Empirical Approaches
to Language Typology

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Converbs
in Cross-Linguistic Perspective

Structure and Meaning of Adverbial Verb Forms
– Adverbial Participles, Gerunds –

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The converb as a cross-linguistically valid category*

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1. Towards the cross-linguistic study of converbs

The grammars of human languages differ widely and in fascinating ways. Nevertheless, again and again we come across striking structural similarities that allow us to identify a grammatical phenomenon of an unfamiliar language with a phenomenon in a well-studied language. While it is true that grammatical descriptions of unfamiliar languages have always suffered from a certain extent of harmful Latinocentrism or (later) Eurocentrism, many of the equations between familiar European grammatical phenomena and phenomena of unfamiliar, especially non-European languages have turned out to be essentially correct. All over the world we find categories such as noun and verb, singular and plural, nominative and accusative, future and past tense, and their worldwide cross-linguistic study has led to important new insights in grammatical theory. Very few if any of these categories are universal in the sense that they occur in every language, but many are *universally applicable* or *cross-linguistically valid* in the sense that they are found in various languages irrespective of their genetic and areal connections, and must be seen as belonging in some way or other to universal grammar.[1]

One such cross-linguistically recurrent category, the *converb*, is the topic of this book. The following are some examples of converbs from all over the world.

(1)   Modern Greek
         I   kopéla tón   kítak-s-e   xamojel-óndas.
         the girl   him look-AOR-3SG smile-CONV
         'The girl looked at him smiling.'

(2)   Khalkha Mongolian
         Xot-od   or-ž̌   nom   aw-aw.
         town-DAT go-CONV book buy-PAST
         'Going to town I bought a book.'

(3)   Portuguese
         Despenhou-se um avião militar, morr-endo o   piloto.
         crashed   a   plane military die-CONV the pilot
         'A military plane crashed, and the pilot was killed'. (lit. '... the pilot dying'.)

(4)   Hindi-Urdu
Banie   ke   beṭe   ne   ciṭṭhii   likh-kar   ḍaak   mẽ   ḍaal-ii.
grocer GEN son ERG letter[F] write-CONV box in put-PAST.F
'The grocer's son wrote and posted a letter.' (lit. '… writing a letter, posted it.')

(5)   Lithuanian
Saul-ei   tek-ant,   pasiek-ė-m   kryžkel-ę.
sun-DAT rise-CONV reach-PAST-1PL cross.roads-ACC
'When the sun rose, we reached a crossroads.' (lit. 'The sun rising …')

(6)   Korean
Achim   mek-ko   hakkyo ey kassey yo.
breakfast eat-CONV school to went PT
'I ate breakfast and went to school.'

(7)   Huallaga Quechua (Weber 1989: 304)
Aywa-ra-yka-r   parla-shun.
go-STAT-IMPF-CONV converse-1PL.INCL.IMPV
'Let's converse as we go along.'

(8)   Diyari (Australian; Austin 1981: 318)
Nhulu   puka thayi-rna,   nhawu pali-rna   warrayi.
he:ERG food eat-CONV he:ABS die-CONV AUX
'While eating some food, he died.'

(9)   Chukchi (Skorik 1977: 143)
Ajwe,   ga-tajk-əma   kupren, ja?rat
yesterday CONV-make-CONV net   very
tə-peŋ?iwet-g?ek.
1SG-become.tired-1SG.PAST.INTR
'Yesterday, making the net, I became very tired.'

While converbs have been studied extensively in individual languages, there is very little typological, cross-linguistic research on converbs. Indeed, the converb has hardly been recognized as a cross-linguistically valid grammatical category up to now. This may have to do with the fact that there are no converbs in Latin or Classical Greek, and thus the framework of Western traditional grammar does not provide a term for this notion. Converbs in European languages are known by different names: "gerund", "*gérondif*", "(adverbial or indeclinable) participle", as well as other labels used in languages other than English. In Russian, the term *deepričastie* is an unambiguous term for the Russian converbs, which has also been applied to the converb-rich languages of the Russian colonial areas of the Caucasus and northern and Central Asia. Thus, it is not surprising that the first typological studies of converbs appeared in Russian linguistics (Meščaninov 1945; Čeremisina 1977; Nedjalkov–Nedjalkov 1987; Nedjalkov 1990; but cf. also Masica 1976: ch. 4; Haiman 1985: chapter 4; König–van der Auwera 1990). Nedjalkov and Nedjalkov (1987) propose the use of the term *converb*, adopted from Altaic linguistics, for the cross-linguistically recurrent category exemplified above. For more discussion of terminology, see section 7 below.

In this paper, I deal with a number of general issues surrounding the morphosyntax of converbs across languages. In section 2, the notion "converb" is defined and problems of the definition are discussed. Section 3 treats the formal make-up of converbs (3.1), subject reference (3.2), the phrasal or clausal status of converb constructions (3.3), criteria for subordination (3.4), and diachronic origins of converbs (3.5). In section 4, converbs are delimited from related constructions: copredicative participles (4.1), medial verbs (4.2), absolute constructions (4.3), and infinitival constructions (4.4). Section 5 gives an overview of converb control in a cross-linguistic perspective, and section 6 discusses the grammaticalization of converbal constructions.

What is mostly lacking from this paper are typological generalizations. What types of languages have converbs at all? How are the different types of converbs distributed across languages? There seems to be a correlation between converb prominence and object-verb word order, and there may also be areal factors (cf. Masica 1976), but it is not easy to get beyond these rather impressionistic observations. Much more research on converbs from languages of different families is needed to make progress with these questions. (A beginning is made for European languages in I. Nedjalkov [in press].)

2. Defining the notion converb

A converb is defined here as *a nonfinite verb form whose main function is to mark adverbial subordination*. Another way of putting it is that converbs are verbal adverbs, just like participles are verbal adjectives. Table 1 shows the parallels between the three types of derived verb forms that are used when the verb is used in a nonprototypical syntactic function.

Table 1. Derived verb forms with different word class status

Word class:	Noun	Adjective	Adverb
Derived verb form:	masdar[2] (= verbal noun)	participle (= verbal adjective)	converb (= verbal adverb)
Syntactic function:	argument	adnominal modifier	adverbial modifier

The four components of the above definition (nonfinite, verb form, adverbial, subordination) will now be discussed in more detail. Three of them (nonfinite, adverbial, subordination) are not unproblematic and give rise to some borderline cases where the converb status of a verb form is not clear.

2.1. Verb form

A converb is a verb form that is part of the inflectional paradigm of verbs. Thus, a converb cannot be easily analyzed as a verb plus a complementizer or subordinator. Rather, the verb in the converb form is inherently subordinate. It has sometimes been suggested that converbs should be understood as combinations of verb plus complementizer (which happen to be tightly bound), but this is just an attempt to fit an unfamiliar phenomenon into the procrustean bed of the European language type, which strongly prefers adverbial conjunctions to converbs (cf. Kortmann [in press]).

Saying that a converb is a verb form also means rejecting Meščaninov's (1945) view that the converb (*deepričastie*) is a separate word class. Converbs never have the degree of autonomy that is associated with the status of lexemes, so they are clearly inflectional, not derivational forms.

2.2. Nonfinite

The converbs in examples (1) to (9) in section 1 lack specifications for tense (-aspect) and mood as well as for agreement with their arguments, and are thus *nonfinite*. However, both the criteriality of nonfiniteness for converbs and the very notion of (non-)finiteness are problematic.

In V. Nedjalkov's (1990, and in this volume) definition of the converb, nonfiniteness plays no role, so that finite verb forms which are used only in adverbial subordinate clauses also fall under the definition. The following sentences from Basque, Swahili and West Greenlandic Eskimo illustrate such verb forms.

(10)   Basque (Lafitte 1941: 408): conditional form
Ji-ten   ba-da,   ideki-ko   d-io-zu.
come-HAB COND-3SG.ABS open-FUT 3SG.ABS-3SG.DAT-2SG.ERG
'If he comes, you will open (the door) for him.'

(11)   Swahili
I-ki-nyesha   ha-tu-ta-kwenda   sinema.
G9-ADV-rain   NEG-1PL-FUT-go   movies
'If it rains, we won't go to the movies.'

(12)   West Greenlandic (Fortescue 1984: 65): causative mood
Anurli-ssa-mmat   aalla-ssa-nngil-agut.
be.windy-FUT-CAUS.3SG   leave-FUT-NEG-INDIC.1PL
'Since it is going to be windy we won't leave.'

It is, of course, possible to define the term *converb* in this way, but I prefer a narrower definition because only a nonfinite adverbial subordination form could be said to be a "verbal adverb", and the term converb seems ideally suited to fill the "verbal adverb" position in Table 1. All verb forms that have traditionally been called "converbs", "gerunds", "adverbial participles" "conjunctive participles", etc. are nonfinite, and extending the term converb to finite subordination forms like those in (10) to (12) seems an unjustified departure from traditional usage.

But the notion of finiteness itself is not unproblematic (cf. Koptjevskaja-Tamm [1994] for some discussion). While in the classical languages Latin and Greek (for which the notion of finiteness was first developed) practically all verb forms are either specified for all finiteness features (aspect, tense, mood, subject agreement) or for none of them, this is by no means universally the case. Rather, the traditional concepts of finiteness and nonfiniteness are just two extreme points on a *scale of desententialization* (cf. Lehmann 1988: 200), and other languages may show various intermediate points on this scale. Most notably, verb forms may lack tense and mood specifications, but still have subject agreement. This is the case, for instance, with the Swahili *-ki*-form (cf. example [11]), and in the Portuguese "personal infinitive" (e. g. *para nós vermos* 'in order for us to see').

