SERIALIZATION AND THE VERB
IN TURKISH COORDINATE REDUCTION

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'[U]nits' and 'grammatical facts' are only different names for different aspects of the same general fact: the operation of linguistic oppositions. So much so that it would be perfectly possible to tackle the problem of units by beginning with grammatical facts.   F. de Saussure, *Cours*.

Abstract

The article presents data about Turkish gapping and argument deletion in coordination, in particular about their serialization patterns. It offers some suggestions for research on the category of the verb. The patterns are classified along the dimension of referential versus non-referential objects. It appears that these patterns coincide with constituency of SO and OS, at least in surface constituency, because coordination which underlies gapping and argument deletion is a good testing ground for this aspect of grammar. The results show the parallelism effect in backward gapping, and lack of it in the forward variety. Apart from the expected outcome of basicness of SOV for Turkish, it seems that verb-medial orders need further studies. Their involvement in forward gapping is significant but not conclusive. Unlike strict word-order SVO languages, paralellism is not required.

It is known that gapping and argument deletion patterns reveal rich information about the verb. The reason for this might be that the verb must be involved in them even when it is not the target of deletion. The most revealing source for verb directionality appears to be the asymmetries arising from differential behavior in syntax.

keywords: syntax, word order, coordination, gapping, typology

Özet

Bu makalede Türkçe'deki eksiltme işleminin bazı dizilim özelliklerine bakılmış ve önerilerde bulunulmuştur. Dağılım, gönderimsel olan ve olmayan nesneler açısından incelenmiştir. Örnekler, Türkçe'de ÖN ve NÖ dizilimlerinin kurucu olduğunu göstermektedir. Bu çıkarımın temel dayanağı, eksiltme işleminin, kuruculuk konusunda güvenilir bir test olan eşgüdüm yapısını kullanmasıdır. Sonuçlar geriye dönük eksiltmede koşutluk kıstasının gerektiğini, ileriye dönük eksiltmede ise bunun gerekmediğini göstermektedir. Öne çıkması beklenen özne-nesne-eylem dışında, eylemin ortada olduğu dizilimler de yakından incelenmeyi gerektirmektedir. Diğer özne-eylem-nesne dillerinden farklı olarak öne eksiltmede paralellik kısıtı görülmemiştir.

Eksiltme işlemine baktığımızda eylemin dizilime katkısı ile ilgili önemli bilgiler edindiğimiz biliniyor. Bunun nedeni, eylemin, eksiltme işleminin hedefi olmasa bile mutlaka işin içinde olması gerektiği olabilir. Türkçe gibi çalkalamalı dillerde bu bilginin önemli bir kaynağı da dizilimde asimetriler olarak karşımıza çıkmıştır.

anahtar sözcükler: sözdizim, eşgüdüm, eksiltme, tipoloji

1 Introduction

The relationship between gapping (identical verb deletion) and word order has been a focus of intensive research since the work of Ross (1970). In serialization of [S]ubject, [O]bject and [V]erb in a particular language, forward V gapping (deletion of identical verbs on the right) is a sign of word orders that license leftward grouping VO, and backward V gapping is a sign of rightward grouping OV Ross (1970:251; cf. Table 1):

> "The order in which gapping operates depends on the order of elements at the time that the rule applies; if the identical elements are on the left branches, gapping operates forward; if they are on the right branches, it operates backward."

Table 1: Ross's classification of Gapping

Type	Base	Pattern	
A	SVO	SVO & SVO	$\Rightarrow_{gap}$ SVO & SO (forward gapping)
B	SVO	SVO & SVO	$\Rightarrow_{gap}$ SVO & SO $\Rightarrow_{scramble}$ SOV & SO
C	SOV	SOV & SOV	$\Rightarrow_{gap}$ SO & SOV (backward gapping)
D	SOV	SOV & SOV	$\Rightarrow_{gap}$ SO & SOV $\Rightarrow_{scramble}$ *SO & SVO

I use the symbol '&' to denote coordination in abstract schemas of S, O and V. The labels S, O and V need explaining. Word order typologies are commonly described with the notions of subject, object and verb where the arguments correspond to an ascending scale of obliqueness: subject is the least oblique, object more oblique and so on (Mallinson and Blake, 1981, Derbyshire and Pullum, 1981, Comrie, 1981). In an accusative language, they more or less align with the relative obliqueness of surface subject and object. Not relying too much on this alignment facilitates comparison with ergative languages without confusion. We know that agent-prominence, subject-prominence and topic-prominence interact in languages (see e.g. Li and Thompson 1976, Keenan 1978, Gundel 1988, Manning 1996, Gundel and Fretheim 2001). Typologist's choice, which I adopt, helps us to point out the interaction to make further studies of the constraints on grammar. This is one of the motivations for the current article.

