



## Actants

Igor Mel'čuk

LATTICE, ENS, Paris /  
OLST, Dept. of linguistics and translation, University of Montreal  
melcuk@ling.umontreal.ca

### Résumé — Abstract

On distingue et définit trois types d'actants : les actants sémantiques, syntaxiques profonds et syntaxiques de surface. Un actant comme tel est opposé à la position actantielle—une « ouverture » dans la description lexicographique de la lexie considérée. Cinq critères linguistiques sont proposés pour tracer la frontière entre les actants sémantiques et les circonstants phraséologisés. On examine les décalages (= absence de correspondance) entre les actants des trois types mentionnés auprès d'une lexie donnée.

Three types of actants are distinguished and defined: semantic, deep-syntactic, and surface-syntactic actants; the actant as such is opposed to the actant slot in the lexicographic description of the lexical unit under consideration. Five linguistic criteria are proposed to distinguish Semantic actants from phraseologized circumstantials. Possible discrepancies (= lack of correspondence) between actants of the three types depending on the same lexical unit are considered.

### Mots clés — Key words

Actant, sémantique, syntaxe, description lexicographique, dépendance, théorie Sens-Texte

Actant, semantics, syntax, lexicographic description, dependency, Meaning-Text theory

Actants are most important elements in human interaction  
—in love as well as in war:  
*Who did what, with what and to whom?*  
That is the question, as a beautiful limerick puts it...

The concept of actant and the corresponding term, launched by L. Tesnière (1959), have met with considerable success in the linguistic literature. Its necessity is not in doubt; nevertheless, it is still far from clear, let alone being used unambiguously and consistently by everybody. I will try, to the best of my ability, to introduce some logical order into the discussion of Actants—in the framework of Meaning-Text linguistic theory.

## 1 Pretheoretical characterization

To define actants, we must first be able to distinguish them from circumstantials. Roughly speaking, actants are opposed to circumstantials as follows:

|| An actant of a lexical unit [= LU] L is specified in the lexicographic description [= lexical entry] of L, and a circumstantial of L is not.

The set of all actants of L, specified in L's lexical entry, corresponds to the *active valence* of L; according to the type of actants involved, we have semantic active valence and syntactic active valence. (The *passive valence* of L can be only syntactic: it is the set of all word classes on which L can depend syntactically, perhaps under specific conditions.)

Now, to fully explain the above statement in rigorous terms I need ten times more space than I have at my disposal. Therefore, I will present here a drastically reduced version of a much longer study—Mel'čuk 2004a, b; the present article is meant to work as an appetizer, which will entice the reader to look for more.

## 2 The three defining features of the present approach

The literature on actants and related problems is enormous and cannot be reviewed here. I will limit myself to indicating the most influential studies: Grimshaw 1990, Plank 1990, Lazard 1994 [1998], Wechsler 1995, Bonami 1999, Davies and Dubinsky (eds) 2001. The topic is also central to a linguistic trend whose slogan is '(linguistic) valence:' Helbig/Schenkel 1983 [first edition: 1969], Abraham (ed.) 1978, Somers 1987, Helbig 1992, Feuillet (réd.) 1998. Fillmore's Case Grammar (Fillmore 1968; Somers 1987: 30ff) deals with actants as well. Finally, a more direct relation links this paper with works by Russian linguists—first of all, Apresjan 1974: 119ff, and then Boguslavskij 1985, 1990, 1996, Padučeva 1997, 2002, Plungjan and Raxilina 1990, 1998, Raxilina 1990; cf. also several papers published in SiI 1998.

The present approach to characterizing actants is unique in the following three respects:

- The discussion is carried out strictly within the dependency framework (Tesnière 1959, Mel'čuk 1974: 32-33, 213-214, Mel'čuk 1988, 2002).

Two important distinctions are carefully observed:

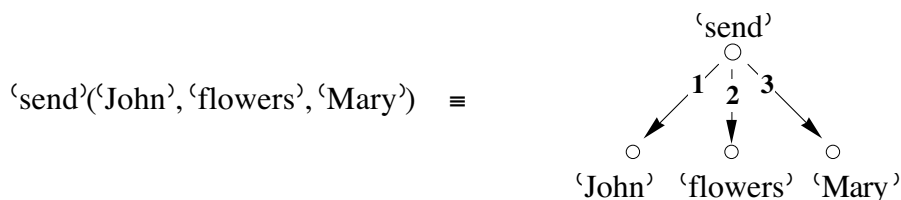
- a) Three major types of actants [= As] are kept apart, namely *semantic* vs. *deep-syntactic* vs. *surface-syntactic* As.
  - b) *Actant slots* [= A-slots] in the lexical entry of an LU, or 'openings to be filled with particular elements,' are opposed to *actants* in the sentence—that is, these particular elements which fill A-slots (cf. Boguslavskij's (1985: 11) 'specialized hook vs. particular fish' metaphor).
- The approach is 100% lexicon-based: the main tools used in my analysis of the concept 'actant of L' are (i) the lexicographic definition, (ii) the Government Pattern [= GP], and (iii) the Lexical Functions [= LFs] of L. Limitations of space prevent me from introducing and/or explaining the lexicographic definition and the LFs—they are taken for granted; for details, see Mel'čuk 1974, Mel'čuk 1996, 2002. As for the GP, it will be briefly characterized in Section 7, p. 00.

### 3 Semantic actant slots and semantic actants

#### 3.1 Predicates and quasi-predicates

Only an LU  $L$  whose meaning  $\langle L \rangle$  is either a predicate in the logical sense or includes a predicate (in a particular position) can have Sem-actants and therefore has SemA-slots. Genuine predicates denote facts: events, actions, processes, relations, properties, quantities, locations, etc. Names of kin, social functions, artifacts, etc. also have SemA-slots, although they denote people, objects or substances; they are known as *quasi-predicates*. Examples of quasi-predicates: ‘father’ (‘John is\_the\_father\_of Mary’), ‘professor’ (‘John is\_professor\_of sexology at this University’), ‘train’ (‘a train for passengers from Paris to Besançon driven by this team’).

Semantic As of  $L$  [= SemAs( $L$ )] correspond to the *arguments* of the predicate  $\langle L \rangle$ . Take, for instance, a three-place predicate: ‘send’( $X$ ,  $Y$ ,  $Z$ ); we have:



The SemAs of the same  $L$  are distinguished by numbers, which have purely distinctive value and do not express any meaning by themselves.