Another way in which the finite/nonfinite distinction may be blurred is when the converb is marked for possessor agreement with its subject. Not uncommonly, nonfinite verb forms do not allow the subject to be expressed in the usual way and require a possessive construction instead. This is quite normal with verbal nouns (cf. Koptjevskaja-Tamm 1993), but it also occurs with participles and converbs. In Ge'ez (ancient South Semitic), for example, converbs take person-number suffixes that are identical with possessive person-number suffixes, cf. Table 2 and example (13) (data from Lambdin 1978: 140–141).

Table 2. Ge'ez converb inflection and noun inflection for person-number (partial)

Converb:		Noun:	
qatil-eya	'I having killed'	*hagar-eya*	'my city'
qatil-aka	'you having killed'	*hagar-aka*	'your city'
qatil-o	'he having killed'	*hagar-o*	'his city'

(13)   Ge'ez
    Nabir-eya   *tanāgar-ku*   *mesl-ēhomu.*
    sit.down:CONV-1SG.POSS talk-PERF.1SG with-3PL
    'Having sat down, I spoke with them.'

This form may still be regarded as completely nonfinite, because the converb inflection is clearly possessive. However, in some languages it is not so easy to tell whether person-number inflection is possessive or finite. Consider Evenki (Manchu-Tungusic), discussed by I. Nedjalkov in this volume, which presents a similar picture. Converbs that are not restricted to same-subject uses take the possessive suffixes, as in Table 3 and example (14).

Table 3. Evenki converb inflection and noun inflection for person-number (partial)

Converb		Noun:	
baka-raki-v	'after I found'	*d'u-v*	'my house'
baka-raki-s	'after you found'	*d'u-s*	'your house'
baka-raki-n	'after s/he found'	*d'u-n*	'his/her house'

(14)   Evenki (I. Nedjalkov [this volume], example [35 d])
    Eme-reki-n   *hokto-du-tin*   *nadan beje-l*
    come-CONV-3SG.POSS road-DAT.LOC-3PL.POSS seven man-PL
    hukle-d'ere-∅.
    lie-PRES-3PL
    'When she came, (she saw) seven men were lying on their road.'

However, the possessive suffixes are also used in some clearly finite verb forms, e. g., in the perfect:

(15)   Evenki Perfect (partial) (I. Nedjalkov, this volume)
    baka-ča-v 'I have found'
    baka-ča-s 'you have found'
    baka-ča-n 'she/he has found'

Since the finiteness of (15) cannot be doubted, converbs like the one in Table 3 and example (14) could be regarded as finite verb forms as well. Similar situations may arise whenever possessive and finite verbal person-number inflection is not distinguished.

Thus, nonfiniteness as a definitional criterion for converbs does not always give clear results because the finite/nonfinite distinction is a scale with various intermediate points rather than a neat binary division. Nevertheless, I would like to stick to nonfiniteness as a definitional criterion because it restricts the notion *converb* in a way that is consistent with the traditional use of the term (and equivalent terms).

2.3. Adverbial

The definitional criterion "adverbial (subordination)" is primarily intended to exclude masdars/verbal nouns (nonfinite verb forms specialized for argument subordination, or complementation) and participles (nonfinite verb forms specialized for adnominal subordination). Converbal constructions are generally not arguments but modifiers, and they generally modify verbs, clauses or sentences, but not nouns or noun phrases.

The positive formulation "adverbial" is preferred here to the negative formulation "nonargumental, nonadnominal" (cf. V. Nedjalkov, this volume) not only because it is less cumbersome, but also because it can be understood as more restrictive.

There is a type of subordinate construction that is neither argumental nor adnominal, nor is it clearly adverbial: the so called *clause-chaining* construction, which is used to convey a sequence of successive events, e. g. (16) from Kumyk (Turkic).

(16)   Kumyk (Džanmavov 1967: 234)
    Bu-lar, köl-nü gör-üp, arba-syn toqtat-yp, čemodan-ny
    this-PL lake-ACC see-CONV cart-3.POSS stop-CONV suitcase-ACC
    Manaj-ga da göter-t-ip, köl-nü jaǧa-syn-a
    Manaj-DAT also take-CAUS-CONV lake-GEN bank-3.POSS-DAT
    bar-yp, čemodan-ny ač-yp, šišla-ny čyǧar-yp
    go-CONV suitcase-ACC open-CONV bottle-ACC take.out-CONV
    tiz-ip, suw-dan toltur-up, qajtar-yp čemodan-ǧa
    put.in.row-CONV water-ABL fill-CONV return-CONV suitcase-DAT
    sal-a.
    put-PRES

'They see the lake, stop their cart, make Manaj bring the suitcase, go to the bank of the lake, open the suitcase, take out the bottles, put them in a row, fill them with water, and put them back into the suitcase.'

According to my definition, this is not a central, typical use of the converb because it is not really adverbial. However, it is not easy to make a clear-cut distinction between temporal adverbial subordination and clause-chaining. For example, one could use English adverbial subordinate constructions at least for a sequence of three events, e. g., *After they took out the bottles, putting them in a row, they filled them with water.* So it is not absurd to think of clause-chaining constructions such as in (16) as successive adverbial subordination of a special type. See section 4.2 for more discussion of clause chaining and related problems of delimitation.

2.4. Subordination

The term *subordinate* is used here in the sense "embedded", or "incorporated into the superordinate clause", contrasting with *coordinate* clauses, which are not part of another, superordinate clause.[3] Converbal constructions can often be paraphrased by means of coordinate constructions in languages that allow coordination of clauses. Cf. the English translations of the sentences in examples (17) and (18).

(17)   Italian (Pusch 1980: 20)
Franco   ha   mangiato cogli   amici,   andando poi   al   cinema.
Franco   has   eaten   with:the friends   going   then to:the cinema
'Franco had dinner with friends and then went to the movies.'

(18)   Udmurt (Perevoščikov 1959: 240)
Nati   mylys'-kydys'   serekja-sa   ǯygyrt-i-z   eš-se.
Nati   heartily   laugh-CONV   embrace-PAST-3SG   friend-3SG:ACC
'Nati laughed heartily and embraced her friend.'

One might therefore suspect that converbal constructions are also syntactically coordinate in some sense. However, converbal constructions consistently turn out to be subordinate by the most reliable criteria for subordination. See section 3.4 for more discussion.

3.   Some morphosyntactic and semantic properties of converbs

3.1.   The formal make-up of converbs

A converb is usually marked by an affix that is attached to the verb stem. Since languages show a general preference for suffixes over prefixes and since converbs are apparently particularly common in verb-final languages where this suffixing preference is much stronger (Greenberg 1957; Bybee–Pagliuca–Perkins 1990), it is not surprising that converbal affixes are most commonly suffixes. However, other types of affixes are also represented, in particular prefixes (e. g. in Burushaski, cf. Tikkanen, this volume), and circumfixes (e. g., Chukchi ga-...-ma in ga-gəntaw-ma 'running away', Skorik 1977: 143, and cf. example [9]). A rare example of a nonaffixal converb is provided by Ge'ez, where converbs are formed by the vowel pattern CaCiC, cf. Table 2 and example (13).

Besides inflectional affixes, nonaffixal particles may also be employed as converb markers (resulting in "periphrastic converbs"), e. g., French *en* in the French *gérondif* (e. g., *en chantant* 'singing'), or Albanian *duke* (e. g., *duke pirë* 'drinking'). Sometimes the borderline between affixes and adjacent particles may not be sharp (e. g., French *en* in *en chantant* could perhaps be regarded as a prefix).

Not uncommonly, converbs are additionally characterized by full reduplication of the converbal form, for example:

(19)   Turkish
İnsan   demir-i   döğ-e   döğ-e   demirci ol-ur.
person   iron-ACC   forge-CONV   forge-CONV   smith   become-AOR
'A person becomes a blacksmith by forging.'

(20)   Huallaga Quechua (Weber 1989: 321)
Chawra miku-n asi-rku-r   asi-rku-r.
then   eat-3   laugh-ASP-CONV   laugh-ASP-CONV
'Then they eat, laughing (and laughing).'

(21)   Lezgian (Haspelmath 1993: 380)
Küčed-aj   ӡwer-iӡ=ӡwer-iӡ   sala-ӡ   Cükwer ata-na.
street-INEL   run-CONV=run-CONV   garden-DAT   Cükwer come-AOR
'Cükwer came running into the garden from the street.'

3.2.   Subject reference

The converb subject is often coreferential with the subject (or another constituent) of the superordinate clause, so that it can be left *implicit*.[4] This frequent constellation is often exploited by grammaticalizing it, the result being converbs

whose subject must obligatorily be left implicit. On this parameter, we can in principle distinguish three types of converbs:

i. *implicit-subject converbs* whose subject may not be expressed explicitly;
ii. *explicit-subject converbs* whose subject is expressed explicitly (perhaps in a different case form from the subject of independent finite clauses);
iii. *free-subject converbs* whose subject may but need not be expressed explicitly.

Examples for these three types come from Russian, Lithuanian, and Lezgian.

(22)   Implicit-subject converb: Russian
       Ona prigotoviv   zavtrak,   Zamira   razbudila detej.
       she   prepare:PFV.CONV breakfast Zamira woke.up children
       'Having prepared breakfast, Zamira woke up the children.'

(23)   Explicit-subject converb: Lithuanian (V. Nedjalkov, this volume: example [29 b])
       Rut-ai   išėj-us   iš   mišk-o,   patekėjo saulė.
       Ruta-DAT go.out-CONV from forest-GEN rose   sun
       'When Ruta went out of the forest, the sun rose.'

