

Sentence–phrase coordination in Hebrew and the syntax–pragmatics interface

Irit Meir

Department of Hebrew Language and Department of Communication Disorders, University of Haifa

The coordination of a sentence and a phrase (Sentence–Phrase coordination, henceforth SPC) is a very widespread, though marked, construction in Modern Hebrew. It is characterized by special prosody in that it carries two sentential stresses, and is perceived as more forceful or emphatic than its non-conjoined counterpart. A full account of the properties and distribution of the construction involves both a syntactic and a pragmatic component. The analysis presented in the paper proposes that: (a) The conjunction imposes a propositional interpretation on the phrasal coordinand, thus enabling the speaker to convey two pieces of new information in one sentence. (b) Syntactically, the phrasal coordinand is best analyzed as an adjunct to the sentential coordinand. (c) The special discourse effect of the construction is to be analyzed as a case of *independent strengthening* (following Sperber & Wilson 1986, Blakemore & Carston 2005), whereby each coordinand leads independently to the same conclusion, thus providing cumulative evidence to the same purpose. (d) Although syntactically non-parallel, the two coordinands play a parallel inferential role in deriving cognitive effects of the utterance. Hence the use of the conjunction is taken as an instruction to the hearer to look for pragmatic parallelism between two constituents which are clearly non-like syntactically.

Keywords: coordination, information structure, relevance, Law of Coordination of Likes, incidentals

1. Introduction

The paper is concerned with a specific type of coordinate construction, the coordination of a sentence and a phrase (Sentence–Phrase Coordination, henceforth SPC), which is very prevalent in Modern Hebrew. Such a construction has the form *S conj XP*, as illustrated in (1).

- (1) ha-brexa niftaxat, u-~~ve~~-gadol.
 the-swimming.pool opens and-in-big
 ‘The swimming pool opens, and in a big way.’



This construction is a clear case of asymmetrical coordination: the order of the coordinands is irreversible, and the interpretation of the phrasal coordinand (hereafter P-co) is dependent on the sentential coordinand (hereafter S-co). Moreover, it is a case of non-like constituent coordination, since the coordinands are of different syntactic categories and occupy different syntactic positions. This state of affairs raises several questions:

- i. Is this indeed a coordinate structure?
- ii. What is the role of the conjunction in this structure?
- iii. What factors license the conjunction of such non-like constituents?





The purpose of the paper is to describe the properties of this construction, to provide an analysis that captures these properties and accounts for the special discourse effects of the construction, and to examine the consequences of the proposed analysis for our understanding of the notion of ‘likeness’ or ‘parallelism’ between coordinands. The analysis presented in the paper makes the following claims:

- a. The constraints on the derivation of SPCs are both syntactic and pragmatic. It is only by taking into consideration both levels of linguistic analysis that this construction can be fully accounted for. Hence the syntactic analysis is augmented by a pragmatic one, embedded within the Relevance-Theory framework.
- b. The conjunction ‘and’ imposes similarity on the coordinands; that is, the conjunction instructs the hearer to look for similarity between the coordinands. However, this similarity need not be stated in syntactic or semantic terms. Other aspects of linguistic analysis may also be involved, e.g., the informational status of the coordinands (constituting new information in the discourse), and the role of inference in establishing the relevance of the sentence.

2. Properties of Sentence-Phrase Coordination (SPC)

SPCs are very widespread in Modern Hebrew, both in spoken and written texts, in formal as well as informal contexts. Some illustrative examples are presented below:

- (2) bo hena u-miyad! ‘Come here and immediately.’ (= “Come here and right now!”)¹

- (3) rov ha-mištatfim 'išnu samim, u-^hē-ʾofen kavua. 
 most the-participants smoked drugs and-in-manner regular
 'Most of the participants took drugs, and [did so] regularly.' (*Ha'arec* 15.11.2002:10a)
- (4) haya corex le-kabel haxlatot goraliyot, u-maher.
 was need to-get decisions crucial and-quickly
 'It was necessary to make crucial decisions, and quickly.' (*Ha'arec* supplement 29.11.2002:22)
- (5) yeš mišpat še-ʾomer še-ma še-carix li-krot kore
 there.is sentence that-says that-what that-ought to-happen happens
 u-le-tova.
 and-for-good
 'There is a sentence saying that whatever must happen happens, and for the best.' (*Ha'arec* supplement 30.5.2003:40)
- (6) la-tus le-ʾeropa ba-kayic, u-^hbi-mxirei xoref. 
 to-fly to-Europe in.the-summer and in-prices.of winter
 'Fly to Europe in the summer, and at winter prices.' (advertisement, March 2003)
- (7) xašuv lanu še-taxzir 'et kol ha-sfarim 'ašer bi-ršutxa
 important to.us that-you.return ACC all the-books that in-your.disposal
 la-sifriya, u-^hē-hekdem. 
 to.the-library and-in-early
 'It is important to us that you return all the books at your disposal to the library, and soon (as soon as possible).' (letter from college library, June 2003)
- (8) ha-ma'avar 'el ha-pesel yexayev knisa li-txumei ha-gan,
 the-passage to the-statue will.necessitate entrance to-areas.of the-park
 u-^hē-tašlum. 
 and-in-payment
 'In order to get to the statue, one will have to go through the park, and pay (for it).' (*Merkaz Ha'inyanim*, Tivon, 20.6.2003:18)
- (9) yom 'exad, hi 'amra, 'ani 'od 'avin ma hi haita crixa
 day one she said I more will.understand what she was had.to
 la-'avor biglalo, u-bišvili.
 to-pass because.of.him and-for.me
 'One day, she said, I will ultimately understand what she had to go through because of him, and (she did so) for me.' (*Ha-'ir Ha-pnimit*, M. Peleg, 1998:64)

- (10) toxnit ha-’ocar: rak me’atim yekablu hizdamnuyt, u-le-šana bilvad.
 plan.of the-finance only few will.get opportunities and-to-year only
 ‘The ministry of finance plan: only a few (people) will get an opportunity,
 and for one year only.’ (*Ha’arec* 15.7.03:1)

The construction is not specific to Hebrew; it occurs in other languages as well, as the acceptability of the English translations to (e.g.) examples (2), (4), (5) and (10) above indicate. German has a special bipartite coordinator *und zwar* with properties very similar to those of Hebrew *ve* in SPCs. The following are the German equivalents of examples (4) and (6):²

- (4G) Man musste wichtige Entscheidungen treffen, und zwar schnell.
 (6G) Fliegen nach Europa im Winter, und zwar zu Sommerpreisen.

