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## THE MEANING-TEXT APPROACH TO THE STUDY OF NATURAL LANGUAGE AND LINGUISTIC FUNCTIONAL MODELS

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What follows is a very condensed presentation of an approach to the study and description of natural languages—an approach which the author has been developing for more than 30 years now. This presentation will of necessity be extremely sketchy; it has the form of a series of (slightly dogmatic) statements, without sufficient explanations. I hope, however, that examples and a short bibliography at the end of the paper will help the reader to follow me.

### *1. General Characterization of the Proposed Approach*

A description of a natural language *L* must, I think, aim at representing WHAT SPEAKERS NORMALLY DO: expressing meanings via texts and extracting meanings from texts. Therefore, the device proposed as a major tool for linguistic description is nothing else but a set of rules that establish the correspondence between meanings that the speaker wants to express and the texts he produces to this effect. In more technical terms, such a description, called a linguistic MODEL of *L*, ensures meaning-to-text and text-to-meaning transitions; that is, this model specifies the mapping between an infinite but denumerable set of possible Sem(antic) R(epresentation)s of language *L* and an equally infinite but also denumerable set of possible Phon(etic) R(epresentation)s of the same language. Roughly speaking, the central slogan of my approach is:

From a Sem **network**—to all corresponding Deep-Syntactic and Surface-Syntactic **trees**  
—to all corresponding Deep-Morphological and Surface-Morphological **strings**—  
to all corresponding Phonemic and then Phonetic **strings!**

Symbolically:

$$(1) \{\text{Meanings}_i = \text{SemR}_i\} \Leftrightarrow \{\text{Texts}_j = \text{PhonR}_j\} \mid i \neq j, 0 \leq i, j < \infty,$$

where the double two-headed arrow represents a linguistic model (i.e. the language).

This approach is called the Meaning-Text Theory [= MTT]; the linguistic model it puts forward is called the Meaning-Text Model [= MTM]. An MTM of a language **L** is a functional model in two senses of the word *functional*: it models only the FUNCTIONING of **L** (rather than its real structure in the brain), and it is presented itself as a FUNCTION from meanings to texts or from texts to meanings.

## 2. Six Main Properties of the MTT

- The MTT is SEMANTICALLY BASED: its starting point is Semantic Representation written in a special semantic metalanguage.

- The MTT pursues the VIEWPOINT OF THE SPEAKER, rather than that of the addressee; therefore it concentrates on text production rather than on understanding. (Text production is considered to be a more linguistic task than text understanding, which requires a huge amount of extralinguistic knowledge and abilities.)

- The MTT aims at strict SEPARATION OF LINGUISTIC LEVELS, especially of those of semantics and syntax. As a result, it is consistently stratificational (in the sense of S. Lamb): it supposes seven levels of linguistic representation (= R):

(2)

Sem(antic)R  $\Leftrightarrow$  Deep-SyntacticR  $\Leftrightarrow$  Surface-SyntacticR  $\Leftrightarrow$  Deep-MorphologicalR  
 $\Leftrightarrow$  Surface-MorphologicalR  $\Leftrightarrow$  Deep-PhonologicalR  $\Leftrightarrow$  Surface-PhonologicalR

In conformity with these levels, the model comprises six components, or MODULES, that establish correspondences between the Rs of adjacent levels:

Semantics—Deep Syntax—Surface Syntax—Deep Morphology—  
 Surface Morphology—Deep Phonology

(Surface Phonology, or Phonetics, which establishes the correspondence between the Surface-Phonological [i.e. Phonetic] Representation and actual sounds is situat-

ed outside the MTM.)

These modules are represented in (2) by two-headed double arrows relating two adjacent representations.

The modules of the MTT are independent of each other, the interface between two subsequent modules being their common utterance representation. Thus, the Deep-Syntactic module establishes the correspondences between Semantic and Deep-Syntactic Representations, the Surface-Syntactic one—between Deep-Syntactic and Surface-Syntactic Representations, and so forth. The DSyntR is the common utterance representation for the Semantic module (being its 'ceiling') and for the Deep-Syntactic module (being its 'floor').

The stratificational character and high modularity are necessary for an MTM in order for it to be able to cope with the extreme complexity of natural language.

