Dependency Structure of Binary Conjunctions

(of the IF..., THEN... Type)

Igor Mel'čuk

University of Montreal Department of Linguistics and Translation Observatoire de linguistique Sens-Texte Canada

igor.melcuk@umontreal.ca

Abstract

The dependency surface-syntactic structure is proposed, within the Meaning-Text framework, for binary conjunctions of the IF-THEN type; e.g.:

$$\bullet$$
 IF→Y. THEN←X

A universal typology of conjunctions is sketched, and three examples of English binary conjunctions are given. Binary conjunctions are "discontinuous" phrasemesidioms, collocations and formulemes that have to be considered together with their actants, since there are no direct syntactic links between their components. Full lexical entries for two Russian binary conjunctions are presented, supplied with linguistic comments, and deep-syntactic rules ensuring the expansion of a deep-syntactic binary conjunction node into the corresponding surface-syntactic tree are illustrated.

1 The Syntactic Structure of a Binary Conjunction

This paper examines subordinating and coordinating binary conjunctions (or correlative subordinators/coordinators, as they are known in the literature: Quirk *et al.* 1991: 935–941, 999– 1001). The typical examples are the subordinating conjunction IF..., THEN... and the coordinating conjunction EITHER..., OR... The discussion is carried out within the Meaning-Text approach (see Mel'čuk 1974, 2012, 2016b).

In sentence (1) dependency relations between lexemes are obvious, except for THEN, the second component of the conjunction IF..., THEN...:

(1) If
$$A \rightarrow and \rightarrow B$$
 are $\rightarrow equal$, then $B \leftarrow follows \rightarrow C$.

The dependency for THEN is proposed in what follows.

Without THEN the superordinate clause can linearly precede or follow the subordinate clause with IF; but with THEN it can only follow. This gives the idea to make this THEN dependent on IF: IF- \mathbf{r} \rightarrow THEN; as a result, the binary conjunction IF..., THEN... can be stored in the lexicon exactly in the form of this syntactic subtree. Such a description had been tacitly accepted for almost half a century:

• In Mel'čuk 1974: 231, No. 31, (e), the surfacesyntactic relation [SSyntRel] **r** between IF and THEN was called "1st auxiliary."

• In Mel'čuk & Pertsov 1987: 331, No. 19.1, it was rebaptized "binary-junctive."

• In Iomdin 2010: 43, it appears under the name of "correlative SSyntRel."

• In Mel'čuk 2012a: 143, No. 51, it is "correlative-auxiliary."

However, this syntactic description of binary conjunctions contradicts the definition of surface-syntactic dependency (or, more precisely, that of surface-syntactic relation), which was advanced in Mel'čuk 1988: 130-144 and has been used as such since; see its newer formulations, for instance, in Mel'čuk 2009: 25-40 and Mel'čuk 2015b: 411-433. In order to lay bare this contradiction, only the first part of this definition-namdely Criterion A-is needed, strictly speaking. Nevertheless, to facilitate the task of the reader I will cite here the whole definition-that is, the full set of criteria for SSyntRels. (Of course many substantial explanations and interesting special cases have to be bypassed.)

2 Criteria for Surface-Syntactic Dependencies (= Surface-Syntactic Relations)

NB: Given the limitations of space and time, the formulations below are approximate and controversial cases are not considered; for important details, see the above references.

Criterion A: PRESENCE of a syntactic dependency between two lexemes in an utterance (prosodic unity of and linear arrangement in the configuration L_1 -synt- L_2)

In a given utterance, the lexemes L_1 and L_2 can have a direct Synt-dependency link (= they can form a configuration L_1 -synt- L_2), if and only if both Conditions 1 and 2 are simultaneously satisfied:

Condition 1

(a) General case

 L_1 and L_2 can form a phrase of **L**, such as

N—V, V—N, ADJ—N, PREP—N, ADV—ADJ, etc. (b) Special case

 L_1 and L_2 cannot form a phrase, but the lexemes L_1 , L_2 and configurations of lexemes of the set $\{L_i\}$ appearing in the same utterance can, such that the following are also phrases of **L**:

•
$$L_1 \rightarrow \{L_{i-1}\}$$
 $L_2 \rightarrow \{L_{i-2}\}$
• $L_1 \rightarrow \{L_{i-1}\}$ and $L_2 \rightarrow \{L_{i-2}\}$

Condition 2

The linear position of one of the lexemes L_1 and L_2 in the utterance under consideration must be specified with respect to the other.