The following typology of gapping emerges for the most common word orders SOV (1), SVO (2) and VSO (3) (data from Steedman 2000):

(1) a. Japanese: SO & SOV but *SOV & SO

b. Ken-ga   Naomi-o,   Erika-ga   Sara-o   tazuneta
   Ken-NOM Naomi-ACC Erika-NOM Sara-ACC visit-PAST.CONCL
   'Ken visited Naomi, and Erika Sara.'

c. *Ken-ga Naomi-o tazunete, Erika-ga Sara-o

(2) a. English: SVO & SO but *SO & SVO

b. Keats eats Beans, and Chapman potatoes

c. *Chapman potatoes, and Keats eats Beans

(3) a. Irish: VSO & SO but *SO & VSO

b. Chonaic Eoghan Siobhán agus Eoghnaí Ciarán
   saw   Eoghan Siobhán and   Eoghnaí Ciarán
   'Eoghan saw Siobhán, and Eoghnaí Ciarán.'

c. *Eoghan Siobhán agus chonaic Eoghnaí Ciarán

The fact that, for instance, Russian exhibits SO & SOV, SVO & SO, and SOV &
SO forces an analysis of Russian as an SVO language due to presumed universal
ungrammaticality of type D in Table 1; SOV as a basic word order would de-
rive *SO & SVO because gapping is assumed to apply before or after scrambling.
Ross's conjecture that no language exhibits SO & SVO word order has been re-
jected by Rosenbaum (1977), which makes the appeal to typological universals
for pinning down the basic word order questionable.

   The reliance on a structurally predetermined universal word order, e.g. SVO
for Kayne (1994), or implicational universals such as that of Greenberg (1963),
are challenged in their universal claims. For example, the kind of long-range
dependencies that arise in syntax has been noted by Maling and Zaenen (1978),
as examples of exceptions to the Fixed Subject Constraint of Bresnan (1972).
This constraint was once considered to be a universal. The constraint describes
an asymmetry in long-distance extraction of subjects and objects, first noted for
English, e.g. (4a–b). It does not hold in Turkish (4c).

(4) a. *Who$_i$ do you think that $_{-i}$ will feed the cats?

b. Who$_i$ do you think that the kids will feed $_{-i}$?

c. Ahmet ben-im kitab-ı   oku-du-ğ-un-u   san-dı-ğ-ım
   A   I-1s book-ACC read-PAST-COMP-3s-ACC think-PAST-REL-1s
   adam-ı   tanı-yor.
   man-ACC know-PROG
   lit. 'Ahmet knows the man who I thought read the book.'

It holds for other verb-medial languages as well. Like Turkish, other verb peripheral languages such as Dutch (SOV) and Chamorro (VSO) do not exhibit this asymmetry as Maling and Zaenen showed. The asymmetry appears to be related to the basic word order of the language acting as a constraint, across the constructions, rather than as a universal. As such, we would expect the directionality of the verb to play a key role in it because the verb participates overwhelmingly in most of the constructions. Moreover, OVS and OSV basic word orders are possible, as witnessed by Hixkaryana (OVS; Derbyshire 1977), and Amazon languages (OSV). (To the best of my knowledge, there is no reported data on gapping for OSV and OVS languages.)

Universal claims of the structural and implicational kinds have been recently challenged again by Dunn et al. (2011), who suggest that both kinds of universals might be missing the source of word order tendencies. We are, then, in a position where any light on the language-particular behavior of serialization may serve as a good base for further generalizations and analyses, and where the verb is critically involved. Gapping is a good candidate for that. (Extraction asymmetries are another one, as implicated by Maling and Zaenen 1978.)

The aim of the current paper is to describe some Turkish gapping and argument deletion data in this regard. I will touch upon some current proposals but will try to steer clear of committing to a certain analysis. It seems that a larger linguistic community is served if we expose the directional and sequential asymmetries pretheoretically so that we can tell by further studies whether the constraints on grammar are (a) self-imposed or (b) extraneous. And, if (a) is the case, what can we say about the verb? if (b) is the case, what are the sources of the constraints?

