Determiner Sharing from a Crosslinguistic Perspective*

Barbara Citko
University of Washington

1. Overview

My main goal in this paper is to take a crosslinguistic look at a construction referred to in the literature as 'determiner sharing', first analyzed by McCawley (1993), later by Johnson (2000), Lin (2000), (2002), and Ackema and Szendroi (2002). Illustrative examples of English determiner sharing are given in (1a-e). In all of them, the second conjunct is missing a determiner, which is understood to be identical to the overt determiner inside the first conjunct. Throughout this paper, I will represent missing elements with a strikethrough.

(1) a. Few dogs eat Whiskas or ~~few~~ cats ~~eat~~ Alpo. (Johnson 2000:59)

b. Too many Irish setters are named Kelly and ~~too many~~ German shepherds ~~are named~~ Fritz. (William Safire column, 22 Dec 85)

c. The temple of Dragon, for example, whose exterior is seen in act one and ~~whose~~ interior ~~is seen~~ in act three, rivals a movie set. (Chicago Reader opera review, 10 Nov 89)

d. Your daughter ~~is~~ 16 and ~~your~~ son ~~is~~ 17 ½. (Chicago Sun-Times interview with Rajiv Gandhi, 4 May 88)

e. The duck is dry and ~~the~~ mussels ~~are~~ tough, but Bocuse D"Or rehearsal goes well for chef Bumbaris (Chicago Tribune food section caption, 17 Jan 91) (McCawley 1993:245)

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In what follows, I will discuss new data that present an interesting puzzle for the two currently available accounts of this construction. I will proceed as follows. In Section 2, I will review the restrictions on determiner sharing in English noted by McCawley (1993), Lin (2000), and Johnson (2000). In Section 3, I will present one proposal that handles these restrictions, the so-called small conjunct analysis of Lin (2000), (2002), and Johnson (2000). In Section 4, I will turn to crosslinguistic variation, focusing on Polish, a West Slavic language with relatively free word order, whose determiner sharing differs from English in a way that is rather unexpected on the small conjunct approach. In Section 5, I will consider (and ultimately reject) an alternative approach, the so-called dependent ellipsis approach of Ackema and Szendroi (2002). And last but not least, in Section 6 I will propose a new approach to determiner sharing, which combines the insights of these two approaches without facing the problems they face.

2. Constraints on Determiner Sharing in English

McCawley (1993), Johnson (2000), and Lin (2000) point out a number of interesting restrictions on English determiner sharing, which any adequate analysis has to account for. Perhaps the most striking one, due to McCawley (1993), concerns the fact that determiner sharing is contingent on verb gapping. All the examples given in (1) above become ungrammatical if the verb inside the second conjunct in *not* gapped:[1]

(2) a. * Few dogs eat Whiskas or ~~few~~ cats eat Alpo.

b. * Too many Irish setters are named Kelly and ~~too many~~ German shepherds are named Fritz.

c. * The temple of Dragon, for example, whose exterior is seen in act one and ~~whose~~ interior is seen in act three, rivals a movie set.

b. * Too many Irish setters are named Kelly and ~~too many~~ German shepherds are named Fritz.

[1] Lin (2000:276) notes that gapping in determiner sharing constructions does not necessarily have to involve the verb. If there is an auxiliary verb, what is necessary is T gapping rather than verb gapping. This is shown by the examples in (i-ii); in (i) determiner sharing is impossible even though the verb is gapped. It becomes fine if the auxiliary, which by assumption occupies the T head, is gapped, as shown in (ii).

(i) * The girls will drink whiskey and ~~tbe~~ boys will ~~drink~~ wine.

(ii) The girls will drink whiskey and ~~tbe~~ boys ~~will~~ drink wine.

c. * The duck is dry and ~~the~~ mussels are tough.

d. * Your daughter is 16 and ~~your~~ son is 17 ½.

All the examples considered so far involved subject determiner sharing. The ungrammaticality of the examples in (3a-b) seems to suggest that object determiner sharing is impossible.

(3) a. * Some will eat few Brussels sprouts or others ~~ate few~~ lima beans. (Johnson 2000:77)

b. * Ebert reviews too many films and von Rhein ~~reviews too many~~ concerts. (McCawley 1993:246)

The generalization that only subject determiners can be shared, however, is falsified in the face of the example given in (4) below. What distinguishes it from the ungrammatical (3a) above is that the shared determiner is conjunct initial. Thus a more accurate generalization, also due to McCawley (1993), is that the shared determiner has to be conjunct initial.

(4) I'll give few Brussels sprouts to Mary or ~~give few~~ lima beans to Max. (Johnson 2000:77)

It is worth noting that not all leftmost elements can be shared. McCawley (1993:246) also notes that adjectives, for example, cannot be shared even if they are conjunct initial.

(5) * Italian red wines are outstanding and ~~Italian~~ white wines ~~are~~ excellent.

For the sake of completeness, let me mention another range of restrictions on determiner sharing, having to do with the range of determiners that can be shared. As shown in (6), indefinites cannot be shared:

(6) a. * A soup is too salty and ~~a~~ pie ~~is~~ too sweet but otherwise the food was outstanding.

b. * An Irish setter should be called Kelly and ~~a~~ German shepherd ~~should be called~~ Fritz. (McCawley1993:245)

Somewhat disappointingly, the distinction between determiners that can be shared and ones that cannot does not fall along the strong/weak divide. According to Lin (2000), the class of determiners that can be shared includes

both strong ones (*the, possessive pronouns, each, every, most* and weak ones (many, few). In addition to the indefinite article, the class of determiners that cannot be shared in English includes bare numerals and demonstratives, as shown in (7):

(7) a. * Five dogs like Alpo and ~~five~~ cats ~~like~~ Alpo.

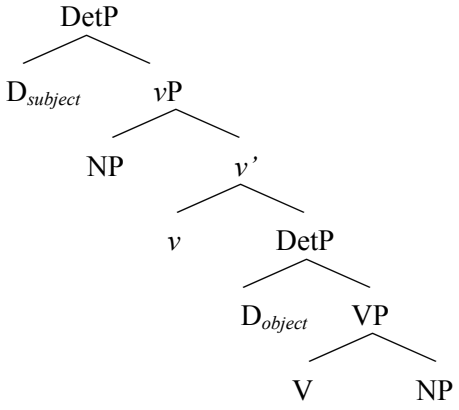
b. * That dog likes Alpo and ~~that~~ cat ~~likes~~ Alpo.