(24)   Free-subject converb: Lezgian (Haspelmath, this volume)
       (Čeb)   mašhur   Samarkanddi-z   agaq'-daldi
       [selves well-known Samarkand-DAT reach-POSTR.CONV]
       aburu-z   req'-e   gzaf   zat'-ar   aku-na.
       they-DAT way-INESS many thing-PL see-AOR
       'Before they reached well-known Samarkand, they saw a lot of things on the way.'

This typology is not independent of the typology that divides converbs into *same-subject converbs, different-subject converbs,* and *varying-subject converbs* (V. Nedjalkov, this volume: section 11; varying-subject converbs are converbs whose subject may be either identical to the main clause subject or different from it). The connections between these two parameters can be represented as in Table 4. See the paper by V. Nedjalkov in this volume for some discussion.

Table 4. Subject reference in converbs

	same-subject	different-subject	varying-subject
implicit-subject converb	*typical*	unusual	unusual
explicit-subject converb	unusual	*typical*	unusual
free-subject converb	unusual	unusual	*typical*

The functional motivation for these connections should be apparent: when the subject is necessarily implicit, only same-subject reference ensures that its reference can be identified. When the subject is necessarily different from superordinate clause constituents, only explicit expression ensures that its reference can be identified. It should be noted, however, that so far the claims embodied in Table 4 lack a firm empirical foundation and are mainly based on impressionistic observations. Thus Table 4 represents a hypothesis that needs to be tested on cross-linguistic data.

3.3. Clause or phrase

In the traditional grammar of the classical languages, the presence of a finite verb was regarded as a prerequisite for sentence (or clause) status. Constituents consisting of nonfinite verbs (especially infinitives and participles) and their dependents were not regarded as clauses but as "constructions", "phrases", or "turns" (Russian *oborot*). Thus, many (especially more traditionally oriented) linguists do not speak of converbal clauses, but of converbal "constructions", "syntagms" or "phrases", e. g., Švedova–Lopatin (1989: § 565) for Russian (*deepričastnyj oborot*), Halmøy (1982) for French (*syntagme gérondif*), Pusch (1980) for Italian (*gerundio-Konstruktion*), Reese (1991) for Spanish (*Gerundialkonstruktion*).

This usage is apparently mainly motivated by the impossibility of an explicit subject in nonfinite constructions/clauses in the classical languages. Translated into modern terms, one could say that implicit-subject constructions are VPs, whereas complete finite clauses are Ss (consisting of an explicit subject NP plus a VP).

However, in many languages nonfinite constructions may include an explicit subject, and there are probably languages for which a bipartite sentence structure (i. e., S → NP VP) is not correct. Thus, the traditional syntactic distinction between clauses and phrases based on finiteness and an explicit subject has no universal significance.[5]

For the purposes of syntactic typology, it seems best to adopt a definition of the clause that only specifies that the clause must contain a predicate.[6] This means that a converb and its dependents always constitute a (converbal) clause (except perhaps when the converb is used in a grammaticalized construction, cf. section 6). A distinction such as that made by V. Nedjalkov (this volume: sections 3.1 and 3.3) between "converbs proper" (occurring in converbal phrases) and "conjunctional converbs" (occurring in converbal clauses) is rather dubious. See Bergelson–Kibrik (this volume) for more discussion of this issue.

3.4. Criteria for subordination

The notion of subordination was rather unproblematic in traditional Western grammar—every clause marked by a subordinating conjunction or another subordinator (e. g., relative pronoun) was identified as subordinate. However, this definition only works for languages that have subordinating conjunctions and relative pronouns. For a typological study, other criteria have to be sought.

In this paper, I propose the following criteria as sufficient conditions for subordination:[7]

a. clause-internal word order
b. variable position
c. possibility of backwards pronominal anaphora (i. e., pronominal cataphora) and control
d. semantic restrictiveness, and hence focusability
e. possibility of extraction.

It turns out that converbs are consistently subordinate (rather than coordinate) by these criteria. Not all converbs fulfill all of these criteria, because there may be additional restricting factors (e. g., strict word order rules in the case of criterion [b]). However, all converbs fulfill a subset of the criteria, and nonsubordinate clauses fulfill none of them.

3.4.1. Clause-internal word order
While each of two coordinate clauses must be continuous and nonoverlapping, a subordinate clause may appear inside its superordinate clause, which becomes discontinuous. Consider example (25).

(25)   Japanese (Kuno 1973: 205)
            John wa boosi o   nui-de,   Mary ni   aisatu si-ta.
            John TOP hat ACC take.off-CONV Mary DAT greet SO-PAST
            'John took off his hat and greeted Mary.'

There is no obvious discontinuity in (25), so word order tells us nothing about the coordinate or subordinate status of the converbal clause. However, a possible alternative order is shown in (26).

(26)   *John wa Mary ni   boosi o   nui-de   aisatu si-ta.*
            John TOP Mary DAT hat ACC take.off.CONV greet do-PAST
            'John took off his hat and greeted Mary.'

Here the clause *boosi o nuide* comes between two constituents of the clause *John wa Mary ni aisatu si-ta*, so its subordinate status is beyond doubt.

The evidence of (26) makes it likely that in (25) the superordinate clause is also discontinuous: As in (26), *John wa* probably belongs to the superordinate clause which is broken up by the converbal clause *boosi o nuide*, whose implicit subject is controlled by *John*.

In languages with ergative case marking, the evidence of structures like (26) is often not needed to show that structures like (25) involve subordination because the subject case marking unambiguously demonstrates the discontinuity. For example, while (27 a) is ambiguous with respect to the subordinate/coordinate status like (25), (27 b) clearly has a subordinate converbal clause.

(27)   Lezgian (Nakho-Daghestanian, Haspelmath 1993 a: 378, 376)
    a.   *Am   qudğun-na   qarağ-na.*
            he:ABS jump-CONV get.up-AOR
            'She jumped up.' (lit. '... having jumped, got up.')
    b.   *Načal'nikdi   sehnedi-ᶻ   eqeč'-na   ča-ᶻ   wirida-ᶻ*
            director(ERG) stage-DAT go.out-CONV we-DAT all-DAT
            čuxsağul   laha-na.
            thanks(ABS) say-AOR
            'The director came onto the stage and thanked all of us.'

In (27 a), both verbs are intransitive and the absolutive subject *am* could belong to either verb. However, in (27 b) the two verbs differ in transitivity and it is clear that the ergative subject *načal'nikdi* must belong to the second verb. Thus, the superordinate clause in (27 b) is discontinuous, showing that the clause-internal converbal construction *sehnediᶻ eqeč'na* is subordinate.

3.4.2. Variable position
Another positional criterion for subordination is variable position: only subordinate clauses may come after or before the superordinate verb. For example, in Russian the converbal clause *vernuvšis' domoj* 'having returned home' may occupy either of the positions in (28 a–b).

(28)   Russian
    a.   *Vernuvšis'   domoj, Xèvgun   načal   novuju   žizn'.*
            return:PFV.CONV home Khevgun began new   life
            'Having returned home, Khevgun began a new life.'
    b.   *Xèvgun   načal   novuju   žizn', vernuvšis'   domoj.*
            Khevgun began new   life   return:PFV.CONV home
            'Khevgun began a new life (after) returning home.'

Of course, coordinate clauses may also occur in different orders, but the crucial difference is that the meaning changes dramatically if the events are understood

as sequential rather than simultaneous. For example, *Caesar came and saw* has a different meaning from *Caesar saw and came*. Because they are hierarchically equal, coordinate clauses show tense iconicity, i. e., the event reported in an earlier coordinate clause is interpreted as occurring earlier (Haiman 1985: 216). Meaning differences in converbs that are associated with different positions are also attested (e. g., Kortmann 1991), but they do not involve tense iconicity.

3.4.3. Backwards pronominal anaphora and control

That backwards pronominal anaphora is only possible in subordinate clauses is illustrated in (29). The crucial point is, of course, that the pronoun must be c-commanded by its antecedent (or here, "postcedent"), which is the case only in subordinate constructions.

(29) a.   *After she$_i$ came home, Zamira$_i$ solved the problems.*
      b.   **She$_i$ came home and Zamira$_i$ solved all the problems.*

That converbal clauses are subordinate is shown by examples like (30 a).

(30) a.   *Talking to him$_i$, she solved all of Pedro's$_i$ problems.*
      b.   **She talked to him$_i$ and she solved all of Pedro's$_i$ problems.*

Another relation that depends on c-command and is therefore possible only with preceding subordinate clauses is the referential control of the implicit converb subject. Consider example (31).

(31)   Udmurt (Perevoščikov 1959: 199)
          Predsedatel' šumpoty-sa   vu-i-z   "Dźardon-e".
          chairman   rejoice-CONV arrive-PAST-3SG Dźardon-ILLAT
          'The chairman arrived at the "Dźardon", rejoicing.'

If we were restricted to data like (31), two analyses would be possible:

(31') a.   *[predsedatel'$_i$ šumpotysa] [∅$_i$ vuiz Dźardone]*
            Lit. '(While) the chairman (was) rejoicing, (he) arrived at the Dźardon.'
       b.   *[predsedatel'$_i$ [∅$_i$ šumpoty-sa] vuiz-Dźardone]*
            Lit. 'The chairman, (while he was) rejoicing, arrived at the Dźardon.'