However, it seems that the construction is more widespread in Hebrew than (for example) in English; hence my analysis draws mainly on data from Hebrew. Comparison with other languages will be pointed out when relevant.

The construction is characterized by the following properties:

- i. Each of the above sentences has a simplex, non-conjoined counterpart, in which the P-co appears as a constituent of the S-co. (1’) and (2’) are the non-conjoined counterparts of (1) and (2):

(1’) ha-brexa niftaxat begadol. ‘The swimming-pool opens in a big way.’

(2’) bo hena miyad. ‘Come here right now.’

Truth-conditionally, the conjoined and the non-conjoined sentences are equivalent. They differ, however, in their discourse effect. The conjoined sentences are perceived as more forceful, more emphatic, than their simplex counterparts.


- ii. The coordination is asymmetrical; it is impossible to reverse the order of the coordinands.
 iii. In the majority of cases, the P-co is an AdvP, usually a manner adverbial, as in (1)–(8). Other adverbials, e.g., a purpose adverbial (9) or temporal adverbial (10), are also possible, though much rarer in actual use. The P-co can also assume other syntactic roles, e.g., a direct object (11), an indirect object (12), and a modifier (13):

- (11) hu kara ’etmol kol ha-yom, ve-(’od) ’et milxama ve-šalom.
 he read yesterday all the-day and-(more) ACC War and-Peace
 ‘He was reading all day yesterday, and what’s more [he was reading] War and Peace.’


- (12) hu hiš'il kerex me-ha-`enciklopedya, ve-(`od) le-dod šelo.
 he lent volume of-the-encyclopedia and-(more) to-uncle his
 'He lent a volume of the encyclopedia, and what's more to his uncle.'
- (13) `aval zahav haya šam, ve-harbe.
 but gold was there and-a lot
 'But there was gold there, and a lot of it.'

However, sentences (11)–(13) are judged by many speakers to be less acceptable than (1)–(10). Their acceptability increases if they contain an expression such as *`od* ('more', meaning 'what's more').


iv. The P-co must be an optional element in the non-conjoined counterpart of the sentence. Sentences (14)–(17), where the P-co is an obligatory element in the clause, contrast in grammaticality with sentences (1)–(13) above:


- (14) *yarad le-saxek `im ha-xaverim šelo, ve-`od Ben. (obligatory subject)
 went.down to-play with the-friends his and-more Ben
 '(He) went down to play with his friends, and what's more Ben.'
 (Ben = subject)
- (15) *hu heniax `al šulxan ha-`avoda šelo, ve-`od `et na`alei ha-sport
 he put on table.of the-work his, and-more ACC shoes.of the-sport
 ha-meluxlaxot šelo. (obligatory direct object)
 the-dirty his
 'He put on his desk, and what's more his dirty tennis shoes.'
- (16) *hi doma me`od, u-le`ima šela. (obligatory prepositional object)
 she resembles very and to-mother her
 'She resembles very much, and her mother.'
- (17) *ha-mexašefa hafxa `oto, ve-`od le-cfardea. (obligatory predicative complement) 
 the-witch turned him and-more to-frog complement
 'The witch turned him, and what's more into a frog.'


v. Semantically, the P-co is part of the S-co, in that it is subject to selectional restrictions imposed by the predicate of the S-co. The contrast in grammaticality between the (a) and (b) sentences below is due to the fact that the (b) sentences contain adverbials which are semantically incompatible with the predicate of the S-co. A verb such as *bo* ('come') in (18) is incompatible with a locative adverb such as *bamiš`ada* ('in the restaurant'), hence the ungrammaticality of (18b).

- (18) a. bo hena u-miyad. 'Come here and right now.'
 b. *bo hena u-~~ba~~-miš`ada. 'Come here and in the restaurant.' 

(19) a. *latus le-’eropa ba-kayic, u-bi-mxirei xoref.* ‘Fly to Europe in the summer, and at winter prices.’ 

b. **latus le-’eropa ba-kayic, u-bi-šninut.* ‘Fly to Europe in the summer, and wittily.’ 

(20) a. *xašuv lanu še-taxzir ’et kol ha-sfarim ’ašer bi-ršutxa la-sifriya, u-be-hekdem.* ‘It is important to us that you return all the books at your disposal to the library, and soon (as soon as possible).’ 

b. **xašuv lanu še-taxzir ’et kol ha-sfarim ’ašer bi-ršutxa la-sifriya, u-be-yoker.* ‘It is important to us that you return all the books at your disposal to the library, and expensively.’ 

vi. SPCs have a very clear prosodic structure. There is a slight pause between the coordinands; the S-co is characterized by phrase-final intonation, while the P-co is marked with sentence-final intonation. In addition, both coordinands are marked by sentential stress. In the S-co, the final word usually gets sentential stress (which is the usual stress pattern in Hebrew). The P-co is marked by an independent sentential stress. Thus, the conjoined structure contains two sentential stresses.

vii. *And* is not the only possible conjunction in this construction; *but* (*’aval* or *’ax*) and *but not* are also possible. *Or* (*’o*) and *and also* (*ve-gam*), on the other hand, are ungrammatical.

(21) *hu kara ’et ha-ma’amar, ’aval lo bi-ysodiyut.*
he read ACC the-article but not in-thoroughness
‘He read the article, but not thoroughly.’

(22) *hu kana matana, ’ax lo le-’ima šelo.*
he bought present but not to-mother his
‘He bought a present, but not for his mother.’

(23) *hu katav ’et ha-ma’amar, ’ax be-rašlanut.*
he wrote ACC the-article but in-carelessness
‘He wrote the article, but carelessly.’