Examples

Case (b) covers configurations of two types:

(i) $L_1 \rightarrow L_{(PREP)2} \rightarrow L_{(N)\{i-2\}}$, as in $one_{L_1} of_{L_2} them_{L_{\{i-2\}}}$

Here, **one* \rightarrow *of* cannot be a phrase, while the utterances *of* \rightarrow *them* and *one* \rightarrow *of* \rightarrow *them* are phrases, having *of* and *one* as their heads. Therefore, a syntactic link between ONE and OF is allowed.

(ii)
$$L_1 \rightarrow \{L_{\{i-1\}}\} \xrightarrow{\downarrow} L_{(CONJ)2} \rightarrow \{L_{\{i-2\}}\}, as in$$

 $\square pseudo-subjectival \xrightarrow{\downarrow} It \leftarrow became_{L_1} \rightarrow \{obvious\}_{\{L_{i-1}\}} that_{L_2} \rightarrow \{he was there\}_{\{L_{i-2}\}}.^1$

Here, **became* \rightarrow *that* cannot be a phrase, while *became* \rightarrow *obvious* and *that* \rightarrow {*he was there*} are phrases, with *became* and *that* as their heads; thus, BECOME and THAT can be considered syntactically linked.

Condition 1 of Criterion A requires that, in order to have a direct syntactic link in the given utterance, two lexemes L' and L'' could form a phrase of the language.

Condition 2 of Criterion A requires that, in order for two lexemes L' and L" to have a direct syntactic link in the given utterance, one of them must determine the linear position of the other.

These conditions are logically independent:

—In *He took in his knapsack a book full of vowels* [Keats], Condition 1 allows the adjective FULL to depend on KNAPSACK *(full knapsack is a phrase of English), but Condition 2 does not.* —In *I wish I was either in your arms, or that a thunderbolt would strike me* [Keats], Condition 2 allows the particle EITHER to depend on OR *(either has to precede the governor of or), but Condition 1 does not.*

Criteria B1-B3: DIRECTION of the syntactic dependency between two lexemes in an utterance

Criterion B1 (passive syntactic valence² of the phrase L_1 -synt- L_2)

In a phrase L_1 -synt- L_2 the lexeme L_1 is the syntactic governor of L_2 , or the head of the phrase L_1 -synt- L_2 , if L_1 determines the passive syntactic valence of the phrase to a greater extent than L_2 .

Example

The passive valence of the phrase *John—and— Mary* is that of a noun (it can be the subject and the direct object of a verb, the object of a preposition, an apposition, etc.); the passive valence of the phrase *and—Mary* is determined by AND; therefore,

MARY-synt→AND-synt→JOHN.

This is actually the general schema for coordinating conjunctions:

 L_1 -synt \rightarrow CONJ_(coord)-synt \rightarrow L₂.

Criterion B2 (morphological contact point in the phrase L_1 -synt- L_2)

In a phrase L_1 -synt- L_2 , where both L_1 and L_2 have the same syntactic properties (and influence the

¹ For the surface-syntactic relations mentioned in this paper, see Mel'čuk 2015c and 2016a.

² Passive syntactic valence of an LU L is the set of all possible syntactic governors of L.

passive valence of L_1 -synt- L_2 to the same degree), the lexeme L_1 is the syntactic governor of L_2 , or the head of the phrase L_1 -synt- L_2 , if L_1 determines the morphological behavior of the phrase to a greater extent than L_2 .

Example

In the French phrase *Bibliothèque Mitterand* 'Mitterand Library' the head is BIBLIOTHÈQUE since the phrase imposes the agreement of the adjective in the feminine gender (the gender of BIBLIOTHÈQUE): *La Bibliothèque Mitterand est spaci*+*euse*_(fem) 'The Mitterand Library is spacious'.

Criterion B3 (denotation of the phrase L_1 -synt- L_2)

In a phrase L_1 -synt- L_2 , where both L_1 and L_2 have the same syntactic and morphological properties (and influence the passive valence and morphological behavior of L_1 -synt- L_2 to the same degree), the lexeme L_1 is the syntactic governor of L_2 , or the head of the phrase L_1 synt- L_2 , if L_1 determines the denotation of L_1 synt- L_2 to a greater extent than L_2 .