#### 3.2 Properties of SemA-slots

A SemA-slot of  $L$  is defined by two necessary properties: a semantic and a lexical-syntactic one.

##### The semantic property of a SemA-slot of $L$

|| A SemA-slot( $L$ ) corresponds to a *participant* of the linguistic situation SIT( $L$ ).

A LU  $L$  whose meaning is a predicate/a quasi-predicate specifies a linguistic situation SIT( $L$ ): a set of participants, which can be anything—objects, people, substances, events, actions, perceptions, properties, etc., linked by all kinds of relations. Participants of a SIT( $L$ ) fall into two major classes: obligatory vs. optional participants.

An *obligatory participant* of SIT( $L$ ) is a participant without which the situation cannot be called ‘ $L$ ’ (in language  $\mathbf{L}$ ). For instance, Rus. PŁAKAT’ ‘cry, weep’ can be used only when the person has tears in his/her eyes because of an emotion  $N$ ; if the tears appear, e.g., because of an irritation of the eye, PŁAKAT’ cannot be used (in this case, the standard expression is GLAZA SLEZJATSJA, lit. ‘[The] eyes are tearing’). Therefore, the emotion is an obligatory participant of the Russian linguistic situation SIT(PŁAKAT’). On the other hand, in DRINK, the container from which one drinks is not an obligatory participant of the SIT(DRINK): although normally people (and domestic animals) drink from a container, but one can also drink from a river or a fountain—this still should be called *drinking*. In such a case, the entity in question can be either an *optional participant* of the SIT( $L$ ) or not a participant at all (that is, a circumstantial). The choice between these two possibilities will be discussed in 3.3.

A prototypical SemA-slot(L) is based on an obligatory participant of SIT(L). However, generally speaking, an optional participant of SIT(L) can also give rise to a SemA-slot(L).

### The lexical-syntactic property of a SemA-slot of L

|| A SemA-slot of L must be expressible in the text.

The *expressibility* of an SemA-slot(L) means that 1) in **L**, there exist expressions that contain a phrase **P** such the meaning of **P** fills this SemA-slot(L) and 2) one of the following two conditions is satisfied:

- Either **P** can be syntagmatically linked to L—directly or via a particular syntagmatic Lexical Function of L [= LF(L)]: a support, or ‘light,’ verb. For instance, consider *Mary* [= **P**] *left John a WIDOWER with three kids*. Here, *Mary*, a SemA of *widower*, is syntactically linked to its Sem-Governor via the LF Labor<sub>21</sub>(WIDOWER) [= *leave* [N] *a* ~].<sup>1</sup>
- Or **P** is the value of a particular paradigmatic LF(L): an actantial noun. For instance, Rus. GRABIT' ‘[to] mug and rob’ does not admit the expression of the thing taken by the robbers: *Ivana ograbili \*na šubu/\*šuboj*, lit. ‘They robbed Ivan \*of his fur coat’. However, this thing can be designated by special nouns: NAGRABLENNOE, lit. ‘[the] robbed’ or DOBYČA ‘loot’, which are described in the lexicon as S<sub>3</sub>(GRABIT'). As a result, GRABIT' is taken to have three SemA-slots, one of which—namely, Z—cannot be expressed syntagmatically with the verb (this is shown by square brackets around it in the definition of GRABIT'): ‘X grabit Y-a [v otnošenii Z-a]’ ≈ ‘X robs Y [with respect to Z]’.

### 3.3 A Sem-actant or a Sem-Circumstantial?

Along with prototypical (obligatory) SemA-slots, optional SemA-slots are possible. A phrase **P** can be syntactically linked to L as an idiomatic expression of an element which is not an obligatory participant of the SIT(L). Cf. the road sign *Brake for moose!*; here, the phrase **P** = *for N* ‘in order to avoid hitting a N which appears on the road’ is not free with the verb [to] BRAKE, but it does not correspond to an obligatory participant of SIT(BRAKE)—one can well brake one’s car in front of one’s house, without any obstacle to avoid. How shall we describe the construction BRAKE *for N*? Two solutions are logically available:

Solution I: the phrase **P** is taken to be a lexically controlled Circumstantial of L and has to be described via a non-standard Lexical Function of L. For example: Rus. *pisat'* ‘[to] write, spell’ *s bol'šoj bukvy*, lit. ‘from a capital letter’, *slitno/vmeste* ‘together’, *v dva slova*, lit. ‘into two words’, *čerez T*, lit. ‘through T’ [boldfaced phrases being **P**]. One can say that the expression *s bol'šoj bukvy*, lit. ‘from a capital letter’, is a value of the non-standard LF “so that the expression begins with a capital letter.”

Solution II: the phrase **P** is taken to be an optional SemA(L), which corresponds to an optional participant of SIT(L) and has to be specified in the definition of L. For example: EAT/DRINK *from N* or DIE *from N* (*die from cancer* ⟨*from a heart attack, from one’s wounds, from old age*⟩). It has to be emphasized that **P** can turn out to be even an obligatory SemA(L)—which, for various reasons, is not obvious to the researchers at the first glance.

In numerous cases both solutions are logically admissible; therefore, linguistic criteria for a principled choice between them are needed.

Criteria of choice between Solution I (= non-standard LFs) and Solution II (= SemAs)

The criteria proposed are not mutually independent and do not have equal weight. Thus, the properties of **P** checked by Criteria 2-5 depend on **P**'s position in the Circumstantial Hierarchy, presented in Criterion 1; Criteria 4 and 5a are sufficient in themselves to attribute to **P** the status of a SemA, while the others indicate only preference for an actantial status. However, to study the interrelations of Criteria 1-5 in depth is a special task, which I cannot undertake here.

|| Solution II should be preferred—i.e., **P** should be taken to be a SemA—if and only if  
 || 1) either Criteria 4 or 5b are satisfied or 2) Criteria 1-3 and 5a give concurring positive results.

**Criterion 1.** **P** has, with respect to L, a semantic role situated closer to the right-hand end of the Circumstantial Hierarchy:

Sentential Adverbs > Time/Duration > Place > Manner > Quantity > Cause > Goal > Means > Instrument ...