3. Small Conjunct Approach to Determiner Sharing

Lin (2000) and Johnson (2000), building on the insights of Johnson's (1986) analysis of gapping, provide a very explicit account of the restrictions on determiner gapping discussed in the previous section. I will focus on Lin's (2000) version of the account, which departs from Johnson's in ways that are not crucial for our purposes.[2]

Lin (2000) adopts Sportiche's (1997) DP Partitioning Hypothesis, on which determiners and their NP complements do not enter the derivation as a constituent. Thus, subject determiners are base-generated above *v*P, and object determiners are base-generated above VP, as shown in (8). In the course of the derivation, the subject and object NPs move to their determiners. I refer an interested reader to Sportiche's work for detailed arguments in favor of this proposal.

(8)



Furthermore, on the Lin/Johnson approach there is no ellipsis in determiner sharing constructions. The illusion of ellipsis is created by a combination of the DP Partitioning Hypothesis with the analysis of gapping as ATB movement of the verb.

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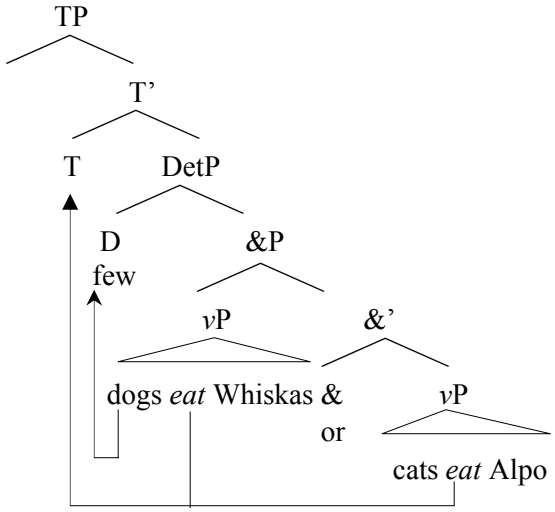
[2] Johnson (2000) focuses on negative determiners *few* and *no,* which he decomposes into two parts, a negative adverb-like part generated outside the coordination level, and an indefinite part generated inside the two conjuncts.

To see how these two factors come together, let us look at the derivation of the example given in (9a). It involves coordination of *v*Ps (hence the term 'small conjunct approach'). The shared determiner *few* is base-generated above the coordination level. During the course of the derivation, the verb *eat* raises in an ATB fashion to T, the subject *dogs* raises out of the first conjunct to adjoin to its determiner, and then the entire DP complex raises to [Spec,TP].[3]

(9) a. Few dogs eat Alpo and cats Whiskas.

b.

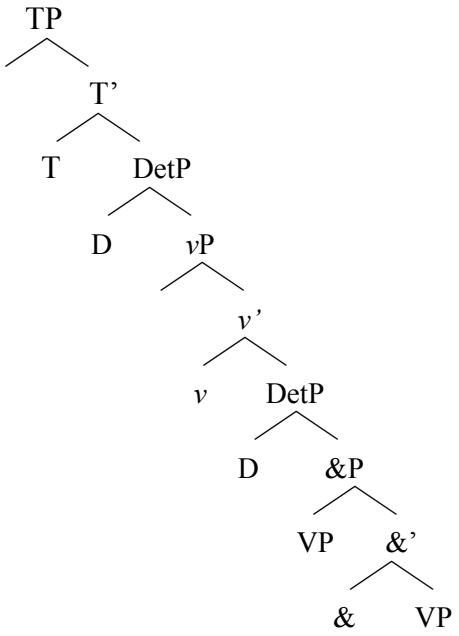


The small conjunct approach explains why determiner sharing is impossible with objects. The derivation of the ungrammatical object sharing example in (10a) would have to involve the structure in (10b).

(10) a. * Ebert reviews too many films and von Rhein ~~reviews too many~~ concerts.

[3] Note that the movement of the subject 'dogs' out of the first conjunct violates the Coordinate Structure Constraint. See Lin (2001) for arguments that A-movement is not subject to the Coordinate Structure Constraint.

b.



In (10b), the shared object determiner is base-generated above the coordination level, which is the VP level. Thus, everything above the VP has to be shared as well. In (10a), however, the subjects are not shared. The small conjunct approach to determiner sharing, coupled with an independently motivated DP Partitioning Hypothesis, thus nicely explains the fact that the shared determiner has to be conjunct initial.

The dependency of determiner sharing on gapping follows from the structure as well. However, it relies on the assumption that verbs have to raise to T, which is not trivial for languages like English. Since there is only one T position in (11b) above, the verbs have to raise in an ATB manner. If the T position is occupied by an auxiliary, there is no ATB verb raising, the auxiliary occupying the T position also has to be shared between the two conjuncts.

Johnson (2000) and Lin (2000) and (2002) argue in favor of the small conjunct approach to gapping, even in cases in which it does not involve determiner sharing. Evidence in favor of such an approach comes from variable binding and scope. As shown in (12), variable binding is impossible across clausal conjuncts.

(11) a. * *Not every girl*$_i$ ate a green banana and *her*$_i$ mother sold a ripe one.

b. * *No boy*$_i$ joined the navy and *his*$_i$ mother headed the army.
(Johnson 2000:60)

It becomes possible, however, when the verb in the second conjunct is gapped:

(12) a. *Not every girl*$_i$ ate a green banana and *her*$_i$ mother ~~ate~~ a ripe one.

b. *No boy*$_i$ joined the navy and *his*$_i$ mother ~~join~~ the army.
(Johnson 2000:60)

This contrast between gapped and ungapped variants follows from the small constituent coordination approach to gapping. The subject, such as *not every girl* in (12a) is in [Spec,TP], where it c-commands the subject in the second conjunct.

Scope interaction between the negative modal *can't* and the conjunction *and* points towards the same conclusion. First, let us consider the following examples from Siegel 1984, which illustrated the difference between gapped and ungapped variants.

(13) a. Ward can't eat caviar and Sue can't eat beans.

b. Ward can't eat caviar and Sue beans.

