Contrastive Meanings of the Terms "Predicative" and "Predicational" in Various Linguistic Theories (I.)

Neculai Curteanu

Abstract

This paper is devoted to a problem of lexical semantics, discussing various aspects gravitating around two distinct meanings of the terms "predicative" and/or "predicational" in some important and/or of particular interest linguistic approaches, trying to build a unitary mosaic image from "rocks" representing apparently disconnected examined viewpoints on the issue. The first meaning of the two terms is of semantic nature and corresponds to those lexical categories that introduce a real predication, i.e. an event-structure, within or not the context of a predicate. Similar terms fitting this meaning are (e.g.) "deverbative", "deverbal", (and (de)verbality"), "dejectival", "nominalizations" and "event nominals", "postverbal", "predicator", "predicative" (predicativity), etc., while the proper term that we advocate is "predicational". The second meaning of the above mentioned terms is assigned, in general, to those non-verbal (nominal and adjectival) categories that, together with a finite auxiliary verb complex, make up a structural, analytic predicate. Its syntactic nature corresponds to those categories and phrases that contribute to make up a (finite or non-finite) predicate, but not necessarily introducing a true predication. The two meanings are crossly pursued in several approaches of special interest, a taxonomy of the verbal and non-verbal categories based on their intrinsic feature of predicationality is proposed, and its consequences on natural language processing are suggested.
1 Introduction

This paper is devoted to a problem of lexical semantics, discussing various aspects gravitating around two distinct meanings of the terms “predicative” and/or “predicational” in some important and/or of particular interest linguistic approaches, trying to build a unitary mosaic image from “rocks” representing apparently disconnected examined viewpoints on our issue.

(M1) The first meaning of the two terms is a semantic, intrinsic one, corresponding to those lexical categories that introduce a real predication, within or not the context of a predicate. It corresponds to the meaning of the terms “deverbative” [31], [32], “deverbal” [33], [34], [27], [20], [35], “postverbal” [37], “deverbal” and “deadjectival” [20], ”nominalizations” and ”event nominals” [9], [1], “predicator” [22], “predicative” (vs. nonpredicative verbs) [26], “(de)verbality” (as “the maximal use of the verbal character of, traditionally non-verbal categories, N and A”) vs. predicativity [15, p. 130], PRED (predicational) vs. existential, non-event, thus non-predicational (EXIST) features [17], [18] etc. assigned (at the lexical level) or derived (contextually) for the major syntactic categories of noun (N), verb (V), adjective-adverb (A), and for the (relational but not major category – in our view) preposition (P).

(M2) The second meaning of the above mentioned terms is, in general, assigned to those non-verbal (nominal, but not only) categories that, together with a finite auxiliary verb complex, make up a struc- tural, analytic predicate. It corresponds, more or less, to the terms “predicative” adjectives (As) and nouns (Ns) [11], [31], [32], “predicative” NPs and APs [32], [1], [3], “predication” [1], TENSE (with the values FINite and INFinite – non-finite) features, and even (somehow improperly called) [36] “predicational” feature etc. assigned to those categories and phrases that contribute to make up a (finite or non-finite) predicate, but not necessarily introducing a ‘true’ predication.

The meaning (M1) of “predication” involves a process, an action, an active event etc., while the meaning (M2) does not exclude (M1) but may also include the existential, objectual, static, denominational

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reading of the considered lexical categories, as opposed to an authentic predication. It is *this specific difference* that makes the (M1) *predicational feature* to be assigned and used in our taxonomy for the major syntactic categories N, V, A, and inherited by their corresponding grammatical projections. For the meaning (M1) of the term “*predicational*” it is not important the predicate, involved or not, but the *predication* beared by the category assigned to it. *E.g.*, the (clause and) predicate “*(He) is a child*” does not bear a predication because both the *copulative* (finite) *verb* “*to be*” and the ‘*predicative*’ *noun*, “*child*”, are not (properly) *predicational* but only existential, denomинаtional!

