Comparing Coordination and Gapping

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Abstract

The most basic distinction in the classical semantic relations of structure is between (i) functor-argument and (ii) coordination. Functor-argument connects different kinds of contents, namely (a) referent/relation (subject/predicate), (b) referent\relation (object\predicate), and (c) property|referent, property|relation, as well as property|property (modifier|modified). Coordination connects[1] the same kinds of content, namely (a) referent−referent, (b) property−property, and (c) relation−relation (conjunct−conjunct), at the elementary, phrasal, and clausal level of grammatical complexity (1–6). Semantically related but syntactically different are the subject, predicate, and object *gapping* constructions (7–9).

Examples representing the constructions are systematically analyzed as (i) contents defined as sets of proplets connected by address and as (ii) graphical presentations of the semantic relations of structure. These brief but concise manners of analysis bring out the syntactic-semantic differences between coordination and gapping in general as well as the differences within the coordination constructions and within the gapping constructions in particular.

keywords: functor-argument, coordination, gapping; gap-list; grammatical complexity of elementary, phrasal, and clausal degree

1 Coordination of Elementary Adnominals

The distinction between functor-argument and coordination is established in the data structure of proplets, defined as non-recursive feature structures with ordered attributes. The continuation attributes of functor-argument are fnc, arg, and mdd while those of coordination are nc (next conjunct) and pc (previous conjunct).

An example of a modifier−modifier coordination at the elementary level of grammatical complexity is tall, cool, black, new in the following content:

1.1 CONTENT OF The tall, cool, black, new building collapsed.

sur:	sur:	sur:	sur:	sur:	sur:
noun: **building**	adj: **tall**	adj: **cool**	adj: **black**	adj: **new**	verb: **collapse**
cat: snp	cat: adn	cat: adn	cat: adn	cat: adn	cat: #n′ decl
sem: def sg	sem: pad	sem: pad	sem: pad	sem: pad	sem: ind past
fnc: **collapse**	mdd: **building**	mdd:	mdd:	mdd:	arg: **building**
mdr: **tall**	mdr:	mdr:	mdr:	mdr:	mdr:
nc:	nc: **cool**	nc: **black**	nc: **new**	nc:	nc:
pc:	pc:	pc: **tall**	pc: **cool**	pc: **black**	pc:
prn: 23	prn: 23	prn: 23	prn: 23	prn: 23	prn: 23

This content is a set (order-free) of self-contained proplets with (i) the *core values*

[1]For an overview of exceptions to the grammatical equality of conjuncts and proposals for their resolution see Bruening and Al Khalaf (2020).

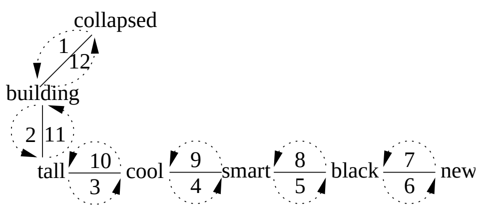
of the attributes noun, adj, and verb, (ii) the *continuation values* of the attributes fnc, arg, mdr, mdd, nc, and pc, and (iii) the shared prn value, here 23.

The modification relation between the adn coordination *tall cool black new* and the noun *building* is tall|building. It is coded by the features [mdr: tall] of *building* and [mdd: building] of the initial conjunct *tall*. In the noninitial conjuncts, in contrast, the mdd attributes have no value; if needed, it can be retrieved from the initial conjunct via the pc connections (NLC 8).

The semantic relations coded in 1.1 may be shown as the following graph, whereby the different slashes /, \, |, and − represent the subject/predicate, object\predicate (not exemplified in 1.2), modifier|modified, and conjunct−conjunct relations:[2]

1.2 GRAPHICAL PRESENTATION OF THE SEMANTIC RELATIONS IN 1.1

numbered arcs graph (NAG)



surface realization

<table>
<tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td></tr>
<tr><td>the</td><td>tall</td><td>cool</td><td>smart</td><td>black</td><td>new</td><td></td><td></td><td></td><td></td><td>building</td><td>collapsed_.</td></tr>
<tr><td>V/N</td><td>N|A</td><td>A−A</td><td>A−A</td><td>A−A</td><td>A−A</td><td>A−A</td><td>A−A</td><td>A−A</td><td>A−A</td><td>A|N</td><td>N\V</td></tr>
</table>

The modifier|modified relation between the adn coordination and the modified noun is traversed in arcs 2 (downward) and 11 (upward).