Example

The denotation of the phrase [the American] writer—Dos_Pasos is a real person (an American writer having a particular name), not the name Dos Pasos; therefore, we have

WRITER**−synt**→DOS PASOS.

Criteria B1–B3 form a hierarchy:

This means that if Criterion B1 is applicable, it determines the syntactic governor; otherwise, Criterion B2 is pressed into action, and if applicable, it determines the syntactic governor; if it also fails, Criterion B3 is supposed to solve the problem.

Criteria C1-C3: TYPE of the syntactic dependency between two lexemes in an utterance

Criterion C1 (presence of semantic contrast: Minimal Pair test)

Notation: $w_i(L)$ is a wordform of lexeme L.

A hypothetical SSyntRel **r** should not describe two phrases

 $\mathbf{w}_1(L_1) - \mathbf{r} \rightarrow \mathbf{w}_2(L_2)$ and $\mathbf{w}_3(L_1) - \mathbf{r} \rightarrow \mathbf{w}_4(L_2)$, if 1) they contrast semantically

 $[\mathbf{w}_1(L_1) - \mathbf{r} \rightarrow \mathbf{w}_2(L_2)' \neq \mathbf{w}_3(L_1) - \mathbf{r} \rightarrow \mathbf{w}_4(L_2)'],$ and

2) they formally differ only by some syntactic means of expression—i.e., by word order, syntactic prosody, or syntactic grammemes. In such a case, **r** should be split into two different SSyntRels, $\mathbf{r_1}$ and $\mathbf{r_2}$.

Example

Rus. $\underline{\check{zena-synt}} \rightarrow druga$ 'wife of friend' and $\underline{\check{zena-synt}} \rightarrow drug$ 'wife, who is a friend' should be described by two different SSyntRels (actantial-attributive and qualifying-appositive), since these phrases semantically contrast and formally differ only by the case of DRUG: the genitive in the first phrase and the same case as that of $\underline{\check{ZENA}}$ in the second.

Criterion C2 (syntactic substitutability: Substitution test)

A SSyntRel \mathbf{r} must have a prototypical dependent that is allowable with any governor.

Example

have-synt \rightarrow *been* and *be*-synt \rightarrow *going* should be described by two different SSyntRels (perfectanalytical and progressive-analytical) since there is no word-class whose element is possible as a dependent both with HAVE and BE within an analytical form.

Criterion C3 (no limited repeatability: Cooccurrence test)

A SSyntRel **r** must be either unlimitedly repeatable or non-repeatable—that is, it cannot be limitedly repeatable.

Example

write-synt \rightarrow after the lunch, write-synt \rightarrow on the next line, write-synt \rightarrow over the door etc. can all be described by the same SSyntRel: circumstantial, since the number of these dependents is theoretically unlimited. On the contrary, [*They*] returned-synt \rightarrow all and [*They*] returned-synt \rightarrow drunk require two different SSyntRels (floating-copredicative and subject-copredicative), since otherwise the dependent will be repeatable exactly twice.

Now we are fully equipped to take on the problem formulated in Section 1: What is the dependency structure of a binary conjunction?

3 The Dependency Description for Binary Conjunctions

Consider the expression "IF Y, THEN X":

—The expression *IF THEN is not a phrase of English;

—IF_{L2} forms a phrase with the subordinate clause $Y_{\{L_{i-2}\}}$, and THEN_{L1}, with the superord-inate clause $X_{\{L_{i-1}\}}$;

 $-IF_{L_2}$ subordinates the Main Verb of Y and is itself subordinated to the Main Verb, of $X_{\{L_i, j\}}$:

 $MV(X_{\{L_{i-1}\}}) \rightarrow IF_{L_2} \rightarrow MV(Y_{\{L_{i-2}\}}),$

thus corresponding to Case (b) of Condition 1 of Criterion A;

—THEN is subordinated to the Main Verb of $X_{\{L_{i-1}\}}$.

As a result, we have the following SSyntstructure for a subordinating binary conjunction (both of its components depend on the Main Verb of the superordinate clause):

$$\downarrow$$
 IF \rightarrow Y, THEN \leftarrow X.

This proposal is aimed at correcting a mistake that has been being perpetrated for many years; it concerns all the binary conjunctions and a motley set of expressions similar to them.