By a predication (M1) we mean a *predicational* (PRED) *head* entailing (overt or covert) *proper arguments*, as in the phrases: “*gave the book to John*” (synthetic, finite predication), “*given to my mother by John*” “integration of the new emigrants by their host society”, “*robbing his new partners*” (synthetic, non-finite predications), “*has been killed by John*” (analytic, finite predication). Copulative verbs like “*to be*”, auxiliaries or semi-auxiliaries (modal) verbs, common nouns like “*child*”, “*river*”, “*car*”, proper nouns, adjectives like “*nice*”, “*red*” etc. are considered to be non-*predicational*, existential (EXIST) ones. We also specify that modifiers and (generalized) quantifiers of a *head*, as well as possible *adjuncts* (*e.g.* circumstantial complements) are not considered to be *arguments*, since they do not constitute the pattern of a true predication.

There exist lexical (or grammatical) categories bearing naturally at the lexicon level both PRED and EXIST features for their meanings. The choice, in a concrete text, of one or the other of the two meanings cannot be done otherwise than *contextually*; *e.g.* the nouns “*construction*”, “*act*” (Eng., Fr.), “*building*” (Eng.), “clădire” (Rom.), the verb “bătir” (but much less the derived “*bătiment*”, Fr.), many adjectives derived from past participles, etc. bearing equally the PRED and EXIST features.

In the following Sections 2-11, we pursued the meanings (M1) and (M2) in several approaches of special interest to our topic, this trial being inevitably incomplete, possibly unfair and definitely unfinished for the chosen references which our investigation relies on. Section 12
summarizes our proposed taxonomy.

2 The HPSG-87 Theory of Pollard & Sag

2.1 “Deverbative” Nouns in HPSG-87

This subsection looks at the problem enounced in the introduction, relying on the framework of the well-known formalism of HPSG (Head-driven Phrase Structure Grammar) developed by [31], [32], more precisely within the HPSG-87 theory of Pollard and Sag (1987) [31]. HPSG-87 considers as major signs the categories N(oun), V(erb), A(djective), and P(osition). While in HPSG-87, V is considered to bear naturally the subcategorization feature, and “in general common nouns do not subcategorize for elements other than determiners and possessors,... however, some classes of common nouns in English appear to subcategorize – albeit optionally – for additional complements” [31, p. 141]. The example considered is that of the classical ‘picture’ type:

**Ex.2.1.1.**

(Eng) There was a picture of Grigorescu(,) of a young woman.
(Rom) Era o pictură de Grigorescu(,) a unei tinere femei.

An observation of essential importance for our investigation is made in [31, p. 141], namely that another class of English nouns which subcategorizes for additional complements are the so-called “deverbative” nouns or “nominalizations”, defined as nominal forms etymologically related to verbs but distinct from the verbal gerunds. “To a large extent, the optional complements of such nouns, as well as their semantic role assignments can be predicted on the basis of the corresponding verb ‘sources’ ” [31, p. 141-142]. Relevant examples are given to illustrate the idiosyncratic lexical variation between the “deverbative” nouns and their corresponding verbal (actually, predicational) sources, such as:

**Ex.2.1.2.**

(a) The barbarians destroyed the city.
(b) The destruction of the city (by the barbarians)
Unfortunately, HPSG-87 [31] did not deepen the investigation on “deverbative” nouns and, more generally, on all N, V, A deverbative categories, i.e. categories which, based on their valence information at the lexical level, produce at the syntactic and semantic level a finite (tensed) or non-finite (non-tensed) clause structure, and bear, independent of their predicative or non-predicative (syntactic) role, what we called here a ‘predicational’ behaviour, and thus feature.

2.2 The Distinction Predicative / Non-predicative in HPSG-87

In HPSG-87, “the binary head feature PRD (predicative) corresponds to the predicative / nonpredicative distinction, which cuts across several different parts of speech. Roughly, predicative words (or their phrasal projections) are those which can occur as complements to the copula” [31, p. 64]. For example, among verbs, present participles and passive participles are ‘predicative’, being lexically marked as [PR(E)D +], while other verb forms are [PR(E)D −].

A similar approach to predicativity may be found in [36] (see § 9.1), as well as in other theories.

The same distinction predicative / non-predicative is considered to be relevant for adjectives, and Pollard & Sag (1987) [31] distinguish three general types of adjectives (As): (i) As which can occur after the copula but not as prenominal modifiers (e.g. asleep, awake) receive the predicative feature value [PR(E)D +]; (ii) As which can occur prenominally but not after the copula (e.g. former, mere, utter) receive [PR(E)D −]; and (iii) As which can appear in both prenominal and postcopular positions. Most As fall into this class, receive the feature [PR(E)D + V −], and are unspecified for the feature PR(E)D. This solution does not seem to be most adequate since one can give a lot of examples from various (e.g. Romance and Slavic) languages violating this taxonomy. An outstanding cross-linguistic, unifying analysis of the pre- and postnominal distribution of As, explaining the linguistic variation of adjectival modification (and the noun phrase structure) in
terms of (conceptual-intentional and sensori-motor) interfaces may be found in [4].