**Circumstantials**      ←—————→      **Actants**

If **P** expresses the opinion of the speaker about the contents of his sentence (*Curiously, ...*), Time (*yesterday, before breakfast*) or Place (*here, in Montreal*) it is closer to the status of a Circumstantial; if **P** refers to a Means or an Instrument, it is closer to the status of a SemA.

**Criterion 2.** Different possible **P**s are semantically homogeneous—that is, they play the SAME semantic role with respect to L and therefore cannot cooccur as co-dependents of L.

Russian expressions *s bol'šoj bukvy*, lit. 'from a capital letter', *slitno/vmeste* 'together', *čerez L*, lit. 'through L', etc. easily cooccur with the same verb, e.g., PISAT' '[to] write/spell': *Èto vyraženie pišetsja s bol'šoj bukvy, slitno i čerez "a"* 'This expression is spelled with a capital, as one word and with an "a"'. This shows that they are semantically not homogeneous; therefore, they should be treated rather as Circumstantials.

**Criterion 3.** **P** is not lexically bound by L. A prototypical SemA(L) is controlled by L grammatically, but not lexically, while a prototypical Circumstantial is often controlled by L lexically. In Fr. *coûter les yeux de la tête*, lit. '[to] cost the eyes of the head' = '[to] cost a lot' the phrase **P** = *les yeux de la tête* combines only with *coûter* and cannot be changed in any way; this means that it is lexically bound by COÛTER and thus is rather a Circumstantial. In sharp contrast, in **P** = *for N* with BRAKE the noun N can be anything (*to brake for drunken soldiers* ⟨*chickens, young couples, dogs, etc.*⟩); therefore, **P** is here rather an optional SemA(L).<sup>2</sup>

**Criterion 4.** **P** is semantically bound by L. This means that the semantic class of **P** must be specified in the lexicographic definition of L: Rus. 'X *umiraet* [= 'dies'] from a STATE Y of X', Rus. 'X *plačet* [= 'cries'] from an EMOTION Y of X', etc. As a result, for these two verbs **P** is a SemA(L)—and even an obligatory one. (If X dies not from the consequences of an internal state of his, but from external causes, the verb UMIRAT' cannot be used: *He died in a car accident* = *On pogib* ⟨*\*umer*⟩ *v avtomobil'noj katastrofe*.)

**Criterion 5.** **P** is related to Lexical Functions by one of the following two semantic links:

a) Either **P** is a value of a particular paradigmatic LF(L)—an actantial noun, such as BAIT, which is S<sub>4</sub>([to] FISH). Cf. Rus. *udit' na červja*, lit. '[to] fish on worm' = 'using worms as bait'; **P** = *na červja* is rather a SemA(UDIT'), since Russian has a special name for things used

as bait in fishing: NAŽIVKA. (However, one can *udit'* '[to] fish' with a rod without bait; therefore, this is an optional SemA(UDIT').)

b) Or L itself is a value of a LF(**P**). Thus, in *DRINK* [= L] *from a glass* (**P** = *from a glass*), DRINK is Labreal<sub>12</sub>(GLASS); in *DIE of cancer*, DIE is Real<sub>1</sub>(CANCER). Therefore, in both cases, **P** manifests a SemA of the corresponding verb (more precisely, an optional SemA).

These criteria allow us to establish optional or non-obvious obligatory Sem-actants of L—and, as a result, optional or non-obvious obligatory participants of the SIT(L).

### 3.4 Definitions of Sem-actant slot and Sem-actant

Now I can formulate the definitions.

#### Definition 1: Sem-actant slot in a lexicographic definition

|| A SemA-slot(L) is included in the lexicographic definition of L if and only if 1) this slot corresponds to a participant of SIT(L), no matter whether obligatory or optional, and 2) is expressible in the text.

#### Definition 2: Sem-actant

|| A SemA(L) is a meaning 's' that— in the Sem-representation of the sentence under analysis —fills a SemA-slot(L).

As a convenient abbreviation, I will also say that the lexical unit L('s) is a SemA of L.

The SemA-slots(L) are numbered as follows: The number of a given SemA(L) is determined by the predicate meaning (located within 'L') of which this SemA(L) is the SemA 1. For instance, the meaning of '[to] hit' is decomposed as 'X causes that X's bodypart or an object X is holding comes in contact with a part of Y's body'; X is a SemA 1 of 'cause', i.e., a Causer; as a result, since 'cause' is the communicatively dominant semanteme in the decomposition of 'hit', L('X) is the SemA 1 of the verb [to] HIT, *X hits Y*. Similarly, for [to] LOVE, *X loves Y*, X is a SemA 1 of 'experience', i.e., an Experiencer: 'X experiences a feeling caused by Y...'; etc. Thus, the number of a SemA(L) depends 1) on its number with respect to the semanteme in the semantic decomposition of 'L' of which it is a SemA and 2) on the position of this 'more elementary' semanteme within the decomposition of 'L'. For such 'more elementary' semantemes and groups thereof the numbering of their SemAs is given by a list. In particular, the number 1 is attributed to the SemAs bearing the following semantic roles (the list is far from exhaustive):

the Causer	: 'John'←1-('hit')-2→('Mary')	( <i>John hits Mary</i> )
the Experiencer	: 'John'←1-('love')-2→('Mary')	( <i>John loves Mary</i> )
the Characterized	: 'John'←1-('weigh')-2→('70 kilos')	( <i>John weighs 70 kilos</i> )
	'John'←1-('be_handsome')	( <i>John is handsome</i> )
the Localized	: 'John'←1-('be2')-2→('Paris')	( <i>John is in Paris</i> )
the Essant <sup>3</sup>	: 'John'←1-('be1')-2→('boy')	( <i>John is a boy</i> )
the Mover	: 'John'←1-('go_to')-2→('Paris')	( <i>John goes to Paris</i> )
the Comparand	: 'John'←1-('be_taller')-2→('Mary')	( <i>John is taller than Mary</i> )
the Whole	: 'John'←1-('head')	( <i>John's head; the roof of the house</i> )

## Actants

the Possessor : 'John'←1-'own'-2→'car' (John owns a car)

The counterparts of the semantic roles considered—i.e., the Undergoer (of a causation), the Object of Experience, the Location, etc.—are SemAs 2. The SemA following the SemA 2 is given the number 3; etc. Thus, in *John tells Mary the story*, 'John' as the Causer is the SemA 1, 'story' as the Transmitted is 2, and 'Mary' as the Addressee is 3.