(24) **hu kara ’et ha-ma’amar, ’o/ve-gam bi-ysodiyut.*
he read ACC the-article or/and-also in-thoroughness
‘He read the article, or/and also thoroughly.’


Interestingly, other languages allow SPCs with *but* more readily than with *and*. Example (22) seems to be felicitous in English, French, Russian and German.³

- (22) a. (English) He bought a present, but not for his mother.
b. (French) Il a acheté un cadeau, mais pas pour sa mère.

- c. (Russian) On kupil podarok, no ne dlja materi.
 d. (German) Er hat ein Geschenk gekauft, aber nicht für seine Mutter.


Why *but* seems to be more acceptable in such contexts than *and* is a question I return to in Section 5.

viii. The P-co usually occupies sentence final-position. However, it may also occur in a position internal to the S-co, provided that this is a position which could be occupied by the non-conjoined counterpart of the P-co. In such cases, the P-co is clearly set apart from the S-co by prosodic breaks before and after, and is characterized by a rising intonation.

(25) dan kara, u-~~bi~~himhirut, 'et ha-sefer še-natati lo. ✓ 
 Dan read and-in-speed ACC the-book that-I.gave to.him
 'Dan read, and quickly, the book I gave him.'


(26) dan kana, ve-'od le-'ima šelo, taba'at yahalom.
 Dan bought and-more to-mother his ring.of diamond
 'Dan bought, and for his mother (at that), a diamond ring.'

ix. Finally, SPC constructions violate the Coordinate Structure Constraint (Ross 1967), in that it is possible to extract an NP only from the S-co:

(27) ha-sefer še-dan kara u-~~bi~~himhirut nir'e li me'od me'anyen. ✓ 
 the-book that-Dan read and-in-speed seems to.me very interesting
 'The book that Dan read and quickly seems to me to be very interesting.'

The properties in (i–ix) are necessary but not sufficient to account for the well-formedness of SPCs. Sentences (28)–(30) do not violate any of the above properties, yet they are unacceptable, or only marginally acceptable.⁴

(28)??? dan halax la-makolet ve-'etmol. 'Dan went to the grocery store, and yesterday.'

(29)??? dan nika 'et ha-xeder, u-~~be~~mešex ša'atayim. 'Dan cleaned the room, and for two hours.' ✓ 

(30)??? dan nasa le-tel-'aviv u-kedei lir'ot hacaga. 'Dan went to Tel Aviv, and to see a show.'

An analysis of SPCs must address the following issues:

1. It has to explain what the role of the conjunction is in this construction. Since SPCs have non-conjoined counterparts, which are less marked, the function of the conjunction calls for an explanation.

2. What is the syntactic status of the construction? Is it a coordinate construction? If not, what kind of a construction is it? A syntactic analysis must account for the asymmetrical nature of the coordinands, and for the fact that the P-co, though an independent coordinand, is closely related both syntactically and semantically to the S-co, in that it must be an optional element in the S-co and is subject to selectional restrictions imposed by its predicate.
3. The analysis has to explain the specific discourse effect of the construction, the unacceptability of (28)–(30) and the role of *'od* in facilitating otherwise marginally acceptable SPCs.

The following three sections will address each of these issues in turn.

3. The function of the conjunction: Informational parallelism

As pointed out above, all SPCs have non-conjoined counterparts. These non-conjoined counterparts are more basic, in that their distribution is less constrained and they do not have any particular discourse effect. What, then, is the function of the marked structure, the SPC? I argue that the clue to understanding its function lies in its prosodic structure. As pointed out in (vi), in SPCs each coordinand receives sentential stress. Assuming that intonation marks the information structure of the utterance, with the main stress being assigned to the new information, then the construction under investigation contains two informational units. My claim is that the two coordinands are parallel from the point of view of their informational weight. Each coordinand is marked as containing a new piece of information; hence the resulting coordinate construction explicitly comprises two pieces of new information. This is demonstrated clearly by contrasting SPCs with their non-conjoined counterparts:

(31) dan mile 'et ha-mesima, u-~~b~~e-racon. 'Dan performed the task, and willingly.'

(32) dan mile 'et ha-mesima be-racon. 'Dan performed the task willingly.'



Example (32) constitutes one informational unit. In the unmarked case, the sentence-final word, *be-racon* 'willingly', receives sentential stress and is interpreted as the new information in the clause.⁵ Example (31), on the other hand, makes two assertions: that Dan fulfilled his task, and that he did so willingly. Hence, only (32) can function as an answer to a question such as "How did Dan perform the task?" Such a question presupposes that Dan performed the task, and inquires about the manner of performance. (32) shares this presupposition, and adds the new information that it was done willingly. In contrast, (31) is inappropriate as an answer to this question, since it does not share its presupposition; (31) does not presuppose

that Dan performed the task, but rather asserts it, and in addition makes another assertion, namely that it was done willingly. The coordinate construction, then, makes it possible to assign main stress to two words, and hence to convey two pieces of new information in one utterance.⁶

It has often been pointed out that coordinands in coordinate constructions are ‘alike’ or parallel in some respect. This observation goes back to Chomsky (1957).⁷ Yet the exact nature of this likeness, often referred to as the Law of Coordination of Likes (LCL, Williams 1981), is elusive. Over the years, various attempts have been made to define this likeness or parallelism, both in syntactic and in semantic terms.⁸ I suggest that SPCs add a new dimension to defining likeness between coordinands: that of their status as informational units. The two coordinands in SPCs are clearly non-like in their syntactic category and function, and do not have the same semantic function. However, they are parallel in their status regarding the informational structure of the sentence: both function as new information. Hence, it is the parallelism in their informational status that licenses their coordination. SPCs, then, indicate that likeness between coordinands need not be defined only in syntactic or semantic terms. On the contrary: parallelism in informational role may license the coordination of elements which are non-like both syntactically and semantically.

4. The syntactic structure of SPCs

SPCs present several challenges to any syntactic analysis. First, such an analysis has to allow for coordination of non-like elements. Second, it has to account for the asymmetry between the coordinands on the one hand, and the close syntactic and semantic dependencies between them on the other. Third, the resulting structure has to allow for two sentential stresses in the conjoined sentence.

