“Finite” and “nonfinite” from a typological perspective*

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Abstract

The differentiation between finite and nonfinite forms is among the most complex domains of grammatical description. This is probably the reason why this category plays only a marginal role in typology. Clarification is further handicapped by the tradition of school grammar, which simply copies its categories from specific languages. In order not to be trapped by this tradition, a distinction between semantic and morphological finiteness is proposed, one which makes it possible to clarify notoriously complex cases as, for example, movable predicate affixes in Amerindian and Munda languages, the “finite infinitive” in Portuguese, etc. Two areas are investigated: complex predicate formation, where auxiliary formation is distinguished from multiple finite coverbal modification; and complex sentence formation with degrees of finiteness in secondary predicates (masdar, participial and converbal constructions).

The problem is placed at the intersection of several quite fundamental questions of grammatical theory: the definition of the word as an independent level of description, word classes (noun–verb distinction), sentence patterns (nominal vs. verbal sentences), etc. These topics can only be touched upon so as to isolate the question of finiteness. As these questions are highly theory-bound, the argumentation in the article is informal, not committed to a special grammatical framework.

1. Finite and nonfinite — the problem

Questions of finiteness play a rather marginal role in theoretical discussions, notwithstanding the current use of the term in linguistic publications. Where the problem is discussed, especially in typological work, there is even a tendency to do away with the term completely, as it seems to be not amenable to a theory-proof definition (cf., e.g., Koptjevskaja-
Tamm 1994). This tendency is quite understandable, as confusion between interlanguage equivalents for translation and notional clarification abounds. A rather representative example is the following from Ennaji (1985), making use of these terms in describing Moroccan languages (henceforth, MA: Moroccan Arabic, MB: Moroccan Berber):

(1) **MA:**

\[\text{xtar-t [i-bqa Ahmed f-d-dar]} \text{infinitival complement}\]

choose:PF-1S 3SM-stay:IPF Ahmed in-DEF-house

“I chose for [Ahmed to stay at home] infinitival complement”

(2) **MB:**

\[\text{nuwwa-\mathbf{y} [a-i-n3ex Ahmed]} \text{infinitival complement}\]

wish:PF-1S SUBJ-3SM-succeed:IPF Ahmed

“I would like [Ahmed to succeed] infinitival complement”

The logic of the analysis here is easily understandable. The category of infinitival complements, as this is defined for English, has been transferred on the basis of translation to MA and MB. Once this step has been taken, it is only logical to call the verbal forms in these so-called “infinitival complements” (MA \(i\text{-bqa, MB } a\text{-i-n3ex}\) infinitives as well. But seen from a morphological point of view, they show morphological marking for person, aspect, and mood (in both cases SUBJ, in MA — different from MB — mood is only negatively marked through the lack of explicit marking for the indicative). Thus syntactic classification is directly transferred onto morphology. The aim of this article is to try to bring some notional clarification into this complex area, distinguishing between questions of morphology, syntactic constructions, and semantic interpretation.

To this end, the sketch of an explanatory model will be presented in Section 2. As the terminology of finiteness goes back to the grammatical theory of classical school grammar, I will show in Section 3 how the concepts introduced in Section 2 relate to this school tradition. In the following sections, this model will be tested against some diagnostically difficult cases for grammatical description: in Section 4, complex predicate formation; and in Section 5, complex sentence formation. Section 6 consists of some general conclusions as well as a preliminary framework accounting for the problems of finiteness in typological work.

### 2. A notional framework for analyzing finiteness

As examples (1) and (2) show, different levels of analysis of finiteness have to be distinguished:
– at the syntactic level: semantic finiteness with regard to the interpretation of a sentence construction,
– at the morphological level: morphological finiteness with regard to the form of the “wording” of a construction.

These levels have been conflated in the analysis quoted: forms such as MA *ibqa* (1) and MB *ainzex* (2) are semantically nonfinite, but morphologically finite.

These notions will be defined in the following, beginning from linguistic common knowledge, so that there should be no need for going into details. Semantic interpretation is bound to the utterance, whereas grammatical form will be treated at the level of sentence structure, with the sentence basis as its kernel whose interpretation can be equated with a proposition. In a very preliminary way, semantical finiteness can be defined as the condition for an independent interpretation of a sentence. Thus, semantical finiteness is related to the utterance and concerns all questions of reference, that is, the mapping of the sentence onto the context of the utterance. In the following this will be called the grounding of a sentence: the grounding sets the consequences for the action, the deictic binding (reference) of the actants of the scenario (arguments of the proposition), and the temporal anchorage of the event or the state designated by the proposition. Part of the grounding consists of further orientational devices for the hearer: for example, the thematic orientationing, marking the topic of a sentence, and the like. Thus, in a certain tradition of semantic reasoning, semantic finiteness corresponds to the pragmatic specification of a sentence, called the sentence modality in the traditional philosophy of language.

The argumentation here is structural: it looks for a general definition (in the sense of, for example, Hjelmslev), not for universals. There is no realistic (cognitive) claim bound to the argumentation. As developed so far, the differentiation cannot be mapped directly onto syntactic structure: although grounding does not refer to a syntactic constituent, this does not preclude that it could be articulated by syntactic constituents — this is a typologically interesting question, bound to the typological structure of a given language. Thus, the argumentation in the following does not operate with theory-specific concepts as GB’s IP that can be reinterpreted in this sense.

On the syntactic level the sentence basis can be distinguished from its periphery. The sentence basis consists of the predicate and its actants (arguments). Its kernel is the predication, which is a semantic notion, independent of questions of word classes. As far as the grammatical form of a sentence is concerned, two types of sentence bases can be distinguished. Following Bloomfield (1933: 173) they can be characterized as qualitative
predication and narrative predication. The traditional terminology for this distinction presupposes universal word classes, referred to as: verbal and nominal sentences, respectively. This conflation of lexical and syntactic categorization will be discussed in Section 4; in the following, I will use Bloomfield’s terms. Qualitative predication is the basis for the traditional definition of the sentence as a relation between subject and predicate, which is an exocentric construction. Narrative predication articulates an event, for which the predicate mounts a scenario, which must be situated. The predicate is the kernel of the narrative predication, which is an endocentric construction. With these distinctions, we enter language-specific structures: the general notions made use of here should help to define the structures which distinguish between the languages of the world. One introductory example might help to illustrate the terms used, taken form Pitjantjatjara (a Pama-Nyungan language of Australia): (3) shows examples of narrative predication. The sentence structure is endocentric; thus a minimal sentence like (3a) may be expanded, whereby the predicate successively becomes more narrowly interpreted (3b) and (3c):