2   What the data is about

Putting aside a universal for word order, Ross's hypothesis—that the direction of gapping depends on the input phrase structure configuration—sets an agenda for lexicalist theories of grammar: the patterns of gapping in a language must originate ultimately from the lexicon if no operation is allowed to change the projection of structure from lexicon to grammar, and if directionality in a language is to be specified non-redundantly in grammar-lexicon.

The issue of word order identification has been controversial even for configurational languages, due mainly to empirical significance or insignificance attributed to having certain word orders in the lexicon (or d-structure). McCawley's (1970) early proposal for English as a VSO language—based on the ease of transformations, and Pullum's (1977) universals for word order, argued mostly on formal grounds, which were found to be untenable by Derbyshire (1977), Berman (1974). Movement-based accounts such as Kayne (1994) also undermine the em-

pirical support for a surface notion like word order.

With the understanding that a putatively lexicalized word order be empirically justifiable, the issue becomes more problematic in so-called free word order languages, for different word orders serve different purposes in these languages, and it is hard to single out one of them as basic and regard others as derived. Steele (1978) argued that word orders that are morpho-syntactically distinct from the basic word order, such as in subordinate clauses of many languages, are not variations in word order. Following the same route, we look at main clauses, and consider the word order distinctions in main and subordinate clauses (as in German) to be a different matter.

Studies on Turkish word order (e.g. Enç 1991, Erguvanlı 1984, Erkü 1983, Hoffman 1995, Kılıçaslan 1994, Turan 1995, Göksel 2006, 2010), reflect the dominance of discourse-functional concerns for identifying the basic word orders. (Some of the work cited above in fact try to do away with "basic" word order at the expense of a multidimensional template, e.g. Göksel 2010.) It is also common to see a factorization of discourse-functional aspects and structural ones, as in İşsever (2003), Temürcü (2005), Kılıçaslan (2004), Kornfilt (2005a), Özge and Bozsahin (2010), either in a single grammar or in multiple grammars.

As these studies point out, word order shows distinct characteristics according to discourse (∓definite) and semantic (∓referential) properties of the object, in present terms the O. There are some disagreements: Nakipoğlu's (2009) direct association of the overt accusative case with definiteness has been questioned by Özge (2010). Thus, rather than taking these two aspects together and double the amount of reporting and confusion, I will single out bare O as 'Ø', for non-referential O which is morphologically unmarked for case. This choice keeps the non-specific indefinites in the picture for O, because they can be arguments (5a), also the case-marked indefinites (5b), but leaves non-referential NPs (5c) to Ø. Thus I follow Aydemir (2004), Öztürk (2005) in considering non-referentials to be non-arguments and in leaving open the possibility that unmarked nominals can be arguments. Ø is a convenient label for non-arguments. All the examples in the serialization patterns of O can be considered to contain potential arguments because bare unmarked nominals were not used when this label is involved.

(5) a. Hasan bir karides ye-di.
       H   one shrimp eat-PAST
       'Hasan ate a shrimp.'

    b. Hasan bir karides-i   ye-di.
       H   one shrimp-ACC eat-PAST
       'Hasan ate a (certain) shrimp.'

    c. Hasan karides ye-di.
       H   shrimp eat-PAST
       'Hasan ate shrimp.'

I will not repeat the data and analyses on gapping reported in Hankamer (1972), Kornfilt (2005b), Ince (2008), Özge and Bozsahin (2010). Suffice it to say that we know from these works that gapping is a matrix phenomenon (6a), and it relates to verbs and their arguments, rather than arguments of nominals (6b).

(6) a. *Zeynep [[Hasan-ın karides-i   ye-diğ-in-i],
       Zeynep   Hasan-GEN shrimp-ACC eat-FNOM-3.SG-ACC

       [Mehmed-in de   istiridye-yi __]] duy-du
       Mehmet-GEN and oyster-ACC   hear-PAST
       'Zeynep heard that Hasan ate the shrimp, and Mehmet (ate) the oyster.'
       example and its gloss from Kornfilt (2005b:ex.6)

    b. *Ahmet Ali-nin bu teorem-i   ispat-ın-a,   Meral-in de
             -GEN this theorem-ACC proof-POSS3s-DAT   -GEN also

       o teorem-i   <ispat-ın-a>   hayran kal-dı
       it theorem-ACC proof-POSS3s-DAT fan   stay-PST
       'Ahmet adored Ali's proof of this theorem, and Meral's of that theorem.'
       example and gloss from Ince (2008:ex:7)

The matrix behavior assumption is so uncontroversial that, in (7), Ince is forced to posit two matrix clauses as the arguments of coordination, rather than two complement clauses.