Moreover, HPSG-87 is mixing up the auto-semantic (major) categories N, V, A with the functional category P in what concerns their predicational properties, it recognizes that “prepositional phrases seem to lead a double life, occurring in both predicative and nonpredicative positions”, and inclines to consider the nonpredicative versions of Ps “as something other than (standard) Ps, perhaps grouping them with complementarizers and other formal markers that do not seem to make a real semantic contribution. As yet, HPSG(-87) lacks any precise analysis of such markers” [31, p. 65]. We support this observation, and our treatment of hierarchically organized classes of markers to be applied from single words until (and including) discourse structures in SCD (Segmentation-Cohesion-Dependency) linguistic strategy [17], [18] shows it.

The same ambiguous situation is found for Ns; “Like PPs, NPs too appear both predicatively (predicate nominals) and nonpredicatively (e.g. subjects and objects)…” [31, p. 66].

The following problem arises: a predicate is normally made up of a verbal group whose syntactic head is tensed. In the special case of the nominal or adjectival predicate, this verbal group reduces to the copular verb (or complex) to be, and the ‘predicate’ is completed with its nominal or adjectival part. Then one can appreciate that in such a predicate, to be represents its syntactic head, while the noun or the adjective completing this analytic predicate constitutes its semantic head. The question is: why to assign to the semantic head of the analytic predicate the purely syntactic feature PRED, unrelated to its lexical meaning, which proves clearly to be ambiguous since one can not find useful rules to discriminate between its values [PRED +] and [PRED -]?

HPSG-87 gives a partial answer to the above question noticing that “many important syntactic properties of phrases are determined by their lexical head; such properties are treated in HPSG in terms of head features” [31, p. 67], and acknowledge that the Head Feature Principles and Subcategorization Feature remain “at the heart of several major
issues in current syntactic and semantic theory...” [31, p. 72].
We are convinced that is necessary a deeper understanding of the
notion of predicate, and an unitary theory of this fundamental concept,
with the aim of integrating all the syntactic shapes of this phrase, in-
cluding and especially the situation of the nominal and adjectival (and,
why not, untensed verbal) predicates into a single consistent approach,
compatible with the regular (synthetic) forms of the predicate, and
with its intrinsic, natural role of predication bearer.

3 The HPSG-94 Theory

3.1 Markers in Complement Patterns
Chapter 3 in HPSG-94 [32], and especially Section 3.4. (Unsaturated
Complements), takes significant further steps toward the intensive use
of markers as functional elements within their role of delimiting and
dependency-establishing phrasal and clausal structures. We completely
agree with the “immediate dominance schemata” in [32, p. 125] which

\[
\begin{array}{c}
X \\
\text{MARKER-DTR} \\
\text{HEAD-DTR}
\end{array}
\]

Figure 3.1. Marker Functionality

fits not only with the complementizers, but with the much larger cat-
egory of markers (from Case to discourse markers) that work as func-
tions or relations to be applied to their sister nodes X(MARKER-
DTR(HEAD-DTR)). The ‘considerably clumsier’ system ([8, repro-
duced in [32, p. 124, (65)]) of the X-bar schemes:

(3.1) $i$. $VP_1 \rightarrow \text{COMP } VP_1$
ii. $S_1 \rightarrow \text{COMP } S$

iii. $S \rightarrow \text{NP VP}_1$ when COMP = for;
    $S \rightarrow \text{NP VP}_2$ otherwise

iv. VP$_1$ is to-VP and VP$_2$ is Tense-VP

(XI denotes here the first-level linguistic projection) represents
rudiments of the same more general relations in Fig. 3.1, which is,
by far, embedded within the general FX-bar scheme [18, p. 70]. In
[18] we propose a (general) functional X-bar scheme and theory that
negotiates all the main types of marker functionality with the phrasal
structures to which they apply.

Interestingly, the same type of relations as those in (3.1) and Fig. 3.1.
is again discussed by Chomsky (1995) [11], in a transient attempt to
replace the X-bar theory schemes by their underlying functional rela-
tions: “Standard X-bar theory is thus largely eliminated in favor of bare
essentials.” [11, p. 246].