(3) Pitjantjatjara:
   a. inka-\textit{pi} \\
      sing: PRES \\
      “singing happens (i.e. “they sing,” “he sings,” or the like)” \\
   b. \textit{t/}it\textit{i}-\textit{\textgamma{ku} inma inka-\textit{pi}} \\
      child-ERG song.ABS sing:-PRES \\
      “the child sings a song” (or: “the children sing a song”) \\
   c. \textit{t/}it\textit{i} \textit{t/}\textit{ukut}/\textit{uku} t\textit{\textgamma{ta mulapa-\textgamma{ku} inma inka-\textit{pi}} \\
      child little much very-ERG song.ABS sing:-PRES \\
      “very many little children sing a song”

3. The tradition of school grammar

The aim of the preceding comments is to come to grips with the notional core of the tradition of grammatical reasoning that can be exploited for typological research. This is to be distinguished from the concrete concepts of traditional (school) grammar, where the notion of finiteness comes from. Yet, a closer look at the school tradition can show that it is less infected by notional confusion than is often claimed in modern linguistics.

The tradition of distinguishing finite from nonfinite goes back to late Latin grammarians. Priscian (e.g., \textit{Institutio grammatica} 17, 89 [1981:}
157]) uses the term *finire* “to define (something),” and refers to all forms that are indefinite as “nonfinite.” He is primarily concerned with questions of reference; thus, for him, an utterance (containing a verb form) is nonfinite if it can be made *de/finite* by adding a referring pronoun. This is apparently not the modern use of the term, which is bound to the distinction of word classes: the term “definite” is reserved for nominal forms, “finite” for verbal forms. This amalgamation of the categories finite/nonfinite with the distinction of the word classes noun and verb, that is, the mixing of syntactic-semantic criteria with formal-morphological ones, goes back to the Stoa, that is, the philosophical project of deriving grammatical categories from the logical analysis of “judgement” (the structure of the proposition).

A short look at the verbal paradigm of Old Greek suffices to show that Greek morphology could not have been the source of the modern distinction between finite and nonfinite. This is especially evident if we look at the grammatical category most often correlated with finiteness: tense. The infinitive, nonfinite *kat’exochen*, participates (as well as the participle) in the Greek tense paradigm, cf. (4):8

(4) Verbal system of Old Greek, I

<table>
<thead>
<tr>
<th>Voice</th>
<th>Tense/Aspect</th>
<th>Finite</th>
<th>Infinitive (invariable)</th>
<th>Nonfinite</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mood: IND/</td>
<td></td>
<td></td>
<td>Participle (Case/Num./Gen.)</td>
</tr>
<tr>
<td></td>
<td>SUBJ/OPT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Person:</td>
<td>1/2/3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AORist</td>
<td>(e-)lip-on</td>
<td>lip-ein</td>
<td>lip-on</td>
<td></td>
</tr>
<tr>
<td>PRESen</td>
<td>leip-oo</td>
<td>leip-ein</td>
<td>leip-oon</td>
<td></td>
</tr>
<tr>
<td>FUTure</td>
<td>leip-s-o-o</td>
<td>leip-s-ein</td>
<td>leip-s-oon</td>
<td></td>
</tr>
<tr>
<td>PERFect</td>
<td>le-loip-a</td>
<td>le-loip-enai</td>
<td>le-loip-oos</td>
<td></td>
</tr>
<tr>
<td>Middle</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AOR</td>
<td>(e-)lip-o-men</td>
<td>leip-sa-sthai</td>
<td>leipsa-menos</td>
<td></td>
</tr>
<tr>
<td>PRES</td>
<td>leip-o-mai</td>
<td>leip-e-sthai</td>
<td>leip-o-menos</td>
<td></td>
</tr>
<tr>
<td>FUT</td>
<td>leip-so-mai</td>
<td>leip-se-sthai</td>
<td>leip-so-menos</td>
<td></td>
</tr>
<tr>
<td>PERF</td>
<td>le-leim-mai</td>
<td>le-leip-sthai</td>
<td>le-loim-menos</td>
<td></td>
</tr>
<tr>
<td>Passive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AOR</td>
<td>(e-)leip-thee-n</td>
<td>leip-thein</td>
<td>leip-theis</td>
<td></td>
</tr>
<tr>
<td>PRES</td>
<td><em>identical with middle</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FUT</td>
<td>leip-thee-so-mai</td>
<td>leip-thee-se-sthai</td>
<td>leip-thee-so-menos</td>
<td></td>
</tr>
<tr>
<td>PERF</td>
<td><em>identical with middle</em></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
To call the finite verb form the “tensed form” cannot go back to the grammatical analysis of Old Greek, but what does have its roots here is the amalgamation of semantic and morphological finiteness. What is peculiar to the finite forms of Old Greek is the marking of person and mood, as is especially transparent in the paradigm of the athematic verbs, cf. (5):

(5) Verbal system of Old Greek, II: opposition indicative/optative in the present active (stem \textit{di-do-/di-doo-} “give:” terminations in italics)

<table>
<thead>
<tr>
<th></th>
<th>Indicative</th>
<th>Optative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1S</td>
<td>di-doo-\textit{mi}</td>
<td>di-do-\textit{iee-n}</td>
</tr>
<tr>
<td>2S</td>
<td>di-doo-s</td>
<td>di-do-\textit{iee-s}</td>
</tr>
<tr>
<td>3S</td>
<td>di-doo-\textit{s}i</td>
<td>di-do-\textit{ee}</td>
</tr>
<tr>
<td>1P</td>
<td>di-do-\textit{men}</td>
<td>di-do-\textit{i-men}</td>
</tr>
<tr>
<td>2P</td>
<td>di-do-\textit{te}</td>
<td>di-do-\textit{i-te}</td>
</tr>
<tr>
<td>3P</td>
<td>di-do-\textit{aasi}</td>
<td>di-do-\textit{i-en}</td>
</tr>
</tbody>
</table>

There are six different markings for person, which in the indicative is accompanied by stem alternation for number. Mood is marked by a stem affix (Ø in the indicative; -\textit{iee-/-i-} in the optative) as well as by the indicative marking -\textit{i} in the 1S, 3S, and 3P: -\textit{m-i} vs. -\textit{n} (< -\textit{m}), etc. Thus departing from the school tradition of Greek grammar, the personal and modal markings are designated as good candidates for the core of morphological finiteness. In Old Greek (as in most related languages) these markings are fused. In Section 5, we will see that they can be dissociated, giving way to different types of morphological finiteness.