(7) Ahmet [Hasan-ın pasta-yı   ye-di-ğ-in-i],   bil-iyor
            -GEN cake-ACC eat-IRR-COMP-POSS3s-ACC know-PROG

    Meral-in (de) dondurma-yı.
     -GEN (also) ice.cream-ACC
    'Ahmet knows that Hasan ate the cake and Meral the ice-cream.'
    example and gloss from Ince (2008:ex:4)

I will from now on concentrate on another surface phenomena in line with the matrix-structural assumption: matrix serialization and its effect on coordinate reduction, in Koutsoudas's (1971) sense, which includes argument deletion as well as verb deletion in serialization. This choice allows us to consider "gapping" and "deletion" as descriptive labels for the remainder of the article. I leave out the Coordinate Structure Constraint of Ross (1967), its exceptions and exceptions to exceptions, because they do not necessarily involve matrix phenomena. I also leave out the word order behavior in cases where some parallelization is not

forced in the construction, namely word order variation in matrix clauses without coordination. It seems that serialization of Ø is more flexible in matrix clauses than commonly assumed, when S and Ø are not forced into surface constituency; see Uygun (2006), Öztürk (2009), Gracanin-Yüksek and İşsever (2011) and references therein for this aspect of Ø.

3 Data

For ease of exposition, I use a schematic notation, e.g. 'SOV & SO', to indicate coordination with gapping. In surface structure, the coordinating clitic comes after the first constituent of the rightmost conjunct, e.g. (8). This is typical of native coordinators; 've' (and) and 'ama' (but), which are borrowed from Arabic, do not behave this way (9a–b). Both kinds of coordinators allow for backward and forward gapping. The cases for ve/ama are shown in (9c–d).

(8) Kitab-ı   adam oku-du,   dergiyiyse   çocuk.
    book-ACC man   read-PAST magazine-ACC-conj child
    'The man read the book, and the child, the magazine.'

(9) a. Çocuk ev ödev-i-ni   yap-ma-dı   ve/ama maçı seyret-ti.
       child   homework-POSS-ACC do-NEG-PAST and   game watch-PAST
       'The child did not his/her homework and/but watched the game.'

    b. *Çocuk ev ödevini yapmadı maçive/ama seyretti.
       (ungrammatical with 've', * with 'ama' for reading (a) above)

    c. Adam kitab-ı   ve/ama çocuk dergi-yi   oku-du.
       man   book-ACC conj   child magazine-ACC read-PAST
       'The man read the book, and/but the child, the magazine.'

    d. Çocuk dergiyi okudu, ve/ama adam kitabı.

    e. *Çocuk dergiyi okudu, adam ve/ama kitabı.

Table 2 shows the data on backward deletion of identical verbs. (The appendix lists some of the sentences used in the tests. The informants marked the sentences as **, *, ??, ? or grammatical. I reflect the majority vote in the tables.) The rightmost conjunct in which the undeleted verb appears is verb-final. The first row indicates that SO and OS must be treated as constituents at the surface structure. The second row shows that their surface categories must differ, otherwise SO & OS and OS & SO coordination would be grammatical. The ungrammaticality reported at the bottom two rows could be attributed to the universal word order

constraint (type D in Table 1), but given the concerns expressed in the introduction about a universal word order, we would expect lexicalized grammars to rely on constituency and verbal directionality to explain these rows.

Table 2: Backward V gapping (case-marked O)

SO & SOV	OS & OSV
*SO & OSV	*OS & SOV
*SO & XVY	*OS & XVY for X,Y=S,O
*SO & VXY	*OS & VXY for X,Y=S,O

Table 3: Forward V Gapping (case-marked O)