The equi and raising phenomena are also explained using the same
interaction of lexical selection, universal rule schemata, and principles
of the HPSG-94 theory of universal grammar.

3.2 A Lexically-based X-bar Theory

Chapter 9 in [32] brings a really new breath for the whole standard
HPSG-87 and HPSG-94 theories. The new aspects are remarkable,
and bring a possibly radical change for the whole construction, con-
362-363] and the corresponding replacement of the Head Feature and
Subcategorization Feature Principles by the Valence Principle.

If applied uniformly to all possibly functional and relational cat-
categories, from lexical, syntactic and discourse markers to the predic-
tional categories, and inherited from the lexical to the maximal pro-
jection grammatical categories, the effect of the Valence Principle as
enounced and supported in [32, p. 348, 392], in cooperation with other
principles maximizing the utilization of the lexical functionality (sem-
antics), could change of great deal of the current configuration of the
HPSG theory.

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The X-bar lexical schemata for the local selection of the non-heads by a head (as well as other extraction schemata in the same Chapter 9 of [32]) can be easily embedded within the first three-up (from the four) levels of the general FX-bar scheme [18, p. 70]. (To remind that SPR and SPEC abbreviate in [32, p. 362, rel. (40)] for specifier and specified categories, respectively).

(3.2)

Head-Subject Schema \( X_2[\text{SUBJ } ()] \rightarrow [1] Y_2, X_2[\text{SUBJ } (1)] \)

HeadSpecifier Schema \( X_2 \rightarrow [1] Y_2[\text{SPEC } (2)], [2] X_1[\text{SPR } (1)] \)

Head-Complement Schema \( XP \rightarrow [1], X_0[\text{COMPS } (3)] \)

The mechanism of structure sharing indexes in (3.2) supply not only recurrence on the same level of projection ‘locality’, (i.e. inside the smallest maximal projection of the involved major lexical categories), but also the transition from a projection level to another, remaining however only inside the clause level and not beyond it (at the inter-clausal, discourse level).

The special situation of ‘deverbative’ categories (here only the noun) is retaken [32, p. 374, (55b)], as in HPSG-87 [31] (see § 2.1. above), in the new context of the proposed approach in Chapter 9 [32], for the (deverbative) predicational paradigm \{portrait (noun), portrayal (deverbative noun), portraying (nominal gerund), portrayed (verbal gerund), portray (nominal gerund), portrayed (finite verb)\} (the predicational nature of “portrait” is anyway ambiguous). However, once again, HPSG-94 (Chapter 9) does not discriminate the predicative from predicational contexts, and the analysis still remains as in standard HPSG actually, within the predicative framework.

We wonder whether “SUBCAT is a head feature, that is, the valence requirements of lexical heads would be reflected also on all their phrasal projections...this would be a highly undesirable result...” [32, p. 376]. We see no harm in the possibility of making equivalent (at the lexical level of the major categories N, V, A) the SUBCAT Principle, the Valence Principle, and the predicational feature, all assigned at the lexical level, and such an equivalent property to be inherited by the non-predicational part of the lexical head projection (i.e. only at the level of head quantifying, modifying, specifying etc.).
Contrastive Meanings of the Terms ...

The major (either verbal or non-verbal) categories N, V, A (and only then!), are perfectly alike in bearing intrinsically (available to receiving at the lexical level) the predicational feature (or, equivalently, the valence feature value).

It is true nonetheless that the predicational feature of the non-verbal categories N (noun) and A (adjective-adverb) is ontologically (and most often, semantically) related to a corresponding verb source. This is the origin of the terms ‘deverbative’ [31], [32] and ‘deverbal’ (in many other approaches, e.g. [33], [34], [5], [27] etc.). We prefer the term ‘predicational’ for the same notion mainly for two reasons: to emphasize that all major categories N, V, A are perfectly even in relationship to this property, and also because it is somehow unfair to consider a priori that the linguistic source of ‘actionality’ was initially the verb and not its semantic noun correspondent. Moreover, there exist ‘non-deverbative’ (‘non-deverbal’) verbs, which we call ‘nonpredicational’ ones (or ‘non-predicative’ in [26, p. 22]), such as copulative, semi-auxiliaries, modal verbs.