4 Conjunctions: A Typology

A sketch of conjunction typology will give the discussion a certain depth:, it will make clear that the proposed solution is typologically plausible.

• According to their meaning/function, conjunctions are divided in two major families: subordinating *vs.* coordinating. These two families are very different in their properties and behavior—as different as two major opposed ways of syntactic linking: subordination and coordination.

• According to their form, conjunctions are classified along two independent axes:

—the number of components: single (just one component) *vs.* binary (two components) *vs.* repeated (theoretically unlimited repetition of the second component);

—the structure of components: simple (all components are monolexemic) *vs.* compound (at least one component is plurilexemic).

A binary or repeated conjunction is necessarily linearly discontinuous—its components cannot be in linear contact. (In a sentence like *He is an either-or person* we do not have a binary conjunction used as such, but its metalinguistic name as a premodifier.)

Since repeated conjunctions can be only coordinating, there are 10 logically possible classes of conjunctions, see Table 1 below. (Since there are no English examples for Class 10, Russian conjunctions are supplied; raised semi-brackets ^r enclose idioms.)

5 Binary Conjunctions in English

Here is a (non-exhaustive) list of English binary conjunctions.

Subordinating	Coordinating
IF, (THEN)	BOTH AND'
'NO SOONER, THAN ²	' 'EITHER OR'
「THE ³ , THE ²]	'NEITHER NOR'
	NOT ONLY, BUT ALSO
	NOT SO MUCH, AS

The first component of a coordinating binary conjunction and the second component of a subordinating binary conjunction are themselves not conjunctions, but, respectively, adjectives or particles, which depend on an element in the corresponding clause—via the **modificative**, the **auxiliary** or the restrictive SSyntRel (according to the conjunction).

	simple		compound	
	simple conjunctions		compound conjunctions	
	subordinating	coordinating	subordinating	coordinating
single	1 IF, WHEN, ALTHOUGH	2 AND, OR, BUT	3 "AS SOON AS"	4 "AS WELL AS", "LET ALONE"
binary	5 IF, (THEN) 'THE, THE'	6 'BOTH AND', 'EITHER OR', 'NEITHER NOR'	7 「NO SOONER, THAN ² 」	8 NOT SO MUCH, AS NOT ONLY, BUT ALSO
repeated		9 'EITHER, OR, OR, OR' 'NEITHER, NOR, NOR, NOR'		10 Rus. [•] TO LI, TO LI, TO LI' 'whether, or, or'

Table 1: Classes of conjunctions

The following three examples will be helpful. **NO SOONER – THAN²**.

deep binary subordinating conjunction, consisting of the surface subordinating conjunction 'NO SOONER' and the particle THAN² (THAN¹ is a comparative conjunction).

circumstantial(2) No \leftarrow sooner \rightarrow had I arrived than the kids rushed towards me.

$THE^3 - THE^2$

deep binary subordinating conjunction, consisting of the surface subordinating conjunction THE³ and the particle THE^2 (THE^1 is the definite article).

(3) a.

the higher you climb the←auxil-colder it←gets.

The surface-syntactic structure [SSyntS] for a synonymous sentence with a different ordering of the superordinate and subordinate clauses is almost the same as the SSyntS for sentence (3a), but with THE² omitted:

 $\begin{bmatrix} comparative \\ \end{bmatrix} subord-conjunct \\ b. It \leftarrow gets \rightarrow colder the higher you climb. \\ \end{bmatrix}$

EITHER – OR:

deep binary coordinating conjunction, consisting of the surface coordinating conjunction OR and the particle EITHER.

(4) I'll have either \leftarrow auxiliary $-tacos - coord \rightarrow or - [a] -$ -coord-conjunctional $\rightarrow pizza$.

6 Phraseological Nature of Binary Conjunctions

A binary conjunction is a plurilexemic expression that is not free: it is a phraseme (Mel'čuk 2015b: 263-362). However, it is quite an uncommon phraseme: its components are not directly syntactically linked. Such syntactically discontinuous phrasemes have not been considered before. Indeed, a phraseme is "a phrase that...," while IF - THEN or EITHER - OR are obviously not phrases. Therefore, one has to consider ta binary conjunction together with the lexical expressions (in this case, clauses) that implement its actants: IF Y, THEN X and EITHER Y OR X are bona fide phrases. It is under this form that they must be stored in the lexicon. (For more on the semantic, deepsyntactic and surface-syntactic representation of binary conjunctions, see Section 8.)