In (13a) the modal *can't* cannot scope over the conjunction. The wide scope reading of *can't* becomes possible in (13b), which can be paraphrased as 'it cannot be the case that Ward eats caviar while Sue eats beans.'

Furthermore, Lin (2000), following Vainikka (1987) discusses cases showing that a disjunction within the scope of certain operators (such as negation) can be interpreted conjunctively. This equivalence is known as de Morgan's law. In (18a), the disjunction is interpreted within the scope of negation, and the interpretation the sentence receives is the conjunctive one in (14b), not the disjunctive on in (14c).

(14) a. Bob can't play chess or Mary ~~can't~~ play checkers.

b. Bob can't play chess and Mary can't play checkers. (¬A & ¬B)

c. Bob can't play chess, or Mary can't play checkers. (¬A OR ¬B)
(Lin 2000:277)

Now let us apply the same diagnostics to determiner sharing. The grammaticality of (15), also from Lin 2000, shows that in determiner sharing constructions the subject in the first conjunct can bind a variable in the second conjunct, which suggests a small conjunct analysis.

(15) *Not every girl*$_i$ will vote yes and ~~not every~~ friend of *hers*$_i$ ~~will~~ vote no.

Scope also points towards the small constituent coordination analysis of determiner sharing. Consider in this light the following two examples from Johnson 2000.

(16) a. Few dogs eat Whiskas or few cats eat Alpo.

b. Few dogs eat Whiskas or ~~few~~ cats ~~eat~~ Alpo.

The two sentences differ with respect to the relative scope of *few* and *or*. In the ungapped variant, *or* has scope over *few*; the result is a disjunction of denials, as the paraphrase in (16a). In the gapped variant, on the other hand, *few* has scope over *or*, which results in a denial of a disjunction, as evidenced by the paraphrase in (16b).

(17) a. Either it's not the case that many dogs eat Whiskers or it's not the case that many cats eat Alpo.

b. It's not the case that many dogs eat Whiskers or that many cats eat Alpo.

Modals can also scope over both conjuncts in determiner sharing constructions, as shown by the interpretation of (18a) given in (18b).

(18) a. The girls can't eat caviar, and ~~the~~ boys ~~can't~~ eat beans.

b. It can't be the case that the girls eat caviar and the boys eat beans. (Lin 2000:279)

And *or* within the scope of negation can also be interpreted conjunctively:

(19) a. The boys can't play chess or ~~the~~ girls ~~can't~~ (play) checkers.

b. The boys can't play chess and the girls can't play checkers. (Lin 2000:279)

4. Challenges to the Small Conjunct Approach: Crosslinguistic Variation

This section tests the crosslinguistic validity of the small conjunct approach to determiner sharing. It focuses on Polish, a West Slavic language, which differs from English in a way that seems problematic for the small

conjunct approach. Let us first establish that Polish allows determiner sharing. This is done in (20a-b).

(20) a. *Mało psów je Whiskas a ~~mało~~ kotów ~~je~~ Alpo.* [Pol]
few dogs eat Whiskas and cats Alpo
"Few dogs eat Whiskas and cats Alpo."

b. *Za dużo seterów się nazywa Kelly a ~~za dużo~~ wilczurów ~~się~~ ~~nazywa~~ Fritz.*
too many setters REFL call Kelly and shepherds Fritz
"Too many setters are called Kelly and German shepherds Fritz."

c. *Ta kaczka jest sucha a ~~ta~~ pieczeń ~~jest~~ surowa.*
this duck is dry and pate raw
"This duck is dry and pate raw."

Similarly to English, determiner sharing also appears to be dependent on gapping; without gapping all the examples in (20) become ungrammatical:

(21) a. * *Mało psów je Whiskas a ~~mało~~ kotów je Alpo.* [Pol]
few dogs eat Whiskas and cats eat Alpo
"Few dogs eat Whiskas and cats Alpo."

b. * *Za dużo seterów się nazywa Kelly a ~~za dużo~~ wilczurów się nazywa Fritz.*
too many setters REFL call Kelly and shepherds REFL call Fritz
"Too many setters are called Kelly and German shepherds Fritz."

c. * *Ta kaczka jest sucha a ~~ta~~ pieczeń jest surowa.*
this duck is dry and pate is raw
"This duck is dry and pate raw."

However, this is misleading. As the grammaticality of the examples in (22) shows, what is crucial is that the verbs in the two conjuncts be distinct. If they are not distinct, they have to be gapped. This is the well-known non-distinctness requirement holding of all gapping constructions (Jackendoff 1971).

(22) a. *Mało kotów pije wodę a ~~mało~~ psów je tuńczyka.*
few cats drink water and dogs eat tuna
"Few cats drink water and few dogs eat tuna."

b. *Za dużo wilczurów lata po lesie a ~~za dużo~~ seterów pływa po jeziorze.*
many shepherds run through forest and setters swim across lake
"Too many German shepherds are running through the forest and too many Irish setters swim in the lake."

What distinguishes Polish from English is that it also allows object determiner sharing, even if the shared determiner is not conjunct initial. This is shown by the grammatical status of the examples in (23). Recall from Section 2 that the English equivalents of these examples are all ungrammatical.[4]

(23) a. *Ebert zrecenzjonował za dużo filmów a von Rhein ~~zrecenzjonował za dużo~~ koncertów.*
Ebert reviewed too many films and von Rhein concerts
"Ebert reviewed too many films and von Rhein reviewed too many concerts."

b. *Fido zjadł dużo Alpo a Whiskers ~~zjadł dużo~~ Whiskas.*
Fido ate much Alpo and Whiskers Whiskas
"Fido ate too much Alpo and Whiskers Whiskas."

The shared determiner behaves as if it were in both conjuncts simultaneously. For example, it has to match in features the nominals inside the two conjuncts. Both examples in (24) are ungrammatical because of the gender mismatch between the shared determiner and the two objects.[5]

(24) a. * *Fido zobaczył tą kotkę, a Whiskers psa.*
Fido saw this-FEM cat-fem and Whiskers dog-MASC
"Fido saw this cat and Whiskers saw this dog."

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[4] A question brought to my attention by an anonymous reviewer is what kinds of determiners can gap from the object. The class of object related determiners that can be shared seems to be the same as the class of subject related ones.