As shown in the *surface realization*, The is realized from the goal proplet in arc 1, tall from the goal proplet in arc 2, cool in arc 3, smart in arc 4, black in arc 5, and new in arc 6. After empty return via the arcs 7-10, building is realized from the goal proplet of arc 11, and collapsed_. of arc 12. The semantic relations are shown in the bottom line, beneath the surface. The direction of the traversals is specified by the arrows of arcs listed by number in the top line.

2 Coordination of Phrasal Adnominal Modifiers

In English, phrasal modifiers (prepnouns) consist of a preposition and a noun, e.g., in the water (noun concept), in here (noun indexical), or in Paris (noun name). In contrast to elementary modifiers, which may morphologically distinguish between adnominal and adverbial use, as in beautiful woman vs. sang beautifully, no such distinction exists in phrasal modifiers. Thus, in the water may be used adnominally (3.1) and adverbially (2.1). Also, while elementary modifiers in adnominal use precede the modified noun, phrasal modifiers follow. Consider the content of The man in the water for days without a lifejacket survived.:

[2] In substitution-based linguistics (PSG), there is some agreement that the flat concatenation of coordination is a difficulty for constituent structure: Ross (1967), Dik (1968), Goldsmith (1985), Sag, Gazdar, Wasow, and Weisler (1985), Lakoff (1986), Bayer (1996), Osborne (2006), and others. The same holds for gapping constructions (7

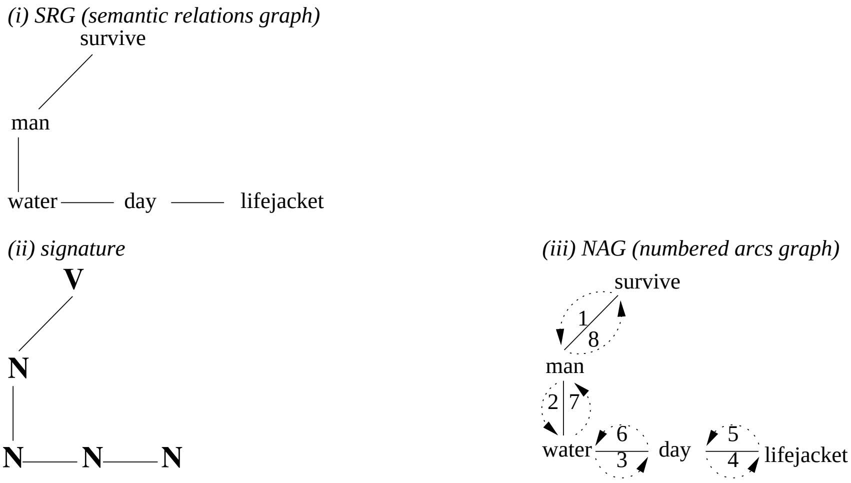
2.1 SUBJECT MODIFIED BY PHRASAL MODIFIER CONJUNCTION

sur:	sur:	sur:	sur:	sur:
noun: **man**	noun: **water**	noun: **day**	noun: **life jacket**	verb: **survive**
cat: snp	cat: adnv	cat: adnv	cat: adnv	cat: #n′ decl
sem: def sg	sem: *in* def sg	sem: *for* indef pl	sem: *without* indef sg	sem: ind past
fnc: **survive**	fnc:	fnc:	mdd:	arg: **man**
mdr: **water**	mdd: **man**	mdr:	mdr:	mdr:
nc:	nc: **day**	nc: **life jacket**	nc:	nc:
pc:	pc:	pc: **water**	pc: **day**	pc:
prn: 26	prn: 26	prn: 26	prn: 26	prn: 26

For reasons of phrase-internal agreement, DBS represents phrasal modifiers as a single noun proplet, like a case-marked locative in classical Latin. The core attribute of phrasal modifiers is noun, but their semantic role as modifiers is specified by the cat value adnv, for adjective with adnominal and adverbial use. In each conjunct, the preposition is preserved for the speak mode as the first sem value.