The indispensable asymmetry among the major categories N, V, A comes from another fact: while the predicational feature may (or may not) be an intrinsic property of any of the major categories equally, only the verb is able to make up such a phrasal unity as the predicate, when that verb is in a tensed form, and independently of its (non-)predicational property. A grammatical category should support the heaviness of marked degrees of temporality information within predicate, and the language simply (!?) picked up the verb to play this role. Why ‘portrayal’ and ‘portraying’ [32, p. 374, (55)], sharing in many languages verbal and/or non-verbal categories, would not be considered (and called) as non-tensed predicates, since they behave perfectly similar to the lexical heads of a regular (tensed) predicate? These lexical heads non-predicationally projected into non-tensed (verbal or nominal) phrases (labeled as non-tensed predicates) are, at their turn, predicationally projected into nonfinite clauses (since ‘portrayal’ and ‘portraying’ bear the predicational feature).

Tense is a characteristic syntactic feature of the predicate phrase. As we had already mentioned in the previous subsection § 3.1, the se-
mantic head of a predicate may be distinct of its syntactic head, as in
nominal or adjectival predicates “is a child”, “was green”, “will be de-
scribed”. The challenge is a lexical semantic uniform construction and
to the notion of predication that it should bear naturally.

3.3 Attributes vs Predicative Adjectives (Adverbs ?)
A certain particular but interesting property of the (traditionally) predi-
cative and attributive forms of adjectives-adverbs (abbreviated As) is
meant to suggest the variety of the aspects involved in the examined
problem.

In the construction of predicative complements, HPSG-94 supports
the selection of complements (including subjects), as well as the
assignment of their cases and semantic (thematic) roles, all taking place
within the lexicon. Discussing the special situation of German, [32]
used the PR(E)D feature to distinguish attributes from predicative ad-
jectives. The only adjectives in German that can occur in predicative
environments, specified as [PR(E)D +], are those presumably related
to a morphological stem by zero derivation, as klein or klug in the
following examples [32, p. 67, 90].

Ex. 3.1.1.

_Das Buch ist klein / *kleines._
_Der Junge (masc, sing) ist klug._
_Die Mädch en (neut, plur) sind klug._

Predicative adjectives in German are unspecified for agreement (and
concord) features, and distinguishing between predicative and attribu-
tive forms of adjectives in German as ‘lack of agreement’ in predicative
adjectival environments would represent an inaccurate approach.
HPSG-94 provides actually an index agreement in predicative construc-
tions at the structure-sharing level of indices, but since predicative ad-
jectival forms in German exhibit no inflectional morphology, they bear
less information than the corresponding attributive counterparts. The
consequence is that these German predicative adjectival forms are com-

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patible with a wider (possibly unrestricted) class of nominals. I wonder if this apparently peculiar construction is not a trace of the adverbal behaviour of the corresponding adjectives.

Comprehensive analyses on the (French) adjective distribution, meeting also our problem, may be found in [2], [3], and especially in [4], which explains the nature of prenominal and postnominal adjectival modification on the semantic network of the modified noun.

4 Chomsky’s Minimalist Program

4.1 Types of Lexical and Grammatical Functionality as Markers

We specify from the beginning that the terms marker and/or phrase marker are used with the meaning of function or relation to be applied to text structures. This approach is close to that of HPSG-94 [32], but different from that of Chomsky (e.g. 1995, [11]), where phrase markers are meant to be represented as “trees or labeled bracketing” [11, p. 34].

The terms marker and/or phrase marker are used

This is a simple sample of the more general embarrassing situation existing in almost all existing syntactic theories: the lack of explanation and clarification of the relationships among the notions and devices introduced within the same framework or (sub)system. Useless to remind the natural consequences of this fact: the insufficiency of coherence of each system entails the endemic deficit in establishing relationships between different systems and theories and, of course, the almost impossible task to accomplish the standardization of terminology concepts used within formal and/or theoretical linguistics and, by empathy (the reverse is also true), in mathematical and computational linguistics.

Chomsky’s theories, including the Minimalist Program (MinP) [11], are not an exception from these “rules”, and it is not at all simple to follow up our problem of differentiating between predicative and predicational meanings. This problem may be perceived also as a remarkable case of the more general problem of pointing out the linguistic appro-
appropriate markers, or barriers, or functional categories that are necessary to be captured from the text for the analysis (and applied to, for text generation), with the aim of establishing the correct boundaries and dependencies of the text organizing structures.