But if binary conjunctions are phrasemes, what type of phraseme are they?

Five of the English binary conjunctions-'NO SOONER Y, THAN² X[']; THE³ Y, THE² X[']; BOTH X AND Y'; 'EITHER X OR Y' and 'NEITHER X NOR Y'—are idioms: they are non-compositional.

The conjunctions NOT SO MUCH X, AS Y and NOT ONLY X, BUT ALSO Y are formulemes (a subtype of cliché; Mel'čuk 2015a)-compositional, but completely fixed expressions.

And the binary conjunction IF Y, THEN X is a collocation, although of an unusual type: there is no direct syntactic link between the base and the collocate. In this collocation, the base is the first component (IF), which controls the use of the second component (the collocate THEN); the latter can be optional, must follow the base and occupies the initial linear position in the superordinate clause.

Binary conjunctions are characterized by syntactic discontinuity: they form phrases only together with their actants, since their own components are syntactically not directly linked to each other. In this, they are unlike almost all other phrasemes. However, they share this feature with a few idioms, which it seems worthwhile to quote here:

"NOTHING \rightarrow IF NOT $\leftarrow X_{(ADJ)}$ " \approx 'extremely': Barbara was nothing if not feminine.

Rus. [']PRI VSËM←X-e['] 'despite X' (Apresjan 2014): pri vsëm ego talante 'despite [lit. 'with all'] his talent'

- r ----Rus. TO LI EŠČË $\leftarrow X_{(V)}$ 'I signal that $X_{(V)}$ will take place, TO referring to something very bad': To li ty togda eščë uvidiš'! 'I signal that what you will then see will be very bad' [lit. 'That whether you then still will.see!'].

Fr. 'EN TOUT $\leftarrow X_{(N)}$ '

'while being completely ADJ(X)':

Je te le dis en toute amitié

'I tell you this being completely [your] friend [lit. 'in all friendship']'.

7 An Illustration: Russian Binary Conjunctions KAK..., TAK I... lit. 'as..., so also...'

To demonstrate my proposal in action, I will offer here the lexicographic descriptions-that is, lexical entries-for two Russian binary compound conjunctions:

the coordinating 'KAK X, TAK I $Y^{1} \approx$ 'both X and Y', see (5), and

the subordinating 'KAK Y, TAK (I) $X^2 \approx$ 'as Y, X', see (6).

First, two illustrative sentences and their surface-syntactic structures.

(5) Russian

On čitaet **kak** *anglijskie,* **tak i** *francuzskie knigi.* he reads as English so also French books 'He reads both English and French books'.



Surface-Syntactic Structure of Sentence (5)

In (5), KAK 'as' is not a conjunction, but a particle depending on the following adjective. Similarly, I is a particle meaning 'also', homonymous with the coordinating conjunction I 'and'. But TAK 'so' appears here as a coordinating conjunction (*anglijskie*-coord $\rightarrow tak$ -(*i*)-coord-conjunct $\rightarrow francuzskie$ by analo-gy with *anglijskie*-coord $\rightarrow i$ -coord-conjunct $\rightarrow francuzskie$).

(6) Russian

Kak sidel on nad stat'ëj, tak on i <i>zasnul. as worked he on paper so he also fell.asleep 'As he was.working on [his] paper, he fell asleep'.



The double-headed dashed arrow indicates coreference; it is part of the referential structure, one of the four structures composing the surface-syntactic representation of a sentence.



In (6), TAK 'so' is not a manner adverb, but a component of the second part of a binary compound conjunction; it is semantically empty and is positioned always at the beginning of the superordinate clause. This is why it needs a special **auxiliary** SSyntRel. It links the second component of some binary subordinating con-junctions to the head of the superordinate clause, cf. (2).

The conjunctions 'KAK X TAK I Y'¹ and 'KAK Y, TAK I X'² are:

homonymous and belong to two different vocables;

• idioms, since their meanings are by no means compositional;

• syntactically discontinuous in that **kak tak i* is not a phrase of Russian: only *kak X, tak i Y* is a phrase.

Here are the lexical entries of both Russian binary compound conjunctions. (For the organization of a lexical entry of the *Explanatory Combinatorial Dictionary*—a special lexicon of the Meaning-Text approach, see, among others, Mel'čuk 2013: Ch. 11.)

