar is judged to be discourse-old information, but when (5c) is interpreted with the idiomatic meaning, the beggar is discourse-new information. (All these sentences also have non-idiomatic interpretations.) Thus, the predictions made by the DO-IO base-order approach are confirmed. Under the view that IO-DO is the base-generated order, it is not clear what could be motivating the DO(idiom)-IO order in (5c), nor is it clear why the beggar in (5b) has to be interpreted as discourse-old information. In sum, the behavior of idioms supports the DO-IO analysis.

5. Analysis

A possible way of capturing the asymmetrical behavior of Finnish ditransitives is to posit that DO-IO is the base-generated order and IO-DO is derived by pragmatically-motivated scrambling. According to this analysis, an old IO scrambles over the DO and lands in a VP-external position. An old DO also scrambles to a VP-external landing site. When both arguments are old information, they tend to have the order is DO-IO, which suggests that both IO and DO have scrambled out of VP**.** Alternatively, it might be that if both are old information but one is relatively 'older' than the other, then the 'older' one scrambles.

(6)a. Basic: DO IO
b. Derived: IO_{old} DO t_{IO}
c. Derived: DO_{old} t_{DO} IO

5.1 Ideas for implementation

If we hypothesize that there exists some kind of landing site(s) outside VP for the IO and DO, we need to face the question, what exactly is this landing site? Two possible approaches are discussed here. First, one could argue that there is an 'Old-Phrase' outside VP which is reserved for old constituents, and that old IOs and DOs can move to spec-Old-P. If both are old, then presumably the closest one (or oldest one) moves to spec-Old-P, or closest one moves first and other one tucks in later, in the sense of Richards (1997). However, this approach has the disadvantage of forcing us to posit the existence of an additional projection.

Alternatively, one could adopt an approach inspired by the work on object shift. Object shift is movement of a pronoun or old/specific object DP out of VP (see Bobaljik & Jonas 1996). It is often obligatory when possible, but this depends on the speaker and the language (Bobaljik 2000:2). The ideas of Collins & Thráinsson (1996) are especially relevant, as they argue that word order patterns in Icelandic double objects involve overt movement to AGRo projections. I would like to suggest that perhaps in Finnish as well, movement out of VP in ditransitives is overt movement to spec of AGRioP/AGRdoP. In other words, in addition to the classic case feature, AGRioP and AGRdoP can have an [old] feature which attracts old constituents. New constituents do not move overtly to spec-AGRio/doP, just like indefinite objects do not undergo object-shift in Icelandic (Bobaljik 2000:12). However, the details of this proposal need to be worked out in order to see if it is a feasible approach.

There are some interesting parallels that can be drawn between the 'scrambling of old arguments' discussed in this paper, and the information-packaging analysis that Holmberg & Nikanne (2000) propose for Finnish transitive SVO and OVS sentences. According to Holmberg & Nikanne, all arguments have a feature [+/-Foc], where [-Foc] means that the argument is interpreted as "part of the presupposition", and [+Foc] means that "the argument is interpreted as the information focus." In other words, [-Foc] arguments are roughly comparable to 'old' or 'known' information, and [+Foc] arguments to 'new' information. After establishing this distinction, Holmberg & Nikanne suggest that in Finnish, "arguments which are not part of the information focus must ultimately be moved out of the focus domain," which they define as TP. Thus, 'old' information must move out of TP. This approach does not distinguish [-Foc] subjects from [-Foc] objects, and both "subject and nonsubject topics land in the same position in

Finnish […] in specFP" (Holmberg & Nikanne 2000:19, where FP corresponds roughly to AGRsP). Thus, the idea is that in Finnish, the projection that is usually thought of as AGRs is in fact a landing site for 'old' ([-Foc]) subjects and objects.

Along similar lines, I would like to suggest that in Finnish ditransitive constructions, a known/old argument (i.e. [-Foc]) must move to a higher position – one that is traditionally thought of as an AGR position, but that seems to be functioning like a landing site for 'old'/'known' information. This approach has the advantage of providing a unified account for this type of movement in transitive and ditransitive sentences.

6. Conclusion

In this paper I provide an analysis of some syntactic and pragmatic aspects of the Finnish ditransitive construction. On the basis of reciprocal binding and pragmatic word order patterns, I suggest that the Finnish ditransitive construction, which permits both IO-DO and DO-IO orders, has DO-IO as its underlying order.

Acknowledgements

I would like to thank Maribel Romero, Ellen Prince, Mark Arehart, Tonia Bleam, Chung-hye Han, Satu Manninen, Tom McFadden, Kimiko Nakanishi, Kieran Snyder and Yuji Tanaka for many helpful comments. I would also like to thank my Finnish informants; Juhani Anttila, Ulla Anttila, Timo Harvia, Tiina Harvia-Oikarinen, Antti-Jussi Heilala, Tarja Heilala, Matias Heilala, Samuli Heilala, Jaana Heino, Matti Hollberg, Sampsa Jolma, Mark Kaunisto, Pasi Kivinen, Ilkka Mäkelä, Timo Oikarinen, Tiina Pajunen, Olli-Matti Sopanen, Sanna Turakka and Katja Vahtikari. I'd like thank the University of Helsinki for access to the University of Helsinki Language Corpus Server <http://www.ling.helsinki.fi/uhlcs/>. All errors are, of course, my own. Earlier incarnations of parts of this work were presented at the 12th Student Conference in Linguistics, the Peripheral Positions conference at the University of York, and the 75th LSA Annual Meeting. I'd like to thank those audiences, as well as the ConSOLE audience, for their helpful comments.