Possibly most challenging from our point of view would be the performance to rediscover and reinterpret the Chomsky functional categories (call them all, markers) as components of a constructive and computational machinery to be used in the analysis / generation of natural language, in particular as elements of a single, unitary hierarchy of such markers, for the main structures of the natural language. Within this marker hierarchy, viewed as a device of such a non-transformationalism machinery, the predicative (at the grammatical level) and the predicational (at the lexical semantics level) features are just (important nonetheless) enclosed markers. We already suggested in introduction (§ 1 above) that predicationality and θ-marking of heads could be identified within this unitary hierarchy of markers (classes of markers) [17], [18]. What we are trying to do here is just to sketch the picture of this extensive task.

In the MinP organization of the lexicon (e.g. [9], [11]), the subcategorization conditions (c-selection) and the intrinsic semantic features and thematic (θ-)properties of the lexical heads (s-selection) play a central role. For the lexical heads considered in MinP, viz. verbs, nouns, adjectives and pre- or postpositions, c-selection states what phrasal (syntactic) categories (NP, AP, clause etc.) take a certain lexical head, while the s-conditions specify the θ-theory functions (‘agent’, ‘patient’, ‘goal’ etc.) of the c-selection arguments (subject and complements). In the canonical structural realization of a lexical item, s-selection seems to have an epistemological priority over c-selection of that item, but while much of c-selection follows from s-selection, there exists a syntactic residue expressible in terms of lexical Case properties. In the MinP lexicon organization, Chomsky remarks (based also on [24]) that a word referring to an action is not always and necessarily the verb, since “languages commonly have nouns, like destruction, referring to actions, as well as verbs, like be, that don’t refer to actions” [11, p. 32]. This observation is important since it shows that major categories
(and only them) can bear equally the quality of being predicational (see § 3.3), while Tense is specific only to the verb and to its predicative feature.

Chomsky’s (1995) taxonomy considers two types of categories [11]: substantive categories (noun, verb, adjective, and particle), while the other categories are called functional ones, e.g. Tense (T), Inflection (I), Agreement (Agr), Complementizer (C), Determiner (D) etc. We consider as being correct (but not enough) the perception that “Functional items ... do not enter into 0-marking” [11, p. 54]. The distinction between these (at least) two kinds of functionality is not only that between functions of one variable and functions of several variables (i.e. of syntactic nature), but it is actually a (semantic) separation of predicational nature, viz. between predicational and existential types of functions that are to be applied to syntactic structures. Ultimately, this separation resonates with the small theory of (narrow and broad) L-relatedness (see the next subsection § 4.2).

In more recent papers [12], [13], Chomsky is using syntactic domains called phases, within which structure building (merge) and transformations (move) interact. Phases are, roughly speaking, clauses, over which economy conditions are checked. In order to construct distinguished substructures independently, and the well-formedness of these structures to be determined locally, Chomsky (2000) [12] proposes the following Impenetrability Principle of the phase: “In phase Ph with head H, the domain of H is not accessible to operations outside Ph, but only H and its hedge”. Not coming into details and supporting the completely non-transformational theories, we believe that Chomsky’s phases show again the need of a type of textual unit (matching the clause) whose boundaries (and dependencies) can not be established unless the corresponding (functional) markers are not pointed out properly and put to work. Of essential importance among these clause (and phase) markers are the (distinct) predicative and predicational features discussed here.
4.2 $\theta$-Marked Nominal Heads (Nominalizations) and Adjectival Heads Bearing the Predicational Feature

Interestingly, in the original proposal of the X-bar theory, Chomsky (1970) [7] talks about the difference between (a) and (b) in the following example:

**Ex.4.2.1.** (a) John’s criticism of the book

(b) John’s criticizing the book

justifying the projection of a lexical category. (Also instructive is the fact that the initial categories to produce linguistic projection were only N, V, and A.)

We see no essential semantic difference between the ‘derived nominal’ criticism and the ‘gerundive nominal’ criticizing in what concerns their predicational (or $\theta$-marking) properties, although their syntactic projection counterparts could be different (the so-called Apositions, i.e. Argument positions – not to be confounded with the categorial notation ‘A’ for adjective-adverb). In Romanian we have:

**Ex.4.2.2.** (a) Criticismul lui Ion asupra cărții

(b1) Criticând cartea, Ion...

or, (b2) Ion criticând cartea...