Phrasal conjuncts and modifiers have adnominal as well as adverbial use. The uses are distinguished by word order in conjuncts (3.1 vs. 2.1), but create an ambiguity between an adnominal (TExer 1.5.3) and an adverbial (TExer 1.5.4) reading in modifiers. The repetition of phrasal modifiers requires the same kind, whereas no such restriction holds for the repetition of phrasal conjuncts. For example, in the modifier repetition on the table (locational) under the tree (locational) in the garden (locational) the modifiers are all of the same modality (TExer 5.1), but in the conjunct repetition in the water (locational) for days (temporal) without a life jacket (manner) the modalities of the conjuncts are all different.

2.2 GRAPHICAL PRESENTATION OF THE ADNOMINAL READING 2.1



(iv) surface realization

1	2	3	4	5	6	7	8
the_man	in_the_water	for_days	without_a_lifejacket				survived_.
V/N	N|N	N−N	N−N	N−N	N−N	N|N	N/V

The modifier|modified relation between the phrasal modifier coordination and the modified noun is traversed in arcs 2 (downward) and 7 (upward). Fulfillment of the continuity condition (NLC 3.6.5) as the think-speak mode counterpart to (and the source of) the time-linear derivation order in the hear mode is clearly shown in the bottom line of the *(iv) surface realization*, i.e., the goal proplet of operation n equals the start proplet of operation n+1.

3 Coordination of Phrasal Adverbial Modifiers

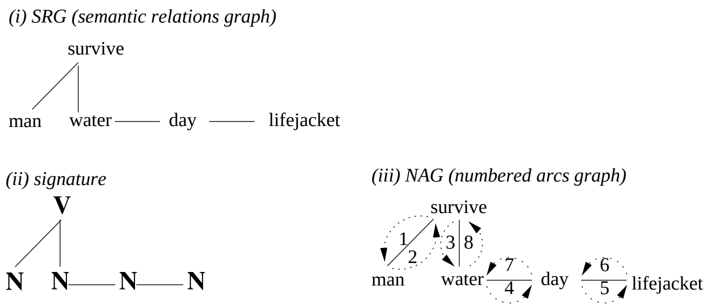
The distinction between the adnominal and the adverbial use of one and the same phrasal modifier coordination is located in the connection between the modified and the initial conjunct, e.g., between man and in the water in 2.1 (adnominal), and between survived and in the water in 3.2 (adverbial).

3.1 PREDICATE MODIFIED BY PHRASAL MODIFIER CONJUNCTION

sur:	sur:	sur:	sur:	sur:
noun: **man**	verb: **survive**	noun: **water**	noun: **days**	noun: **lifejacket**
cat: snp	cat: #n′ v	cat: snp	cat: snp	cat: snp
sem: def sg	sem: ind past	sem: *in* def sg	sem: *for* def sg	sem: *without* indef sg
fnc: **survive**	arg: **man**	fnc: **survive**	mdd:	mdd:
mdr:	mdr: **water**	mdr:	mdr:	mdr:
nc:	nc:	nc: **days**	nc: **lifejacket**	nc:
pc:	pc:	pc:	pc: **water**	pc: **day**
prn: 25	prn: 25	prn: 25	prn: 25	prn: 25

The presentation of the content as a set of proplets is complemented by the standard representation as a semantic relations graph:

3.2 GRAPHICAL PRESENTATION OF THE ADVERBIAL READING 3.1



(iv) surface realization

1	2	3	4	5	6	7	8
The_man	survived	in_the_water	for_days	without_a_lifejacket			•
V/N	N/V	V|N	N−N	N−N	N−N	N−N	N|V

The modifier|modified relation between the phrasal modifier coordination and the modified verb is traversed in arcs 3 (downward) and 8 (upward).[3]

[3]Comparison with TExer 5.1.12 shows the semantic difference between the intrapropositional repetition of modification vs. coordination.