- The MTT puts strong EMPHASIS ON THE LEXICON: it proposes a special dictionary, known as the *Explanatory Combinatorial Dictionary* [= ECD]. This is a highly formalized dictionary, geared to generation, i.e. a SYNTHESIS (= active) dictionary.
- The MTT uses DEPENDENCIES (semantic, syntactic and morphological) as its main formalism (rather than constituency).
- The MTT is TRANSDUCTIVE AND EQUATIVE (rather than generative and transformational): in their actual speech behavior, humans do not generate sentences nor transform some entities into other entities. What they do is, as stated above, to translate meanings into texts and vice versa.

### 3. *Semantic Representation*

Within the MTT, MEANING is considered as purely linguistic meaning, i.e. as an invariant of more or less synonymous paraphrases. It is formally represented by labeled semantic networks based on the formalism of predicate calculus, supplied with indication of the communicative organization of the meaning represented. (The MTT presupposes as well a deeper representation of text content, which underlies the SemR: namely, the Concept(ual) R(epresentation)—prelinguistic organization of the contents of the text to be produced. However, given its non-

linguistic character, the ConceptR will not occupy us here.)

A ***Semantic Representation*** is a set of three formal objects called structures:

SemR = Semantic Structure, Semantic-Communicative Structure, Rhetorical Structure}.

Each of these structures represents one aspect of an utterance's meaning: Semantic Structure (= semantic network) takes care of its propositional, or situational, meaning; Semantic-Communicative Structure deals with the organization of the message (Rheme *vs.* Theme, Given *vs.* New, Foregrounded *vs.* Non-Foregrounded, etc.); and Rhetorical Structure specifies the “artistic” intentions of the speaker (irony, pathos, official style, etc.).

A SemR represents the common meaning of a set of (near-)paraphrases, as, for instance, (3)—see below.

This set represents the meaning of approximately

$$8 \times 9 \times 4 \times 6 \times 3 \times 2 \times 3 \times 3 \times 3 \times 2 \times 4 \times 4 = 8\,957\,952,$$

i.e. almost 9 million sentences! Here are three examples:

- (4) **a.** *“What has been discovered clearly indicates that the achievements which created the most sophisticated pre-Columbian society may have occurred much earlier than was previously hypothesized,” Richard Hansen said.*
- b.** *According to Richard Hansen, the objects found lend strong support to the view that the progress which produced the most advanced pre-Columbian society had probably taken place much before what was previously assumed.*
- c.** *In the words of Richard Hansen, the find convincingly demonstrates that the advances that lead to the most developed pre-Columbian society may have taken place long time before the date that was previously assumed.*

It is for such paraphrase sets that Sem(antic) S(tructures) are written: a SemS is supposed to capture the common propositional meaning of all the sentences in the set.

### ***A Sample Semantic Structure***

Consider the sentence (5a) and its paraphrase (5b):

- (5) **a.** *“We archaeologists experienced the same challenges in excavating the site that the Mayans must have encountered when they built Nakbe,” Hansen said.*
- b.** *In Hansen's words, difficulties/problems/challenges which had faced him and other archeologists excavating the site were similar to those which Mayans certainly had met with when erecting Nakbe.*

Their common meaning, as well as that of all the other possible paraphrases can be represented by the SemS in (6) (see below).

The Deep-Syntactic module of the MTM takes this Sem-structure and—under the control of other components of the SemR—constructs for it the corresponding Deep-Syntactic Structure.

#### *4. Deep-Syntactic Representation*

The MTT considers the syntactic organization of a sentence on two different levels: Deep and Surface. The DSynt-Structure is geared to meaning and tries to reflect all syntactic properties of the sentences that serve to express its meaning; the SSynt-Structure is geared to the surface form and tries to express all syntactic properties that are relevant to word order, agreement, government, the choice of structural words, etc. In what follows, only the DSyntS will be presented.