One possible analysis is that SPCs are derived by unification of two clauses followed by ellipsis. Thus, sentence (33a) would be the result of unifying the two underlying sentences (33b and 33c), and deleting identical material in the second coordinand (34):

- (33) a. ha-brexa niftaxat u-~~ve~~-be-gadol. ‘The swimming pool opens, and in a big way.’
 b. ha-brexa niftaxat.
 c. ha-brexa niftaxat be-gadol.



- (34) ha-brexa niftaxat ve- ~~ha-brexa niftaxat~~ be-gadol.


Such an analysis can account straightforwardly for several properties of SPCs. First, the prosodic features of SPCs, specifically that two elements bear sentential stress, are accounted for, since SPCs actually contain two conjoined clauses underlyingly. The optionality restriction and the selectional restrictions on the P-co are also accounted for straightforwardly. Each clause has to meet the subcategorization requirements of its predicate. Hence, obligatory constituents cannot be missing from S-co, and the P-co has to be licensed by or compatible with the predicate in its own clause, which is identical to the predicate in S-co. The irreversibility of the coordinands, that is, the fact that the P-co cannot precede the S-co, can be explained on the grounds that an elliptical clause of the type we are dealing with here has to follow the clause from which it derives its interpretation.⁹

However, such an analysis would fail to account for two properties of SPCs: the mobility of the P-co and the violation of the CSC. In (viii) above, it was pointed out that although the P-co usually occurs sentence-finally, it can also occupy a position internal to the S-co, as in examples (25)–(26) above. An ellipsis analysis of sentence (25) ('Dan read, and quickly, the book I gave him') would assume that it is derived by unification of the following two sentences, followed by deletion of identical material:

- (35) dan kara 'et ha-sefer še-natati lo, ve-~~dan/kara~~ bimhirut 'et ~~ha-sefer/še-natati~~/o.

Since the two clauses are attached linearly, any remaining material in the second clause would always follow the first clause, regardless of the position it occupied within its original clause. Hence an ellipsis analysis cannot derive sentence (25).

Additionally, SPCs violate the Coordinate Structure Constraint, since it is possible to extract an element out of one coordinand only:¹⁰

- (36) ha-sefer še-dan kara u-~~bimhirut~~ nir'e li me'od me'anyen. 'The book that Dan read, and quickly, seems to me (to be) very interesting.' 

- (37) 'eize sefer dan kara u-~~bimhirut~~? 'Which book did Dan read, and quickly?' 

In brief, in order to maintain an ellipsis analysis, it would be necessary to postulate ad hoc an extra, specific rule, allowing for re-positioning of the P-co in sentence-internal positions, which does not operate in other types of elliptical coordinate constructions. Furthermore, the violations of the CSC (in (36) and (37)) would still be left unaccounted for.

Progovac (1999) provides a different analysis of SPCs. Following Davidson's (1967) proposal that adverbials involve predication over events, she suggests that a sentence such as (38) involves two events/states: the event of me reading the paper, and the state of that event being quick.

- (38) I read his paper, and quickly. (ibid, p. 154, her example 58)

She suggests, therefore, that such a sentence involves conjunction of two Predication Phrases (PredPs, following Bowers 1993). While such an analysis captures nicely the biclausal interpretation of the construction, it faces the same difficulties as the ellipsis analysis: it cannot predict that the order of the coordinands is irreversible, and it cannot account for the CSC violation (as pointed out by Abeillé 2003: 8–9).

Abeillé (2003) takes a quite different approach, which I will follow here. She regards the violation of the CSC as an indication that such constructions are not ‘real’ coordinate structures. She argues that coordinate conjunctions do not always introduce coordinate structures, but rather can introduce adjunct phrases as well. ‘Real’ coordination is symmetrical in that the order of the coordinands can be reversed, the structure obeys the Coordinate Structure Constraint, and in case of NP coordination, plural agreement is triggered. SPCs (which she regards as an instance of ‘incidental coordination’), as well as a host of other constructions from various languages, do not exhibit these properties.¹¹ Abeillé argues that such constructions are better analyzed as adjunction rather than coordination; that is, the phrase introduced by the conjunction word is an adjunct adjoined to VP.

She further identifies a subtype of adjunction coordination, namely incidental coordination. *Incidentals* (following the analysis of Bonami and Godar 2003) are a special kind of adverb, in that they are set apart from the rest of the sentence by special intonation (the so-called ‘comma intonation’) and constitute an independent intonational phrase. Such adverbs may be introduced by a conjunction, resulting in a coordinate constituent that is marked by incidental prosody. SPCs clearly fall under this subtype of coordinate constructions, since they are set apart from the rest of the sentence prosodically. Abeillé makes the assumption that the conjunction word in incidental coordination is a special type of conjunction word, called ‘discourse-conj-word’ (while ordinary conjunctions are referred to as ‘basic conj-word’). According to her analysis (couched within the HPSG framework), discourse conjunctions have a specific [INCIDENT+] feature, they are regarded as binary relations which take the phrase they introduce as one of their arguments, and, crucially to our analysis, “they force their complement to be interpreted as a proposition” (ibid, p. 17). Here Abeillé’s “complement” can be equated to our P-co, which thus is to be interpreted as a proposition, not a phrase.

An analysis along these lines has the advantage that it captures the biclausal interpretation of the construction without assuming a biclausal derivation, which faces some difficulties as pointed out above. Such an analysis thus preserves the advantages of the ellipsis analysis while avoiding its shortcomings. It captures straightforwardly the special intonation and stress pattern of SPCs, since this pattern belongs to the definitional characteristics of incidentals. The discourse function of SPCs, namely to introduce two pieces of new information in one sentence,

follows from the proposition interpretation forced by the discourse-conj-word on the P-co. Its syntactic and semantic properties also fall out from the analysis. Syntactically, adjuncts are non-obligatory elements (which takes care of the optionality). Semantically, the conjunction phrase is a modifier of the VP, and hence has to be semantically compatible with it. The irreversibility of the constituents can be attributed to the fact that the P-co derives its propositional content from the S-co, and therefore cannot precede it. In addition, an analysis along these lines can account for the mobility of the P-co, since adjuncts can occur in various positions in the sentence. Finally, the CSC violation is no longer problematic, since adjuncts are not subject to the CSC (Abeillé 2003: 10).