## 4 Deep-Syntactic actant slots and Deep-Syntactic actants

Informally, DSyntAs constitute an interface between Sem- and SSynt-actants: a DSyntA is a convenient generalization of several types of SSyntAs from the viewpoint of their relation to a SemA. As a result, a DSyntA(L) is defined either by its correspondence to a SemA(L) or by its correspondence to a SSyntA(L).

### Definition 3: DSynt-actant slot in a Government Pattern

|| A DSyntA-slot is included in the Government Pattern of L if and only if it corresponds to a SemA-slot in the lexicographic definition of L.

### Definition 4: DSynt-actant

|| An LU  $\mathcal{P}$  is a DSynt-actant of L in the sentence under analysis if and only if one of the following two conditions is satisfied:  
|| a. either  $\mathcal{P}$  fills a DSyntA-slot of L;  
|| b. or  $\mathcal{P}$  corresponds to a SSyntA of L such that it implements a DSyntA of a DSyntA(L).

Thus, I allow for such DSyntAs that are not controlled by a SemA-slot of L itself and therefore have no corresponding DSyntA-slot in the GP(L), but 'are passed to' L from one of its DSyntAs. I mean here different Raisings, such as in Fr. *On lui a déchiré la chemise*, lit. 'They to-him have torn the shirt': LUI←III-DÉCHIRER-II→CHEMISE (see below, at the end of this section, on displaced DSyntAs).

From the viewpoint of the inventory of representational means for the Deep-Syntactic Structure, DSyntAs must be cross-linguistically universal and convenient for the description of restricted lexical cooccurrence. At the same time, they must ensure the functioning of a universal phrasing system (based on equations of the following type:  $V \Leftrightarrow S_0(V) \leftarrow \text{II} \text{--Oper}_1(S_0(V))$ ), for instance, *apologize = offer an apology*, *hope = entertain the hope*, *investigate = conduct an investigation*, etc.).

In accordance with their intermediate nature, DSyntA-slots(L) are numbered as a function of two sets of properties: their relationships with SemA-slots (semantic properties) and their relationships with the SSyntA-slots (syntactic properties).

### Semantic properties of DSyntAs

Different SSynt-constructions are subsumed under one DSynt-relation not only because of the similarity of their syntactic behavior, but also as a function of their relationships to Sem-actants. Therefore, for instance, the fact that an Ag(entive)Co(mplement) with a passive verb is syntactically more oblique than an IndirO does not interfere with my treating the AgCo as DSyntA II, while the IndirO is often (but not always, see below) DSyntA III: the AgCo reflects the conversion of the DSyntA I under passivization (II  $\Rightarrow$  I, I  $\Rightarrow$  II), and semantically it is still the Actor.

### Syntactic properties of DSyntAs

DSyntAs(L) are numbered in the order of increasing syntactic obliqueness with respect to L. The obliqueness of a DSyntA is determined from that of the corresponding SSyntA. The latter reflects the HIERARCHY of SSyntAs, which is established through the analysis of their observable behavior (Keenan and Comrie 1977, Iordanskaja and Mel'čuk 2000, Van Valin 2001: 33ff).

If L is a verb, the degree of obliqueness of its dependents is more or less obvious. If L is not a verb, we have to reason on the basis of the semantically closest verbal expression (for example, with the copula [*to*] BE). Thus, for the preposition UNDER, one must consider the expression *X is under Y* (UNDER has one DSyntA, **II** = Y, because X appears as the Synt-governor of UNDER); for the noun TRUCK, the expression *X transports Y from one place to another in a truck* must be taken into account (the noun TRUCK has two DSyntAs: *John's [= I] truck (filled) with bricks [= II]*); etc.

**NB:** Semantically empty SSynt-elements (i.e., dummy Subjects and Objects, governed prepositions and conjunctions) are not represented at the DSynt-level and thus do not correspond to any DSyntAs.

DSynt-actants are denoted by Roman numerals, which specify DSynt-relations that subordinate DSyntAs to their Governors. Unlike semantic numbers (= pure distinguishers), the DSynt-numbers are meaningful: each of them corresponds to a family of concrete Surface-Syntactic constructions brought together because their dependent members fulfill similar roles in the expression of the SemAs of the LU under consideration. Thus:

- DSyntA **I** corresponds to:

—What is on the surface a SSynt-Subject (and all its transforms):

JOHN←**I**-SLEEP<sub>V</sub> (*John is sleeping*), JOHN←**I**-SLEEP<sub>N</sub> (*John's sleep*)

JOHN←**I**-SEND A LETTER TO MARY (*John sends a letter to Mary*)

JOHN←**I**-LETTER TO MARY (*John's letter to Mary*)

—What are on the surface different nominal complements, especially those that express the 'part ~ whole,' 'set ~ element' and 'container ~ content' relation:

JOHN←**I**-LEGS (*John's legs*), HOUSE←**I**-ROOF (*roof of the house*)

(Cf. the verbalizations of the type *John has legs*, *The house has a roof*.)

POPULATION←**I**-MAJORITY (the majority of the population)

TOMATOES←**I**-BAG (*a bag of tomatoes*)

- DSyntA **II** corresponds to:

—What is on the surface a Direct Object (and all its transforms):

LOVE<sub>V</sub>-**II**→JOHN ([*Someone*] loves John), LOVE<sub>N</sub>-**II**→JOHN ([*Mary's*] love for John)

—What is on the surface the most important Object or Complement of L (and all its transforms — if there is no Direct Object):

BELONG-**II**→JOHN (*belong to John*), BELONGINGS-**II**→JOHN (*John's belongings*)

FAITHFUL-**II**→JOHN (*faithful to John*)

—What are on the surface complements of prepositions and conjunctions:

UNDER-**II**→BED (*under the bed*), AND-**II**→JOHN (*and John*)



## Actants

—What are on the surface different nominal complements:

FATHER-**II**→MARY (*Mary's father*; the possible verbalization is *X is Mary's father*)

MINISTER-**II**→FINANCE (*the finance minister*)

—What is on the surface the Agentive Complement of a passive form [= AgCo]:

WRITTEN-**II**→JOHN (*written by John*)

- DSyntA **III** corresponds to what is on the surface an Indirect/Oblique Object (in case there is a DirO as well):