## (3) A Sample Set of (Nearly-Synonymous) Paraphrases

<p><i>This find</i>  <i>This discovery</i></p> <p>What has been { <i>found</i>  <i>discovered</i> }</p> <p>The { <i>things</i>  <i>objects</i> } { <i>found</i>  <i>discovered</i> }</p> <p>8</p>	<p><i>convincingly demonstrate(s)</i>  <i>lend(s) strong support to the view</i>  <i>strongly supports</i>  <i>clearly</i> { <i>show(s)</i> }  <i>elucidate(s)</i> }</p> <p><b>Error!</b></p>
<p>that { <i>the achievements</i>  <i>the progress</i>  <i>the developments</i>  <i>the advances</i> }</p> <p>4</p>	<p>{ <i>which</i>  <i>that</i> } { <i>produced</i>  <i>created</i>  <i>lead to</i> }</p> <p>6</p>
<p><i>the most sophisticated</i>  <i>the most advanced</i>  <i>the most developed</i></p> <p>3</p>	<p><i>pre-Columbian Society</i></p>
<p><i>may have</i>  <i>has/have probably</i></p> <p>2</p>	<p><i>occurred</i>  <i>taken place</i>  <i>happened</i></p> <p>3</p>
<p><i>much earlier than</i>  <i>long time before</i>  <i>much before</i></p> <p>3</p>	<p><i>the date that /which was</i>  <i>(what) was</i></p> <p>3</p>

<i>before</i> <i>previously</i>  <span style="border: 1px solid black; padding: 2px;">2</span>	<i>assumed</i> <i>believed</i> <i>hypothesized</i> <i>thought</i>  <span style="border: 1px solid black; padding: 2px;">4</span>
<i>as said Richard Hansen</i> <i>according to Richard Hansen</i> <i>in the words of Richard Hansen</i> <i>Richard Hansen said</i>  <span style="border: 1px solid black; padding: 2px;">4</span>	

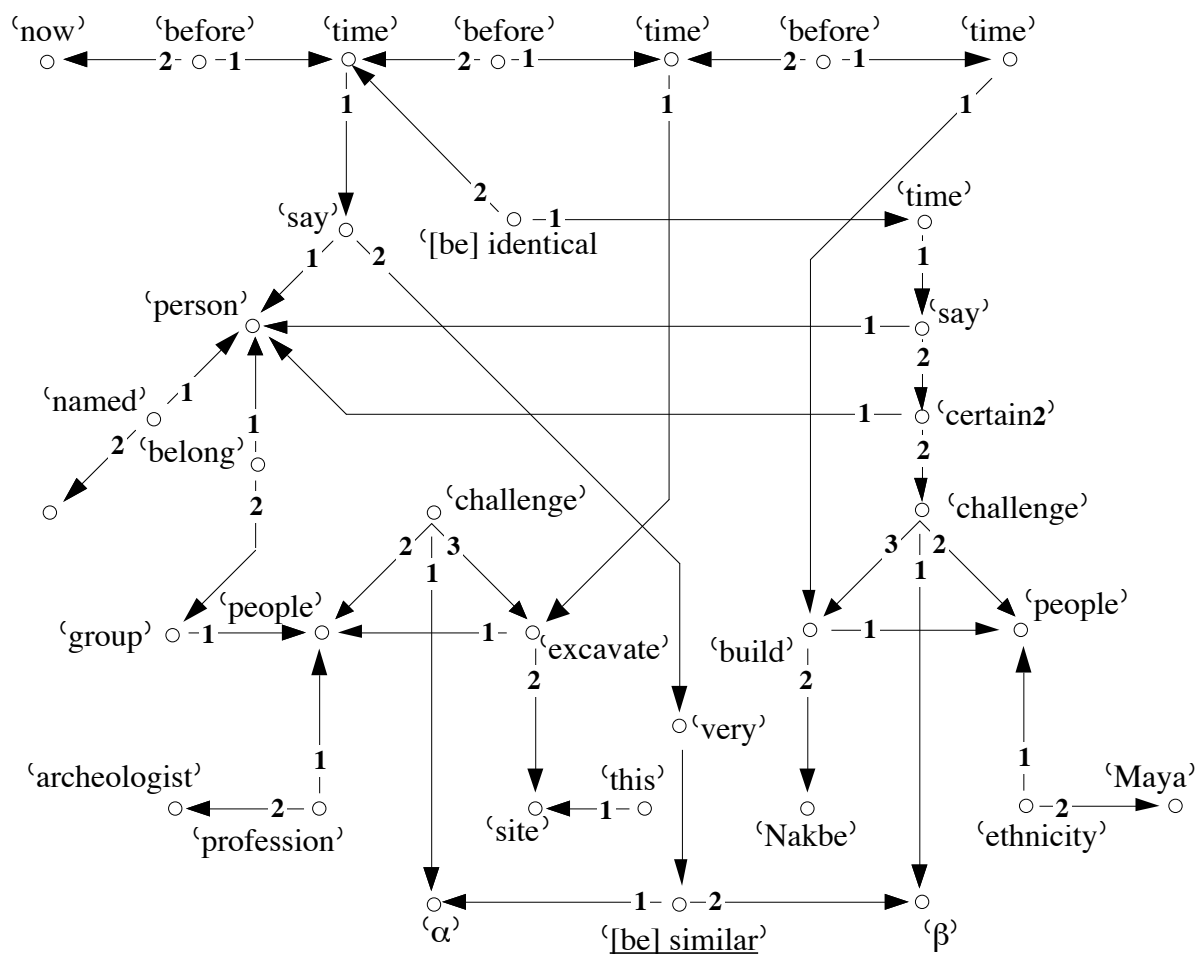
A ***Deep-Syntactic Representation*** is a set of four formal objects called structures:

$$\text{DSyntR} = \langle \text{DSynt-Structure, DSynt-Communicative Structure, DSynt-Anaphoric Structure, DSynt-Prosodic Structure} \rangle.$$

Each of these structures represents one aspect of a sentence's organization: DSynt-Structure expresses the arrangement of its words; DSynt-Communicative Structure deals with the organization of the sentence as a message; the DSynt-Anaphoric Structure specifies anaphoric and similar relations; and the DSynt-Prosodic Structure stores the data about prosodies that are not induced syntactically. An example of a Deep-Syntactic Structure is given in (7) below.

The transition between SemRs and Deep-SyntRs is the task of the Semantic module of the MTM.

## (6) The Semantic Structure of sentences in (5):



A node of a SemS is labeled with a semanteme of English (in semantic quotes)—a disambiguated lexical meaning, i.e. a lexicographic sense of a lexical unit. An arc shows the predicate-argument relation; the number on it identifies the particular argument: thus, e.g., the first argument of 'say' is 'person' ('named Hansen'), while the second argument of 'say' is 'be very similar' ( $\approx$  'Hansen says that  $\alpha$  and  $\beta$  are very similar'). The underscoring indicates the communicatively dominant node.

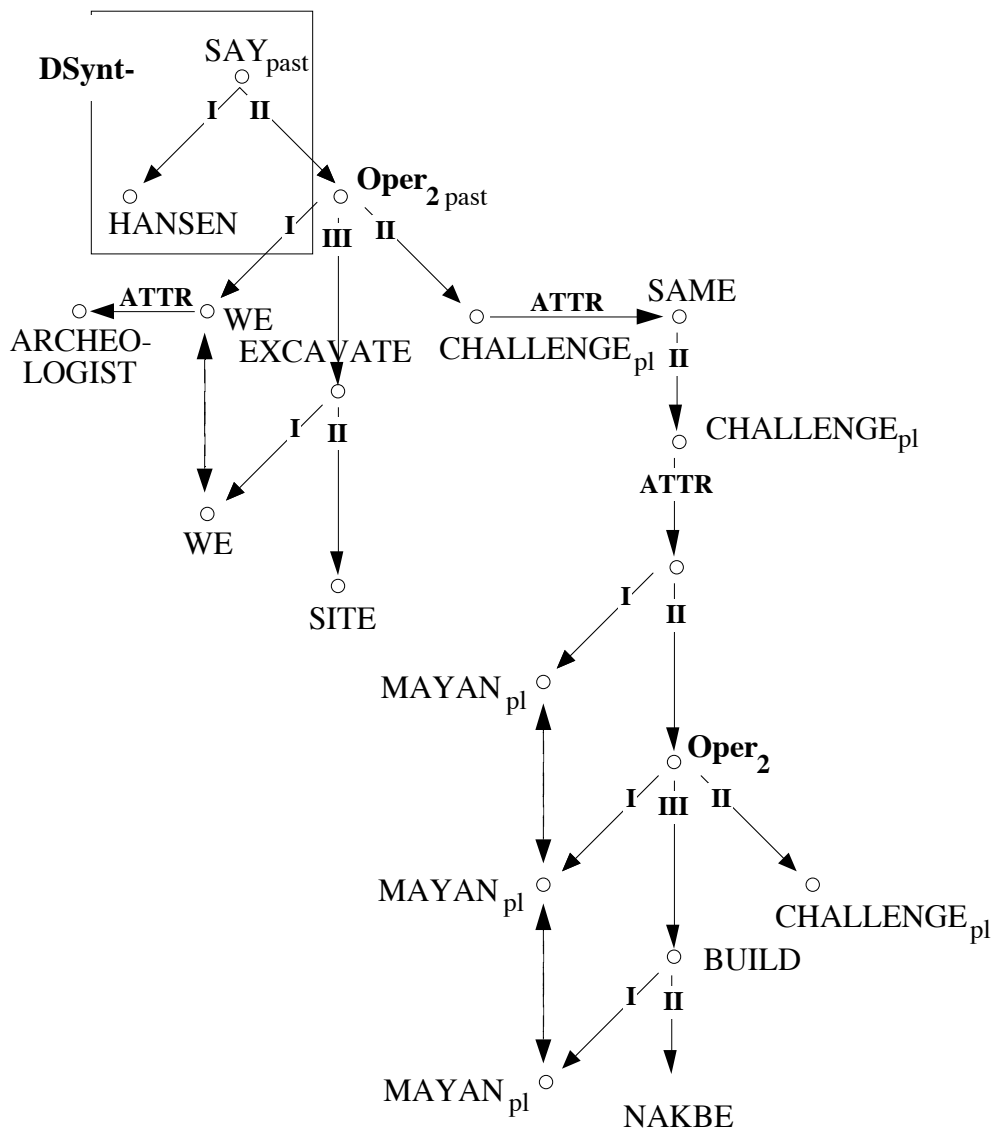
### 5. The Semantic Module of the MTM

The task of the Semantic Module of the MTM is the transition from the SemS of a sentence to its DSynt R; in particular, the Semantic Module ensures the construction of the DSyntS of the sentence to be. Sentence (5a) has, for instance, the DSyntS in (7).



### A Sample Deep-Syntactic Structure

(7) The DSyntS of sentence (5a), with partial specification of the DSynt-Communicative Structure