4. Verb and predicate — a further step towards notional clarification

Fundamental for the tradition of school grammar is the lexical partition into word classes, especially the distinction of noun vs. verb. As we have seen in the last section, this is true of the traditional concept of finiteness as well. But the traditional concept of the word classes noun and verb is bound to a specific structure of the sentence base: it is defined only for narrative predication; where languages can (but must not) show a corresponding partition, with the specialization of verbs (or verbal stems) to mount a propositional scenario due to their valency (cf., e.g., Vogel and Comrie (2000) for discussion of these topics). The notions of Section 3 are general concepts, thus invariant for typological differences, establishing a concept of predication independent of its (language-specific) lexical articulation by verbs.
A look at a language without a syntactic noun–verb distinction (or at least a very weak one) can help to clarify the distinction. Mundari is a quite clear case, where lexical roots do not have this syntactic specialization. Of course, this does not mean that every root will show up in forms of all syntactic functions in extant texts: but nothing in the formal design of these roots hinders them from being used in all functions, cf. the examples in (6):\(^{10}\)

(6) Mundari roots

a. buru – *predicative:* (1) “to heap up,”
   (2) “to hold a fair (usually held on mountains),”
   (3) “to call something a mountain”
   – *complement:* “mountain”

b. Ṫaŋ – *predicative:* (1) “to make a house,”
   (2) “to acquire a house,”
   (3) “to call something a house”
   – *complement:* “house”

c. he – *predicative:* (1) “to answer in the affirmative,”
   (2) “to agree to something,”
   (3) “to grant something to someone”
   – *(Sentence particle):* “yes”

Mundari does not have verbs as a form class but marks word forms for their syntactic function. Thus, main predication is marked by the suffix -a-(PRED), to which the personal marking for the subject of qualitative predication or the main actant of narrative predication is suffixed (-iŋ, -e, etc., cf. (8)). With narrative predication a further participant can be marked on the predicate, which is identified by its relative position in the sentence. Thus the basic morphological structure of the predicate is the following:

(7) Morpheme structure of the predicate in Mundari (facultative elements in brackets)\(^{11}\)

\[ R - (VAL-) T/A- (SA.1-)/(SA.2-) PRED - MA \]

*Legend:*

- \( R \) = lexical root
- \( VAL \) = valency marking
- \( T/A \) = tense/aspect
- \( SA.1 \) = secondary actant 1 (“direct object”)
- \( SA.2 \) = secondary actant 2 (“indirect object”)

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365

On the typology of “finite” and “nonfinite”
A predicate thus marked will suffice for narrative predication. Some examples of simple sentences in Mundari can serve as illustration.

(8) Simple sentences (not multiverbated) in Mundari
   a. slaŋiŋe-a-iŋ
      big-PRED-1S
      “I am big”
   b. lel-jadʔ-ko-a-e
      see:-PRES-3P-PRED-3S
      “he sees them”

For more complex sentence types in Mundari, cf. (31).

In some languages, the different types of predication discussed in Section 3 are grammaticized, whereas they are “covert categories” in other languages. In Afro-Asiatic languages this is a very fundamental syntactic distinction. Narrative predication is articulated by a “verbal sentence,” as it is called in the Arabic grammatical tradition, which can be monoverbal, cf. (9a) and (9b), whereas qualitative predication must be binary, showing the binary subject–predicate pattern, in the default case articulated by a “nominal sentence,” as in (9c):

(9) Arabic:
   a. darab-a (-huu)
      hit:PF-3SM (-3SM)
      “he has hit (him)”
   b. darab-a (-huu) muḥammad-u-n
      hit:PF-3SM (-3SM) Mohammed-NS-INDEF
      “Mohammed has hit (him)”
   c. muḥammad-u-n nad.zaar-u-n
      Mohammed-NS-INDEF carpenter-NS-INDEF
      “Mohammed is a carpenter”

In Arabic there is no copula; qualitative predication is articulated through juxtapositional word order: the first element is the subject (Ar. mubahda? “what is put first”), followed by the predicate (Ar. xabar “what is said”). Berber has a copula, but one which is nonverbal, cf. (10a). This structure with a (nonverbal) copula is used in Arabic as well to articulate an identifying predication, cf. (10b):

(10) a. (MB) muḥa d amaziɣ
      Moha COP Berber
      “Mohha is a Berber”
b. (MA) ana huwa l-ustad
   1S  COP DEF-teacher
   “I am the teacher”

As forms of independent (nonelliptical) utterances, these “nominal sentences” are by definition semantically finite. Grounding is articulated here by default: an utterance in this form is indicative, claiming truth for the time of the utterance. All other grounding has to be openly articulated. In Arabic, this must be done by means of a verbal sentence, cf. a nonpresent claim in (11b) and a nonindicative predication in (11c) in distinction to the default case in (11a):

(11) MA:
   a. mḥammād  mrīḍ
      Mohammed sick
      “Mohammed is sick”
   b. kan  mḥammād  mrīḍ
      be:PF.3S.M Mohammed sick
      “Mohammed was sick”
   c. i-kun  mḥammād  mrīḍ
      3S.M-be:IPF Mohammed sick
      “Perhaps Mohammed is sick”

Languages such as English and German conflate the two types of predication even further; here, in addition to some minor utterance forms where the question of sentence structure is open to discussion,13 predication must be articulated with a verbal predicate, often with a “dummy verb” (copula), as the translation of (11a) shows. From this grammaticization of verbal predication, a number of conceptual problems follow, such as the problematic category of subject, usually defined by the agreement with the finite form of the predicate — a void criterion in the case of nominal sentences. Thus, the dubious amalgamation of the problems of finiteness with other central grammatical categories is evident.