SOV & SO	OSV & OS
SOV & OS	OSV & SO
?SVO & SO/OS	?OVS & SO/OS
?VOS & OS/SO	?VSO & SO
??VSO & OS	

Table 3 shows the data on forward deletion of identical verbs. As evident from the first two rows, structural parallelism that we observe in Table 2 (which has earlier prompted all too powerful transderivational constraints in Hankamer 1973) do not apply in forward gapping. It appears that the judgments can be ranked according to the position of the verb in the leftmost conjunct. All informants found verb-final leftmost conjuncts grammatical, irrespective of the surface structure of the right conjuncts. (A reviewer points out an interaction with intonation: these patterns begin to show contrast when there is a "continuation rise" at the end of the leftmost conjunct in the sense of Özge and Bozsahin 2010, although they are all fine with a "declarative tune" on the same intonational phrase. S/he contrasts SOV & OS versus SOV & SO, where the first one seems odd to the reviewer compared to the second, with a continuation rise on SOV. Such optionality seems to be unavailable in backward gapping according to the reviewer, with which I agree: we need a continuation rise in the left conjunct of backward V deletion. My judgment is less discriminative about continuation rises and declarative tunes in forward V deletion, due to the felicity of (10), but I agree that parallels such as SOV & SO and OSV & OS are more "natural" with continuation rise in the leftmost conjunct. The reviewer's point raises the possibility of an ellipsis analysis for SOV & OS and OSV & SO with a declarative tune on the leftmost conjunct, however it remains to be the case that single predication is possible with SO and OS patterns of grouping, as shown in (10) and in backward V deletion. A theory

of constituency must explain what is possible. This aspect is not studied further in the paper.)

(10)   Ahmet mi dergiyi okudu? (was it Ahmet who read the magazine?)

     Ahmet kitab-ı   oku-du,   dergi-yi   Mehmet.
     A   book-ACC read-PAST mag.-ACC M
     'Ahmet read the book, and Mehmet the magazine.'

Non-verb-final left conjuncts are problematic irrespective of the right conjunct, with SVO & SO faring slightly better than others. Judgments improve when examples are provided in context, which we did only for questionable cases. For instance, VSO & OS is considered ungrammatical by the majority of the informants in the null context, but is less problematic in context (11).

(11)   Context: a film director wonders whether the producer has read the novel, after the producer claims that he read the screenplay:

     Bence okumuş yapımcı senaryoyu,   romanıysa   yardımcısı
     I-ADV read   producer screenplay-ACC novel-ACC-CONJ assistant-3s
     'I think the producer has read the screenplay, but the novel, his/her assistant.'

Providing intonational contours also affect judgments in borderline cases. For instance, informants who considered SVO & SO (12) questionable considered it grammatical with falling intonation on the left conjunct and rising intonation on the right (relative stress in 12 is shown by capitals). We assume that a competence grammar of surface structure must deliver analyses for all the examples in Table 3 (with problematic cases discourse-marked), so that discourse-pragmatic issues can be resolved.

(12) ADAM OKUMUŞ dergiyi,   çocuk DA kitabı
     man   read-PAST magazine-ACC child conj book-ACC
     'The man has read the magazine, and the child, the novel.'

Table 4 exemplifies forward and backward deletion of S and O. Some of these processes go under the rubric of right (left) node raising, e.g., (SV & SV)O and O(SV & SV), but they are indistinguishable from constituent coordination with the flexible notion of surface constituency (Steedman, 1990). Similar to V deletion, forward deletion does not require structural parallelism but backward deletion does (cf. the top six rows). Similar to the case of SO and OS syntactic distinction in verb deletion (Table 2), SV and VS, and OV and VO must be distinguished syntactically to account for the fifth row. VS and VO cannot form constituents as right conjuncts (the second row from bottom). VS and VO as left conjuncts are

Table 4: Argument Deletion and Split Coordination (case-marked O)

SV & SVO	SVO & SV	
OV & OVS	OVS & OV	
OVS & SV	VSO & SV	
*SV & OSV	OSV & SV	
*SV & VSO	*OV & VOS	
*OV & SOV	SOV & OV	
VS & VSO	VO & VOS	*VX & ABC otherwise (for X=S,O)
*ABC & VX	(for A,B,C=S,O,V and X=S,O)	
SO & OV	SVO & O	SOV & O

grammatical only with coordinators that are not clitics on the right conjunct (the third row from bottom).

Split coordination of O in Hungarian (where one element moves to the end as a coordinand, as in the English example *John came, and Bill (too)*) is what prompted Koutsoudas (1971) to regard SVO as a basic order in addition to SOV, also for languages similar to Hungarian in that respect: Russian, Modern Greek and Turkish (cf. the bottom row, third column of Table 4). It remains to be seen whether an SVO assumption for the Turkish verb follows from the bottom row. Unlike Japanese (1a–c), Turkish allows forward gapping, which is usually taken as a sign of non-verb-final basic configurations, such as English (SVO) and Irish (VSO).