[5] In this respect, subject determiner sharing also does not differ from object determiner sharing. In (i) below, the determiner *mało* assigns genitive case to the subjects of both conjuncts.

(i) Mało psów lubi Whiskas a kotów Alpo.
few dogs-GEN like Whiskas and cats-GEN Alpo
"Few dogs like Whiskas and cats Alpo."

b. * *Fido zobaczył tego kotkę a Whiskers psa.*
Fido saw this-MASC cat-FEM and Whiskers dog-MASC
"Fido saw this cat and Whiskers saw this dog."

Furthermore, the shared determiner can assign case to the nominals inside the two conjuncts. As shown in (25), the quantifier *dużo* "much" assigns Genitive case to both objects.

(25) *Psy piją dużo wody a koty ~~piją dużo~~ mleka.*
dogs drink much water-GEN and cats milk-GEN
"Dogs drink plenty of water and cats drink plenty of milk."

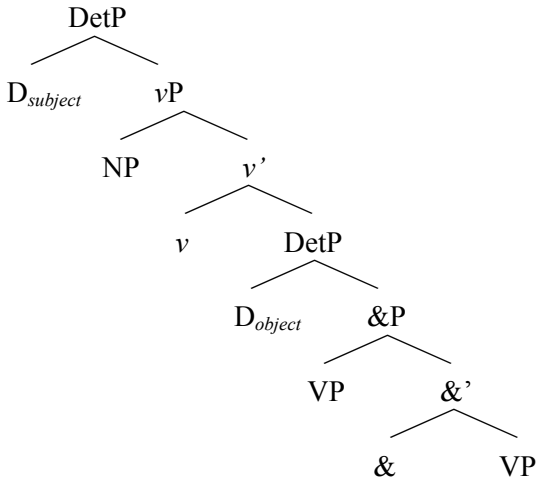
While a full typological study of object determiner sharing is beyond the scope of this paper, it is worth noting that Polish is by no means unique in this respect. Arregi and Centeno (2005) report a similar patter in Spanish:

(26) a. *Ni Juan leyó demasiados libros, ni Pedro revistas.*
neither Juan read too.many books nor Pedro magazines
"Neither Juan read too many books, nor Pedro read too many magazines."

b. *Ni Juan ha comido demasiadas manzanas, ni Pedro bebido*
neither Juan has eaten too.many apples nor Pedro drunk
cervezas.
beers
"Neither Juan has eaten too many apples, nor Pedro has drunk too many beers."

The availability of object determiner sharing in languages like Polish or Spanish appears to be a problem for the small conjunct approach to determiner sharing. The relevant structure is repeated in (27).

(27)



Since object related determiners are generated above the coordination level and below the base-generated subject position, there is no way for the conjuncts in the object determiner sharing construction to have distinct subjects. To solve this problem, Arregi and Centeno (2005) assume that there is an extra position above *v*P that the object can move to. They identify this position as AgrOP. Furthermore, they assume that the object related determiner can be generated above AgrOP. The object in [Spec,AgrOP] then adjoins to the determiner above it. For Arregi and Centena (2005), the availability of object determiner sharing is correlated with overt movement of the object to [Spec,AgrOP].[6] The crosslinguistic correlation between relative freedom of word order and object determiner sharing seems very reasonable; however, the idea that the object related determiner can be optionally base-generated above [Spec,AgrOP] seems rather ad hoc. If it were always generated in this position, the only possible word order would be OVS or VOS, since the object would always have to adjoin to its determiner.

A natural question to ask at this point is whether Polish determiner sharing differs from English with respect to other diagnostics, such as scope or quantifier binding. Let us first look at the interaction between negation and disjunction. We have seen in the previous section that under the scope of certain operators, *or* can be interpreted conjunctively. The problem with this test is that Polish does not have the strict equivalent of the English *or*. The only possibility is an *either or* construction, which has different scopal properties than *or* even in English. As shown by Larson (1985), the overt position of *either* determines the scope of *or* (see also Schwarz (1999)). In particular, the conjunctive interpretation disappears if *either* is added. The

[6] This part of the proposal is easily translatable into a framework without Agreement projections, such as that of Chomsky (2001). The object, instead of moving to [Spec,AgrOP] would move to the outer [Spec,*v*P].

example in (28a) below can only have the paraphrase given in (28b). It lacks the conjunctive interpretation, which would be paraphrased as (28c).

(28) a. Either Bob can't play chess or Mary poker.[7]

b. Either Bob can't play chess or Mary can't play poker.

c. It can't be case that Bob plays chess and Mary plays poker.

Polish behaves similarly. In (29a) below, the disjunction can only have narrow scope with respect to negation. It is interpreted as a disjunction of denials not a denial of a disjunction, as shown the paraphrase in (29b).

(29) a. *Albo Jan nie może grać w szachy albo Maria w pokera.*
either Jan not can play in chess or Maria in poker
"Either Jan can't play chess or Mary poker."

b. Either it is not the case that Jan can play chess or it is not the case that Maria can play poker."

c. # It is not the case that Jan can play chess and Mary can play checkers.

Another way we can test the scope of the shared object determiner is by looking at scope reconstruction in wh-questions, in which what is shared is the wh-determiner. First, let us establish that wh-determiner sharing is also possible in Polish. This is shown in (30a) for subject related wh-determiners and in (30b) for object related ones.

(30) a. *Ile psów lubi Alpo a kotów Whiskas?*
how-many dogs like Alpo and cats Whiskas
"How many dogs like Alpo and cats Whiskas?"

b. *Ile psy jedzą Alpo a koty Whiskas?*
how-much dogs eat Alpo and cats Whiskas
"How much Alpo do dogs eat and how much Whiskas do cats eat?"

[7] Schwarz (1999) gives this example two question marks, and attributes it to the fact that either (which starts out in the position adjoined to or) crosses negation. The informants I have consulted did not find this example ungrammatical, and were interpreting it as a disjunction of denials.