The subject *predsedatel'* is expressed overtly only once, and the word order in (31) is ambiguous as to whether the subject belongs to the converb *šumpotysa* and controls the implicit subject of *vuiz* (cf. 31' a), or whether it belongs to *vuiz* and controls the implicit subject of *šumpotysa* (cf. 31' b). If the former turned out to be the case, we would probably not be dealing with subordination here. However, possible alternative orders as in (32) dispel any doubts that (31' b) is indeed the correct analysis:

(32)   Udmurt (Perevoščikov 1959: 205)
          Tulys   šundy-ly šumpoty-sa,   bydes ludvyl serekja.
          spring sun-DAT rejoice-CONV whole field laugh(PRES.3SG)
          'Rejoicing over the spring sun, the whole field is laughing.'

The word order in (32) shows that we are dealing with backwards control of the implicit-subject clause, and backwards control is possible only in subordinate clauses.

3.4.4. Restrictiveness and focusability

Only subordinate clauses, but not coordinate clauses, may be interpreted restrictively (cf. Tikkanen 1987 b; this volume), i. e., as modifying the main clause in such a way that its reference is narrowed. Since restrictiveness is a prerequisite for focusing, only subordinate clauses may be focused. Various types of focusing occur with converbs and show that they are indeed subordinate.

Converbal clauses may be focused by focus particles like *also* and *only*, for example:

(33)   Catalan
          Només sortint-nos de   la   sintaxi entesa   estrictament podrem
          only   leaving   from the syntax understood strictly   we:can
          relacionar las frases   de (6) amb la   negació.
          relate   the sentences of (6) with the negation
          'Only by leaving syntax in the strict sense can we relate the sentences in (6) to negation.'

(34)   Kumyk (Džanmavov 1967: 43)
          Hatta ŏyq-ǧanly   da   gŏr-me-gen-men.
          even go.out-CONV also see-NEG-PAST-1SG
          'I didn't even see after he went out.'

(35)   Udmurt (Perevoščikov 1959: 113)
          Dźok šŏry pukśy-sa no Boris ŏ-z   śiśky.
          table at   sit-CONV also Boris NEG-PAST.3SG eat
          'Even after sitting down at the table, Boris did not eat.'

Converbal clauses may be the focus of a polar question, for example:

(36)   Kumyk (Džanmavov 1967: 42)
          O-nu   gŏr-üp-mü,   sen beri baǧ-yp   gel-ege-ning?
          he-ACC see-CONV-Q you there look-CONV go-FUT-2SG
          'Are you going in that direction after seeing him?'
          (i. e., 'Is it after seeing him that you are going in that direction?')

Converbal clauses may be the focus of focusing negation, for example:

(37)   Hindi-Urdu (Kachru 1981: 38)
Is   tarah pāāv jamaa-kar   nahĩ, halke se   calo.
this way feet plant-CONV not   light ADV walk(IMPV)
'Walk lightly, not so firmly.' (lit. '… not planting your feet in this way.')

And converbal clauses may be the focus of cleft constructions, for example:

(38)   French (Halmøy 1982: 152)
C' est en   forgeant   qu' on   devient   forgeron.
it is CONV forge:CONV that one becomes smith
'It is by forging that one becomes a smith.'

Some languages have a special preverbal focus position that may be filled by a converb, for example in (39 a) from Hungarian.

(39)   Hungarian (Haiman 1985: 208)
a.   *Meghökken-ve   áll-t-am   meg.*
be.amazed-CONV stop-PAST-1SG PREV
'It was in amazement that I stopped.'
b.   **Áll-t-am   meg.*
stop-PAST-1SG PREV
'I stopped.'
c.   *Meg-áll-t-am.*
PREV-stop-PAST-1SG
'I stopped.'

That the converbal clause is indeed in the focus position rather than in an initial topic position is clear from the fact that the preverb *meg* follows it in (39 a). When nothing else occupies the focus position, the preverb must be in that position (cf. 39 c), otherwise the sentence becomes ungrammatical (cf. 39 b).

3.4.5. Possibility of extraction
As was observed by Ross (1967), coordinate structures severely restrict the possibility of extraction (this is his "Coordinate Structure Constraint"):

(40)   a.   *Alexis sold his car and bought a bicycle.*
b.   **What did Alexis sell his car and buy?*

Subordinate clauses do not affect the possibility of extraction out of the superordinate clause:

(41)   a.   *After he sold his car, Alexis bought a bicycle.*
b.   *What did Alexis buy after he sold his car?*

Converbs behave like subordinate clauses in this respect:

(42)   a.   *What did Alexis buy, having sold his car?*
b.   *What, having sold his car, did Alexis buy?*

3.5. Diachronic origins of converbs

Converbs seem to arise from two main types of sources: (a) adpositional or case forms of masdars/verbal nouns which have become independent from their original paradigm; and (b) (co-predicative) participles (cf. section 4.1) which lost their capability for agreement. The first type is much more common, but the second type is well known from some European languages. Occasionally converbs appear to be very old, e. g., the past converb in Kannada or Telugu, or the Japanese converb in $-i/\emptyset$.

The diachronic origins of converbs merit a special investigation, so this matter is not pursued any further here.

4. Converbal and related constructions

This section discusses several construction types that exhibit particularly interesting parallels to converbal constructions. Sometimes it is not easy to say whether we are dealing with a converb or a construction of one of these related types. Such problems of delimitation will be discussed here as well. The construction types are copredicative participles (4.1), medial verbs (4.2), absolute constructions (4.3), and infinitival constructions (4.4).

4.1. Copredicative participles

In older Indo-European languages, and in particular in Latin and Classical Greek, participles are used much like many other languages use converbs. Examples (43) and (44) are illustrative of this use, called *participium conjunctum* in traditional grammar.

(43)   Hellenistic Greek (Luke 7: 19)
Kaì proskale-sá-men-os   dúo tin-às   tòn   mathēt-ōn
and call-AOR-PTCP-SG.M two some-ACC.PL ART disciple-GEN.PL
autoũ ho   Iōánnēs é-pemp-s-en   pròs tòn   kúrio-n
his   ART John   PAST-send-AOR-3SG to   ART Lord-ACC

lég-ōn: *sù*   *eĩ*   *ho* *erkhó-men-os,*   *ḕ*   *állo-n*
say-PTCP:SG.M thou art ART come-PTCP-SG.M or other-ACC
prosdok-ō̃-men?
wait-SUBJV-1PL
'And John, calling unto him two of his disciples, sent them to the Lord, saying, Art thou he that should come? or look we for another?'

(44)   Latin (Mark 15: 24)
(Milit-es)   *divis-erunt*   *vestiment-a*   *ejus,*
soldier[M]-NOM.PL divide:PERF-3PL garment-PL his
mitte-nt-es   *sort-em*   *super* *e-is,*   *qui*   *quid*
cast-PTCP-NOM.PL.M lot-ACC upon they-ABL who what
toll-ere-t.
take-IMPERF.SUBJ-3SG
'(The soldiers) parted his garments, casting lots upon them, what every man should take.'

Participles are verbal adjectives.[8] As such, they share many of the morphosyntactic properties of adjectives, in particular the ability to be used attributively, functioning as relative clause heads. Thus, in Ancient Greek one can say *ho Iōánnēs ho proskalesámenos* 'John, who called', and in Latin one can say *milites mittentes sortem* 'soldiers who cast lots'. And like adjectives, Greek and Latin participles show agreement with their head noun in gender, number, and case. This agreement also appears when participles are not used in their basic adjectival/relativizing function, but in a converb-like function as in examples (43) and (44).

Since the basic function of participles is the adjectival function, the converb-like use of participles is reminiscent of the nonattributive, *copredicative* use of adjective phrases as in (45).

(45)   a.   *Zhangsan came home drunk.*
         b.   *Shanti drinks the milk warm.*

Following Williams (1980), this use of adjectives is sometimes simply (and misleadingly) called *predication*. A more appropriate term is *secondary predication* (e. g., Nichols 1978) or *copredication* (cf. Plank 1985, Müller-Bardey 1990).[9]

Copredicative adjective phrases (and noun phrases) share several features with converbal constructions:

i. Their notional subject is not expressed explicitly but depends for its reference on an outside controller (this is a frequent but nonuniversal property of converbs);

ii. syntactically they depend on the predicate rather than on the controller of their implicit subject;

iii. the precise semantic relation between the copredicate and the main predicate can be determined only from the context (again, this is a feature only of a subset of converbs—contextual converbs);

iv. they are most often controlled by the subject of the (superordinate) clause, although nonsubject control is also a possibility.

Given these similarities, it is understandable that verbal adjectives, when used copredicatively, function much like converbs. However, this option does not seem to be frequent in the world's languages. Of the languages that have participles, few make such extensive use of the copredicative strategy as Greek and Latin. Outside of Europe, a similar strategy can perhaps be found in several Australian languages, e. g., Jiwarli of Western Australia.[10]

(46)   Jiwarli (Givón 1990: 885, data from Peter Austin)
Manthara-lu kurrpirli-nha   pinya-nyja   yanga-rnu-ru.
man-ERG   kangaroo-ACC spear-PAST chase-PTCP-ERG
'The man speared the kangaroo while chasing it.'

Copredicative participles are still widespread in modern European languages which descend from or were heavily influenced by Latin, for example:

(47)   a.   French
              Méprisé   par sa famille et   ses amis,   Mahmoud tenta de se
              despised by his family and his friends Mahmoud tried to self
              suicider.
              suicide
              'Despised by his family and friends, Mahmoud attempted to commit suicide.'
         b.   German
              Zu Hause angekommen, gab Wangari die mitgebrachten Geschenke ihren Kindern.
              'Arriving at home, Wangari gave her children the gifts she had brought along.'