4 Coordination of Elementary Nouns as Subject

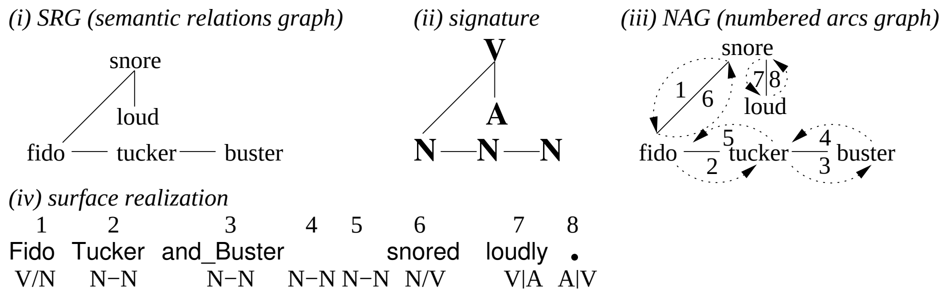
From the coordination of modifiers in 1–3, we turn to the coordination of arguments. In the following example Fido, Tucker, and Buster snored loudly, the coordination of names is coded via the nc and pc values and used as the grammatical subject:

4.1 NOUN COORDINATION SERVING AS SUBJECT

sur: fido	sur: tucker	sur: buster	sur:	sur:
noun: **[dog x]**	noun: **[dog y]**	noun: **[dog z]**	verb: **snore**	adj: **loud**
cat: snp	cat: snp	cat: snp	cat: #n′ decl	cat: adv
sem: nm m	sem: nm m	sem: *and* nm m	sem: ind past	sem: pad
fnc: **snore**	fnc:	fnc:	arg: **[dog x]**	mdd: **snore**
mdr:	mdr:	mdr:	mdr: **loud**	mdr:
nc: **[dog y]**	nc: **[dog z]**	nc:	nc:	nc:
pc:	pc: **[dog x]**	pc: **[dog y]**	pc:	pc:
prn: 18	prn: 18	prn: 18	prn: 18	prn: 18

In contrast to elementary (1.1) and phrasal (3.1) coordinations serving as modifiers, coordinations of nouns serving as argument require the prefinal conjunction *and*,[4] coded as the initial sem value of the final conjunct.

4.2 GRAPHICAL PRESENTATION OF THE SEMANTIC RELATIONS IN 4.1



The semantic relation between a noun coordination and the predicate is based on the standard subject/predicate or object\predicate relation, using the initial conjunct (here in arcs 1 and 6). In the content 4.1, this relation is coded by the [fnc: snore] feature of the initial conjunct *fido* and the [arg: [dog x]] feature of the verb *snore*. In the noninitial conjuncts, the fnc attributes have no value; if needed, it can be retrieved from the initial conjunct via the pc connections (NLC 8.3.3 ff).

5 Intra- and Extrapropositional Verb Coordination

While adn and noun coordinations are intrapropositional, verb coordination may also be extrapropositional. This is because DBS represents a proposition by its

[4]For the graph analysis and for the complete sequence of hear mode operations see TExer 3.6.

top verb, whereby the complete content may be reconstructed by navigating along the continuation values. In a text or dialogue, the traversal of the first proposition begins with the top verb, continues along the continuation values, returns to the current top verb, and continues to the top verb of the next proposition by extrapropositional coordination (6.2). A top verb with an empty nc slot concludes an extrapropositional traversal.

Intra- and extrapropositional verb coordinations may combine as follows:

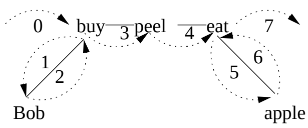
5.1 EXTRA- AND INTRASENTENTIAL VERB COORDINATION COMBINED

Julia slept. Bob bought, peeled, and ate an apple. Fido snored.
[prn: n] [prn: n+1] [prn: n+2]

The critical transition is from the intraclausal verb coordination of [prn: n+1] to the next sentence [prn: n+2] by means of an extrasentential verb−verb coordination. The following solutions have been proposed:

5.2 ALTERNATIVE NAGS FOR EXTRAPROP. VERB COORDINATION

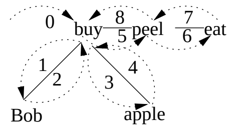
TExer3 proposal
(iii) numbered arc graph (NAG)



(iv) surface realization

1	2	3	4	5	6
Bob	bought	peeled	and_ate	an_apple	.
V/N	N/V	V−V	V−V	V\N	N\V

NLC2 proposal
(iii) numbered arc graph (NAG)



(iv) surface realization

1	2	5	6	7	8	3	4
Bob	bought	peeled	and_ate			an_apple	.
V/N	N/V	V−V	V−V	V−V	V−V	V\N	N\V

The (obsolete) NLC2 analysis on the right takes an intrapropositional perspective by treating subject (4), predicate (NLC2 8.3.4), object (NLC2 8.2.7), and modifier (1–2) coordinations alike. The initial conjunct *buy* is (a) the representative of the proposition as the carrier of the syntactic mood value, (b) the point of extrapropositional entrance, and (c) the point of extrapropositional exit.

If there is only a single top verb, which is usually the case, this is easily fulfilled. However, if there are several verbs of equal rank, e.g., the intrapropositional verb coordination in n+1 of 5.1, the NLC2 proposal would have to allow two values in the nc slot of the initial conjunct *buy*, one for the intrapropositional conjunct peel, the other for the extrasentential conjunct snore.

The TExer proposal avoids this complication by implementing sentential verb conjunctions in the forward direction only, leaving a possible backward navigation to the following inference:

5.3 BACKWARD NAVIGATION INFERENCE FOR VERBAL CONJUNCTION

$$\begin{bmatrix}\text{verb: } \beta \\ \text{pc: } \alpha \\ \text{prn: n+1}\end{bmatrix} \Rightarrow \begin{bmatrix}\text{verb: } \alpha \\ \text{nc: } \beta \\ \text{prn: n}\end{bmatrix}$$

In summary, while almost all functor-argument and coordination relations are implemented bidirectionally, the backward traversal of verbal conjunctions in the speak mode is treated by inference (5.3) instead of a routinely provided V←V operation. This is because a return traversal in verbal coordination (i) is not necessary, as demonstrated by the TExer solution shown in 5.2, (ii) may therefore only be used when rhetorically desired, as when telling a story starting from the end, and (iii) requires specific operators like before that, appropriately specified by the inference.

6 Extrasentential Coordination

The connection between sentences in a text is extrasentential coordination (parataxis), as in the following example:

6.1 CONTENT OF Mary slept. Fido snored.

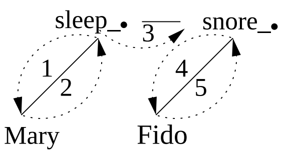
sur: mary	sur:	sur:	sur: fido
noun: **[person x]**	verb: **sleep**	verb: **snore**	noun: **[dog y]**
cat: snp	cat: #ns3 decl	cat: #ns3 decl	cat: snp
sem: nm f	sem: ind past	sem: ind past	sem: nm m
fnc: **sleep**	arg: **[person x]**	arg: **[dog y]**	fnc: **snore**
mdr:	mdr:	mdr:	mdr:
nc:	nc: **(snore 18)**	nc:	nc:
pc:	pc:	pc: **(sleep 17)**	pc:
prn: 17	prn: 17	prn: 18	prn: 18

The values in the nc and pc slots are the extrapropositional addresses (snore 18) and (sleep 17). The multiple operation applications for simultaneously establishing functor-argument and coordination relations within the proplet set are data-driven, i.e., there is no need for additional software.

The pivot of an extrasentential coordination in the hear mode derivation is the interpunctuation between sentences. The interpunctuation proplet (i) supplies the syntactic mood value to the top verb of the present sentence, (ii) cross-copies with the intervening subject of the next sentence, and (iii) absorbs the next verb, thus becoming the predicate of the next sentence. These steps leave no trace in the content 6.1 and in the semantic relations graph:

6.2 GRAPHICAL PRESENTATION OF THE SEMANTIC RELATIONS IN 6.1

(iii) numbered arc graph (NAG)



(iv) surface realization

1	2	3	4	5
Mary	slept_.		Fido	snored_.
V/N i	N/V	V−V	V/N	N/V

For the complete declarative specification of an extrasentential coordination see TExer 2.1.