DSyntS is a dependency tree whose nodes are labeled with full lexemes<sup>1</sup> of the sentence and the branches—with symbols of Deep-Synt-relations: six actantial (**I**, **II**, ..., **IV**) ones, two attributive, coordinative and appenditive. Symbols DSynt-T and DSynt-R stand for Deep-Syntactic Theme and

<sup>1</sup> Including the Lexical Functions, such as **Oper<sub>2</sub>** (see below). Structural, or grammatical, lexemes—such as, e.g., governed prepositions or auxiliary verbs—are not represented in the DSyntS: they are computed by the DSynt-rules and introduced in the SSyntS.

Rheme (elements of the DSynt-Communicative Structure); dotted arrows represent anaphoric (= coreference) links, which are part of the DSyntS.

The central element of the semantic module of a Meaning-Text model involved in the transition between a SemR and the corresponding DSyntR is a dictionary of a particular type: an *Explanatory Combinatorial Dictionary* [= ECD]. The object and the content of an ECD entry is a LEXICAL UNIT—a word or a set phrase in one well-defined sense.

An extremely fine sense discrimination is the slogan of the ECD.

Six main properties of an ECD:

- An ECD is elaborated WITHIN A COHERENT LINGUISTIC THEORY: the Meaning-Text theory, featuring well-developed semantic and syntactic modules, with a strong emphasis on the lexicon.
- An ECD is consistently geared to GENERATION: it is an active dictionary.
- An ECD is SEMANTICS-ORIENTED.
- An ECD is CENTERED ON LEXICAL COMBINATORICS (= it is a dictionary of collocations; cf. Lexical Functions below).
- An ECD is a FORMALIZED dictionary (= a lexical database).
- An ECD is EXHAUSTIVE with respect to the description of one lexical unit.

See Mel'čuk *et al.* 1984, 1988, 1992, Mel'čuk and Zholkovsky 1984, Mel'čuk *et al.* 1995.

#### 6. The Structure of an ECD Entry: The Three Main Zones

Let us consider an ECD entry for the lexical unit L; L is thus the headword of this lexical entry.