References

J. Arnold, J. E., T. Wasow, T. Losongco, & R. Ginstrom. (2000). Heaviness vs. newness: The effects of structural complexity and discourse status on constituent ordering. *Language* 76(1), pp. 28-55.

Barss, A. & H. Lasnik (1986). A note on anaphora and double objects. *Linguistic Inquiry* 17(2), pp. 347-354.

Bayer, J. & J. Kornfilt (1994). Against scrambling as an instance of Move-alpha. Corver, N. & H. van Riemsdijk (eds.), *Studies on scrambling*. Mouton de Gruyter , New York, pp. 17-60.

Birner, B. (1994). Information status and word order: An analysis of English inversion. *Language* 70, pp. 233-59.

Birner, B. & S. Mahootian (1996). Functional constraints on inversion in English and Farsi. *Language Sciences* 18, pp. 127-38.

Bobaljik, J. (2000). *Heads or tails?: On the realization of A-chains*. [Presentation, UPenn, Feb 2000]

Bobaljik, J. & D. Jonas. (1996). Subject positions and the roles of TP. *Linguistic Inquiry* 27(2), pp.195-236.

Bruening, B. (to appear). QR obeys superiority: ACD and frozen scope. *Linguistic Inquiry* 32(2).

Brandt, P. (1999). Scope, topichood and double objects. Todirascu, A. (ed.) *ESSLLI Student Session*, pp.17-27.

Chesterman, A. (1991). *On definiteness: A study with special reference to English and Finnish.* Cambridge: Cambridge University Press.

den Dikken, M. (1992) *Particles*. HIL, Dordrecht

Collins, C. & Thráinsson, H. (1996). VP-internal structure and object shift in Icelandic. *Linguistic Inquiry* 27(3), pp. 391-444.

Givón, T. (1984). *Syntax: A functional-typological introduction*. John Benjamins, Amsterdam/Philadelphia.

Hakulinen, A. & F. Karlsson (1988). *Nykysuomen lauseoppia*. SKS, Helsinki.

Heim, I. & A. Kratzer. (1998). *Semantics in generative grammar*. Blackwell, Malden.

Holmberg, A. & U. Nikanne. (to appear). Expletives, subjects and topics in Finnish. Svenonius, P. (ed), *Subjects, predicates, and the EPP*. Oxford University Press.

Hoji, H. (1985). *Logical form constraints and configurational structures in Japanese*. [Ph.D. dissertation, University of Washington.]

Jackendoff, R. (1990). On Larson's treatment of the double object construction. *Linguistic Inquiry* 21(3), pp. 427-456

Johnson, K. & S. Tomioka. (1997). *Lowering and mid-size clauses*. Proceedings of the Tübingen Workshop on Reconstruction, pp. 177-197.

Kaiser, E. (2000a). *On the syntax and pragmatics of Finnish ditransitives*. [Ms., UPenn]

Kaiser, E. (2000b). A first look at the syntactic structure of Finnish ditransitive verbs. *Proceedings of SCIL 12*. MITWPL, Cambridge, Mass.

Karlsson, F. (1999). *Finnish: an essential grammar*. Routledge, New York.

Kitagawa, Y. (1994). Shells, yolks and scrambled e.g.s. *Proceedings of NELS 24*, 221-239.

Larson, R. (1988). On the double object construction. *Linguistic Inquiry* 19(3), pp.335-391.

Miyagawa, S. (1997). Against optional scrambling. *Linguistic Inquiry* 28(1): 1-15.

Müller, G. (1992). In support of dative movement. Barbiers, S., M. den Dikken & C. Levelt. *Proceedings of the third Leiden conference for junior linguists*. University of Leiden, Leiden.

Müller, G & W. Sternefeld. (1994). Scrambling as A-bar movement. Corver, N & H. van Riemsdijk (eds*.), Studies on scrambling*. Mouton de Gruyter, Berlin, pp. 331-385.

Nelson, D. (1998). *Grammatical case assignment in Finnish*. Garland, New York.

Pesetsky, D. (1995). *Zero syntax: Experiencers and cascades*. MIT Press, Cambridge.

Prince, E.F. (1992). The ZPG letter: Subjects, definiteness, and information-status. Mann, W. & S. Thompson (eds.), *Discourse description: Diverse linguistic analyses of a fund-raising text.* John Benjamins, Amsterdam/Philadelphia, pp.295-325.

Prince, E.F. (1981). Towards a taxonomy of given-new information. Cole, P. (ed.) *Radical Pragmatics*. Academic Press, New York, pp. 223-56.

Richards, N. (1997) *What moves where in which language?* [Ph.D. dissertation, MIT]

Snyder, K. (2000). *The pragmatics and syntax of double objects*. [Ms., University of Pennsylvania]

Takano, Y. (1998). Object shift and scrambling. *Natural Language and Linguistic Theory* 16(4), pp. 817-889.

Vilkuna, M. (1989). *Free word order in Finnish*. SKS, Helsinki.

Vilkuna, M. (1995). Discourse configurationality in Finnish. É. Kiss, K. (ed.), *Discourse configurational languages*. Oxford University Press, New York, pp. 244-268.