The small conjunct approach, coupled with Sportiche's (1997) DP Partitioning Hypothesis, makes a very clear prediction regarding scope reconstruction in determiner sharing constructions. Since the wh-word is base-generated above the coordination level, it is predicted to have wide scope with respect to the two conjuncts. Since it has not moved from either conjunct, there is no possibility for it to reconstruct. Interestingly, this prediction is not confirmed. As shown in (31), the wh-word is interpreted as having narrow scope with respect to the conjunction. This is the only possible interpretation, as shown by the answer given in (31b). The reading in which wh-pronoun has wide scope with respect to the conjunction is not possible, as shown by the infelicitous status of the answer in (31c).

(31) a. *Ile psy jedzą Alpo a koty Whiskas?*
how-much dogs eat Alpo and cats Whiskas
"How much Alpo do dogs eat and how much Whiskas do cats eat?"

b. *Psy jedzą dwa funty Alpo dziennie, a koty pół funta Whiskas.*
dogs eat two pounds Alpo daily and cats half pound Whiskas
"Dogs eat two pounds of Alpo daily and cats eat half a pound of Whiskas daily."

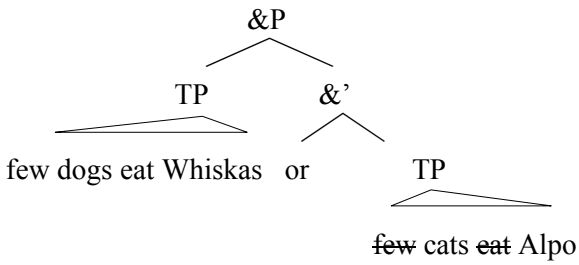
c. # *Jeden funt.*
one pound
"One pound."

In the next section, I will consider an alternative approach to determiner sharing, which avoids the prediction that the shared determiner should always take wide scope with respect to the conjunctions (or other scope bearing elements contained within the conjuncts). It differs from the analysis considered so far in that it involves larger conjuncts. I will end up ultimately rejecting it as well, and in Section 6, I will suggest a modification of the small conjunct analysis that avoids the problems noted above.

5. Large Constituent Approach to Determiner Sharing

A natural alternative to small conjunct approach to determiner sharing is the so-called large conjunct approach, on which determiner sharing involves clausal conjuncts. On this approach, both determiner sharing and gapping result from ellipsis inside the second conjunct, as shown in (32).

(32)



I will consider one implementation of the large conjunct approach to determiner sharing, that of Ackema and Szendroi's (2002), who build on Williams's (1997) analysis of coordinate ellipsis and analyze determiner sharing as a case of *dependent ellipsis*. They refer to it as dependent ellipsis, since deletion of the determiner is dependent on the deletion of the T head. Williams (1997) suggests that coordination involves projection of a bivalent phrase, which is a single phrase headed by two independent heads. For example, IP coordination involves a bivalent IP:

(33) a. [I,I]P = IP and IP (Ackema and Szendroi 2002:6)

b. I think that *John will eat meat* and *Mary will drink wine*.

In cases of gapping, the second head in the bivalent structure is null:

(34) a. [I,∅]P = IP and ∅P

b. I think that *John will eat meat* and *Mary ∅ drink wine.*

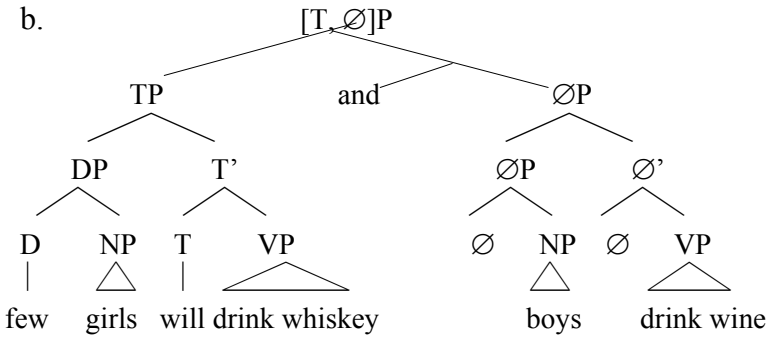
Determiner sharing involves dependent ellipsis, defined in (35), in which one null head licenses another one.

(35) *Dependent ellipsis* (Ackema and Szendroi 2002:9)
The ∅ head in coordinate ellipsis licenses the heads of its dependents to be ∅.

For example, a null T head can license a null D head inside the same conjunct, along the lines schematized in (36).

(36) a. Few girls will drink whiskey and ~~few~~ boys ~~will~~ drink wine.

b.



The large conjunct approach avoids the problem noted in the previous section for the small conjunct approach. The problem had to do with the fact that the wh-phrase could scope under the coordination level. The relevant example is repeated in (37).

(37) a. *Ile psów lubi Alpo a kotów Whiskas?*
how-many dogs like Alpo and cats Whiskas
"How many dogs like Alpo and how many cats like Whiskas?"

b. *Pięć psów lubi Alpo a dziesięć kotów Whiskas.*
five dogs like Alpo and ten cats Whiskas
"Five dogs like Alpo and ten dogs like Whiskas."

c. # *Pięć.*
five
"Five."

This is not a problem for the large conjunct approach, which allows the shared determiner to have scope below the conjunction.

However, there are other problems for the dependent ellipsis approach to determiner sharing. First, it is not clear how it would account for the ungrammaticality of object determiner sharing in languages like Polish or Spanish to begin with. The null T can only license a null head which is in its local domain.

Second, it does not account for the fact that the shared determiner has to match in features the nominals inside both conjuncts. As is well-known, this is not the case with other cases of coordinate ellipsis. For example, VP ellipsis allows mismatches in tense or phi-features, as shown in (38). Determiner sharing, on the other hand, requires a total match in features, as shown in (39).

(38) Sally might have eaten rutabagas, but Holly shouldn't ~~eat rutabagas~~.
(Johnson 2001)

(39) a. * *Fido zobaczył tą kotkę, a Whiskers psa.*[8]
Fido saw this-FEM cat-FEM and Whiskers dog-MASC
"Fido saw this cat and Whiskers saw this dog."

b. * *Fido zobaczył tego kotkę a Whiskers psa.*
Fido saw this-MASC cat-FEM and Whiskers dog-MASC
"Fido saw this cat and Whiskers saw this dog."

And third, the dependent ellipsis approach fails to account for determiner sharing in SOV languages. Admittedly, Ackema and Szendroi (2002) were not concerned with determiner sharing and gapping in SOV languages. However, their analysis makes a clear prediction about these languages.