SEMANTIC zone: the *Definition* of L (its SemR), which is based on a propositional form with variables for semantic actants of L and constitutes a strict decomposition of L's meaning. For instance, the verb [*to*] HELP (in one of several senses):

*X helps Y to Z with W* = 'Y trying to do or doing Z, || X uses X's resources W, adding W to Y's efforts with the goal that W facilitate for Y doing Z'.

NB: Note the presupposition to the left of || !

SYNTACTIC zone: the **Government Pattern** (= a subcategorization frame), which specifies, for each Sem-actant of L, the corresponding DSynt-actant and lists all surface means of expressing it in the text. The Government Pattern is supplied with constraints that specify semantic conditions on the choice of particular surface expressions of L's actants, as well as on their cooccurrence and incompatibility. Cf. for the verb [*to*] HELP:

#### Government Pattern

X = I	Y = II	Z = III	W = IV
1. N	1. N	1. V <sub>inf</sub> 2. <i>to</i> V <sub>inf</sub> 3. <i>with</i> N 4. PREP <sub>dir</sub> N	1. <i>with</i> N 2. <i>by</i> N 3. <i>by</i> V <sub>ger</sub>

- 1) C<sub>III.1</sub> : 'X being directly involved in Z' [= 'X doing Z himself'] [C stands for *column*]
- 2) C<sub>III.2</sub> : 'X not being directly involved in Z' [= 'X not doing Z himself, but provides some resources to Y']
- 3) C<sub>III.4</sub> : Z = 'move PREP<sub>dir</sub> N' [PREP<sub>dir</sub> stands for 'directional preposition']

*Frederique helped the old gentleman finish his preparations* ⟨ *helped the boy to finish his studies with her generous financial assistance, helped Jack out of his coat, helped Jack up the stairs by a kick in the bottom /by pushing him hard* ⟩.

LEXICAL COOCCURRENCE zone: **Lexical Functions**, which present the whole of restricted lexical cooccurrence of L. Roughly speaking, a Lexical Function [= LF] is a very general and abstract meaning which can be expressed in a large variety of ways depending on the headword (= the argument of the function), for instance:

**Magn**(*naked*) = *stark*    **Oper**<sub>1</sub>(*sovereignty*) = *have* [~]    **Real**<sub>2</sub>(*joke*) = *get* [ART ~]  
**Magn**(*thin*) = *as a rake*    **Oper**<sub>1</sub>(*cry*) = *let out* [ART ~]    **Real**<sub>2</sub>(*demands*) = *meet* [~]

**Magn**(*patience*) = *infinite*    **Oper**<sub>1</sub>(*whack*)    = *fetch* [*a* ~]    **Real**<sub>2</sub>(*exam*)    = *pass* [ART ~]  
**Magn**(*rely*)    = *heavily*    **Oper**<sub>1</sub>(*support*)    = *lend* [~]    **Real**<sub>2</sub>(*hint*)    = *take* [ART ~]

LFs can be classified from different viewpoints; without having a scientific impact on the issue, such classifications facilitate the task of the user and thus possess pedagogical value.

- Paradigmatic *vs.* syntagmatic LFs. Paradigmatic LFs deal with SELECTION; they are aimed at answering questions of the type “What do you call an object ⟨a situation⟩ X, related to Y?”—while speaking of X rather than of Y. Syntagmatic LFs deal with COMBINATION; they are aimed at answering questions of the type “What do you call the action ⟨characteristics, attribute, etc.⟩ X of Y?”—while speaking of Y rather than of X.

- Standard *vs.* non-standard LFs are different, first of all, with respect to the number of their possible keywords and value elements. Another important difference is that standard LFs participate in synonymic paraphrasing while non-standard ones do not (see Mel’čuk 1992b).

- 10 semantic/syntactic groups of Simple Standard LFs can be distinguished, based on the meaning and the DSynt-role associated with the given LF:

*Basic* LFs: **Syn**(onym), **Anti** [= antonym], and **Conv**(ersive)<sub>ij</sub>. They embody the main semantic relations that play a special role in the MT-Theory—synonymy, negation, and converseness (*X precedes Y ~ Y follows X*). Since they are relatively well known, I will not discuss them here, except to say that **Syn**, **Anti** and **Conv**<sub>ij</sub> can be semantically exact or approximate, i.e. they can have a richer (⊃), poorer (⊂), or intersecting (∩) meaning; in this case, they are quasi-synonyms, quasi-antonyms, and quasi-conversives. The same subscripts are also used for other LFs.