*** KAK X, TAK I** $Y^{1} \approx$ 'both X and Y': idiom, deep binary compound coordinating conjunction (Sannikov 2008: 302–303); written language.

Definition

'kak X, tak i Y⁻¹: 'i X, i Y' [lit. 'as X, so also Y']

Government Pattern

X TM I	Y IM II	
1. L	1. L	("L" stands for 'lexeme' ³)

1) $L \neq {}^{?}ADJ_{(short)}$, ${}^{?}PREDICATIVE$

(Sannikov 2008: 303)

[?]On byl kak bolen, tak i goloden

'He was both sick and hungry'

(bolen and goloden are short adjectives).

Surface-Syntactic Structure

 $KAK {\leftarrow} \textbf{auxil}{-} Y {-} \textbf{coord} {\rightarrow} TAK {-} \textbf{coord} {-} \textbf{conjunct} {\rightarrow} X {-} \textbf{restr} {\rightarrow} I$

Lexical Functions

Syn : $i X, i Y \approx$ 'both X and Y' Anti : $ni X, ni Y \approx$ 'neither X nor Y'

Examples

V ètoj proporcii izmenjaetsja kak cena, tak, razumeetsja, i bogatstvo

lit. 'In this proportion changes as price, so, of course, also wealth'.

Tam vy smožete **kak** vinogradnogo soka vypiť, tak i černiki poesť

lit. 'There you will.be.able as grape juice drink, so also blackberries eat'.

³ Thus, X and Y cannot be expressed by clauses.

Ja kak sebe takogo ne pozvoljal, tak i ne pozvoljaju lit. 'I as to.myself such.things didn't allow, so also don't allow' = 'As I didn't allow this to myself before, so I do not now'.

Oba filosofa izučali kak fiziku, tak i kosmologiju

lit. 'Both philosophers studied as physics, so also cosmology'.

^rKAK Y, TAK (I) $X^{2} \approx$ 'as Y, X': idiom, deep binary compound subordinating conjunction; colloquial style.

Definition

'kak Y, tak i X²: 'immediately at/since the moment of Y, X'

[lit. 'as Y, so also X']

Government Pattern

X TM I	Y TM II
1. CLAUSE	1. CLAUSE

Surface-Syntactic Structure

circumstantial

KAK–subord-conjunctional→Y TAK←auxil–X–restr→I

Linear Order

1. The particle TAK is initial in the superordinate clause.

2. The subordinate clause introduced by KAK precedes the superordinate clause.

3. The conjunction KAK is not necessarily initial in the subordinate clause, but it necessarily precedes its Main Verb.

4. If the particle I is omitted, there must be at least one full lexeme between TAK and the Main Verb of the superordinate clause.

Examples

Kak pervyj raz sxodil ja v ataku, **tak** ot very **i** otpal

lit. 'As first time went I in attack, so from faith [I] also fell.away' = 'After my first attack I lost my faith'.

Kak on rodilsja v Armavire, tak tam i vyros

lit. 'As he was.born in Armavir, so there [he] also grew.up'.

Èta dama **kak** podnjala ruku "za", **tak i** ne opustila eë, kogda golosovali "protiv"

lit. 'This lady as rose hand *for*, so [she] also didn't lower it when [people] were voting *against*'.

Kak budeš' s nej govorit', tak vsë (i) pojmëš' lit. 'As [you] will with her talk, so everything [you] also will.understand'.

8 Deep-Syntactic Rules for Binary Conjunctions

Finally I would like to illustrate the Sem-rules and DSynt-rules that ensure the treatment of a binary conjunction. Two examples will be given: for a binary conjunction that is an idiom ('NO SOONER Y, THAN² X') and for one that is a collocation (IF Y, THEN X).

Example 1



Shading indicates the context: that part of the rule that is not manipulated by it but whose presence is necessary for the rule to apply. L('X') stands for «lexical expression L of meaning 'X'».

The correspondence between these two structures constitutes a DSynt-rule for the binary compound conjunction 'NO SOONER Y, THAN² X'. In other words, this rule, as as part of its lexical entry, is exploited during the transition from the deep-syntactic structure of a sentence with this conjunction to its surface-syntactic structure.

A binary conjunction that is an idiom exists as such only in the DSynt-structure, where it appears on one node. This reflects its semantic unity.