For Romanian, the gerundive forms (b) have to lose the genitive case to Ion, the correspondent of John’s in Ex.4.2.1.

The problem of predicational feature borne by noun (nominal) heads and nominalizations is discussed carefully by Chomsky (e.g., 1986 [9]), in the context of abstract representation of arguments (for the level of lexicon, see also the observation on the noun destruction in subsection § 4.1.), empty categories, $\theta$-marking principles, Case theory, and binding theory. Chomsky [9], [11] gives the following examples of nominalizations:

**Ex.4.2.3.** (a) the destruction of the city by the barbarians

(b) John’s departure

(c) Bill’s fear of John

*Predicational* categories such as the predicational nouns *destruc-
tion, departure, fear, promise, story, reading etc. (called also nominalizations), or the predicational adjectives expected, proud, difficult, uncertain etc. (called by Chomsky as “adjectival predictions” (!) [9, p. 121]) are analyzed for certain subtheories.

It is noteworthy the lack of the preposition (P) among the mentioned (major) predicational categories N, V, A. Chomsky does not support by examples that the ‘major’ category P would possibly have the same predicational status as N, V, A. Concerning the functional role of P, HPSG-94 [32] recognizes non-predicative and predicative Ps; the former ones are “role-restricted (none can take an object that will be assigned what is intatively an agentive role, e.g.)”, while the latter ones assign “no semantic role directly to the argument of the preposition, this role comes about indirectly” through (and only through – our emphasis) the predicational verb which Ps combines with [32, p. 342-343]. For ‘predicational prepositions’ in HPSG, see § 9.4. [36, p. 181].

Coming back to Chomsky [9], his substantial remarks on nominalizations (and other predicational categories) in the context of binding (as well as bounding) theory, θ-marking, A-positions (Argument positions) as the syntactic, grammatical counterpart of the (semantic) θ-positions, empty categories etc. show again the considerable insight given by Chomsky to this topic (maybe, not enough continued in his subsequent books). For instance, a special interest yields the potential θ-marking of the subject in nominalizations (predicational NPs): “Hence, it seems that nominalized form does not assign the θ-role unless the subject appears, either as a lexical element (as in “their destruction of the city...”) or as a PRO-like element in the specifier position. Many other questions arise that bear on this conclusion, including considerations of lexical structure that we have not touched on here.” [9, p. 123]. The relationships Argument-non-Argument expressed in the special (negative) rules (188-189-190) [9, p. 143-144] on binding theory confirm the significance of the problem.

Chomsky (1995) [11, p. 64, 196] outlines a short theory of L-features of a lexical item L. In particular, the functional markers T and Agr incorporate features of the verb, called V-features. The functions of the
V-features of an inflectional element I is to check the morphological properties of the verb selected from the lexicon. Within the framework of the X-bar theory, for a lexical item L, Chomsky says that a position is \textit{L-related} if it is in a local relation to an \textit{L}-feature, i.e. that position is in the internal (or checking) domain of a head bearing an \textit{L}-feature. The \textit{L}-related positions are actually A-positions (i.e. Argument positions), with the exception of (other) non-\(\theta\)-marked head elements (i.e. non-predicational elements). The checking domain can be further subdivided into two categories: \textit{non-adjointed} (Spec) or \textit{narrowly} \textit{L}-related positions, and \textit{adjointed} or \textit{broadly} \textit{L}-related positions.

Chomsky appreciates that a structural position narrowly \textit{L}-related has the basic properties of A-positions (positions where to fill in the \(\theta\)-roles), while a position that is not \textit{L}-related has the basic properties of \textit{non-A}-positions (specifiers and adjuncts). However, this view is (syntax) language-dependent, thus imprecise; it should be further developed and specified on lexical categories and types of functionality. For instance, a position being \textit{`broadly'} \textit{L}-related could mean in a language to be located closer to a (syntactic or semantic) head than \textit{all} A-positions (the usual case of adverb in Romanian, and not only), or to be situated \textit{subsequent to} (thus farther than) \textit{all} A-positions, (the special case of English adverb, whose position is sometimes rather a \(\theta\)-domain or clause-type boundary \textit{marker}). This unfinished theory of \textit{L}-related positions and functional \textit{L}-features fits partly with the constructive and working properties of the general FX-bar scheme [18, p. 70], but a comparative approach would be unbalanced at present because of its incomplete aspects and the lack of a common conceptual platform.