In Afro-Asiatic languages, verbal predication implies the markings of person and (sentence) modality, which have already shown up as the kernel of morphological finiteness in Old Greek (cf. Section 2). As there are languages that have complex morphology without any marking of person on the (verbal) predicate, sentence modality proves to be the more robust parameter of morphological finiteness, cf. the paradigm in (12) for the main predicate in Pitjantjatjara, which has a rich paradigm of sentence modality but no person marking (excluded combinations are shaded).
(12) Verbal system of Pitjantjatjara (PIT), I: main predicates (stem inka- “sing:”)

<table>
<thead>
<tr>
<th></th>
<th>Present</th>
<th>Past.-DUR</th>
<th>Past.-otherwise</th>
<th>Future</th>
<th>Habitual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicative</td>
<td>inka-نى</td>
<td>inka-نى</td>
<td>inka-نى</td>
<td>inka-نى</td>
<td>inka-نى</td>
</tr>
<tr>
<td>(positive)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td>inka-wija</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imperative I</td>
<td>inka-Ø</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(conditional)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imperative II</td>
<td>inka-ma</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The possible dissociation of finiteness markings can be used for defining a scale of syntactic articulation whose grammaticization defines linguistic types. This is the case with secondary predications in complex sentences, for example:

- “finite clauses” (“Nebensätze” in German school grammar);
- participial (converbal) and infinitival constructions;
- adverbial and attributive modifications.

This argumentation could be extended to include cases of nominalization or masdar formation. The following German examples in (13) present a scale of secondary predications, that is, of predicative structures that participate in the semantic finiteness of the main predicate of the sentence, showing at the same time different degrees of morphological finiteness, from verbs, which have valency, to nominal forms, which do not have valency. Thus (13a)–(13e) are semantically nonfinite, while only (13f) and (13g) are semantically finite, licencing, for example, an independent topic.

(13) Domains of predicative categories, German (NHG)

<table>
<thead>
<tr>
<th></th>
<th>Semant. finite</th>
<th>Morpholog. finite</th>
<th>Verbal</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. das Bergsteigen</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>b. das Besteigen des Berges</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>c. das den Berg Besteigen</td>
<td>–</td>
<td>–</td>
<td>+</td>
</tr>
<tr>
<td>d. um den Berg zu besteigen</td>
<td>–</td>
<td>–</td>
<td>+</td>
</tr>
<tr>
<td>e. als er den Berg bestiegen hatte</td>
<td>–</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>f. denn er hatte den Berg bestiegen</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>g. er hatte den Berg bestiegen</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>
5. Finiteness in complex sentence formation

As semantic finiteness is an attribute of the sentence, propositional constituents of a sentence participate in the finiteness of the complex sentence. Participation in semantic finiteness can be marked in different ways, which is the domain of morphological finiteness, giving way to typological distinctions and especially areal phenomena (properties of Sprachbünde). Complex sentence formation will be understood as the syntactic expansion of an elementary construction. This can be done in a scale of degrees of syntactic expansion, which, in turn, can be articulated by degrees of finiteness, cf. (13). The Western European linguistic area has been characterized as predominantly finite prominent (Mayerthaler et al. 1993): here, secondary predications tend to be expressed by (morphologically) finite verbs on a scale similar to (13). This is the domain of subjunctive forms (often called conjunctive in traditional grammars). The grammar of Old Greek can again be used as a model, cf. the ablauting stem-affix in (14):

(14) Verbal system of Old Greek, III: opposition indicative vs. subjunctive in the present active (stem *di-do- “give”, person marking in italics)

<table>
<thead>
<tr>
<th>Argument (actants)</th>
<th>Syntactic function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicative</td>
<td>Subjunctive</td>
</tr>
<tr>
<td>1S di-doo-mi</td>
<td>di-do-oo-oo (ótóô)</td>
</tr>
<tr>
<td>2S di-doo-s</td>
<td>di-do-oo-is (ótóôç)</td>
</tr>
<tr>
<td>3S di-doo-si</td>
<td>di-do-oo-i</td>
</tr>
<tr>
<td>1P di-do-men</td>
<td>di-do-oo-men</td>
</tr>
<tr>
<td>2P di-do-te</td>
<td>di-do-oo-te</td>
</tr>
<tr>
<td>3P di-do-aasi</td>
<td>di-do-oo-si</td>
</tr>
</tbody>
</table>

There is considerable diversity in the languages of the world in the grammaticization of syntactic patterns for secondary predication. At least two dimensions prove useful for cross-classifying the patterns found, cf. (15):

(15) Parameters of differentiation of propositionally elaborated secondary predications

<table>
<thead>
<tr>
<th>Arguments (actants)</th>
<th>Syntactic function</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Attributive Adverbial</td>
</tr>
<tr>
<td>Same as in main scenario</td>
<td></td>
</tr>
<tr>
<td>Different from main scenario</td>
<td></td>
</tr>
</tbody>
</table>
Defaults to alleviate paradigmatic complexity are frequent. Thus, a quite common pattern restrains morphologically finite (person-marked) secondary predications to the case of different main actant, as, for example, in German, where the infinitive construction (cf. (13d)) does not licence a subject expression and is hence restricted to contexts of “subject identity.”

Languages without person marking in the finite verb form often show special morphological means to express this difference, for example, in Australian languages, cf. (16):

(16) Verbal system of Pitjantjatjara II: secondary predicates

<table>
<thead>
<tr>
<th>Syntactic function</th>
<th>Scenario</th>
<th>Scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MA.I</td>
<td>MA.D</td>
</tr>
<tr>
<td>Attributive (relative)</td>
<td>participle I</td>
<td>-p-t/a</td>
</tr>
<tr>
<td>Attributive (relative)</td>
<td>participle II</td>
<td>-p-t/i-t/a</td>
</tr>
<tr>
<td>Adverbial (converb)</td>
<td>conv. I</td>
<td>-ra</td>
</tr>
<tr>
<td>Adverbial (converb)</td>
<td>conv. II</td>
<td>-nta-t/a-nu</td>
</tr>
<tr>
<td>Adverbial (converb)</td>
<td>conv. III</td>
<td>-ntiki-t/a</td>
</tr>
<tr>
<td>Subjunctive</td>
<td>subj. I</td>
<td>-ntika-t/a</td>
</tr>
<tr>
<td>Subjunctive</td>
<td>subj. II</td>
<td>-nti-t/a</td>
</tr>
</tbody>
</table>

Some examples can illustrate the morphological complexity of these verbal forms: an attributive (or “relative”) construction in (17a) and a con-verbal construction in (17b):