7 Quasi Coordination in Subject Gapping

In linguistics, a grammatical construction in which a single *shared* item is in a semantic relation with a sequence of n ($n \geq 1$) 'gapped' items is called *gapping*. Basic examples are (i) subject gapping, (ii) predicate gapping, and (iii) object gapping,[5] which have the following pretheoretical structure:

7.1 PRETHEORETICAL COMPARISON OF THREE GAPPING KINDS

	subject gapping				*predicate gapping*				*object gapping*	
	Bob	buy	apple		Bob	**buy**	apple		Bob	buy	∅
	∅	peel	pear		Jim	∅	pear		Jim	peel	∅
and	∅	eat	peach	*and*	Bill	∅	peach	*and*	Bill	eat	**peach**

The shared item is shown in bold face, while the gapped items are indicated by the gap marker ∅.

The following example shows the content of a subject gapping:

7.2 CONTENT OF A SUBJECT GAPPING

Bob bought an apple, ∅ peeled a pear, and ∅ ate a peach.

Bob bought an apple, ∅ peeled a pear, and ∅ ate a peach.

sur: bob	sur:	sur:	sur:
noun: **[person x]**	verb: **buy**	noun: **apple**	verb: **peel**
cat: snp	cat: #n′ #a′ decl	cat: snp	cat: #n′ #a′ v
sem: nm m	sem: ind past	sem: indef sg	sem: ind past
fnc: **buy** **peel** **eat**	arg: **[person x] apple**	fnc: **buy**	arg: **[person x] pear**
mdr:	mdr:	mdr:	mdr:
nc:	nc:	nc:	nc:
pc:	pc:	pc:	pc:
prn: 32	bprn: 32	prn: 32	prn: 32

sur:	sur:	sur:
noun: **pear**	verb: **eat**	noun: **peach**
cat: snp	cat: #n′ #a′ v	cat: snp
sem: indef sg	sem: *and* ind past	sem: indef sg
fnc: **peel**	arg: **[person x] peach**	fnc: **eat**
mdr:	mdr:	mdr:
nc:	nc:	nc:
pc:	pc:	pc:
prn: 32	prn: 32	prn: 32

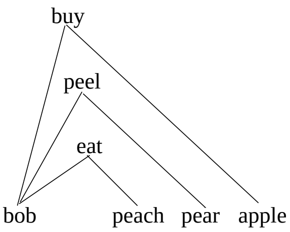
Gapping constructions are intrapropositional, and a fortiori intrasentential. They are only quasi-coordinations because the nc and pc slots are not involved, i.e., they have no intrapropositional values. They resemble nominal and intrapropositional verb coordinations, however, in that they use prefinal *and* and consist of unbounded repetitions of grammatically similar items.

[5] There seems to be no "modifier gapping" in natural language.

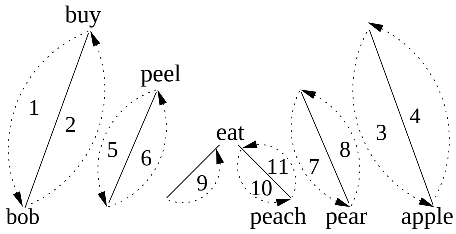
The semantic relations between the shared item *bob* and the gapped items ∅ *peel pear* and ∅ *eat peach* are run via the gap list in the shared item and the repetition of the shared item's address, here [person x], in the verbs of the gapped items (arg slot, initial position). In this way, the semantic relations of structure are complete in a gapping construction without using the nc and pc slots (TExer 5.2).