Some of the functional categories (C, T, D, Agr, \(\theta\)-marking, \textit{Case}-marking) and other types of marker classes met in MinP [11], [9], [10], [38] are retrieved within the SCD (Segmentation-Coherence-Dependency) \textit{linguistic strategy} even since [14], [15] on certain levels of a \textit{uniquely} structured hierarchy of \textit{marker classes} as important segmentation and dependency establishing devices [17] for the involved syntactic structures proposed by the \textit{functional X-bar} (FX-bar) \textit{theory} [18].
The partial but important conclusion is that Chomsky’s theories are making use of many functional (either lexical, grammatical, or discourse) elements in MinP that are also met in SCD strategy. Among these functional markers, predicationality (identified as semantic head \( \theta \)-marking) is one of the most important. The rules of the MinP game are different to those of SCD, but many of the functional categories are similar to the SCD marker classes, constituting a stimulating support to SCD.

5 Prague School’s Tectogrammatical Representations

The tradition and expertise of the Prague School in functional and structural linguistics [37], [25] developed a body of theories and mechanisms for linguistic description and analysis: FGD (Functional Generative Description), Tectogrammatical Representations (tree structures), Topic-Focus articulation, verbal frames etc. FGD relies on the following characteristic approaches to language: generative and functional account, stratification, dependency, and topic-focus articulation. A special attention was given to the valency and to the notion of verbal frames. Prague School formulates operational criteria for deducing the nature of complements of a predicational category (specifically for verbs), and classifies complements as inner participants (or actants, corresponding to Arguments in other theories) and free modifications (or circonstants, corresponding to Adjuncts in many other theories).

Prague School definition of the verbal frame comprises thus two types of verbal (predicational) frames, depending on their optionality and obligatoriness: inner participants (arguments) and free participants (adjuncts). The admitted five inner participants (actants) are Actor / Bearer, Objective, Addressee, Origin, and Effect / Result, while all others are free modifications (circonstants) of the head category, their presence within the verbal frame being either obligatory or optional, and anyway recursive for all of them.

The valency of nouns (called “postverbal” nouns, according to their
source verbs) and of adjectives received the deserved concern, and was embodied into the Prague Dependency Treebank containing verbal frame descriptions.

Prague School’s approach tries to classify the actants of an action “under a single participant heading, as far as this appears to be supported by the facts of linguistic structure” [37, p. 134]. The proposed FGD is “closer to Tesnière than to Fillmore, though in FGD the assignment of a certain ‘actant’ does not depend only on the number of participants of the verb”. Besides, “not only verbs, but also other parts of speech have their frames, i.e. their valency” [ibidem], nouns and adjectives being mentioned and examined explicitly. Concerning the predicational nouns, there are considered not only “those that can be derived from the underlying verbs, but first of all, of the tectogrammatical nouns themselves. The same reasoning holds for adjectives and adverbs” (!) [ibidem]. Examples containing brother, beginning, surface, the well-known painting (as some of the nouns), useful, older (as adjectives), and to the left (as adverb) are mentioned [37, p. 161-164].

We may conclude that in the Prague School approach, verbal frames correspond to θ-theory, actants and circonstants correspond to A- and non-A-positions, and tectogrammatical marking is very close to our notion of predicationality (the difference could reside mainly between part-of-speech and lexical categorial devices). Since among the considered tectogrammatical (possibly predicational) nouns one can find some that I would consider as being purely existential (non-predicational) ones such as basket, bottle, river, pencil, book), one can assume that the balance syntax / semantics in the Prague School tectogrammatical representations incline slightly towards semantics. An additional reason to this interpretation would be, for instance, that the valency of the copular ‘to be’ requires two participants (Actor and Objective), the existential ‘to be’ receives a single actant (inner participant) [37, p. 159], while in e.g. [26, p. 22] the copular ‘to be’ is clearly appreciated as non-predicative (actually, non-predicational, – see § 3.2 and § 7 [26], but also the next section).

(Continuation in the Next Number of the Journal)
References


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Neculai Curteanu, Received September 20, 2003

Institute of Theoretical Informatics,
Romanian Academy, Iasi Branch
B-dul Carol I, nr. 22A, 6600 IASI, ROMÂNIA
E-mail: curteanu@iit.tuiasi.ro

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