(17) Pitjantjatjara:

a. \text{wati wagu atu-nt/a-lu} = \eta^n_i \quad u-\eta^u
\text{man wood chop:PCP.I-ERG} = 1\text{S.ACC give:PAST}
\text{“the man who chops wood gives me (something of it).”}

b. \text{mama-lu ka}\text{pa}\text{a paku-pai} / \text{mumu} = \eta^n_j
\text{father-ERG kanjala see:HAB} / \text{and} = 1\text{S.ACC}
\text{wat}^t/a-\tau a \quad \text{wanti-kati-pai} / \quad \text{apu-\eta^ka}
\text{say:CONV1.MA.I leave:-V/V-HAB} / \text{and} = 1\text{S.ACC}
\text{ni.na-n.t/a.ku} / \quad \text{sit-SUBJ2.MA.D}
\text{“When father sees a kanjala, he will tell me, while he leaves me, that I should sit on the hill.”}

Secondary predication, especially conversbs, have recently received considerable attention. In this respect, Turkish is one of the languages most extensively discussed, as it shows a clear opposition between morphologically finite main predicates and nonfinite secondary predicates (cf., e.g., Haspelmath and König 1995; Lewis 1967). But interestingly, secondary
predicates can be used even with different main actants, although the secondary predicate must then be marked by a possessive affix as in (18b):

(18) Turkish:
   a. oku -ma -dık gazete kal -ma -dı
      read:-NEG-CONV journal remain:-NEG-PAST.3S
      “No journal remained unread.”
   b. oku -ma -diğ-im gazete kal -ma -dı
      read:-NEG-CONV-1S journal remain:-NEG-PAST.3S
      “No journal remained which I did not read.”

Among the secondary predicates most prominently discussed is the Portuguese *infinitivo pessoal* (“personal infinitive”), a somewhat paradoxical designation which graphically underlines the need for clarification (cf. Maurer 1968). As the *infinitivo pessoal* in (19a) shows, it is a personally marked form of the subjunctive paradigm (thus glossed here SUBJ) which is used when the actant of the secondary predication is different from the main actant, whereas in case of “subject identity” an infinitival construction is used, as in (19b):

(19) Portuguese:
   a. pass -ei sem me ver -em
      pass:-PAST.1S without 1S.nN see:SUBJ-3P
      “I passed without their seeing me.”
   b. pass -ei sem ver (o -s homen -s / los)
      pass:-PAST.1S without see:INF DEF-P man-P / 3PM 1S.*N
      “I passed without seeing (the people/them).”

Thus there is nothing mysterious about this *infinitivo pessoal*, which shows the same paradigm structure as the future-potential, cf. (20). The subjunctive status is indicated by the presence of person marking without specific tense/aspect meaning:

(20) Subjunctive paradigms in Portuguese (*ver* “see”)

<table>
<thead>
<tr>
<th>Person</th>
<th>Infinitivo Pessoal</th>
<th>Future Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>1S</td>
<td>ver</td>
<td>vir</td>
</tr>
<tr>
<td>2S</td>
<td>ver-es</td>
<td>vir-es</td>
</tr>
<tr>
<td>3S</td>
<td>ver</td>
<td>vir</td>
</tr>
<tr>
<td>1P</td>
<td>ver-mos</td>
<td>vir-mos</td>
</tr>
<tr>
<td>2P</td>
<td>ver-des</td>
<td>vir-des</td>
</tr>
<tr>
<td>3P</td>
<td>ver-em</td>
<td>vir-em</td>
</tr>
</tbody>
</table>

But what remains interesting in the Portuguese case are the etymological dynamics, which will be mentioned below, cf. Section 7.
6. Morphological finiteness: complex predicates and the problem of auxiliaries

Secondary predications as expansions of complements are to be distinguished from the expansion of the predicate itself, which is traditionally termed verbal periphrasis, that is, the multiverbation of the predicate. Depending on the function of the elements of the complex predicate, two types can be distinguished:

(21) Types of complex predicates
- Type 1: the domain of the modifying element of the predicate is the sentence basis, whereas the modified element of the predicate expresses the grounding of the sentence;
- Type 2: the modifying element of the predicate expresses the grounding, whereas the domain of the modified element of the predicate is the sentence basis (it mounts the sentence basis by its valency).

The two types of (21) are independent of the specification of (morphological) finiteness. As each element in a complex predicate can be morphologically finite or not, four structural types of morphological finiteness are possible in the case of two elements:

(22) Morphological types of complex predicates

<table>
<thead>
<tr>
<th>Type</th>
<th>Modifying Verb</th>
<th>Modified Verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>finite</td>
<td>finite</td>
</tr>
<tr>
<td>II</td>
<td>finite</td>
<td>nonfinite</td>
</tr>
<tr>
<td>III</td>
<td>nonfinite</td>
<td>finite</td>
</tr>
<tr>
<td>IV</td>
<td>nonfinite</td>
<td>nonfinite</td>
</tr>
</tbody>
</table>

It should be noted here that the four types in (22) are orthogonal to the two types of (21). In other words, each of the four types in (22) can be of either types in (21), as will become clear in the following examples. In the following, I will call finite modifying verbs *coverbs* (cf. Maas 1995); *auxiliaries* represent a special case of coverbs (Type II in (22)). The common practice of conflating Types I and II with a generalized term “auxiliaries” covers interesting typological (especially areal typological) perspectives.

A complex and much debated case for the question of finiteness in complex predicate formation is modern Greek, which is often mentioned as a “prototypical” case of the loss of infinitives (Mirambel 1959; Joseph 1983, 1990). This claim depends on the definition of “infinitive:” in the verbal paradigm, nonfinite forms are used in complex predicates, for example, the aorist infinitives *xasi* (active) and *xaþi* (passive) in a construction with the auxiliary *exo* “have,” cf. (23):
Verbal periphrasis in Modern Greek

<table>
<thead>
<tr>
<th></th>
<th>Active</th>
<th>Passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRES.IND</td>
<td>exo xasi</td>
<td>exo xa\ði</td>
</tr>
<tr>
<td>SUBJ</td>
<td>na exo xasi</td>
<td>na exo xa\ði</td>
</tr>
<tr>
<td>IPF</td>
<td>ixa xasi</td>
<td>ixa xa\ði</td>
</tr>
<tr>
<td>FUT</td>
<td>\ða exo xasi</td>
<td>\ða exo xa\ði</td>
</tr>
<tr>
<td>COND</td>
<td>\ða ixa xasi</td>
<td>\ða ixa xa\ði</td>
</tr>
</tbody>
</table>

Calling Modern Greek a language without infinitives aims at the secondary predications, where propositional expansion is articulated obligatorily by finite verbs (i.e. Modern Greek is finite prominent), cf. (24):

(24) Modern Greek:

a. to -n id -a pu e- pez -e s- tin
   3S.M-A see:AOR-1S that PAST-play:IPF-3S in-DEF.A.F
   avli
   "I saw him play in the courtyard"

b. le -i na in -e ar:ost-os
   say:PRES-3S SUB be:PRES-3S sick:-N.S.M
   "he says he is sick"

c. \ðel -o na grap-s-o to gram:a
   want:PRES-1S SUB write:AOR-1S DEF.N/A.NEUT letter
   "I will write the letter"

The coverbal type I in (22) is represented by Moroccan Arabic, cf. (25): the nonaugmented form of the imperfective is used as the subjunctive, augmented forms (ka- DUR with nonlimitative verbs, HAB with limitative verbs; \ða- FUT); for a more detailed analysis cf. Maas (1999).