As is well-known since Ross 1970 and Maling 1972, SVO and SOV languages differ with respect to the directionality of gapping. In SOV languages gapping operates forward, whereas in SOV languages gapping operates backward, yielding the following word orders:

(40) a. SVO and SO *(forward gapping)*
b. SO and SOV *(backward gapping)*

The following examples from Japanese and Korean illustrate backward gapping:

(41) a. *Robin-wa sakana-o Kim-wa ringo-o tabeta.* [Jap]
Robin-TOP fish-ACC Kim-TOP apple-ACC eat
"Robin ate fish and Kim apples." (Zoerner 1995:124)

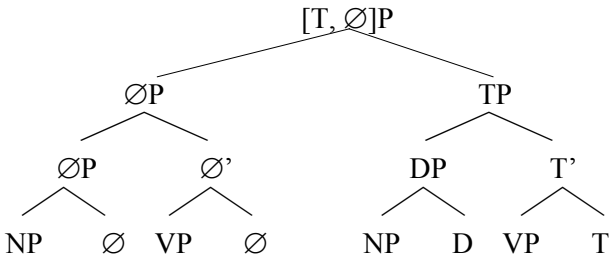
b. *kay-nun Whiskas-lul kuliko koyangi-nun Alpo-lul* [Kor]
dog-TOP Whiskas-ACC and cat-TOP Alpo-ACC
meknunta.
eat
"Dogs eat Whiskas and cats Alpo."
(Duk-Ho An, personal communication)

Since determiner sharing is dependent on gapping in the sense that a null T head licenses a null determiner, the prediction is that the missing determiner should be in the same conjunct as the gapped verb (or T head). The structure

[8] This example is grammatical on the irrelevant reading which does not involve determiner sharing.

of a determiner sharing construction in an SOV language should the one in (42), which is essentially a mirror image of the English structure given in (36b) above.

(42)



On the dependent ellipsis approach, the missing verb (or T head, to be more specific) is what licenses the missing determiner. Therefore, the prediction is that it should be in the same conjunct as the missing determiner. Interestingly, this prediction is not confirmed. Consider in this light the Korean example given in (45) below. The missing determiner is in the *second* conjunct; however, the missing verb is in the *first* conjunct.[9]

(43) *ku/ce kay-tul-un Whiskas-lul kuliko koyangi-tul-un* [Kor]
the/these dog-PL-TOP Whiskas-ACC and cat-PL-TOP
Alpo-lul meknunta
Alpo-ACC eat
"These/the dogs like Whiskas and cats Alpo."

We have thus seen that an alternative, large conjunct approach to determiner sharing fails to account for the properties of this construction. In the next section, I propose (and motivate) a version of the small conjunct account which essentially combines the insights of both the large and the small conjunct approach without facing the problems this account faces.

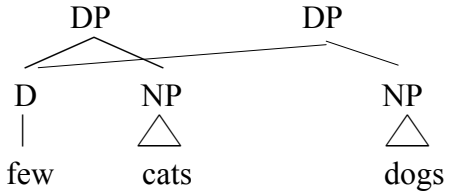
6. Revised Small Conjunct Approach

The proposal that I would like to make is essentially a revision of the small conjunct analysis. I assume that determiner sharing involves small conjunct *v*P coordination. However, I depart from the Lin/Johnson version of the small conjunct approach in two crucial respects. First, I do not adopt the DP Partitioning Hypothesis; instead, I maintain the more 'traditional' assumption that determiners are base-generated as heads taking NPs as their complements. Another modification I would like to suggest involves the

[9] This example allows the missing determiner interpretation only if there is a pause after the determiner.

actual mechanism responsible for determiner sharing. I propose that in determiner sharing constructions, the determiner is literally shared between the two noun phrases, as shown in (44).

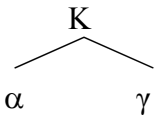
(44)



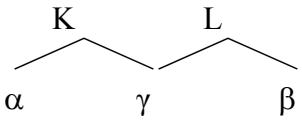
I follow Citko 2005 and assume that the grammar allows multi-dominant structures such as the one in (44) above (see Williams 1978, Muadz 1991, Moltmann 1992, van Riemsdijk 2000, Wilder 1998, Goodall 1983, 1987 for other versions of multi-dominance). Following Citko 2005, I assume such structures are created by means of a *Parallel Merge* operation, which allows a single element, such as γ in (45), to combine with α and with β in a way that creates multi-rooted, multi-dominant objects.

(45) *Parallel Merge*

a. Merge α and γ



b. Merge β and γ



Crucially, such multi-dominant structures do not add any new complications to the grammar. I argued in Citko 2005 that *Parallel Merge* combines the properties of Chomsky's (2001) *Internal Merge* and *External Merge*.

External Merge is the familiar kind of *Merge*, which takes two distinct rooted objects and joins them into one.[10]

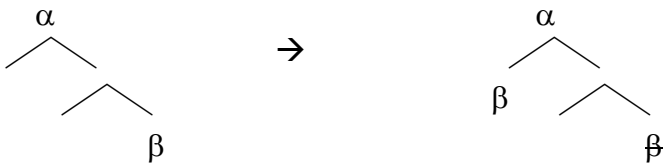
[10] Chomsky (2001) also distinguishes between *Pair Merge* and *Set Merge*. The *Parallel Merge* operation proposed here bears some resemblance to Chomsky's *Pair Merge* operation.

(46) α β → K

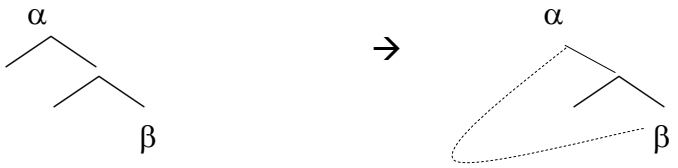
α β

Internal Merge replaces *Move*. The element undergoing movement, such as α in (47a) below, instead of being copied and pasted into a new position, is simply remerged in its new position.