SEND-**III**→JOHN (*[Someone] sends [a letter] to John ~ ... sends John [a letter]*)

PUNCH-**II**→NOSE (*[Someone] punched [John] on the nose*)

- DSyntAs **IV-VI** correspond to what are on the surface more Oblique, or Prepositional, Objects:

RENT-**IV**→300 DOLLARS (*rented for \$300*)

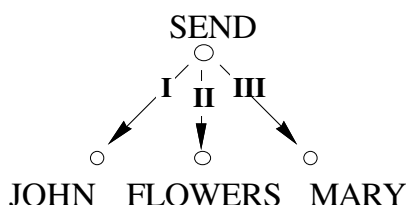
RENT-**V**→TWO WEEKS (*rented for two weeks*)

### Important conventions

In the Government Pattern [= GP] of a given LU L, DSyntA-slots must be numbered as follows:

1. Consecutively (= without gaps): **I+II+III**, etc.; the GPs with such numberings as **\*I+III** or **\*I+II+IV** are disallowed.
2. Beginning with **I** or **II**; the GPs with such numberings as **\*III+IV** are disallowed.<sup>4</sup>
3. Without repetitions; the GPs with such numberings as **\*I+I** or **\*I+II+II** are disallowed.

To illustrate the use of DSyntAs, I will give the DSynt-structure of the sentences *John sent flowers to Mary* and *John sent Mary flowers*:



The differences that exist between these sentences are captured by their Communicative Structure at the DSynt-level and then expressed in their different Surface-SyntSs (see Section 5).

A DSyntA(L) either fills a DSyntA-slot(L) or is introduced by a DSynt-rule (e.g., Possessor Raising). For instance, in the sentence Fr. *Marie lui lave les mains*, lit. ‘Mary **to-him** washes the hands’ = ‘Mary washes his hands’, the expression *lui* ‘to-him’ is the DSyntA **III** of LAVER, although it does not correspond to a SemA-slot(LAVER) and does not have a DSyntA-slot in the GP(LAVER). The expression *lui* is a **displaced** DSyntA (see 6, case 2, p. 00); it implements a SemA and a DSyntA of MAIN ‘hand’ and is ‘raised’ to LAVER by a productive rule of French syntax.

## 5 Surface-Syntactic actant slots and Surface-Syntactic actants

SSyntAs are language-specific. They are defined RECURSIVELY, based on observable properties of sentence elements **P**. These properties can be grouped into three sets (Keenan 1976):

- Semantico-syntactic properties of  $\mathcal{P}$ :  $\mathcal{P}$ 's SEMANTIC abilities (e.g.,  $\mathcal{P}$  can/cannot express the Causer, etc.), COMMUNICATIVE abilities (e.g.,  $\mathcal{P}$  can/cannot be Focalized), and REFERENTIAL abilities (e.g.,  $\mathcal{P}$  can/cannot be referentially definite).
- Purely syntactic properties of  $\mathcal{P}$ :
  - obligatory presence in any clause;
  - possibility of multiple presence with the same Governor (= repeatability);
  - special linear position;
  - control of reflexivization;
  - control of gerunds;
  - possibility of relativization;
  - possibility of gapping;
  - possibility of pronominalization;
  - possibility of extraction;<sup>5</sup>
  - participation in valence-changing operations;
  - etc.

These SSynt-properties are relevant for many languages; there are, however, many more other language-specific properties. Thus, for instance, in French, an important SSynt-property of a noun or an infinitive is its ability to be cliticized in particular constructions.<sup>6</sup>

- Morpho-syntactic properties of  $\mathcal{P}$  (which are not present in all languages): imposition of AGREEMENT and GOVERNMENT.

Such properties of sentence elements  $\mathcal{P}$  can be effectively used to identify SSyntAs: a sentence element is a SSyntA if and only if it resembles enough a previously established SSyntA—according to several relevant properties.

Taken globally, SSyntAs are characterized by their syntactic ACTIVENESS: they interact with the Main Verb and with each other and have perceptible impact on the overall syntactic organization of the sentence. In sharp contrast, SSynt-Circumstantials are characterized by their syntactic PASSIVENESS; generally speaking, there is little or no interaction between them and the rest of the sentence. (For more on syntactic properties that serve to identify Synt-actants, see Plank (ed.) 1984, Plank 1990, Lazard 1994: 68ff, Iordanskaja and Mel'čuk 2000, Van Valin 2001: 33ff.)

Although lists of relevant syntactic properties are language-specific, the definition of SSyntA is universal.

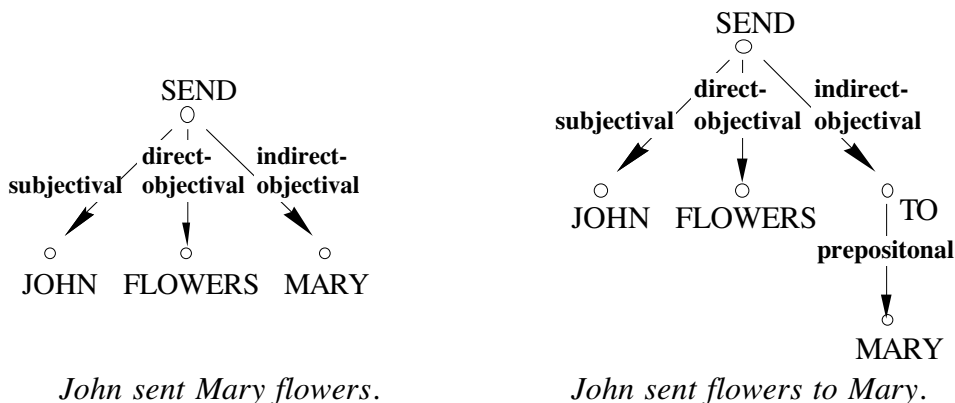
**Definition 5: SSynt-actant**

1. The Subject and the Objects (Direct and Indirect) of L are (prototypical) SSyntAs of L [= the BASE of recursion].
2.  $\mathcal{P}$  that syntactically depends on L in the sentence under analysis is a SSyntA of L if and only if  $\mathcal{P}$  shares a sufficient number of relevant properties with an already established SSyntA [= the STEP of recursion].