7.3 GRAPHICAL PRESENTATION OF THE SEMANTIC RELATIONS IN 7.2

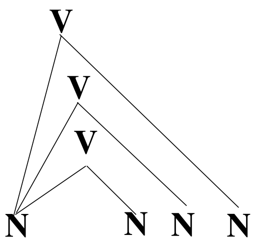
(i) SRG (semantic relations graph)



(iii) NAG (numbered arcs graph)



(ii) signature



(iv) surface realization

1	2	3	4	1	6	7	8	5	9	10	11
Bob	bought	an_apple			peeled	a_pear			and_ate	a_peach	.
V/N^i	N^s/V	$V\backslash N$	$N\backslash V$	V/N^s	N^s/V	$V\backslash N$	$N\backslash V$	V/N^s	$N^s\backslash V$	$V\backslash N$	$N\backslash V$

The different tilts of the three N/V and N\V relations are solely for visual separation in the graph. The gaps appear as empty traversals. The navigation ends with arc 11. The upward arc 9 does not have a downward counterpart. The arc numbering is breadth-first. The number of operations is even. As a multiple verb construction (5), the last verb, here *eat*, is used for the extrapropositional exit (TExer 1.4.8).

The think-speak navigation along the semantic relations between proplets is continuous (Continuity Condition, NLC 3.6.5), as shown by the bottom line of the *surface realization*. This is possible by leaving the control of the gaps in the surface to the lexicalization rules, here arcs 4, 1 and 8, 5. For example, lexnoun realizes the surface of the shared noun proplet *bob* (goal proplet of the V/N^s operations in arcs 1, 1, and 5) if, and only if, its initial fnc value is not yet #-marked.

8 Quasi Coordination in Predicate Gapping

The pretheoretical characterization of predicate gapping in 7.1 is formally instantiated as the following content:

8.1 CONTENT OF A PREDICATE GAPPING

Bob **bought** an apple, Jim ∅ a pear, and Bill ∅ a peach.

sur: bob	sur:	sur:	sur: jim
noun: **[person x]**	verb: **buy**	noun: **apple**	noun: **[person y]**
cat: snp	cat: #n′ #a′ decl	cat: snp	cat: snp
sem: nm m	sem: ind past	sem: indef sg	sem: nm m
fnc: **buy**	arg: **[person x] apple [person y] pear [person z] peach**	fnc: **buy**	fnc: **buy**
mdr:	mdr:	mdr:	mdr:
nc:	nc:	nc:	nc:
pc:	pc:	pc:	pc:
prn: 33	prn: 33	prn: 33	prn: 33

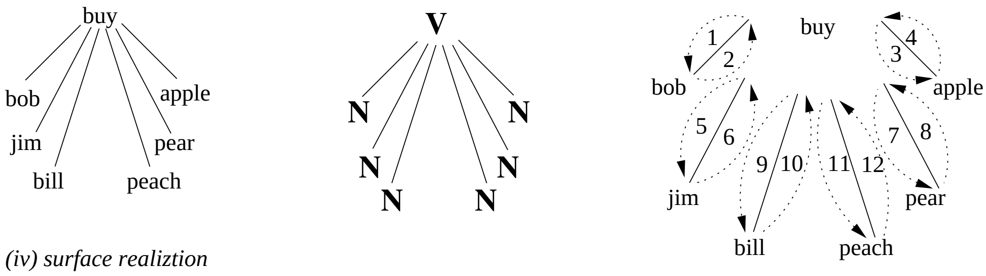
sur:	sur: bill	sur:
noun: **pear**	noun: **[person z]**	noun: **peach**
cat: snp	cat: snp	cat: snp
sem: indef sg	sem: *and* nm m	sem: indef sg
fnc: **buy**	fnc: **buy**	fnc: **buy**
mdr:	mdr:	mdr:
nc:	nc:	nc:
pc:	pc:	pc:
prn: 33	prn: 33	prn: 33

Predicate gapping requires a transitive verb as its shared item, here *buy*. Its arg slot contains the gap list, here the subject-object pairs *bob apple, jim pear,* and *bill peach*[6]. The subject and object proplets of the gapped items take buy as their shared fnc value. The conjunction *and* is coded into the initial sem slot of *bill*.