To summarize, then, I suggest (following Abeillé 2003) that the conj+P-co forms a constituent adjoined to the S-co, and that the conjunction in such constructions is a discourse-conj-word, which is marked by a special feature [INCI-DENT+] and imposes a propositional interpretation on the P-co. Such an analysis is needed in any case to account for a variety of coordinate constructions presented in Abeillé (2003), such as parentheticals, the French coordinating conjunction *car*, and serial coordination in Welsh. The analysis of SPCs does not necessitate, then, any special mechanism that is not needed elsewhere in the theory. An ellipsis analysis, on the other hand, would have to postulate an additional optional repositioning rule, which would be construction-specific. Hence Abeillé's analysis is preferable.

However, this analysis does not explicitly address the following important question: what is the difference between the conjoined structure and its non-conjoined counterpart? It follows from Abeillé's analysis of the conjunction word that the adjunct in the conjoined structure is to be interpreted as a proposition, while this is not the case with non-conjoined adjuncts (since it is the conj-word that imposes such an interpretation). Yet the implications of this difference remain unexplored. In addition, syntactic wellformedness alone cannot fully account for the distribution of SPCs, as sentences (28)–(30) above illustrate. Three remaining issues, which are closely related, need be addressed: the fact that not all syntactically well-formed SPCs are acceptable, the special discourse effect of SPCs, and the role of the adverb *òd* ('more') in the construction. These will be dealt with in the next section.

5. The role of context in licensing SPCs: A Relevance-Theoretic analysis

When compared to its simplex (non-conjoined) counterpart, SPC is unusual, both in terms of its stress pattern and in terms of its syntactic structure. It is also perceived as having a special discourse role: native speakers judge SPC sentences to

be ‘more forceful’ than their non-conjoined counterparts. Why the conjunction leads to such a strengthening effect needs to be explained. Another fact that calls for explanation is that context plays an important role in facilitating SPCs. In many cases, SPCs which are syntactically well-formed are nonetheless unacceptable. They may, however, become acceptable in very specific contexts, in which both the speaker and the hearer regard the reported events as somewhat unexpected. For example, sentence (39) is acceptable in case both the speaker and the hearer know that Tel-Aviv is quite far away, and that Dan hates theatre, or that Dan hates traveling altogether. Sentence (40) is acceptable if Ben is known to be lazy, so that he usually puts off completing his assignments for as long as possible, or if the assignment was so difficult that nobody was expected to finish it on time.¹² Both sentences are much more felicitous with the expression *’od* (‘more’) following the conjunction *ve-*.

(39) dan nasa le-tel-’aviv, ve-(’od) kedei lir’ot hacaga. ‘Dan went to Tel-Aviv, and (what’s more) to see a show.’


(40) ben siyem ’et ha-’avoda, ve-(’od) lifnei šavua. ‘Ben finished his assignment, and (what’s more) a week ago.’

Thus, the contexts in which (39)–(40) are felicitous are such that the information provided by the S-co is somewhat unexpected and surprising, as it contradicts certain assumptions or general knowledge shared by the speaker and the hearer; and the information conveyed by the P-co is even more surprising, thereby strengthening the discourse effect of the S-co.

Notice that these discourse constraints characterize neither the non-conjoined counterpart of SPCs nor their juxtaposed counterparts (that is, a structure in which each clause forms a separate utterance). As opposed to (39)–(40), both (41) and (42) are acceptable without assuming any specific context. Notice, furthermore, that the adverb *’od* (in its intensifying meaning ‘what’s more’) is acceptable only in the coordinate construction, but not in the non-conjoined and juxtaposed sentences (43a–b). Hence it must be regarded as intrinsically linked to the strengthening effect of the coordination.

(41) a. dan nasa le-tel-’aviv kedei lir’ot hacaga. ‘Dan went to Tel-Aviv to see a show.’
 b. dan nasa le-tel-’aviv. kedei lir’ot hacaga. ‘Dan went to Tel-Aviv. To see a show.’

(42) a. ben siyem ’et ha-’avoda lifnei šavua. ‘Ben finished his assignment a week ago.’
 b. ben siyem ’et ha-’avoda. lifnei šavua. ‘Ben finished his assignment. A week ago.’



- (43) a. *dan nasa le-tel-'aviv 'od kedei lir'ot hacaga.
 b. ??? dan nasa le-tel-'aviv. 'od kedei lir'ot hacaga

(41a, 42a) are simplex sentences containing a purpose adverbial and a time adverbial, respectively. As these adverbials are in sentence-final position, they receive main sentential stress (*hacaga* and *šavua*), and they are perceived as providing the new information in the sentence. In the (b) sentences, these adverbials form a separate utterance and are interpreted as afterthoughts. The SPC counterparts (39)–(40), in contrast, are acceptable only in very specific contexts, where the P-co is not perceived as supplying the single main piece of new information, nor as constituting an afterthought.

Why does the conjunction have such effects on the interpretation of SPCs? I suggest that the answer has to do with the function of the conjunction *ve-* and the way conjoined propositions are processed in the discourse. The approach presented below draws on the framework of Relevance Theory (Sperber and Wilson [1986], 1995) and the way coordinate constructions are analyzed within this theoretical framework, along the lines suggested in Blakemore (1987) and Blakemore and Carston (1999, 2005).

Sperber and Wilson's ([1986], 1995) Relevance Theory purports to provide a rigorous formulation of the notion of relevance, the concept which lies at the heart of inferring the intentions of the communicator. Relevance is characterized in the following way: "An input is relevant to an individual when its processing in a context of available assumptions yields a positive cognitive effect. A positive cognitive effect is a worthwhile difference to the individual's representation of the world" (1995:251). Positive cognitive effects include contextual implication, that is, a conclusion deducible from the input and the context together, but from neither of them alone. They also include strengthening, revision or abandonment of pre-existing assumptions.