*Derivative* LFs are of two subtypes:

*Syntactic* derivatives represent nominalization **S**<sub>0</sub> (*rejection* for REJECT, *beauty* for BEAUTIFUL), adjectivalization **A**<sub>0</sub> (*urban* from CITY, *solar* for SUN), verbalization **V**<sub>0</sub> (*[to] attack* from *[the] ATTACK*, *[to] despise* for CONTEMPT), and adverbialization **Adv**<sub>0</sub> (*well* for GOOD, *fast* for HIGH SPEED); **Pred** is a combination of a meaning with the copula; thus **PredMagn**(*animosity*) = *runs rampant*.

*Semantic derivatives* are, roughly speaking, agent noun **S<sub>1</sub>**, patient noun **S<sub>2</sub>**, active adjectival **A<sub>1</sub>** (*in search of* for [to] LOOK FOR), passive adjectival **A<sub>2</sub>** (*under construction* for [to] BUILD), place noun **S<sub>loc</sub>**, instrument noun **S<sub>instr</sub>**, active potential adjective **Able<sub>1</sub>** (*inquisitive* for [to] ASK), passive potential adjective **Able<sub>2</sub>** (*reliable* for [to] RELY), etc.

*Generics*: hyperonym **Gener** and metaphoric denotation **Figur** (*curtain of RAIN*).

*Quantifiers*: singulative **Sing** (*speck of DUST*; *peppercorn* for PEPPER), and collective **Mult** (*pride of LIONS*, *pack of LIES*).

*Modifiers*: **Magn**, **Plus/Minus**, **Ver** (*restful SLEEP*), **Bon** (*valuable CONTRIBUTION*, *exquisite MEAL*).

*Phasals*: verbs denoting the three phases of an event — the beginning (**Incep**), the end (**Fin**), and the continuation (**Cont**). These LFs are often used combined with other verbal LFs:

**IncepOper<sub>1</sub>**(*love*) = *fall* [*in* ~]                      **IncepOper<sub>2</sub>**(*control*) = *fall under* [*the* ~ *of* N]  
**FinOper<sub>1</sub>**(*post*) = *lose* [ART/A<sub>poss</sub> ~]              **FinOper<sub>2</sub>**(*control*) = *go out* [*of* ~]  
**ContOper<sub>1</sub>**(*post*) = *keep* [ART/A<sub>poss</sub> ~]              **ContOper<sub>2</sub>**(*control*) = [*remain under* ~]

*Causatives*: verbs denoting the three possible types of causation, i.e. causation of existence (**Caus**), causation of non-existence (**Liqu**), and non-causation of non-existence (**Perm**). These LFs are also often used combined with other verbal LFs:

**CausFact<sub>0</sub>**(*light* [electricity]) = *turn on*  
**LiquFunc<sub>2</sub>**(*attention*)                      = *detract* [N's ~ *from* N]  
**Perm<sub>1</sub>Manif**(*emotion*)                      = *betray* [an ~]

Note that the phasals stand in antonymous relation to each other; the same holds true of causatives: **Incep** = **AntiFin**, **Liqu** = **AntiCaus**, etc. Furthermore, causatives and phasals are also related, because you can cause the beginning, the end or the continuation of an event.

*Auxiliaries* (= support, or light, verbs): semantically empty verbs linking a DSynt-

actant [= A] of L to L.

**Oper**<sub>1,2</sub> takes L as its DSyntA II (*have* CONTROL [*over* N]; *be under* CONTROL [*of*N]);

**Func**<sub>0,1,2</sub> takes L as its DSyntA I (*a* CHANGE *occurs/comes from* N/ *affects* N);

**Labor**<sub>12,21</sub> takes L as its DSyntA III (*keep* [N] *under control*).

**Realizations: Real**<sub>1,2</sub>, **Fact**<sub>0,1,2</sub>, **Labreal**<sub>12,21</sub>, which mean ‘[to] realize, [to] do what you are supposed to do with’, but are syntactically parallel to **Oper**<sub>1,2</sub>, **Func**<sub>0,1,2</sub> and **Labor**<sub>12,21</sub>.