The Subject is defined as the most privileged sentence element: it is characterized by a set of properties that are exclusive to it. The DirO is the second most privileged sentence element: it possesses another set of properties, some of which are shared by the Subject, but by no other

sentence elements; and so forth. Subject and Objects (which are sometimes quite infelicitously called *Grammatical Relations/Functions* or *Terms*), as pointed out above, are characterized by very high syntactic activeness: they impose agreement on the Main Verb, occupy privileged linear position, admit Relativization and/or Raising, control Reflexivization and gerunds, etc. These SSyntAs constitute the base of recursion. Other sentence elements are compared to them according to previously established properties: a sentence element sharing a sufficient number of properties with a SSyntA is also a SSyntA.

Here are examples of two SSyntSs showing major SSyntAs:



The methodology that has been just proposed for the identification of SSyntAs applies more easily to the actants of verbs, but it is valid of course also for actants of lexical units belonging to other parts of speech (in the first place, nouns and adjectives). To discover similarities/dissimilarities in the syntactic behavior according to relevant SSynt-properties is indeed a more complex task in the case of the actants of non-verbs, but it is nevertheless possible.

## 6 Correspondence between the three types of actant slots of L

In the prototypical case, a SemA-slot(L) corresponds to a DSyntA-slot(L), which, in turn, corresponds to a SSyntA-slot(L)—and vice versa: a SSyntA(L) corresponds to a DSyntA(L), which corresponds to a SemA(L). However, this idyllic picture can be violated in four special cases of discrepancy:

	prototypical case	cases of discrepancy			
		1	2	3	4
Sem-actant	SemA(L)	SemA(L)	---	SemA(L)	---
DSynt-actant	DSyntA(L)	---	DSyntA(L)	DSyntA(L)	---
SSynt-actant	SSyntA(L)	---	SSyntA(L)	---	SSyntA(L)

Let me take up these cases one by one.

Case 1. A **blocked** SemA-slot is typical of all ‘inherent’ modifiers—adjectives and adverbs. Semantically they are predicates, but their SemA 1 always becomes their DSynt-Governor:  
 ‘red’-1→(apple) ⇔ RED←ATTR-APPLE.

Therefore, their SemA-slot X (= 1) never corresponds to a DSyntA-slot.

Case 2. A DSyntA(L) shows no one-to-one correspondence to a SemA-slot(L) in three situations:

- A **displaced** DSyntA corresponds to a SemA-slot, but not to one of L. Example: Fr. *Marie lave les mains à Jean*, lit. ‘Mary washes the hands **to John**’, where *à Jean* is the DSyntA **III** of LAVER, but does not correspond to any of its SemA-/DSyntA-slots; it corresponds to a SemA-slot and a DSyntA-slot of MAINS.
- **Split** DSyntAs: two DSyntA-slots(L) correspond to one SemA-slot(L). Example: *Mary saw John [= II] approach [= III] the tree*, where two DSyntAs(SEE) correspond to one SemA(SEE), Y: ‘X sees Y’. (This is a manifestation of what is known as Subject-to-Object raising; in this particular case, we see an *Accusativo cum Infinitivo*.) Strictly speaking, it is the SemA of SEE that is split, resulting in two DSyntAs; applying the adjective *split* to DSyntAs is of course an *abus de langage*.
- A DSyntA-slot of an **empty** (*support*, or *light*) verb corresponds to no SemA-slot of this verb: *They [= I] did me [= III] a favor [= II]*, where DSyntAs(DO) cannot correspond to SemA-slots(DO), because being a semantically empty Oper<sub>1</sub> in this context, the verb [*to*] DO has no lexicographic definition and no SemA-slots (see Alonso Ramos 1998).

Case 3. A DSyntA-slot(L), which duly corresponds to a SemA-slot(L), can be implemented on the surface by a SSynt-modifier or a SSynt-adverbial, and not by a SSyntA(L), as in

*American←I-participation* ⇔ *American←modif-participation*  
 or  
*behave-II→well* ⇔ *behave-adverbial→well*.

Case 4. Four types of SSyntAs are known that typically do not correspond to any DSyntAs(L)—and thus to no SemAs(L):

- **Dummy** SSyntAs— empty Subjects and DirOs (≈ ‘impersonal’ pronouns, like IT in *It is clear that ...*).
- ‘**Free**’ SSyntAs, in particular, ‘free Datives,’ which are not controlled by L’s active Sem-valence or by the active Sem-valence of L’s Sem-actants. These are particular types of IndirOs: the Beneficiary (as in *Alain got her a spider out of the bath*) and *Dativus Ethicus* (as in Ger. *Liebe mir nur keinen Hippie*, lit. ‘Don’t you love a hippie **on me!**’).
- **Cognate** SSyntAs, as in [*to*] *laugh-dir-obj*→[*a hearty*] *laugh* or [*to*] *die-dir-obj*→[*a terrible*] *death* (note that [*to*] LAUGH and [*to*] DIE are intransitive verbs).
- SSynt-actants **within full phrasemes** (= idiomatic expressions) that contain L, such as in [*to*] *kick-dir-obj*→*the bucket*, or **within collocations** (= semi-phrasemes) controlled

by L, such as in *[to] laugh-dir-obj→X's head off*, where *X's head off* is the expression of the LF Magn.

## 7 Government Pattern [GP]

A GP(L) [ $\approx$  Subcategorization frame] is a formal means designed to specify the correspondence between the three types of actant slots in the lexicon. It is an important part of the lexical entry of L—namely, of its Syntactic Zone. Here is an illustration.

Consider the verb *[to] BLAME*: ‘individual X blames individual Y for Z’. This verb can be used in two propositionally equivalent constructions—*X blames Y for Z* or *X blames Z on Y*, which makes it necessary to supply it with two GPs:

*[to] BLAME, GP 1*

X	Y	Z
I	II	III
1. -subj→N	1. -dir.obj→N	1. -obl.obj→for N 2. -obl.obj→for Vger

*[to] BLAME, GP 2*

X	Z	Y
I	II	III
1. -subj→N	1. -dir.obj→N	1. -obl.obj→on N

*John [= I] blamed the minister [= II] for the deficit [= III] <for having forgotten his duty [= III]>.*

*John [= I] blamed the deficit [= II] on the minister [= III].*

**NB** : Note that in current publications in the MTT framework a different presentation of the GP is actually used—with abbreviations and additional conventions. However, here an equivalent, but more transparent form is preferred.