In some European languages, converbs have diachronically arisen from participles that lost their gender, number, and case agreement, e. g., in Modern Greek and in several Slavic languages (Bulgarian, Russian, Polish). The German copredicative participle illustrated in (47b) could also be regarded as a converb because there is no agreement that would prove its participial status (in general, (co-)predicative adjectives lack agreement in German).

The case of the English *-ing* form is even more indeterminate because English adjectives and participles never show agreement. Should the *-ing* form in sentences like the translations of (43), (44) and (47 b) be regarded as a copredicative participle or as a converb? Following V. Nedjalkov (this volume: section 8), we can perhaps use the criterion of frequency: Since the *-ing* form is more often used in adverbial function than in attributive function, its primary function is that of a converb.

4.2. Medial verbs and clause-chaining

The relatively recent notion *medial verb* is in many ways similar to the notion *converb*.[11] Indeed, it appears that both notions show some overlap that could add to the already existing terminological confusion. This section examines the relation between medial verbs and converbs in some detail and proposes a definition of both of them that captures their common features but also highlights their differences.

4.2.1. Medial verbs

Medial verbs are verb forms which cannot be used in isolated independent sentences but have to be used together with another verb (the controlling verb) on which they depend in that they share (at least) the mood and tense of the controlling verb, and in that the reference of their subject is often determined by the controlling verb. The notion of medial verb has especially been used in Papuan languages, whose basic word order is almost universally verb-final, so that the controlling verb is the final verb and the medial verb comes between its own dependents and the controlling verb (in sentence-medial position—hence the term). An example of a medial verb from Tauya is given in (48).

(48)   Tauya (Trans-New-Guinea; MacDonald 1990: 219)
        Peima   fitau-fe-e-te   wate tepau-a-?a.
        carefully throw-PFV-1/2SG-MED.DS NEG break-3SG-INDIC
        'I threw it carefully and it didn't break'.

The medial verb *fitaufeete* is less finite than the final verb (the controlling verb) *tepaua?a* in that it is not marked for mood, and tense is neutralized in it. The shape of the medial verb suffix indicates that the medial verb subject is different from the final verb subject. When the two subjects are coreferential, the same-subject medial verb suffix *-pa* is used, as shown in (49). The same-subject medial verb does not contain subject person/number markers, evidently for reasons of economy.

(49)   Tauya (MacDonald 1990: 224)
        Wate ya-pi-?ai   yate-pa   ni-e-?a.
        house I-GEN-ADESS go-MED.SS eat-1/2SG.INDIC
        'I went (to my) home and ate.'

Sequences of medial verbs and a final verb generally express sequential or simultaneous events without further specification of the nature of the semantic link between the two events. The nearest equivalent in European languages is generally coordination by means of 'and', as in the glosses of examples (48) and (49).

4.2.2. Clause chaining

Medial verbs can generally be combined into longer sequences in which each medial verb depends on the verb that follows it immediately and which contain only one fully finite final verb. An example containing eight medial verbs and one final verb is given in (50). According to MacDonald (1990: 218), this example is not at all unusual: "Natural speech is characterized by long series of clauses which include medial verbs, terminated by a clause with a final verb."

(50)   Tauya (MacDonald 1990: 218)
        Nono imai-te-pa   mai   mene-a-te   pai
        child (3SG)carry-get-MED.SS come.up stay-3SG-MED.DS pig
        a?ate-pa   nono wi   nen-fe-pa   yene   wawi wi
        hit-MED.SS child show 3PL-TR-MED.SS sacred flute show
        nen-fe-pa   mene-pa   pai a?ate-ti   tefe-pa
        3PL-TR-MED.SS stay-MED.SS pig hit-CONJ put-MED.SS
        ?e?eri-pa   toto-i-?a.
        dance-MED.SS cut-3PL-IND
        'She carried the child and came up and stayed; and they killed the pigs and showed them to the children, and they showed them the sacred flutes and stayed, and they killed the pigs and put them, and they danced and cut [the pigs].'

Such examples underline the great typological divergence between languages with medial verbs and the more familiar European languages. Structures of this type have recently come to be characterized as *clause chaining*, and languages where they are prominent are *clause-chaining languages* (e. g., Longacre 1985: 263–283).[12] A sequence containing one fully finite verb and any number of medial verbs is called a *chain*, and the term *medial* can be understood as an abbreviation of *chain-medial* (cf. Givón 1990: 865). In addition to medial verbs, many linguists also talk about *medial clauses* (e. g., Longacre 1985; Roberts 1988; Payne 1991).

When one looks for analogous phenomena outside of New Guinea, structures in African languages such as those exemplified in (51) come to mind.

(51)   Swahili (John 20: 1–2)
  a.   *Hata siku ya kwanza ya juma Mariamu Magdalene   a-li-kwenda*
       until day of first   of week Mary   Magdalene 3SG-PAST-go
       kaburi-ni alfajiri,   kungali giza   bado
       grave-LOC before.dawn ?   darkness still
  b.   *a-ka-li-ona   lile jiwe   li-me-ondole-wa   kaburi-ni.*
       3SG-SEQ-G9.OBJ-see DEM stone G9-PERF-remove-PASS grave-LOC
  c.   *Basi a-ka-enda   mbio,*
       PT   3SG-SEQ-go running
  d.   *a-ka-fika   kwa Simoni Petro na   kwa yule mwanafunzi*
       3SG-SEQ-arrive to   Simon Peter and to   DEM disciple
       mwingine ambaye Yesu   a-li-m-penda,
       other   REL   Jesus 3SG-PAST-3SG.OBJ-love
  e.   *a-ka-wa-ambia: …*
       3SG-SEQ-3PL.OBJ-tell
       '[a] The first day of the week cometh Mary Magdalena early, when
       it was yet dark, unto the sepulchre, [b] and seeth the stone taken
       away from the sepulchre. [c] Then she runneth, [d] and cometh to
       Simon Peter, and to the other disciple, whom Jesus loved, [e] and
       saith unto them: …'

The Swahili -*ka* form is similar to a typical Papuan medial verb in that

  i. it cannot be used in an isolated sentence but must occur together with a
      controller verb;
  ii. it does not express (absolute) tense and mood, having the same tense and
      mood interpretation as the controlling verb;
  iii. chains consisting of an initial fully finite verb and following -*ka* forms can
      be quite long, much longer than a normal sentence of a European language.

These similarities seem to justify generalizing the notion of clause chaining to
structures like (51), which are not uncommon in African languages. The Swahili
-*ka* form would then also be a (chain-)medial verb. This generalization was made
in Givón (1990: 880 ff.); Bickel (1991); and Payne (1991).[13] There are, then, two
main types of clause chaining:

a. Clause chaining where the final clause contains an independent verb and all
   preceding verbs are medial verbs. Following Stassen (1985), we can call this
   anterior clause chaining.
b. Clause chaining where the initial clause contains an independent verb and all
   following verbs are medial verbs. This is *posterior clause chaining.*

As was noted in Stassen (1985: 101) and Givón (1990: 891), anterior chaining
is typologically associated with OV basic order, and posterior chaining is associ-
ated with VO order.

4.2.3. Medial verbs and converbs
It is clear that converbs are like medial verbs in several ways. Much like medial
verbs, converbs

  i.   cannot be used in independent sentences;
  ii. generally do not express mood and (absolute) tense, depending on the super-
       ordinate verb for mood and tense interpretation;
  iii. often depend on their superordinate verb for the reference of their subject.

Indeed, we find converbs that are used in a way quite analogous to medial
verbs in long chaining-like sequences of clauses, cf. the Turkmenian example
(2 b) in V. Nedjalkov (this volume), and the Kumyk example (16) above in sec-
tion 2.2. Such sequences seem to show that converbs also occur in clause-chain-
ing constructions.[14]

So are converbs and medial verbs perhaps the same thing – the main differ-
ence being that they are called *medial verbs* when they occur in New Guinea, and
converbs when they occur in northern Eurasia and South Asia? To some extent,
this is probably true. The linguistic traditions that have talked about "adverbial
participles" and "gerunds" in Europe are quite different from those that have
talked about "converbs", "gerunds", *deepričastija* in Altaic languages, again dif-
ferent from those that have studied "conjunctive participles" in South Asian
languages, and again different from that have investigated "medial verbs" in
Papuan languages. It usually takes some time before linguists working in dif-
ferent areas of the world realize that they are dealing with the same phe-
nomenon.

Nevertheless, there are some crucial differences in the data that seem to
justify two different terms, *converb* and *medial verb*, for two related but distinguish-
able notions. The key difference lies in the fact that prototypical converbal
clauses are *subordinate* (in the sense of 'embedded'), while prototypical medial
clauses in clause-chaining constructions are not subordinate, but *cosubordinate* (in
the sense of Foley–Van Valin 1984: chapter 6).

4.2.4. Medial verbs are cosubordinate
The criteria for the subordinate status of converbal clauses habe been discussed
above in subsection 3.4. Typical medial clauses fail all of these criteria. Since
these criteria are not the sort of phenomena that can be easily read off from
the surface form of a sentence, the demonstration of the nonsubordinate status

of medial clauses is not straightforward. However, several linguists working on clause-chaining languages have observed that despite the "dependent" nature of the medial verb (in that it does not occur independently and lacks its own tense, mood and often person/number inflection), medial clauses are not subordinate (e. g., Haiman 1980, 1985; Reesink 1983; Roberts 1988). The most detailed argumentation against the subordinate status of medial clauses can be found in Roberts (1988) for the Papuan language Amele. For three of the above criteria of subordination (section 3.4.), Roberts shows that Amele medial verbs do not fulfill them. A typical Amele (different-subject) clause-chaining construction is shown in (52).