(25) Verbal system of Moroccan Arabic (forms of 1S)

<table>
<thead>
<tr>
<th>Perfective (marked)</th>
<th>Imperfective (nonmarked)</th>
<th>Nonaugmented (subjunctive)</th>
<th>Augmented: tense/aspect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suffix conjugation</td>
<td>(kt\bar{o}-t) &quot;I have written&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prefix conjugation</td>
<td>(n\bar{e}-kt\bar{o}) &quot;(that) I write&quot;</td>
<td>(ka-n-kt\bar{o}) &quot;I write&quot; (DUR/HAB)</td>
<td>(\bar{y}a-n-kt\bar{o}) &quot;I will write&quot;</td>
</tr>
</tbody>
</table>
Some examples to illustrate the system:

(26) Moroccan Arabic:

a.  kən-t  ka-n-xdəm  
    be:PF-1S DUR-1S-work:  
    “I was working”

b.  kən-t  xdəm-t  
    be:PF-1S work.PF-1S  
    “I had worked”

c.  nʊd-t  ka-n-xdəm  
    rise:PF-1S DUR-1S-work:  
    “I started working”

d.  gləs-t  ka-n-xdəm  
    sit:PF-1S DUR-1S-work:  
    “I was continuously working”

e.  mʃi-t  n-tiḥ  
    go:PF-1S 1S-fall:  
    “I almost fell”

7. The dynamics of morphological finiteness: some borderline cases

In Section 2 we looked for the prototype of morphological finiteness in the classical school languages, and the markings of person and sentence modality qualified as good candidates. Investigation of an array of different cases showed different ways of dissociation of these markings, fused in the morphology of Old Greek.

On the one hand, there is the possibility of isolating personal marking, which can be used as the sole marking in subjunctive forms as, for example, in Portuguese (cf. (20)). A larger view of Portuguese morphology shows, in fact, the field of nominal and verbal forms polarized by their ability to articulate finite predicates, with the personal marking as pivot, cf. (27):

(27) Dynamics of finiteness in Portuguese

| non-finite | infinitive: trabalhar |
| finite     | infinitivo pessoal: trabalharem |
|           | finite subjunction: que trabalhem |
|           | finite indicative: trabalham |

maximal NOMINAL DYNAMICS OF FINITENESS maximal VERBAL
But personal marking is not a necessary condition of (morphological) finiteness, as the example of Pitjantjatjara has shown (cf. (12)). Even in “finite-prominent” languages as those of the Afro-Asiatic family, non-personal-marked forms can be used as main predicates (thus, they are semantically finite). As the examples (9a) and (9b) show, the finite verb in Arabic can be defined in the Greek tradition by its marking for person and mood. But the elaboration of the verbal paradigm in probably all Neo-Arabic varieties has lead to the integration of a personally non-marked form, etymologically the participle (used in secondary predication in Old Arabic). This form figures as a predicate in Neo-Arabic, without any “auxiliary,”20 that is, what used to be a morphologically nonfinite form has become finite, cf. (28):

(28) Egyptian Arabic:

\[
\begin{align*}
\text{mafi} & \quad \text{fin} \\
\text{start:PCP.M.S where} & \\
\text{“Where are you going?”}
\end{align*}
\]

Morphologically, this form is negatively marked for gender and number (F.S: mafj-ja, P: mafi-jin). As a narrative predicate it can stand alone; if the context needs disambiguating, personal reference is articulated by a pronoun, cf. (29):

(29) Egyptian Arabic:

\[
\begin{align*}
\text{ana mafi} \\
\text{1S start:PCP.M.S} \\
\text{“I am going”}
\end{align*}
\]

(30) shows the integration of this form into the verbal paradigm in Egyptian Arabic. As the aspectual interpretation of this form depends on the inherent lexical aspect (Aktionsart) of the verbal root, examples of the two paradigmatic classes are given:

(30) Arabic verbal system (Egyptian Arabic), forms of 1.Sg. and Masc.Sg:

<table>
<thead>
<tr>
<th>Paradigm</th>
<th>Prefix conjugation</th>
<th>Participle</th>
<th>Suffix conjugation</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPF-habitual</td>
<td>b-a-mf “I go”</td>
<td>mafi “I am starting”</td>
<td></td>
</tr>
<tr>
<td>IPF-simul</td>
<td></td>
<td></td>
<td>mfi-t “I started”</td>
</tr>
</tbody>
</table>

On the typology of “finite” and “nonfinite” 375
b. nonlimitative verbs (stem *rkeb* “mount:”)

<table>
<thead>
<tr>
<th></th>
<th>Prefix conjugation</th>
<th>Participle</th>
<th>Suffix conjugation</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPF-habitual/simul</td>
<td><em>b-a-rkib</em> “I mount/I am mounting”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perfective</td>
<td></td>
<td><em>rikib-t</em> “I mounted”</td>
<td></td>
</tr>
<tr>
<td>Resultative</td>
<td></td>
<td><em>rakib</em> “I am mounted (on the horse, in the bus . . .)”</td>
<td></td>
</tr>
</tbody>
</table>

Forms such as *mafi* and *rakib* must be counted as finite, despite not being marked for person or modality, and a sentence thus articulated as semantically finite. Thus, what at first sight, departing from the classical paradigm of school grammar (cf. Section 3), appears to be a characteristic area feature (morphological finiteness without person marking in the Pacific area) can be found as a marginal phenomenon in other areas/language families as well.21

8. Morphological cohesion and finiteness

Implicit in the preceding argumentation is the category word: morphological finiteness presupposes the marking of a word form (classified as verb). In the case of morphological complexity, this presupposes a strong cohesion of the morphemes in question. This cohesion is evident in the verbal paradigmas of the classical school languages, but its assumption is in many languages not as evident as often assumed. Depending on individual (seldomly openly discussed) preferences, complementary analysis as complex word forms or sequences of word forms with cliticization are both possible. Three critical cases will be briefly discussed by way of illustration of the issues involved. All three cases show movable morphological elements that qualify as finiteness makers in predicates.