(47) a. *Copy* theory of movement (Chomsky 1995)

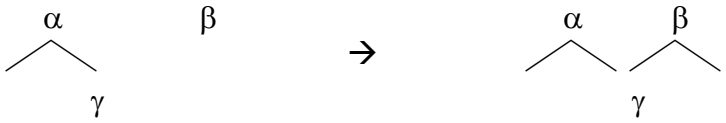


b. *Internal Merge* theory of movement (Chomsky 2001)



Parallel Merge is like *External Merge* in that it takes two distinct rooted objects but is like *Internal Merge* in that it combines them by taking a subpart of one of them rather than combining them at the root.

(48) *Parallel Merge*



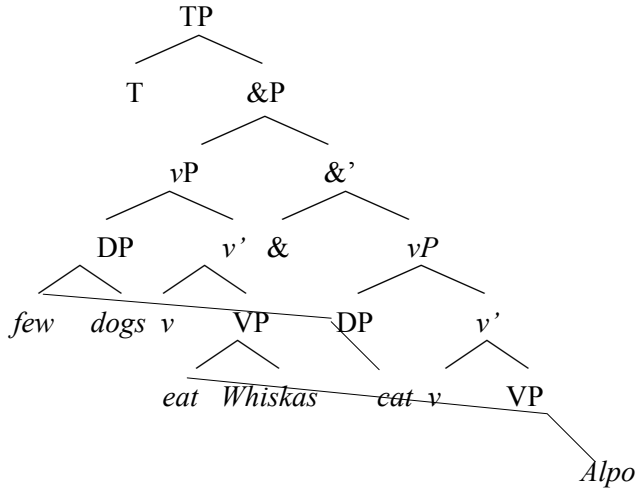
A natural question to ask about *Parallel Merge* structures is how they are linearized. They are clearly incompatible with Kayne's (1994) Linear Correspondence Axiom, which excludes all kinds of symmetric structures, including multi-dominant ones. However, they are compatible with a dynamic approach to antisymmetry of Moro 2000, which allows symmetry in the grammar as long as this symmetry is destroyed by the time of Spell-Out. More concretely, I propose that *Parallel Merge* structures are possible, as long as the shared element, such as γ in (48) (or the shared determiner in (44)), moves overtly out of the shared position into some other position in which it can be linearized. Crucially, this movement has to be independently motivated;

linearization considerations cannot be the driving force for movement. I differ from Moro (2000) in this respect, who argues that the need to break the symmetry is the sole driving force for movement.

Let us now see how *Parallel Merge* approach handles determiner sharing. In what follows, I will focus on Polish determiner sharing; however, the analysis extends naturally to English. I will use English words in the following tree diagrams for the sake of clarity. Let us start with subject determiner sharing, illustrated in (49).

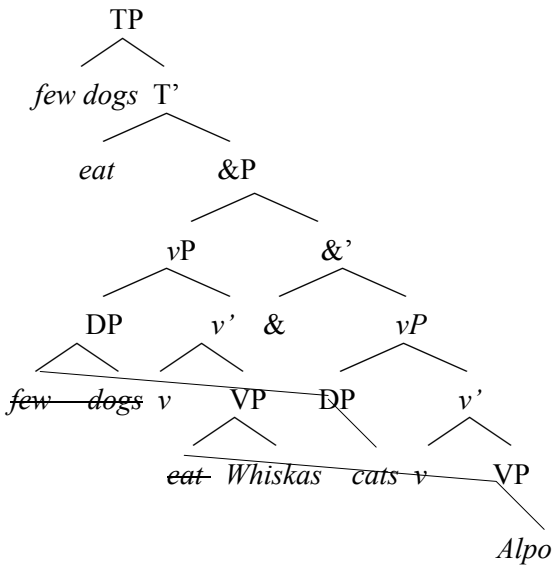
(49) a. *Mało psów je Whiskas a kotów Alpo.*
few dogs eat Whiskas and cats Alpo
"Few dogs eat Whiskas and cats Alpo."

b.



Both the verb and the determiner are shared between the two conjuncts, which means that they both have to move out of the shared structure. Otherwise the structure would not be linearizable. The shared subject determiner moves to [Spec,TP] pied-piping the subject NP from the first conjunct in order to satisfy the EPP requirement of the T head, and the shared verb moves to T, as shown in (50).

(50)



Languages can differ in whether it is just the determiner or the entire DP that moves to [Spec,TP]. As far as linearization is concerned, only the shared determiner needs to move. This is indeed what happens in the following example, in which the NP *dogs* stays in its *v*P internal position, and only the determiner *few* moves to [Spec,TP].

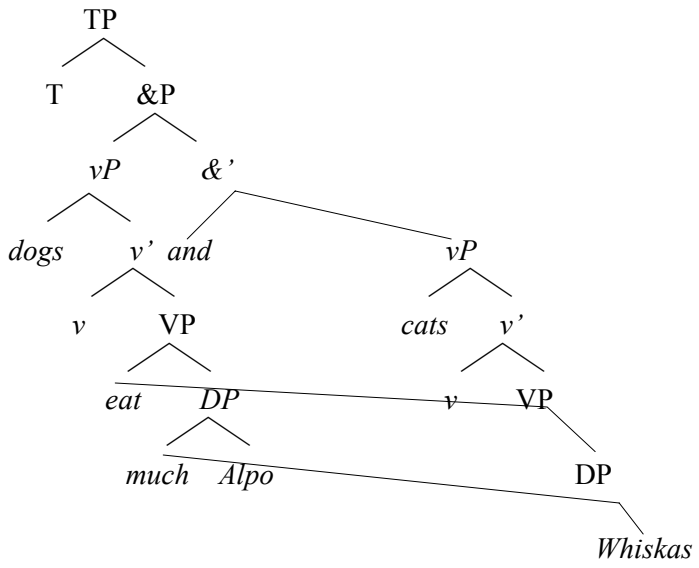
(51) a. *Mało je psów Whiskas a kotów Alpo.*
few dogs eat Whiskas and cats Alpo
"Few dogs eat Whiskas and cats Alpo."

In English, this option is excluded, which can be linked to a general ban against discontinuous constituents in this language. The only option is for the determiner to pied-pipe its complement NP.

On this approach, object determiner sharing examples, such as the one given in (52a), involve the structure in (52b).