(52)   Amele (Roberts 1988: 52)
        Ho busale-ce-b   *dana age   qo-i-ga.*
        pig run.out-MED.DS-3SG   man   they   hit-3PL-HOD
        'The pig ran out and the men killed it.'

First criterion (cf. section 3.4.1): in contrast to subordinate adverbial clauses (cf. 53 a), medial clauses cannot appear in clause-internal position, i. e., in between immediate constituents of the main clause.

(53)   Amele (Roberts 1988: 54, 55)
        a. Subordinate adverbial clause
            Dana age ho qo-qag-an   nu   ho-i-ga.
            man   they [pig kill-3PL-FUT PURP] come-3PL-HOD
            'The men came to kill the pig.'
        b. Medial clause
            **Dana age   ho   busale-ce-b*   *qo-i-ga.*
            man   they pig run.out-MED.DS-3SG   kill-3PL-HOD
            'The men, the pig having run out, killed it.'

Second criterion (cf. section 3.4.2): in contrast to subordinate adverbial clauses (cf. 54 a), medial clauses cannot be extraposed into clause-final position after the controlling verb.

(54)   Amele (Roberts 1988: 55, 56)
        a. Subordinate adverbial clause
            Uqa sab   man-igi-an   ija ja hud-ig-en   fi.
            she food roast-3SG-FUT [I fire open-3SG-FUT if]
            'She will cook the food if I light the fire.'
        b. Medial clause
            **Dana age   qo-i-ga   ho   busale-ce-b*
            man   they kill-3PL-HOD pig run.out-MED.DS-3SG
            'The men killed it, the pig having run out.'

Third criterion (cf. section 3.4.3): Unlike subordinate adverbial clauses, medial clauses cannot contain cataphoric pronouns. Since universally, cataphoric pronouns are possible only when c-commanded by their antecedent, this shows that medial clause constituents are not c-commanded by constituents of the independent clause and hence are not subordinate.

(55)   Amele (Roberts 1988: 56, 57)
        a. Subordinate adverbial clause
            (Uqa)$_i$ sab   j-igi-an   nu   Fred$_i$ ho-i-a.
            [he   food eat-3SG-FUT PURP] Fred come-3SG-HOD
            'Fred came to eat food.'
        b. Medial clause
            **(Uqa)$_i$ bi-bil-i   Fred$_i$ je-i-a.*
            he   MED.SIM-sit-3SG.SS Fred eat-3SG-HOD
            'While he sat, Fred ate.'
            = *'He$_i$ sat and Fred$_i$ ate.'

Thus, we may conclude that Amele medial clauses are not subordinate. However, they are also not coordinate in the sense in which European languages are said to have coordinate clauses. European coordinate clauses never contain verb forms that cannot stand by themselves in an independent sentence. Perhaps the familiar dichotomy subordinate/coordinate is simply not applicable to clause-chaining language. Givón (1990: 864) states:

> The type of inter-clausal grammar surveyed thus far exhibits its major contrast between subordinate and coordinate clauses. But there exists another – radically different but perhaps more common – type of inter–clausal grammatical organization in language. The general name for this type is clause chaining …

Similarly, Scancarelli (1992: 267) distinguishes three main types of clause-combining constructions: coordination/subordination, clause chaining, verb serialization. And Longacre (1985) distinguishes between coranking and chaining languages.

But instead of radically separating coordination/subordination from clause chaining, we can emphasize the similarities between these constructions. In particular, it seems quite plausible that clause combining by medial clauses is intermediate between coordination and subordination and can thus be called *cosubordination* (Foley–Van Valin 1984: chapter 6).

Cosubordination is like subordination in that it is structurally asymmetric: there is an independent clause and a cosubordinate clause. The cosubordinate clause cannot stand alone as an independent clause and may depend on the independent clause for its tense, mood, and subject reference. Thus, both cosub-

ordinate and subordinate clauses are *dependent*. However, cosubordination is like coordination in that there is no embedding of one clause into the other clause. The cosubordinate clause is not a part of the independent clause, and hence the subordination criteria of section 3.4 are not fulfilled.

Now we can use the distinction between subordination and cosubordination to define *converb* and *medial verb*. A converb is a verb form that is used primarily in (adverbial) *subordinate* clauses, and a medial verb is a verb form that is used primarily in *cosubordinate* clauses. Given these definitions, the converb/medial verb distinction is at least as clear as the subordination/cosubordination difference.

The distinctions that I have drawn can be summarized as in Figure 1 (cf. Foley 1986 for a similar picture).
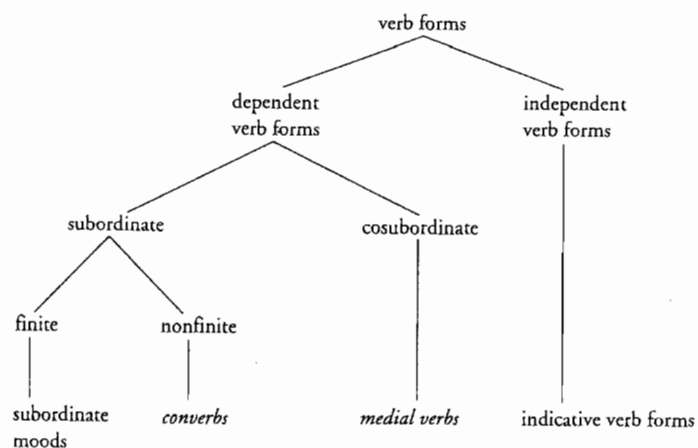

Figure 1. A classification of verb forms

Note that the proposed definitions do not imply that there is no overlap between converbs and medial verbs. Indeed, there is strong evidence that such an overlap exists. For example, as Kuno 1973 shows, Japanese clauses with the *-te* converb form are subordinate when they are same-subject, but "coordinate" (i. e., cosubordinate) when they are different-subject (see also Alpatov–Podlesskaya in this volume). And perhaps the Kumyk *-ip-* form is subordinate in example (36) (section 3.4.4), but cosubordinate in the chaining sentence (16) (section 2.2). Like many other grammatical distinctions, the subordinate/cosubordinate distinction is probably not always clear-cut and intermediate cases

exist. Nevertheless, it seems useful to have this distinction and to use it in delimiting converbs from medial verbs.

4.3. Absolute constructions

Especially in the older Indo-European languages we find a construction consisting of an NP plus an agreeing participle in some oblique case, e.g., the dative in older Slavic, or the ablative in Latin. This construction functions as a subordinate clause with some nonspecific adverbial relation to the main clause, for example:

(56)   Old Russian (Novgorodskaja pervaja letopis', 48)
    Zautra   že, solnĉ-u   vŭsxodjašĉj-u, vŭnid-oša   vŭ   svjatuju
    morning PT sun-DAT go.up-DAT   enter-AOR:3PL into holy
    Sofiju.
    Sophia
    'And in the morning, while the sun was rising, they went into St. Sophia.'

(57)   Latin (Luke 24: 41)
    Adhuc autem ill-is   non crede-nt-ibus,
    still   PT   they-DAT.PL not believe-PRES.PTCP-DAT.PL
    dix-it: ...
    say:PERF-3SG
    'And while they yet believed not, he said: ...'

This construction is generally called absolute construction (cf. Holland 1986; König–van der Auwera 1990), or more specifically *dativus absolutus, ablativus absolutus*, etc. Absolute constructions in older Indo-European languages are similar to copredicative participial constructions (cf. section 4.1) in that (i) they generally involve a participle, and (ii) they function as semantically indeterminate adverbial modifiers. In contrast to copredicative constructions, absolute constructions have their own subject (the NP).

Given the similarities between converbal and (participial) copredicative constructions (cf. section 4.1) and the similarities between copredicative and absolute constructions, it is not surprising that converbal constructions with an explicit subject are often called "absolute constructions", especially in European languages. For example:

(58)   Spanish (Reese 1991: 31–36)
    Permitié-ndo-lo Dios, mañana   comenzaremos el   viaje.
    allow-CONV-it God tomorrow we:will:begin the journey
    'God permitting, we will start out on the journey.'

(59)   English (Kortmann 1991: 12)
          Off they went, she remaining behind.

However, such constructions are not nearly as peculiar as the old Indo-European constructions in examples (56) and (57). Examples (58) and (59) are cases of ordinary converbs with an explicit subject, and the label "absolute construction" does not seem necessary for them.[15] Converbs with an explicit subject may be somewhat unusual in European languages, but elsewhere in the world they are quite common.

4.4. Infinitival constructions

The infinitive is widely regarded as the basic and maximally unmarked form of the verb. However, in reality the verb forms called *infinitive* in most European and many other languages do have a specific form and a specific meaning (Haspelmath 1989). Infinitives are generally used (a) in complement clauses with (roughly) irrealis meaning and (b) in purpose clauses. Their form often reflects their diachronic origin as allative-marked verbal nouns (e. g., English *to*).

Infinitives are similar to converbs in several respects:

i. They arise diachronically from adpositional or case forms of verbal nouns (cf. section 3.5);
ii. One important function of infinitives is to mark (purposive) adverbial subordination;
iii. The infinitival subject is generally left implicit and is controlled by an argument of the main clause.

Thus, should we say that an infinitive is a kind of converb?[16] Probably not. The best-known infinitives, those of European languages, lack one crucial converb property: these infinitives are not used primarily for adverbial subordination, but their primary use is in complement clauses. Evidently, we are dealing here with a continuum of grammaticalization: erstwhile adverbial purposive forms are increasingly used in a nonadverbial complement function. The more a purposive form moves away from its original adverbial function, the less it can be regarded as a converb. There are plenty of examples of specialized purposive converbs, e. g., the Evenki purposive converbs in *-da* and *-vuna* (I. Nedjalkov, this volume: section 3.5), and the Lezgian *-wal* converb (Haspelmath, this volume: section 3.5). These might well develop into true infinitives in the future by extending their function to irrealis complements. However, then they would cease to be typical converbs.