Relevance is a relative term, defined in terms of the relationship between the positive cognitive effects achieved by processing an input, and the processing effort required. Greater positive cognitive effects of an input to an individual increase the relevance of that input, whereas greater processing effort decreases the relevance of the input to the individual at the given moment (*ibid.*, p. 252).

From a Relevance-Theoretic point of view, SPCs seem not to make sense. If the meaning of *and* is just the truth-conditional &, we wouldn't expect to find any difference between the SPC and its juxtaposed counterpart. Moreover, the conjoined sentence will be less relevant, because it demands more processing effort. Since the speaker could have conveyed the same state of affairs by producing the non-conjoined sentence (which is necessarily shorter and more regular in the language) instead of the SPC, the hearer is presented with the problem of how to

justify the extra effort required to derive positive cognitive effects from the coordinate construction. Indeed, the puzzle is even greater. The use of the conjunction can be justified only if the conjoined sentence is relevant in a way that neither the non-conjoined sentence nor the juxtaposed sentences are.

Blakemore (1987) and Blakemore & Carston (1999, 2005), in their Relevance-Theoretic analysis of conjunctions, suggest that coordinate constructions are indeed processed differently from non-conjoined sentences, in that “an utterance of the form S_i and S_{ii} must have at least some cognitive effect in whose derivation both the proposition expressed by S_i and the proposition expressed by S_{ii} play parallel inferential roles” (Blakemore & Carston 2005: 573). In other words, the processing of a conjoined utterance takes both coordinands as input, and hence it may yield effects over and above the effects of each coordinand processed individually. In addition, the two coordinands must play parallel roles as input in the derivation of some cognitive effect.

Consider an example. The second sentence in (44a) can be interpreted as an explanation for the event presented in the previous sentence. This interpretation is not available when the two sentences are conjoined (44b). According to the analysis suggested by Blakemore & Carston, each of the sentences in (44a) plays its own distinct inferential role in establishing the relevance of the entire sentence, in that the second provides an explanation for the state of affairs explicitly communicated by the first. When the two sentences are conjoined, by contrast, they are constrained to play **parallel** roles in the inferential process; hence an interpretation where one coordinand serves as an explanation for the assertion made by the other is not available.

- (44) a. Max didn't go to school; he got sick.
 b. Max didn't go to school and he got sick. (Bar-Lev and Palacas 1980, cited in Blakemore & Carston 1999: 4)¹³

To return to SPCs, when processing such a construction, the hearer must assume that the conjoined sentence is relevant in a way that would justify the greater processing effort it poses due to its special syntactic and prosodic structure, as compared to the simplex and the juxtaposed sentences. The special intonation pattern leads the hearer to conclude that the utterance in question contains two pieces of new information. The conjunction leads him to look for an interpretation in which the two coordinands play a parallel inferential role.

What interpretation is possible, then? Since both coordinands refer to the same event, a sequential-temporal interpretation is untenable. Causal or explanatory interpretations are also ruled out by the assumption that the two coordinands play parallel roles in the inferential process. Rather, what is happening in the processing of SPCs is that each coordinand takes part in a separate inference, both

leading to the same conclusion. Given the fact that the hearer processes utterances for relevance over time, by the time s/he processes the second coordinand s/he has already derived contextual effects from the first. Hence the cognitive effect of the second coordinand is that of strengthening the cognitive implication of the first. In other words, since the second coordinand leads the hearer to the same conclusion that was reached by processing the first, this conclusion “inherits a degree of strength which is greater than it would receive from either set independently” (Blakemore & Carston 2005: 586). Sperber & Wilson (1986: 112–113) refer to this effect as *independent strengthening*.¹⁴

Since the P-co denotes an event which is more specific than that denoted by the S-co, it may be regarded as an even stronger piece of evidence towards the same conclusion: not only did such an event take place, but it took place in a specific manner/time/place or for a specific cause. Given the linear nature of processing, the construction can be interpreted as presenting first a weaker piece of evidence and then a much stronger one in order to make the argumentation more compelling.¹⁵


The strengthening effect that results from this process may be of two kinds, depending on the cognitive effects of the coordinands on the assumptions shared by the speaker and hearer. If the S-co expresses information that does not contradict shared assumptions, then the P-co strengthens this information by narrowing the extension of the event. This is usually done by means of manner adverbials, which can be regarded as event modifiers, restricting the extension of the event to an event occurring in a specific manner. This is the case in sentences (1)–(8) above.

The second possibility is that the information conveyed by the S-co does contradict pre-existing assumptions, and leads the hearer to revise them. In such cases, the P-co conveys a second piece of information concerning this event, which is perceived as even more unexpected or surprising than the first. Hence sentences such as (28)–(30) and (39)–(40) can be interpreted only under the assumption that both aspects of the event are unexpected and surprising.

A similar strengthening affect may be achieved by a non-reduced coordination, as in (45):

- (45) hu kara 'etmol kol ha-yom, ve-hu (od) kara 'et milxama ve-šalom.
 he read yesterday all the-day and-he (more) read ACC War and-Peace
 ‘He read all day yesterday, and what’s more he read War and Peace.’

However, such constructions are felt to be very repetitious and redundant, and therefore are restricted to contexts where the surprise is so great that it justifies the repetition of the entire clause. Hence, while syntactically such constructions are unproblematic (as they involve the coordination of two full clauses), they are much more restricted pragmatically.




The line of thought presented in this section also explains the role of the word *’od* (‘what’s more’) in facilitating SPCs of this second type. *’od* explicitly marks the following information as surprising and unexpected; hence the amount of effort required to find an appropriate context is much smaller. Since the less the processing effort, the greater the relevance, sentences containing *’od* are more relevant to the hearer.

This explanation suggests that coordinators that explicitly mark the relationship between the two coordinands as being unexpected and surprising will facilitate SPCs which are otherwise unacceptable. Data from languages other than Hebrew support this suggestion. In German, SPCs seem to be as prevalent as in Hebrew, using the bipartite coordinator *und zwar* (which can be roughly translated as ‘and indeed’) rather than the regular *und*. Moreover, *but* is cross-linguistically more felicitous in SPCs than *and* (see sentences (22a–d) above). *But* denotes some kind of denial of expectations; hence it marks explicitly a relationship between the two clauses that has to be inferred when *and* is used. This, in turn, increases the relevance of the utterance.