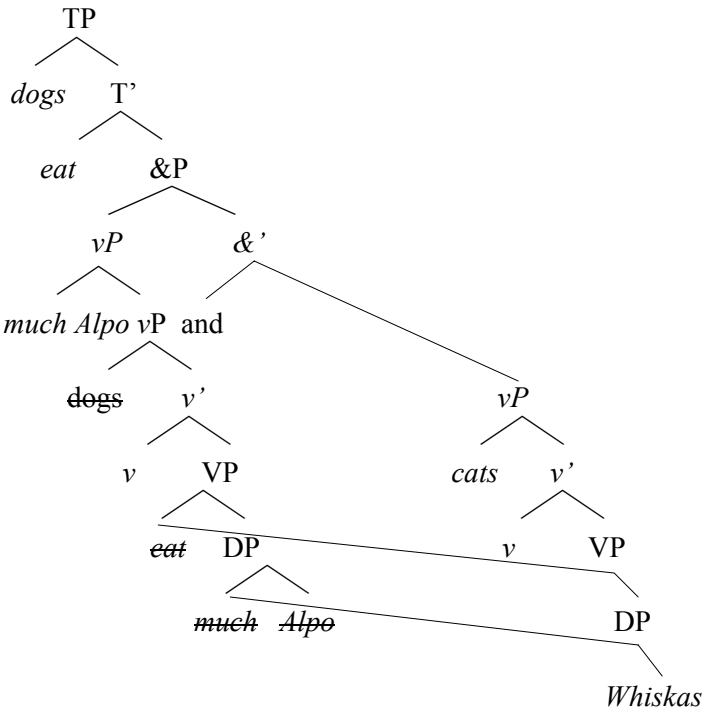
(52) a. *Psy jedzą dużo Alpo a koty Whiskas.*
dogs eat much Alpo and cats Whiskas
"Dogs eat a lot of Alpo and cats eat a lot of Whiskas."

b.



For linearization purposes, both shared elements have to move out of the shared structure. The shared verb moves to T, just as it does in the subject determiner sharing. The shared object determiner moves to the outer specifier of *v*P. This is also an independently motivated movement, known as object shift. Since English does not have it, the lack of object determiner sharing is to be expected.

(53)



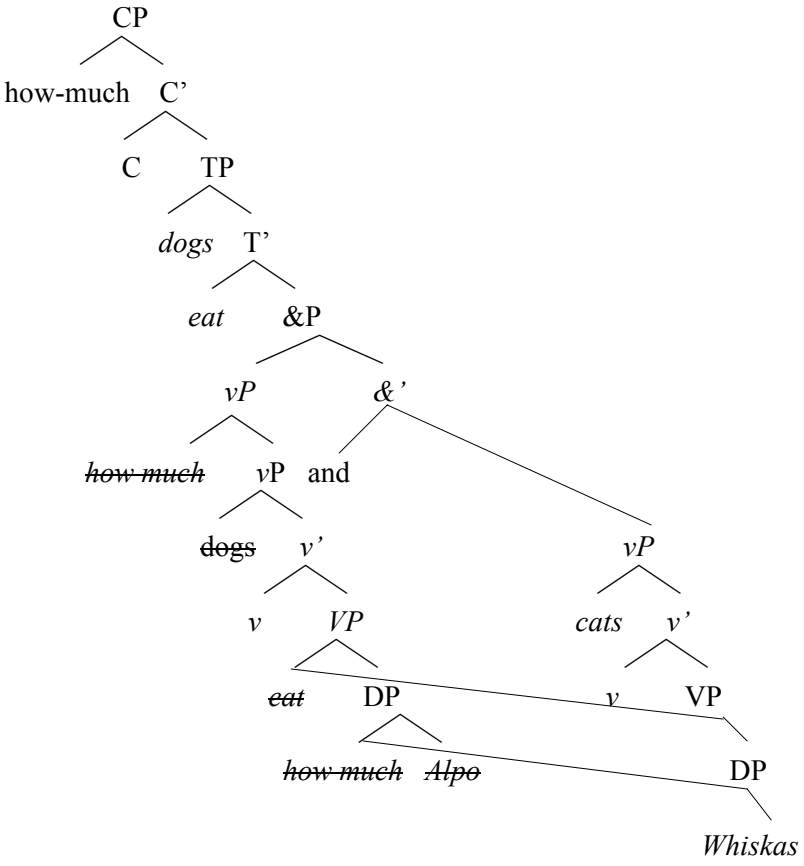
The availability of the extra specifier position is linked to the relative freedom of word order. In this respect, I depart from Arregi and Centeno (2005), who assume that the object determiner is actually base generated in this high position ([Spec,ArgO] in their terms) and the NP moves to adjoin to it. In my account, the shared determiners are base-generated in their 'usual' positions, and move for independent reasons.

This analysis can also account for wh-determiner sharing. Consider the following example.

(54) *Ile psy jedzą Alpo a koty Whiskas?*
how-much dogs eat Alpo and cats Whiskas
"How much Alpo do dogs eat and how much Whiskas do cats eat?"

The derivation proceeds very similarly to the derivation sketched above for object determiner sharing. The only difference is that the shared determiner's ultimate landing site is in [Spec,CP] rather than [Spec,*v*P]. On its way there, it stops in the [Spec,*v*P], as shown in (55).

(55)



In (55), only the wh-word moves to [Spec,CP], which results in left branch extraction. The entire DP *how much Alpo* can also move, which yields (56).

(56) *Ile Alpo jedzą psy a Whiskas koty?*
how-much Alpo eat dogs and Whiskas cats
"How much Alpo do dogs eat and how much Whiskas do cats eat?"

There are a number of advantages of the *Parallel Merge* approach to determiner sharing. First, it accounts naturally for the fact that the shared determiner has to match in phi-features both nominals and can assign case simultaneously to both conjuncts. Such an absolute matching requirement does not straightforwardly follow from a large conjunct approach. Furthermore, it explains why the shared wh-determiner can reconstruct to a position in which it is within the scope of the conjunction. On the current view, it is simply its base-generated shared position. At the same time, the current proposal explains why the modal or negation can have scope above the conjunction. Furthermore, it derives crosslinguistic variation with respect to determiner sharing from independent factors, such as the availability of an extra [Spec,*v*P] position in some languages but not others.

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Barbara Citko
Department of Linguistics
University of Washington
P.O. Box 354340
Seattle, WA 98119
bcitko@u.washington.edu