5. Referential control of the implicit converb subject

In many languages, the subject of the converb is often not (or cannot be) expressed explicitly but is left *implicit*, cf. section 3.2. The question to be addressed in this section is how the reference of the implicit subject of a converb is determined, or in other words, how the implicit subject of a converb is (referentially) *controlled*.

5.1. Subject control

Universally, the unmarked case is for the implicit subject of a converbal construction to be referentially controlled by the subject of the superordinate clause (*subject control*). Some languages have converbs which explicitly express disjoint reference of the converb subject and the superordinate subject, but it appears that whenever such a different-subject converb exists in a language, there is also a corresponding same-subject converb. Moreover, the same-subject converb seems to be universally unmarked with respect to the different-subject converb. In (60), the different-subject converb *-pti* is marked, for example, in that it requires a pronominal suffix, which is not allowed on the same-subject converb *-r*.

(60)   Huallaga Quechua (Weber 1989: 177)
    a.   *Chaya-r*   *miku-shka-a.*
          arrive-CONV.SS   eat-PERF-1
          'When I arrived, I ate.'
    b.   *Chaya-pti-n*   *miku-shka-a.*
          arrive-CONV.DS-3   eat-PERF-1
          'When she arrived, I ate.'

A situation like this where a same-subject form contrasts with a different-subject form is often described as *switch reference* (e. g., Haiman–Munro 1983). Switch reference is particularly common in medial clauses of the Papuan type, but it also occurs with converbs.

In languages that do not have such contrasting same-subject and different-subject converbs, the normal situation is subject control. For example, Kortmann (1991) found that in English, implicit-subject free adjuncts (most of which are headed by *-ing* converbs) exhibit subject control in 91.5 percent of the cases in his corpus of 1,400 free adjuncts. Subject control is grammaticalized to some extent in many languages. However, nonsubject control is rarely totally impossible, cf. the examples in (61).

(61) a. French (Halmøy 1982: 188)
En téléphonant à certaines cliniques pour demander une
CONV phone:CONV to certain clinics for ask.for a
consultation, on me conseille de m' adresser directement au
consultation one me advises to myself adress directly to.the
chirurgien.
surgeon
'(When) making phone calls to certain clinics to ask for medical advice, I am advised to go directly to the surgeon.'

b. Hindi (Schumacher 1977: 68)
Uskii yah rukhaaii dekh-kar Madhukar ke man ko coṭ
her this rejection see-CONV Madhukar GEN inside DAT blow
lag-ii.
hit-PAST.F
'Seeing this rejecting attitude of hers, a blow hit Madhukar's inside [i. e., his soul].'

Grammarians have often shown a tendency to dismiss such exceptions to subject control. In many cases, traditional prescriptive grammarians have simply declared nonsubject controlled converbal constructions non-normative, i. e., wrong. For example, they have been condemned in Russian grammar (already in Lomonosov's [1755: 467] pioneering work), in English grammar (cf. Kortmann 1991: 224), in French grammar (e. g., Grevisse 1986: § 885), in Bulgarian and Polish grammar (e. g., Vălčkova 1988), and in Hindi grammar (cf. Schumacher 1977: 88). Prescriptive grammarians usually give a functional explanation for their warnings against nonsubject-controlled converbs, e. g., Grevisse (1986: § 885):

Pour la clarté de la phrase, le participe en tant qu' épithète détachée et le gérondif, qui est toujours détaché du nom (ou du pronom) support, doivent se construire de telle sorte que leur rapport avec le nom (ou le pronom) ne prête à aucune équivoque. Il est souhaitable, notamment, que le participe ou le gérondif détachés, surtout en tête d'une phrase ou d'une proposition, aient comme support le sujet de cette phrase ou de cette proposition.

This concern for clarity expressed by grammar clearly results from an insufficient appreciation of the power of pragmatic inference, which usually guarentees a nonambiguous understanding of the sentence by the hearer or reader.

But prescriptivists are not alone in dismissing exceptions to subject control. Quite a few autonomous syntacticians have used control properties in arguing for the subject status of certain types of arguments. For example, Legendre (1990: 106) claims that the controller NP of a French *gérondif (en V-ant)* is a

subject at some level. It may be a subject at all levels, as in (62a), or only a surface subject, as *les manifestants* in the passive example (62b), or only an underlying subject, as *par les policiers* in the same example.

(62) French (Legendre 1990: 106, 109)
a. *Les policiers ont dispersé les manifestants en*
the policemen have dispersed the demonstrators CONV
hurlant.
scream:CONV
'The policemen dispersed the demonstrators while screaming [i. e., the policemen are screaming].'

b. *Les manifestants ont été dispersés par les policiers*
the demonstrators have been dispersed by the policemen
en hurlant.
CONV scream:CONV
'The demonstrators were dispersed by the policemen while screaming [i. e., the demonstrators or the policemen are screaming].'

In dative experiencer constructions, both the nominative stimulus NP (*cette femme* in [63 a] and the dative experiencer NP may control the *gérondif* subject:

(63) French (Legendre 1990: 111)
a. *Cette femme lui plaît tout en ne correspondant*
this woman him pleases even CONV NEG correspond:CONV
pas tout à fait à son idéal féminin.
NEG all at fact to his ideal feminine
'This woman is pleasing to him while not corresponding exactly to his feminine ideal.'

b. *Que la France lui plaise tout en n' y ayant*
that the France him please even CONV NEG there have:CONV
jamais mis les pieds, toi, ça te surprend?
ever put the feet you that you surprises
'That France is pleasing to him without ever having set foot there, is it surprising to you?'

Control by the dative experiencer is not an exception to the rule that only a subject (at some level) may be a *gérondif* controller, because Legendre (along with much of the rest of the rest of the relational grammar literature)[17] claims that dative experiencers are underlying subjects which become indirect objects only at the surface level.

But Legendre's claim is directly disconfirmed by examples like those in (64) from French texts cited by Halmøy (1982), where the *gérondif* controller is a

direct object and not a subject at any level (unless one wants to assume an ad hoc rule of subject-to-direct object demotion).

(64)   French (Halmøy 1982: 188)

a.   *En   téléphonant   à   certaines cliniques pour demander une*
     CONV phone:CONV   to   certain   clinics   for   ask.for   a
     consultation, on   me   conseille de m'   adresser directement au
     consultation one me advises to myself adress directly   to.the
     chirurgien.
     surgeon
     '(When) making phone calls to certain clinics to ask for medical advice, I am advised to go directly to the surgeon.'

b.   *En   la   reconduisant   jusqu' au   portillon de notre*
     CONV her accompany:CONV up   to:the barrier of our
     hospice ce   soir-là   elle ne   m' embrassa pas
     hostel this evening-there she NEG me kissed   NEG
     'When I accompanied her back to the barrier of our hostel that evening, she didn't kiss me.'

Like prescriptive grammarians, autonomous syntacticians have generally failed to see the significance of pragmatic inference for the referential control of implicit subjects. While prescriptivists isolated themselves from the facts by simply declaring recalcitrant data non-normative, autonomous syntacticians achieved this by restricting themselves to a (usually small) set of constructed examples. It is thus not surprising that the crucial role of pragmatic inference has been emphasized and explored especially in corpus-based studies such as Schumacher 1977 (on Hindi), Halmøy 1982 (on French), Kortmann 1991 (on English). When faced with a large set of actually occurring examples, it becomes impossible to ignore the interesting minority of cases where the implicit subject of a converbal clause is not controlled by the superordinate subject.

5.2. Pragmatically determined nonsubject control

The generalization that seems to apply to the large majority of non-subject-controlled converbs is that the controller is a pragmatically highly salient participant with whom the hearer or reader can empathize (cf. Kuno–Kaburaki 1977 for the role of empathy in syntax). In particular, it is often a participant whose mental perspective is taken in the sentence. In contrast to syntactic rules, pragmatic rules of this kind are rather vague, and a lot of work needs to be done to make them more precise. And there is no doubt that languages differ in their pragmatic conditions for controllership. Below we consider only a few conditions which seem to be valid for many languages.

When the controller is a dative participant, it is most often an experiencer rather than a recipient, because an experiencer is generally the most salient participant in a clause, whereas a recipient, though being generally human, is upstaged by the agent of its clause. Some more examples of dative experiencer controllers (in addition to 63 b):

(65)   a.   Polish
           Pisząc   te   słowa, przypomniała mi   się   zeszłoroczna
           write:CONV these words remembered to.me self last:year's
           rozmowa.
           conversation
           'Writing these words, I recall last year's conversation.'

b.   Russian[18]
     Nynče uvidev   ee   mel'kom, ona emu   pokazalas' ešče
     now see:PFV.CONV her cursorily she to.him seemed   even
     lučše.
     better
     'Now catching a glimpse of her, she seemed even more beautiful to him.' (L. Tolstoy)

c.   Hindi (Schumacher 1977: 51)
     Uske mariyal cehre ko   dekh-kar Amrit ko   kruur   aanand
     his   sickly face DAT see-CONV Amrit DAT malicious joy
     mil-aa.
     meet-PAST.M
     'When seeing his sickly face, Amrit felt a malicious joy.' (lit. '... a malicious joy came to Amrit.')

d.   English (Kortmann 1991: 66)
     It has seemed to me lately, watching you with a father's eye, that you have shown signs of being attracted by Algernon Fripp.