Turning to bare O, in present terms Ø, definiteness does not seem to constrain word order in gapping as much as referentiality. Indefinite objects can appear anywhere depending on the information structure (cf. 13a–b).

(13) a. Bir   kitap adam, bir   dergi   de çocuk oku-du   (indefinite O)
         a/one book man, a/one magazine conj child read-PAST
         'the man read a book, and the child, a magazine.'

     b. *kitap adam, dergi de çocuk okudu (non-referential Ø)

Non-referential objects significantly constrain the serialization possibilities. (This appears not to be the case when gapping or coordination is not involved; see Uygun 2006, Öztürk 2009, Gracanin-Yüksek and İşsever 2011.) Givón (1978) describes a universal tendency E, that topic/theme (old information) appear before new information (see also Clark and Clark 1977, Gundel 1988). Instead of deliberating on the topichood of Ø in ØSV where it is not an argument, we can let a competence grammar preserve the distinction of O and Ø, and do no more than

Table 5: Backward V gapping (non-referential Ø)

SØ & SØV	*ØS & ØSV
*SØ & ØSV	*ØS & SØV
*SØ, & XVY	*ØS & XVY for X,Y=S,Ø
*SØ & VXY	*ØS & VXY for X,Y=S,Ø

Table 6: Forward V Gapping (non-referential Ø)

SØV & SØ	*ØSV & ØS
*SØV & ØS	*ØSV & SØ
SVØ & ?SØ/*ØS	ØVS & ?SØ/*ØS
VØS & *ØS/?SO	?VSØ & SØ
*VSØ & ØS	
*SOV & SØ	*SVO & SØ

that, in effect letting discourse-pragmatics to do its work on deciding the contextual appropriateness of the word order.

The contrast between SØ and *ØS in Table 5 and Table 6 is crucial. Notice that paralellism, such as ØS & ØSV, VSØ & SØ, and ØSV & ØS, is not enough. There is a clear contrast of these patterns with respect to Table 2 and Table 3. Thus we must distinguish SO from SØ, and ØS from OS. (Because for example OS & OSV is grammatical whereas ØS & ØSV is not, although ØSV and OSV are possible in matrix clauses.) These are the cases in which the non-referential non-subject nominal is not adjacent to the verb. Incorporation accounts would treat these cases similarly, as equally non-incorporating, therefore more likely to be O in grammatical examples than Ø. (As pointed out earlier, ØS sequences are not always judged ungrammatical in basic transitive constructions, but they appear to be less acceptable in gapping, as we see in Table 5 and Table 6.)

As (14a–c) show, non-trivial material can slip in between Ø and V. When that happens, it seems more likely for the bare O to be ambiguous between a non-specific referential reading and non-referential reading. In my judgment, there is no such ambiguity in e.g. *adam kitap okumuş* (man book read), where the "object" is necessarily non-referential.

(14) a. Okumuş   adam kitap, hiç birşey bilmiyor   değil.
          read-ASP man   book   nothing   know-NEG-ASP not
          lit. 'The man apparently has read some books, it is not that he doesn't
          know anything.'

      b. *Kitap adam okumuş, hiç birşey bilmiyor değil.

    c. Adam balık uzun süre hiç sıkılmadan tutmuş, o yüzden artık
       Man   fish   long time without bore   catch   so   now
       balığa çıkamadığı için   üzgün.
       fish-going-NEG   because sorry.
       'The man has caught fish for a long time without a bore, so now he is
       sorry that he cannot go fishing anymore.'

Table 5 and Table 6 are tabulated similar to Table 2 and Table 3 for comparison. They show that ØS is not a surface constituent and that the structural parallelism asymmetry between backward and forward gapping of verbs with O is preserved with Ø, e.g. *SØ& SVØ but ?SVØ& SØ. The bottom row of Table 6 shows that the object's referentiality is shared across the conjuncts (cf. the first and third rows).

    Table 7 is the counterpart of Table 4 for Ø. The main distinction is the ungrammaticality of ØSV & SV. The flexibility of structural parallelism in forward gapping continues to be the case (cf. the top three rows).