Example 2





9 Conclusions

1. A dependency syntactic structure is proposed for binary conjunctions, both subordinating and coordinating.

2. A universal typology of conjunctions is sketched, and three examples are given of English binary conjunctions.

3. Binary conjunctions are "discontinuous" phrasemes—phrasemes that have to be considered together with their actants.

4. The full lexical entries are presented for two Russian binary compound conjunctions: the coordinating 'KAK X, TAK I Y'¹ \approx 'both X and Y' and the subordinating 'KAK Y, TAK (I) X'² \approx 'as Y, X'.

5. Two sample DSynt-rules for introducing a binary conjunction into the SSynt-subtree are presented for the binary conjunctions 'NO SOONER Y, THAN² X' and IF Y, THEN X.

Acknowledgments

My most heartfelt thanks go to Margarita Alonso Ramos, David Beck, Lidija Iordanskaja, Sébastien Marengo and Jasmina Milićević, who read the preliminary versions of this text. Thanks as well to the three anonymous reviewers for Depling-2017.

References

- Valentina Apresjan. 2014. Syntactic Idioms across Languages: Corpus Evidence from Russian and English. *Russian Linguistics*, 38: 2, 187–203.
- Leonid Iomdin. 2010. Sintaksičeskie otnošenija [Syntactic Relations]. In: Apresjan, Ju., Boguslavskij, I., Iomdin, L., Sannikov, V., *Teoretičeskie problemy russkogo sintaksisa: vzaimodejstvie grammatiki i slovarja*, Moskva: Jazyki slavjanskix kul'tur, 21–43.
- Igor Mel'čuk. 1974. Opyt teorii lingvističeskix modelej «Smysl ⇔ Tekst». Semantika, sintaksis [Outline of a Theory of Linguistic Meaning-Text Models. Semantics, Syntax]. Moskva: Nauka.
- Igor Mel'čuk. 1988. *Dependency Syntax: Theory and Practice*. Albany, N.Y.: State University of New York Press.

- Igor Mel'čuk. 2009. Dependency in Natural Language. In: Polguère & Mel'čuk (eds) 2009: 1–110.
- Igor Mel'čuk. 2012a. Jazyk: ot smysla k tekstu [Language: from Meaning to Text]. Moskva: Jazyki slavjanskoj kul'tury.
- Igor Mel'čuk. 2012b. *Semantics: From Meaning to Text.* [Vol. 1.] Amsterdam/Philadelphia: John Benjamins.
- Igor Mel'čuk. 2013. Semantics: From Meaning to Text. Vol. 2. Amsterdam/Philadelphia: John Benjamins.
- Igor Mel'čuk. 2015a. Clichés, an Understudied Subclass of Phrasemes. *Yearbook of Phraseology*, 6: 55–86.
- Igor Mel'čuk. 2015b. *Semantics: From Meaning to Text.* Vol. 3, Amsterdam/Philadelphia: John Benjamins.
- Igor Mel'čuk. 2015c. A General Inventory of Surface-Syntactic Relations in World Languages. Part One. *Moscow Linguistic Journal*, 17: 2, 75– 103.
- Igor Mel'čuk. 2016a. A General Inventory of Surface-Syntactic Relations in World Languages. Part Two. *Moscow Linguistic Journal*, 18: 1, 94-120.
- Igor Mel'čuk. 2016b. *Language: From Meaning to Text.* Moskva/Boston: Academic Studies Press.
- Igor Mel'čuk. 2017. KAK ..., TAK I ...: čto èto za? [KAK..., TAK I...: What Kind of Stuff is It?]. *Russkij jazyk v naučnom osvesčenii*, No. 1 (33), 67–85.
- Igor Mel'čuk and Nikolaj Pertsov. 1987. Surface Syntax of English. A Formal Model within the Meaning-Text Framework. Amsterdam: John Benjamins.
- Alain Polguère and Igor Mel'čuk (Eds.) 2009. *Dependency in Linguistic Description*. Amsterdam/ Philadelphia: John Benjamins.
- Randolph Quirk, Sydney Greenbaum, Geoffrey Leech, Jan Svartvik. 1991. *A Comprehensive Grammar of the English Language*. London/ New York: Longman.
- Vladimir Sannikov. 2008. Russkij sintaksis v semantiko-pragmatičeskom prostranstve [Russian Syntax in Semantic-Pragmatic Space]. Moskva: Jazyki slavjanskix kul'tur.