## Acknowledgments

The present paper was written in January-March 2003, during my stay in Paris as the holder of an International Chair Blaise Pascal (École Normale Supérieure de Paris). The people who contributed a lot to what the reader has just seen include:

- E. Raxilina, who pressed me into working on the fascinating problem of actants and helped me with her questions, criticisms, examples, etc.
- A. Zholkovsky, with whom the first sketch of the theory of actants was developed almost 40 years ago, and of course Ju. Apresjan, to whom I owe a lot of basic ideas.
- M. Alonso Ramos, I. Boguslavskij, L. Iomdin, L. Iordanskaja, S. Kahane, T. Korelsky, J. Milićević, A. Polguère, E. Raxilina, E. Savvina, and L. Wanner, who read the full version of the paper; their remarks and suggestions lead to many serious changes.
- L. Iordanskaja, T. Korelsky, S. Kahane, J. Milićević, E. Savvina, R. Kittredge, L. Wanner, and B. Zuercher, who went through the shorter version and helped me to bring it into its present shape.

I am happy to thank all these people for their constructive criticisms and excellent advice.

## Notes

<sup>1</sup> (3.2, p. 00) The expression <sup>??</sup>*Mary's widower*, with *Mary* syntactically directly linked to *widower*, is not acceptable to most speakers.

<sup>2</sup> (3.3, p. 00) Recall that Criterion 3 only indicates that a phraseologically bound **P** is more likely to be a circumstantial, not that it necessarily is. There exist phraseologically bound obvious actants, cf. *health insurance* ~ Fr. *assurance maladie*, lit. 'sickness insurance', or *driving school* ~ Fr. *auto-école*, lit. 'car school'.

<sup>3</sup> (3.4, p. 00) The term is due to David Gil; it comes from Lat. ESSE '[to] be'.

<sup>4</sup> (4, p. 00) Verbs without the DSyntA-slot I

Several verbs have no DSyntA-slot I (but some still can have DSyntA-slot II). I will quote five types of such verbs.

### L has no DSyntA-slots at all

1. Meteorological verbs: *It is raining* or Fr. *Il fait beau*, lit. 'It does beautiful' = 'The weather is fine'. The DSyntSs of the corresponding sentences are as follows [the symbol « O » represents a node in the DSynt-Structure]:

RAIN<sub>(V)</sub>pres, ind, progr O

FAIRE BEAU<sub>(V)</sub>ind, pres O

In other words, these verbs have no DSynt-actants.

### L has DSyntA-slot II, but no DSyntA-slot I

2. Some monoactantial verbs of sensations and feelings: Rus. TOŠNIT', lit. '[to] nauseate N'; Lat. PUDERE, lit. '[to] shame N'; Fr. FALLOIR, lit. '[to] need V<sub>inf</sub>/N'; or Germ. FRIEREN, lit. '[to] freeze N'. The corresponding DSyntS is as follows:

TOŠNIT'<sub>(V)</sub>ind, pres O-II→o L(Y) [*Menja*<sub>ACC</sub> *tošnit* 'I have nausea']

PUDERE<sub>(V)</sub>ind, pres O-II→o L(Y) [*Pudet me*<sub>ACC</sub> 'I am ashamed'], *taedet me*<sub>ACC</sub> 'I am disgusted', *piget me*<sub>ACC</sub> 'I am bored', *poenitet me*<sub>ACC</sub> N<sub>GEN</sub> 'I repent N']

FALLOIR<sub>(V)</sub>ind, pres O-II→o L(Y) [*Il faut travailler*, lit. 'It needs to work', *Il faut des livres*, lit. 'It needs books']

FRIEREN<sub>(V)</sub>ind, pres O-II→o L(Y) [*Es friert mich*<sub>ACC</sub>, lit. 'It freezes me' = 'I am cold'].

This situation, which is rather exotic in Indo-European, is typical for numerous languages that have static verbs governing the name of the Experiencer as a DirO.

3. The idioms that contain their own syntactic subject, for instance:

*The cat's got Y's tongue* ⇔ THE CAT HAS GOT TONGUE<sub>(V)</sub> O-II→o L(Y)

Fr. *Que le diable emporte Y!* ⇔ QUE LE DIABLE EMPORTE<sub>(V)</sub> O-II→o L(Y),  
lit. 'Let the devil take Y!'

Fr. *La moutarde monte au nez à Y* ⇔ LA MOUTARDE MONTE AU NEZ<sub>(V)</sub>  
O-II→o L(Y),

lit. 'The mustard goes-up to-Y to the nose' = 'Y flares up'.

Fr. *Le torchon brûle entre Y et Z* ⇔ LE TORCHON BRULE<sub>(V)</sub>

o-II→o L(Y)-COORD→o ET-II→o L(Z)

lit. 'The rag is burning between Y and Z' = 'There is a running battle going on between Y and Z'.  
At the DSynt-level, such an idiom is represented by one node, and no branch numbered I leaves it.

4. Interjections of the type *Down with Y!*: [DOWN [with N]] o-II→o L(Y).

5. Any verb in the form of subjectless suppressive (in a language where this voice exists):

Sp. *Se vende libros*, with the DSyntS VENDER<sub>subjless-suppr</sub>, ind, pres o-II→o LIBROS.

These examples show that there are diatheses in which the numbering of DSyntA-slots does not begin with I, but with II.

<sup>5</sup> (5, p. 00) For instance, in English, extraction can be possible/impossible from an NP as a function of the NP's SSynt-role; cf.: *Which bed did you sleep in in New York?* vs. \**Which city did you sleep in her bed in?* (with the verb [to] sleep, the phrase *in a bed* admits a dangling preposition, but not the phrase *in a city*).

<sup>6</sup> (5, p. 00) Thus, in French, a 'genitive' complement of a DirO (i.e., a DE+N phrase depending on a DirO) can be cliticized by EN, while a 'genitive' complement of a Subject cannot:

(i) *J'aime la forme de ce fruit* 'I love the form of this fruit'. ~  
*J'en aime la forme* 'I love its form'.

vs.

*La forme de ce fruit me plaît*, lit. 'The form of this fruit pleases me'. ~  
\**La forme m'en plaît* 'Its form pleases me'.

(ii) *J'ai vu la moitié de ces gens*, lit. 'I have seen the half of these people'. ~  
*J'en ai vu la moitié*, lit. 'I have seen the half of them'.

vs.