Table 7: Argument deletion and split coordination (non-referential Ø)

SV & SVØ	SVØ& SV	
ØV & ØVS	ØVS & ØV	
ØVS & SV	VSØ & SV	
*SV & ØSV	*ØSV & SV	
*ØV & SØV	SØV & ØV	
*VS & XYZ	*XYZ & VS for X,Y,Z=S,Ø,V	
*VØ & XYZ	*XYZ & VØ for X,Y,Z=S,Ø,V	
SØ & ØV	SVØ & Ø	SØV & Ø

4   Conclusion

It may turn out that the right analysis for gapping can posit only the forward variety, as Hankamer (1972) argued. It may also be true that the mirror effect in Turkish, as manifested in "backward" gapping, may be the result of right-node raising, as Hankamer (1972) suggested and Kornfilt (2005b) concurred. It might also turn out that both kinds of "gapping" facilitate to reveal the basic word order in Turkish, as Bozsahin (2000) expected, or that matrix elision is the key, as Ince (2008) assumed. Perhaps we can group all these analyses under constituent coordination, as Koutsoudas (1971), Hudson (1976), Gazdar (1981), Steedman (1990) do. Regardless of the type of analysis, whenever gapping in descriptive terms is involved there seems to be an asymmetry, either in grammaticality, as

in the case of verb-medial languages such as English, or in gapping versus anti-gapping in (15) where the verb tries to "undelete" as the left conjunct in *forward* gapping, or in differential application of the presumed constructions at work, e.g. right-node raising versus gapping.

(15) a. *Cooks, and Dexter eats beans.   Steedman (2000:191)

      b. *Oku-du, adam kitab-ı   al-ma-dı,   ama çocuk dergiyi
         read-PAST man book-ACC buy-NEG-PAST but child magazine-ACC

It remains to be true that serialization is the decisive factor in these asymmetries because the verb is. The reason for this conclusion is that Turkish-style node-raising fails in English (16a), and a conservative start toward an explanation of this fact is that the verbal categories must differ in Turkish and English. At the surface structure, both coordinands of (16a) can be constituents (16b–c), that is, they are semantically interpretable intonational phrases. That leaves the verb to do the remaining work in (16a).

(16) a. *I cats, and Harry dogs feeds.

      b. Harry feeds dogs, and I cats.

      c. I feed cats, and Harry dogs.

Recall the arguments from discourse parallelism to explain coordination exclusively in discourse terms, such as Kehler (2002) (see also Bozsahin et al. 2010 for some counter arguments). Thus it is to be hoped that further look into word order not by itself (as in the case of scrambling analyses or multi-structural grammars) but by its multi-faceted nature (information structure, constituency, dependency, discourse, morphology and semantics acting on grammar in various ways), may help us put gapping and the category of the verb in their right places.

Acknowledgments

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Appendix: A sample of sentences

This section contains a short list of sentences that served the bases for Tables 2–3. 14 native speakers were asked to judge their grammaticality on a 5-point scale (**, *, ??, ?, grammatical, from 0 to 4. My informal instructions for their interpretation are given below). My judgments agree with that of the informants. Likewise for other tables. The majority vote is reported in the tables. The same sentences were also asked without the focus particle *da*. The results were not too far from what the information in the tables provides. There is no particular contrast that I recall which is worthy of reporting.

**	rezalet
*	böyle Türkçe olmaz
??	çok kötü değil ama fena halde kulak tırmalıyor
?	kötü değil ama kulak tırmalıyor
ˆ	ok

adam dergiyi, çocuk da kitabı okumuş. adam dergiyi okumuş, çocuk da kitabı.
dergiyi adam, kitabı da çocuk okumuş. dergiyi adam okumuş, kitabı da çocuk.
okumuş adam dergiyi, çocuk da kitabı. adam dergiyi, okumuş çocuk da kitabı.
dergiyi okumuş adam, kitabı da çocuk. dergiyi adam, kitabı da okumuş çocuk.
adam okumuş dergiyi, çocuk da kitabı. adam dergiyi, çocuk da okumuş kitabı.
okumuş dergiyi adam, kitabı da çocuk. dergiyi adam, okumuş kitabı da çocuk.
okumuş dergiyi çocuk, adam da kitabı. okumuş çocuk dergiyi, kitabı da adam.
dergiyi adam, çocuk da kitabı okumuş. dergiyi okumuş çocuk, ama yırtmış kitabı.
                                       dergiyi çocuk okumuş, ama yırtmış adam.

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