Mundari is such a case (cf. (7) and (8)). Multiverbated sentences obligatorily show the person-marking affix moved from the predicate (the last word in the sentence) to the preceding word, cf. the simple structures in (31a) and (31c) with the more complex sentences (31b) with -*kiŋ* moved, and (31d) with -*e* moved:
In Mundari, the predicate is well defined (unlike the partition into word classes, cf. Section 4), so assuming tmesis of person marking in the case of multiverbed sentences makes sense. The inverse case shows up in Australian languages, where word classes are usually well defined, but (finite) verbal forms often do not show person marking, as, for example, in Pitjantjatjara, cf. (12). Pronominal person marking is cliticized, except in contrastive cases. If the host-form of the clitic happens to be a verb form (as, e.g., in sentences with only one fully accented word), the result gives the impression of a finite verb with person marking, cf. (32):

In both cases, in Mundari as well as in Pitjantjatjara, the position of the person-marking affixes is governed by prosodic factors and is thus oblig-
A different situation is shown where the position of these affixes is exploited for grammatical functions, thus presenting options. This is the case, for example, in Paez in Columbia (a linguistic isolate, perhaps distantly related to the Chibcha languages). The predicate has a quite complex structure, consisting of a stem (with a somewhat unclear wordclass partition), and marking for TAM, valency, and person (cf. Jung 1984). In the default case, these morphologically complex forms are stable; but to mark focus, person marking can be cliticized to a complement, cf. the FAC.1S suffix -txu/-tx, affixed to the predicate in (33a) but to a nominal complement in (33b):

(33) Paez:
   “yesterday I went to the village, but the car was broken”
   “I passed Belcazar and am already back from there”

These cases show that the traditional typological criteria, based in morphology, are certainly useful for typological classification, but are not sufficient for an exhaustive classification of all extant linguistic patterns. Even the distinction between morphological and semantic finiteness is only a first (necessary but not sufficient) step towards a more refined conceptual scheme.

9. A proposal for the classification of morphological finiteness

As the aim of the article is to improve our methodology so as to allow us to cope better with the bewildering differences between the languages of the world, I propose the following heuristic grid to analyze the morphological structure of complex predicates in a typological perspective. (34) is thus a preliminary proposal that takes into account the cases discussed symbolizing the structural relations within a predicate (ignoring differences in word order).
Types of predicate formation (morphological finiteness)

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>$E_0^i + P$ (no verbal morphology)</td>
</tr>
<tr>
<td>Ia</td>
<td>$E_0^i + P(M^{\text{ans}} + M^{\text{um}})$ cf. Type IV in (22)</td>
</tr>
<tr>
<td>II</td>
<td>$E_0^i + P$-f morphologically finite predicate</td>
</tr>
<tr>
<td>IIa</td>
<td>$E_0^i + P(M^{\text{ans}} + M^{\text{um}})$-f particle modification, Type III in (22)</td>
</tr>
<tr>
<td>IIb</td>
<td>$E_0^i + P(M^{\text{ans}}-f + M^{\text{um}})$ auxiliary construction, Type II in (22)</td>
</tr>
<tr>
<td>IIc</td>
<td>$E_0^i + P(M^{\text{ans}}-f + M^{\text{um}})$-f other coverbal construction, Type I in (22)</td>
</tr>
<tr>
<td>III</td>
<td>$(E_0^i + P)f$ “movable” affixes</td>
</tr>
</tbody>
</table>

The classificatory gain by using a differentiated grid such as (34) should be evident:

- Type I represents the case of “isolating” languages: Vietnamese, Classical Chinese, etc., which do not show morphological finiteness. Ia is the often discussed case of the serial verb construction in these languages;
- Type II represents the classical case of “synthetic” verb conjugation such as in Latin, Classical Arabic, etc., where IIa is sometimes used to expand the paradigm, for example, particles qad, sa in Classical Arabic. This is often followed in the evolution of the language by integrating these elements as “augments” (“preverbs” . . .) into the synthetic paradigm;
- Type IIb represents the traditional verbal periphrasis in the European languages which has given rise to the term auxiliary. This type of modification of the predicate must be distinguished from IIc, the coverb constructions such as are found in MA and MB, with which it is conflated in most descriptive work;
- Type III represents the border line cases of Section 8, which deserve a closer investigation. In most descriptive work done in these languages, the question is either ignored or the mobile affixes are conflated with the clitization of personal pronouns. What makes these phenomena different is their grammaticalization, either controlled by formal constraints, as in Mundari, or exploited for coding semantic information, as in Paez.

The heuristic usefulness of such a differentiation is evident if it helps to discover an otherwise unnoticed correlation. An example is the correlation between the differentiation in predicate formation of Types IIb and IIc with the typology of complex sentence formation. Type IIb is typical of languages with infinitives, which only have the verbal characteristic of valency and, thus, often have a morphologically finite auxiliary of TAM
Coverb constructions (Type IIc) are characteristic of languages without infinitives as a means of propositional elaboration, where “finite” subjunctive forms are exclusively used in their place. This makes explanatory sense if we look for the genesis of complex predicates in grammaticalized structures of complex sentence formation: that is the incorporation of semantically nonfinite predicative structures into the (main) predicate, cf. (35):

(35) Genesis of complex predicates

The morphological structure of the complex predicate seems to reflect this genetic path: In languages where the secondary predicate (PRED*) is nonfinite (in 35a), the modified element in the complex predicate (in 35b) is to be expected to be nonfinite as well, cf. the genesis of the auxiliary construction (IIb) in European school languages, for example, in German, cf. (36):
(36) a. Old High German (OHG):
phigboum habe-t-a sum
fig-tree.N,A.S have-PAST-1,3,S some.N,A.S
giflanzo-t-an
plant-PCP.II-A.M.S
“I had some planted fig-tree”

b. New High German (NHG):
Ich hatte ein-en Feigenbaum
g-e-pflanz-t
PCPII-plant-PCP.II*
“I had planted a fig-tree”

Case marking at the OHG participle in comparison with the invariable nonfinite constituent of the complex predicate in NHG indicates the different construction. Compare this with the multiple finite complex predicates in the Neo-Arabic language as in (26), that is, coverbal constructions (IIc), which correspond to asyndetic complex sentence formation by juxtaposed finite verbs in Afro-Asiatic languages, cf. (1) and (2).