In sum, the special discourse effect of SPCs results from the fact that the only way to interpret this construction is as containing two almost identical propositions, the second being more specific than the first. What the conjunction does is to allow the speaker to present in one utterance two pieces of new information relating to the same event, which are processed linearly and independently for relevance, and therefore provide cumulative evidence supporting a certain conclusion; hence the strengthening effect of the construction. The context, in particular the assumptions shared by the speaker and hearer, determines whether the cognitive effect yielded by processing the construction is that of strengthening or of contradicting these assumptions.

One issue that is not explained here is why SPCs are much more widespread in some languages than in others. Pragmatic principles and constraints ought to be universal; hence the fact that many of the Hebrew examples cited in this paper are unacceptable in English is puzzling. If Hebrew *ve* and English *and* are parallel, we would not expect to find such differences in the occurrence of SPCs in the two languages. I outline here two possible lines of explanations for this puzzle. First, conjunctions in different languages may not be that parallel. For example, English *but* and Hebrew *’aval* have different functions and distribution. A more in-depth comparison of *ve* and *and* might show that there are indeed lexical or functional differences between the two that can explain their different behavior with respect to SPCs.¹⁶ The second explanation has to do with the prosodic structure of the two languages. It might be that the special prosody of SPCs (two sentential stresses in one utterance) is less acceptable in English, thus restricting the occurrence of the construction. I leave these issues for future research.



6. Conclusion

The above discussion clearly shows that in order to fully account for the properties and distribution of SPCs, both a syntactic and a pragmatic analysis are needed. Yet there seems to be some kind of disparity between these two analyses. Syntactically, the P-co is best analyzed as an adjunct to the S-co. In other words, despite the use of a conjunction word, the two coordinands are not parallel; rather, one is dependent on the other. This is also true semantically: the P-co is dependent on the S-co for its interpretation. From a pragmatic point of view, however, there does exist a parallelism between the two constituents: they both introduce a new piece of information, and they play a parallel inferential role in the derivation of cognitive effects of the utterance. The conclusion, then, is that the use of *and* instructs the hearer to look for some kind of *pragmatic* or *conceptual* parallelism between the coordinands, even though such parallelism is not encoded in the syntactic structure of the sentence.


Though the likeness between coordinands is usually defined in syntactic and/or semantic terms, SPCs suggest that it can also pertain to other aspects of linguistic analysis, such as the coordinands' informational status and their role in inferential processes. Indeed, it may very well be the case that pragmatic or conceptual parallelism is more basic than syntactic likeness, in that it is a necessary condition for the well-formedness of coordinate constructions. Coordination of two elements which are syntactically alike yet which differ conceptually is ungrammatical, as the contrast between (46) and (47) indicates:

(46) *I met Bill yesterday and I saw a movie; I liked him and it.

(47) I met Bill yesterday and I saw Mary; I liked him and her.¹⁷

Pragmatic parallelism is not in itself a sufficient condition for licensing coordinate constructions; coordinands have to obey certain syntactic and semantic restrictions as well. However, syntactic likeness cannot salvage a construction whose coordinands cannot be interpreted as parallel conceptually, as sentence (46) illustrates.

SPCs suggest that by using a conjunction, the speaker signals that two constituents are presented as 'like', thus instructing the hearer to look for a similarity or parallelism between the coordinands. Sameness in syntactic and semantic function may be the most clear-cut mode of interpreting this similarity, but these kinds of sameness do not exhaust all the possibilities. Other types, such as sameness in informational status and in inferential roles, are also possible. In the present case, the conjunction marks the P-co, a syntactic adjunct, as having a parallel inferential role to that of the S-co in processing the construction. The lesson to be learnt from SPCs, therefore, is that the intuition underlying the Law of Coordination of Likes



is valid, but its content cannot be restricted to syntax or semantics; pragmatics plays a crucial role as well.

Acknowledgements

I would like to thank Renana Landau, Nurit Melnik, Ofra Rosenstein and Yael Ziv for reading earlier versions of this paper, and for their helpful comments and discussions. An earlier version of the paper was presented at the conference “Hebrew as a living language”, Oranim College, Tivon, Israel 2001. I thank the participants for their questions and comments. I also thank two anonymous reviewers for their comments.

Notes

1. The Hebrew ‘and’ conjunction is a proclitic with two allomorphs, *ve-* and *u-* (a third allomorph, *va-*, is restricted to a few lexicalized expressions). They are distinguished only in speech; in writing, both are represented by the same letter. These allomorphs were phonologically conditioned in earlier stages of the language (*u-* occurring before labials and before consonant clusters). This phonological conditioning still plays a role in formal registers of present-day Hebrew, but is considerably weakened in colloquial Hebrew. The transcription used here is based on the author’s pronunciation; the graphy <c> represents [ts]. The examples are in part taken from the daily newspaper *Ha’arec*.
2. I thank an anonymous reviewer for pointing out to me the parallelism between Hebrew *ve* and German *und zwar*, and for examples (4G) and (6G).
3. I thank an anonymous reviewer for these examples.
4. As pointed out to me by an anonymous reviewer, the German equivalents of sentences (28)–(30), with the coordinator *und zwar*, are fully acceptable. This might be due to some difference between *und zwar* and Hebrew *ve*. As I show below (examples (39)–(40)), these sentences are much more acceptable in Hebrew when the adverb *òd* (‘more’) is used. I return to these issues in Section 5.
5. Other intonation patterns are also possible. For example, *Dan* may receive sentential stress, and then it would be interpreted as the new information in the sentence, contrasting with previous assumptions (*It was Dan who fulfilled the task*).
6. Another possibility for achieving the same discourse effect is to use a non-reduced coordination, as in: *dan mile ’et ha-mesima ve-hu mile ’ota be-racon* (‘Dan performed the task, and he performed it willingly’). While this sentence is perfectly grammatical, it is felt as redundant and is not commonly used, unlike its SPC counterpart.
7. Chomsky (1957) notes that only constituents “of the same type” can be conjoined. The contrast in grammaticality between (i) and (ii) is attributed to the fact that in (ii) the conjoined elements are not of the same type:

- (i) The scene of the movie and of the play was in Chicago.
- (ii) *The scene of the movie and that I wrote was in Chicago. (Chomsky 1957: 35–36)

These examples are instances of phrasal coordinands, and indeed most of Chomsky's ensuing discussion of syntactic parallelism focuses on phrasal coordination. However, some researchers have explored the way this constraint may apply to sentential coordinands as well (Gleitman 1965, Schachter 1977). The question of parallelism clearly arises in the case of SPCs, as the coordinands are a sentence and a phrase, which are clearly non-like.