**Real**<sub>1,2</sub> takes L as its DSyntA II (*keep a* DIARY; *get a* HINT, *withstand a* TEST);

**Fact**<sub>0,1,2</sub> takes L as its DSyntA I (*a* FILM *is playing*, *a* RIVER *empties* [*into* N]; *an* ARTILLERY SHELL *smashes* [*into* N], *a* HURRICANE *lashes* [N]);

**Labreal**<sub>12,21</sub> takes L as its DSyntA III (*put* [N] *in the mail*, *have* [N] *in one’s sights*).

*Varia: Involv*(*sweep* [*through* N] for FLU), **Son** (*a* HURRICANE *roars*; *a* WHIP *cracks*), **Imper** (*Fire!* for SHOOT), **Degrad** (MEAT *goes off*), **Manif** (*show* for GRATITUDE), **Sympt** (*The hair stands on its end* for FEAR).

Simple Standard LFs can form combinations, to produce Complex Standard LFs, such as:

**AntiMagn**(*a flimsy* ARGUMENT; *precarious* PEACE);

**CausFunc**<sub>0</sub>(*ignite a* CAMPAIGN);

**LiquOper**<sub>1</sub>(*wean* [N] *away from the* HABIT);

**CausPredPlus**(*whet N’s* APPETITE), etc.;

see also Complex LFs with phasals above.

Given the fully semantic orientation of the MTM, the lexicon, that is, the ECD, plays in it a central role: the most important part of linguistic meaning is constituted by lexical meanings of the language. The ECD constitutes the central pivot of the MTM to such an extent that the whole approach may be qualified as lexicographic.

***A Sample ECD Lexical Entry***

*X's revulsion for Y = X's (strong) negative emotion about Y similar to what people normally experience when they are in contact with something that makes them sick and such that it causes that X wants to avoid any contact with Y.*

**Government Pattern**

X = I	Y = II
1. N's	1. <i>for</i> N 2. <i>towards</i> N 3. <i>about</i> N 4. <i>at</i> N

1) C<sub>II.1</sub> : N does not denote sounds [*\*John's revulsion for these shouts*]

**Lexical Functions**

- Syn<sub>5</sub> : distaste
- Syn<sub>n</sub> : repugnance; repulsion; disgust; loathing
- Anti<sub>n</sub> : attraction
- Conv<sub>21</sub>Anti<sub>n</sub> : appeal
- A<sub>1</sub> : revolted; **rare** revulsed
- Able<sub>2</sub> : revolting
- Qual<sub>2</sub> : squeamish; overly sensitive
- Magn + Able<sub>2</sub> : of utmost ~ | G = SCENE, SIGHT
- Magn : extreme < utmost
- AntiMagn : slight
- Oper<sub>1</sub> : experience, feel [~ for/towards N = Y]
- Magn + Oper<sub>1</sub> : be filled [with ~ (about N = Y)]
- Magn + Func<sub>1</sub> : well up [in N] [*Revulsion welled up in him*]
- Magn + Labor<sub>21</sub> : fill [N = X with ~]
- Conv<sub>21</sub>Caus<sub>2</sub>Oper<sub>1</sub> : be driven [to ~]
- Caus<sub>2</sub> : revolt [N = X]
- Adv<sub>1</sub>Manif : with [~]

### Examples

Any revulsion they might feel from fat-ass bastards they ran up against professionally was *ad hominem* and not *ad genus* [A. Lurie]. I felt no revulsion for her maternal fantasies, only a practical concern. She met his advances with revulsion. It was a scene of utmost revulsion. Pam was driven to revulsion (by the sight of the dead animal) ⟨\*The sight of the dead animal drove Pam to revulsion⟩. Revulsion at slaughter cut war short [newspaper heading].

### 7. *The Metalanguage of Linguistics*

Since the MTM presupposes a fully formal and coherent description of all linguistic levels, the MTT requires a well-defined conceptual apparatus and precise unambiguous terminology. Therefore, special attention is paid in the MTT to the metalinguistic aspect of linguistic description (see Mel'čuk 1982a and 1993-97).

### Main References

These references are restricted to my own work directly related to the Meaning-Text theory.

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