10. Conclusion

I hope to have shown in the preceding pages that questions of finiteness circumscribe an important typological domain of research, one which can be fruitfully exploited for areal typology. To do so requires that we distinguish between:

– semantic finiteness, a pragmatic category of the analysis of utterances, and

– morphological finiteness, the analysis of grammaticization in morphology.

These questions must be separated from questions of word classes, which are orthogonal to them. A distinction of different types of predication is needed, referred to here as qualitative vs. narrative predication.

In a syntactic analysis, finiteness is problematic in different domains:

– with regard to the semantic specification of the main predicate (called here the grounding of the sentence (interpretation)), which is to be distinguished from the specification of secondary predicates, where degrees of finiteness can be defined (subjunctive, converbal, and participial constructions, infinitival constructions, masdar, etc.);

– with regard to complex predicates, a finer-grained analysis is necessary than the usual cover term auxiliary permits. Here, questions of morphological cohesion deserve a closer look.
This is a rather large bundle of questions which need to be studied by closer descriptive work in the various linguistic areas. Nothing conclusive is to be expected from a preliminary discussion such as this one, which can only highlight questions that remain unanswered in current work.

Received 10 January 2001
Revised version received
4 October 2002

Appendix. Symbols and abbreviations

Grammatical categories
Arabic numerals, other than indices:
1,2,3 = the three grammatical persons

A.ccusative
ABS.olutive
AOR.ist
ASP.ect
COND.itional
CONV.erb
COP.ula
D.ative
DEF.inite
DU.al
DUR.ative
ERG.ative
F.eminine
FAC.tive
FUT.ure
G.enitive
GR.ounding
HAB.ituative
INDEF initiite
INF.inite
IPF = Imperfective
LOC.ative
M.asculine
M.ans = modificans

M\textsuperscript{um} = modificandum
MA.I Identical to Main Actant
MA.D Different from Main Actant
N.ominative
NEG.ation
NEUT.ral
nN = non Nominative
P.lural
PCP = Participle
PF = Perfective
PN = Place Name
PRED.icate
PRES.ent
PROGR.essive
S.ingular
SC.enario Structure (in SC:n n indicates valency)
TAM = Tense, Aspect, Mood
THEM.e
V/V = verbal Suffix (“takes V and makes V”)

Notes

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1. Paper presented at the meeting of the Deutsche Gesellschaft für Sprachwissenschaft in Marburg on March 1, 2000. The discussion of the paper, as well as comments on preliminary versions by Martin Haase, John Peterson, Diego Quesada, Peter Schlobinski, and Christoph Schroeder, have helped to improve it. The critical comments of four anonymous referees have been very helpful in making the article (hopefully) more readable than it previously was. I am grateful to John Peterson for revising the English version of the paper. An extended version of the article, presenting more empirical material and indicating the sources of the examples, will be published as Maas (n.d.).


3. Cf., for example, Lyons (1977) for a detailed exposition of the traditional concepts.

4. I prefer this traditional term, which binds the notional content to its form instead of the more usual term “expression,” which presupposes an independently definable content.

5. This is true for recent proposals of W. Klein as well, who currently argues in a similar way in his model for the semantics of the utterance, but amalgamates it with the terminology of finiteness. He refers to the structure of the proposition as INF\* (the “projection” of the semantics of the predicate) and the grounding specification as FIN\* (cf. Klein 1994, 1998).

6. Bloomfield here speaks only of a special case of qualitative predication which he terms “equative,” that is, predication with a referential predicate, cf. Note 12 for the distinction.

7. The grammatical categories of Pitjantjatjara shown in (3) will be taken up in Section 5. For more detailed information, cf. Goddard (1985) and Bowe (1993).

8. Finite forms quoted in the indicative, 1S; participles in the Sg.M.N. Quantity, in vowels as well as in consonants, is represented by gemination /v/ as /vv/, /k/ as /kk/.

9. Cf. Engl. “finite/nonfinite clauses” besides “finite/nonfinite forms.” This is the background for the confusion found in examples (1) and (2).

10. Hoffmann (1905: 6). Hoffmann’s “checked vowels” are represented by /v/, that is, glottalized vowels.

11. (7) shows the default structure. In marked TAM cases, the position of the morphemes of secondary actants can be different. In case of bitransitive forms, only one of SA1 or SA2 is articulated, thus SA1/SA2.

12. Etymologically, the copula is a demonstrative in Berber; in Moroccan Arabic it is etymologically a personal pronoun and still shows agreement in gender and number, but not in person. In (12b) huwa corresponds to the pronoun 3SM. In the terminology of the Amsterdam Functional Grammar this is a case of a “referential predicate,” cf. Hengevelt (1992: 74ff.) for extensive discussion.

13. From the classical Feuer! “Fire!” to “nominal” utterances as Ich und Bier trinken!? “Me drink beer!?"

14. Primary nominal formation from invariant root elements, as in the semitic languages.

15. Engl. translation: (13a) the mountain climbing; (13b) the climbing of the mountain; (13c) the mountain climbing (no acceptable English construction); (13d) in order to climb the mountain; (13e) when he had climbed the mountain; (13f) since/because he had climbed the mountain.


17. In the recent discussion, the infinitivo pessoal has even led to Portuguese being referred to as a particularly infinitive-prominent language (cf. Mayerthaler et al. 1993; for a clear presentation cf. Mateus et al. 1983).

18. Cf. the well-known injunctive in older Indo-European languages, that is, a verbal category of the pure personal marking (cf. Hoffmann 1967).
19. Therefore, Klein’s (1994) proposal to call the sentence-modal modifying element of the predicate “finite,” the modified valency-bearing element “nonfinite” is confusing in a typological perspective.

20. A category that does not exist in Afro-Asiatic, cf. (26) for coverbal modification in the complex predicate.

21. Comparable with the Arabic case are the Russian past forms.

22. Variation of the form is phonologically determined.

23. Abbreviations used: \( M_{\text{mod}} \) = modifying element; \( M_{\text{mod}} \) = modified element; \( E \) = complement(s), \( E_0 \) has a variable notation for valency (irrelevant in this context); \( P \) = predicate; \( f \) = [personal] finiteness marking; ‘+’ = loose concatenation [of words]; ‘−’ = narrow morpheme concatenation.

24. \( \text{qad} \) is the preterit particle, \( \text{sa} \) the future particle.

References