8. Some representative works are: Chomsky (1969), Schachter (1977), Sag et al. (1985), Goodall (1987), Borsley (1994).

9. In general, backwards ellipsis is prohibited in Hebrew in cases where the deleted material contains V or VP.

10. Not all instances of CSC violations are acceptable. (I thank an anonymous reviewer for this point.) Various factors seem to be involved, such as the syntactic position of the relative clause, and the specific adverb appearing in the P-co. Example (i) is ungrammatical, while the use of *ʔod* in (ii) increases the acceptability of the sentence:

- (i) *ʔani lo mocet 'et ha-sefer še-dan kara u-*bi*mhirut. ('I can't find the book that Dan read, and quickly')
- (ii) ʔani lo mocet 'et ha-sefer še-dan lakax 'etmol ve-*ʔod* bli rešut. ('I can't find the book that Dan took yesterday, and what's more, without permission').



The precise conditions for the acceptability of such sentences still need to be worked out.

11. Coordinated parentheticals (as in 'If he comes, **and** I'm sure he will, then we'll just pretend we are busy') are examples of another type of 'non-real' coordinate constructions.

12. I thank an anonymous reviewer for this point.

13. An anonymous reviewer points out that the second coordinand can serve as an explanation if it is explicitly introduced as one: *Max didn't go to school, and the reason was that he got sick*. In such a case, the relationship between the two propositions is explicit, and need not be inferred.

14. Blakemore & Carston make use of Sperber & Wilson's term 'independent strengthening' when discussing conjunction with discourse markers such as *furthermore*, *indeed* and *after all*, in which the second coordinand contributes further support to an assumption for which the speaker has already provided evidence in the first coordinand (*ibid.*, pp. 585–586).

15. See Blakemore & Carston (2005) for a detailed discussion of a variety of coordinate constructions exhibiting the effect of independent strengthening.

16. See, for example, Fabricus-Hansen et al. (2005) for non-parallelism in the discourse function of the conjunction 'and' in Norwegian, English and German.

17. I thank Yael Ziv for these examples.



References

- Abeillé, Anne. 2003. A lexicalist and construction-based approach to coordinations. *Proceedings of the HPSG03 conference, Michigan State University, East Lansing, MI*, Stefan Müller (ed.). Stanford CA: CSLI Publications. (<http://csli-publications.stanford.edu/>).
- Bar-Lev, Zev & Arthur Palacas, A. 1980. Semantic command over pragmatic priority. *Lingua* 51: 137–146.
- Blakemore, Diane. 1987. *Semantic constraints on relevance*. Oxford: Blackwell.
- Blakemore, Diane & Robyn Carston. 1999. The pragmatics of and-conjunctions: The non-narrative cases. *UCL Working Papers in Linguistics* 11: 1–20.
- Blakemore, Diane & Robyn Carston. 2005. The pragmatics of sentential coordination with *and*. *Lingua* 115(4): 569–589.
- Bonami, Olivier & D. Godar. 2003. Incidental adverbs: An overlooked type of adjunction. HPSG03 Conference, Michigan State University, East Lansing MI.
- Borsley, Robert D. 1994. In defence of coordinate structures. *Linguistic Analysis* 24(3–4): 218–246.
- Bowers, John. 1993. The syntax of predication. *Linguistic Inquiry* 24(4): 591–656.
- Chomsky, Noam. 1957. *Syntactic structures*. The Hague: Mouton.
- Chomsky, Noam. 1969. Conjunction. *Modern studies in English*, David A. Reibel and Sanford A. Schane (eds.), 73–74. Englewood Cliffs NJ: Prentice-Hall.
- Davidson, Donald. 1967. The logical form of action sentences. *The logic of decision and action*, Nicolas Rescher (ed.), 81–95. Pittsburgh PA: University of Pittsburgh Press.
- Fabricus-Hansen, Catherine, Wiebke Ramm, Kåre Solfeld & Bergljot Behrens. 2005. Coordination, discourse relations, and information packaging — crosslinguistic differences. Reports of the project language in Contrast No. 31, <http://www.hf.uio.no/forskningssposjekter/sprik>
- Gleitman, Lila R. 1965. Coordinating conjunctions in English. *Language* 41: 260–293.
- Goodall, Grant. 1987. *Parallel structures in syntax. Coordination, causatives and restructuring*. Cambridge: CUP.
- Progovac, Liliane. 1999. Events and economy of coordination. *Syntax* 2: 141–159.
- Ross, John. 1967. *Constraints on variables in syntax*. PhD dissertation, MIT. (published as: *Infinite syntax* (1986). Norwood NJ: Ablex.)
- Sag, Ivan A., Gerald Gazdar, Thomas Wasow & Steven Weisler. 1985. Coordination and how to distinguish categories. *Natural Language & Linguistic Theory* 3: 117–171.
- Schachter, Paul. 1977. Constraints on coordination. *Language* 53: 86–103.
- Sperber, Dan & Wilson, Deirdre. [1986] 1995. *Relevance: Communication and cognition*. Oxford: Blackwell.
- Williams, Edwin. 1981. Transformationless grammar. *Linguistic Inquiry* 9(1): 31–43.

Author's address

Irit Meir
 Department of Hebrew Language and Department of Communication Disorders
 University of Haifa, Mt. Carmel, Haifa, 31905, Israel
 Phone: 972-4-8288579
 Fax: 972-4-8249958
 imeir@univ.haifa.ac.il