The semantic relations of structure may be shown as a standard graph:

8.2 GRAPHICAL PRESENTATION OF SEMANTIC RELATIONS IN 8.1

(i) SRG (semantic relations graph) *(ii) signature* *(iii) NAG (numbered arcs graph)*



(iv) surface realiztion

1	2	3	4	5	6	7	8	9	10	11	12
Bob	bought	an_apple		Jim		a_pear			and_Bill	a_peach	.
V^p/N	N/V^i	$V\backslash N$	$N\backslash V$	V^p/N	N/V^p	$V\backslash N$	$N\backslash V$	V^p/N	N/V^p	$V\backslash N$	$N\backslash V$

The shared predicate relates to the subject and object of its initial sentence (arcs 1–4) and of its two gapped items (arcs 5–8 and 9–12).

9 Quasi Coordination in Object Gapping

Compared to subject and predicate gapping, in which the gaps precede the shared item (filler), object gapping is special in that the filler follows the gaps. Therefore the gap list must be accumulated in an external cache until the filler arrives (strictly time-linear derivation order).

9.1 Content of an object gapping

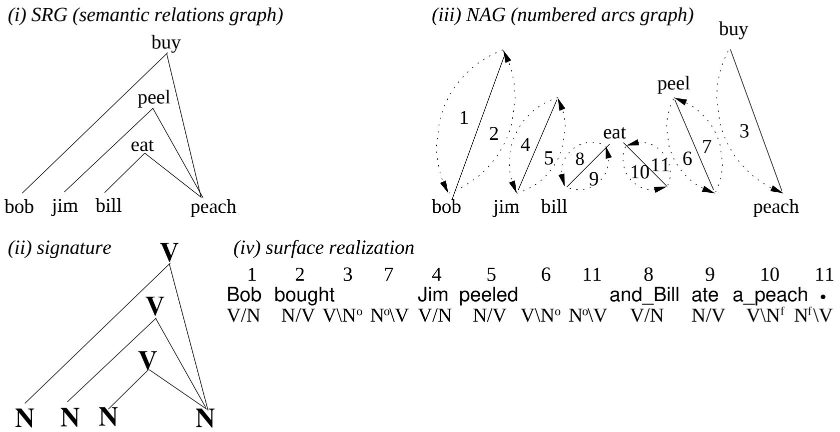
Bob bought ∅, Jim peeled ∅, and Bill ate **a peach .**

sur: bob	sur:	sur: jim	sur:
noun: **[person x]**	verb: **buy**	noun: **[person y]**	verb: **peel**
cat: snp	cat: #n′ #a′ v	cat: snp	cat: #n′ #a′ v
sem: nm m	sem: ind past	sem: nm m	sem: ind past
fnc: **buy**	arg: **[person x] peach**	fnc: **peel**	arg: **[person y] peach**
. . .	. . .	. . .	. . .
prn: 34	prn: 34	prn: 34	prn: 34

sur: bill	sur:	sur:
noun: **[person z]**	verb: **eat**	noun: **peach**
cat: snp	cat: #n′ #a′ decl	cat: snp
sem: *and* nm m	sem: ind past	sem: indef sg
fnc: **eat**	arg: **[person z] peach**	fnc: **[p. x] buy**
mdr:	mdr:	**[p. y] peel**
nc:	nc:	**[p. z] eat**
pc:	pc:	. . .
prn: 34	prn: 34	prn: 34

The three verb proplets all take the core value peach as their shared object.

9.2 Graphical presentation of the semantic relations in 9.1



The shared object is clearly shown. Just as the graph 7.3 for subject gapping is missing a downward arc opposite arc 9, the current graph for object gapping is missing an upward arc opposite arc 3. As a multiverb construction, the last verb, here *eat*, is used for the extrapropositional exit.

10 Conclusion

Coordination and gapping have in common that they repeat an unlimited number of similar items. They differ in that the connection between the conjuncts of a coordination is coded by the values of their nc (next conjunct) and pc (previous conjunct) attributes, while no such nc−pc relations exist in gapping constructions.

Instead subject, predicate, and object gapping establish the relation between a single *shared item* and a sequence of repeating *gapped items* by means of (i) a gap list in the shared item and (ii) copies of the shared item's core value in the grammatically appropriate slots of the gapped items. The nc and pc attributes are not used, i.e., they have no intrapropositional values in gapping constructions.

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