*La moitié de ces gens vient*, lit. 'The half of these people is coming'. ~  
\**La moitié en vient*, lit. 'The half of them is coming'.

## References

Abraham, W. (ed.) (1978), *Valence, Semantic Case and Grammatical Relations*, Amsterdam, Benjamins.

Alonso Ramos, M. (1998), *Étude sémantico-syntaxique des constructions à verbe support*. Unpublished doctoral dissertation, Université de Montréal.

Apresjan, Ju. (1974), *Leksičeskaja semantika*, Moskva, Nauka. [Reprinted: 1998.]

Boguslavskij, I. (1985), *Issledovanija po sintaksičeskoj semantike*, Moskva, Nauka.

Boguslavskij, I. (1990), Vnešnjaja i vnutrennjaja sfera dejstvija nekotoryx temporal'nyx obstoitel'stv. In: Z. Saloni (red.), *Metody formalne w opisie języków słowiańskich (Ju.D. Apresjanu k šestidesjatiletiju)*, Białystok, Filija UW, pp.137-148.

Boguslavskij, I. (1996), *Sfera dejstvija leksičeskix edinic*, Moskva, Škola "Jazyki russkoj kul'tury".

- Bonami, O. (1999), *Les constructions du verbe : le cas des groupes prépositionnels argumentaux. Analyse syntaxique, sémantique et lexicale*. Unpublished doctoral dissertation, Université Paris VII.
- Davis, W., Dubinsky, S. (2001), *Objects and Other Subjects. Grammatical Functions, Functional Categories and Configurationality*, Dordrecht etc., Kluwer.
- Feuillet, J. (éd.). (1998), *Actance et valence dans les langues de l'Europe*, Berlin—New York, Mouton de Gruyter.
- Fillmore, Ch. (1968), The Case for Case, In: E. Bach and R. Harms (eds), *Universals in Linguistic Theory*, New York, Holt, Rinehart and Winston, pp.1-88.
- Grimshaw, J. (1990), *Argument Structure*. Cambridge, MA—London, The MIT Press.
- Helbig, G. (1992), *Probleme der Valenz- und Kasustheorie*, Tübingen, Niemeyer.
- Helbig, G., Schenkel, W. (1983), *Wörterbuch zur Valenz und Distribution deutscher Verben*. Tübingen: Niemeyer. [First edition: 1969]
- Iordanskaja, L., Mel'čuk, I. (2000), The notion of Surface-Syntactic Relation revisited (valence-controlled Surface-Syntactic Relations in French), In: L.L. Iomdin and L.P. Krysin (red.), *Slovo v tekste i v slovare. Sbornik statej k semidesjatiletiju Ju.D. Apresjana*, Moskva, Jazyki ruskoj kul'tury, pp.391-433.
- Keenan, E. (1976), Towards universal definition of 'Subject.' In: Ch. Li (ed.), *Subject and Topic*, New York etc., Academic Press, pp.303-334.
- Keenan, E., Comrie, B. (1977), Noun phrase accessibility and Universal Grammar, *Linguistic Inquiry*, Vol. 8, pp. 63-98.
- Lakoff, G., Ross, J. (1976), Why you can't do so into the sink. In: J. McCawley (ed.), *Syntax and Semantics, vol. 7: Notes from the Linguistic Underground*, New York, Academic Press, pp.101-111.
- Lazard, G. (1994), *L'actance*, Paris, PUF. [Translation: 1998, *Actancy*, Berlin—New York, Mouton de Gruyter.]
- Mel'čuk, I. (1974), *Opyt teorii lingvističeskix modelej "Smysl ⇔ Tekst"*. *Semantika, Sintaksis*, Moskva, Nauka. [Reprinted: 1999.]
- Mel'čuk, I. (1988), *Dependency Syntax: Theory and Practice*, Albany, N.Y., SUNY Press.
- Mel'čuk, I. (1996), Lexical Functions: A tool for the description of lexical relations in the lexicon, In: L. Wanner (ed.), *Lexical Functions in Lexicography and Natural Language Processing*, Amsterdam/Philadelphia, Benjamins, pp.37-102.
- Mel'čuk, I. (2002), Language: Dependency, In: N. J. Smelser and Paul B. Baltes (eds), *International Encyclopedia of the Social and Behavioral Sciences*, Oxford, Pergamon, pp.8336-8344.



## Actants

Mel'čuk, I. (2004a,b), Actants in Semantics and Syntax. I. Actants in Semantics, II. Actants in Syntax, to appear in *Linguistics*.

Padučeva, E. (1997), Semantičeskie roli i problema soxranenija invarianta pri leksičeskoj derivaciji, *Naučno-texničeskaja informacija, serija 2*, n° 1, pp.18-30.

Padučeva, E. (2002), Diateza i diatetičeskij sdvig. *Russian Linguistics*, Vol. 26, pp.179-215.

Plank, F. (1990), Objets trouvés, *Zeitschrift für Phonetik, Sprachwissenschaft und Kommunikationsforschung*, Vol. 43, pp.59-85.

Plank, F. (ed.) (1984), *Objects. Towards a Theory of Grammatical Relations*. London etc., Academic Press.

Plungjan, V., Raxilina, E. (1990), Sirkonstanty v tolkovanii? In: Z. Saloni (red.), *Metody formalne w opisie języków słowiańskich (Ju.D. Apresjanu k šestidesjatiletiju)*, Białystok, Filija UW, pp.201-210.

Plungjan, V., Raxilina, E. (1998), Paradoksy valentnostej. In: SiI 1998: pp.108-119.

Raxilina, E. (1990), *Semantika ili sintaksis? (K analizu častnyx voprosov v russkom jazyke)*, München, Otto Sagner.

SiI. (1998), *Semiotika i informatika*, vyp. 36. Moskva, Jazyki russkoj kul'tury.

Somers, H. (1987), *Valency and Case in Computational Linguistics*, Edinburgh, Edinburgh University Press.

Tesnière, L. (1959), *Éléments de syntaxe structurale*, Paris, Klincksieck.

Van Valin, R. (2001), *An Introduction to Syntax*, Cambridge, Cambridge University Press.

Wechsler, S. (1995), *The Semantic Basis of Argument Structure*. Stanford, CA, CSLI.