While syntactic arguments have often been put forward for an underlying subject status of dative experiencers (cf. section 5.1), such an analysis has never been advanced for accusative experiencers. Nevertheless, these too can control implicit converb subjects.

(66)   a.   French (Halmøy 1982: 184)
           En   traversant   la   cour   déserte, le   bruit de ses pas
           CONV cross:CONV the courtyard deserted the noise of his steps
           l'   impressionna.
           him impressed
           'Crossing the deserted courtyard, the noise of his steps impressed him.'

b.   English (Kortmann 1991: 58)
Sitting quietly here, the memory stirred him.

c.   Bulgarian (Vâlčkova 1988: 81)
... *razxoždajki se iz   stoličnite ulici,   meždu prazničnite*
walk:CONV   self from capital's streets among holiday's
ukrasi   na vitrinite   s   uporita   posledovatelnost i
decorations of shop.windows with stubborn consistency   and
nerazgadaemost ni posreštaxa nadpisite   na tezi   tabeli.
mysteriousness us hit   inscriptions on these signs
'Walking through the capital's streets, among the holiday decorations
in the shop windows the inscriptions on these signs hit us with
stubborn consistency and mysteriousness.'

d.   Polish (Vâlčkova 1988: 81)
Słuchając   zeznań   świadków,   orgarnia człowieka
listen:CONV statements witnesses:GEN seizes   person
przerażenie.
horror
'Listening to the witnesses' statements, horror seizes one.'

e.   Vedic Sanskrit (Tikkanen 1987 a: 150)
Stríy-am   dṛṣ-ṭváya   kitavá-m   tatāpa.
woman-ACC see-CONV player-ACC distress:PERF
'Upon seeing (his) woman, it distresses the player.'

Not uncommonly, the controller is not a direct participant of the superordinate clause, but a possessor of a participant. In such cases, the possessum is often a noun that expresses a mental entity of some sort, so that the situation is naturally seen from the possessor's mental perspective.

(67)   a.   French (Halmøy 1982: 189)
En   organisant   l'   enquête ..., notre but   était de trouver
CONV organize:CONV the inquiry   our   goal was to find
un dénominateur   commun ...
a   denominator common
'Organizing the inquiry, it was our goal to find a common denominator ...'

b.   English (Kortmann 1991: 43)
Looking out for a theme, several crossed his mind.

c.   Bulgarian (Vâlčkova 1988: 81)
Trâgvajki   si,   mislite   mi   se   nasočixa ...
move:CONV self thoughts my self turned
'Starting out, my thoughts turned ...'

d.   Hindi (Schumacher 1977: 31)
Māāgruu   ko   dekh-kar moṭiyaarii kaa kalejaa kāāp-ii.
Māāgruu DAT see-CONV motiyaarii GEN heart   tremble-PAST.F.SG
'When the *motiyaarii* (girl choosing her husband) saw Māāgruu, her
heart trembled.'

Given that the referential control of the implicit converb subject is pragmatically governed to a substantial extent, it is not mysterious that control is also possible in subjectless constructions with an implicit generic ('one') agent, for example:

(68)   a.   Polish (Weiss 1977: 279)
Chcąc   kupić bilet, trzeba   stanąć w kolejce.
want:CONV buy   ticket one.must stand in line
'Wanting to buy a ticket, one has to stand in a line.'

b.   Russian (Čeremisina 1977: 5)
Prigotoviv   testo, nado   dat' emu poležat'.
prepare:PFV.CONV dough one.must give to.it lie
'Having prepared the dough, it is necessary to leave it lying for some time.'

Nor does it come as a surprise that the converb subject may be controlled by referents that are not present in the sentence at all, but either only in the preceding discourse, or in the situational context. Example (69) shows control by a salient participant in the preceding discourse,

(69)   French (Halmøy 1982: 179)
Il pensa   une seconde que c' était sans   doute cela qui
he thought a   second that it was without doubt that which
l' avait sauvé, lui, trois mois   plus tôt, mais en même
him had saved him three months more early but at same
temps, il cherchait un moyen de lui   prouver le contraire.
time he sought a   means to to.him prove the opposite
En y   réfléchissant, c' était elle qui dès le début
CONV about.it think:CONV it was her who from the beginning
de leur liaison   avait pris   toutes les initiatives ...
of their relationship had taken all   the initiatives
'He thought for a second that that was perhaps what had saved him
three months earlier, but at the same time he was looking for a
means to prove the opposite to him. Thinking about it, it was she
who had taken all the initiatives from the beginning of their relationship ...'

Control by a participant of the situational context is commonly found in conver-
bal constructions that modify the illocution rather than the propositional
content. At the illocutionary level, the most salient participant is the speaker, so
the speaker is understood as the subject of such converbs. This is illustrated by
the following examples (admittedly, in both these cases we are dealing with a
set expression on the way to grammaticalization, cf. section 6.1).

(70) a.   English (Kortmann 1991: 51)
            Putting it mildly, the holiday resort didn't quite meet our expectations.
      b.   Bulgarian (Vâlčkova 1988: 83)
            Sâdejki   po izdadenata prisâda,   otgovorât može bi e
            judge:CONV by passed   judgement answer can be is
            položitelen.
            positive
            'Judging by the judgment that was passed, the answer is perhaps
            positive.'

We have seen in the preceding discussion that the referential control of the
implicit converb subject is often pragmatically determined even in languages
where the superordinate subject is the controller in the overwhelming majority
of occurring cases. This leads to the question whether a grammatical principle
of subject control has to be assumed at all. Since control is by a highly salient
participant when it is not by the subject participant, and since the subject is
most often the most salient participant of a clause, the most economic statement
would be simply that the implicit subject is controlled by the most salient partici-
pant. In this way we would eliminate converb control completely from the syn-
tax and rely exclusively on pragmatics.

Against such a pragmatic reduction of converb control, it could be objected
that there are cases where syntax clearly plays a role. For example, Mohanan
(1983) cites the following pair of sentences.

(71)   English
      a.   *Lying idly in the sun, John watched Mary.*
            (John is lying in the sun.)
      b.   *Lying idly in the sun, Mary was watched by John.*
            (Mary is lying in the sun.)

Mohanan claims that these sentences show that the implicit subject of *lying* is
controlled by the subject rather than the agent of the superordinate clause.
Semantically, the superordinate clause is identical in (71 a) and (71 b), but syntac-
tically they differ. A pragmatic reductionist could reply to this that (71 a) and

(71 b) differ not only syntactically, but pragmatically as well: the passive clause
in (71 b) gives greater pragmatic salience to the patient participant *Mary*.

The issue of the mutual relation between syntax and pragmatics is, of course,
of enormous proportions, and it cannot be resolved without extensive further
studies, using all the evidence that is available. A cross-linguistic perspective can
play an important role here by showing what is universal, what is widespread
and what is particular to individual languages.

6. Grammaticalization of converbal constructions

Like other nonfinite verb forms, converbs are extensively made use of in gram-
maticalized constructions. Verbs in a converb form may themselves be grammat-
icalized and become grammatical markers (sections 6.1 to 6.3.), or converbs
may be part of a construction where another element becomes a grammatical
marker (section 6.4.).

6.1. From converb to adposition

Converbal forms of certain verbs may be grammaticalized into adpositions. In
this diachronic process, the object argument of the converb becomes the com-
plement of the adposition, while the subject argument (which is generally im-
plicit anyway) disappears completely. The analogous process in serial verbs is
better known (e. g., Givón 1975). For example, in Yoruba the verb *fi* 'put' is
used in a general instrumental function, and in Mandarin Chinese the verb *gĕi*
'give' is used in a general recipient function. While the morphosyntactic corre-
lates are not immediately apparent in isolating languages and presuppose detailed
syntactic analysis, the meaning of examples (72) and (73) makes it clear that the
serial verb has become a kind of grammatical marker (or *co-verb*, to use the
widespread term for an adposition-like serial verb).

(72)   Yoruba (Rowlands 1969: 82)
            Mo fi   abę gé e.
            I   put razor cut it
            'I cut it with a razor.'

(73)   Mandarin Chinese (Bisang [this volume])
            Wŏ gĕi   tā măi xiāngyān.
            I   give he buy cigarettes
            'I buy him cigarettes.'/'I buy cigarettes for his sake/on his behalf.'

The grammaticalization of converbs with meanings such as 'giving' and 'putting' does not seem to be as common as with serial verbs. However, converbs are commonly grammaticalized into adpositions with more specific functions. König and Kortmann (1991: 120), in a study focusing on English, identify the following three semantic areas where English has adpositions deriving from *-ing* converbs:

(74)   a.   time: *during, pending, ago, past*
       b.   exception: *barring, excepting, excluding*
       c.   topic/perspective: *concerning, considering, regarding, respecting*

The transition from converb to adposition can be illustrated with the following examples:

(75)   English (König–Kortmann 1991: 116)
       a.   *Considering the conditions in the office, she thought it wise not to apply for the job.*
       b.   *Considering his age, he has made excellent progress in his studies.*

In both sentences, *considering* can either be interpreted as an *-ing* converb or as a preposition. However, the former interpretation is much more likely in (75 a), where the subject *she* may control the implicit subject of *considering*, whereas the latter interpretation is more likely in (75 b), where no overt controller is available in the sentence.

Examples of converb-derived adpositions from other languages are German *entsprechend* 'according to' (from *entsprechen* 'correspond'), Russian *spustja* 'after' (from *spustit'* 'let down'), Turkish *göre* 'according to' (from *gör-* 'see'). (See also Kortmann–König 1992 for more examples from Germanic and Romance, and Haspelmath in this volume [section 5.3] for examples from Lezgian.)

6.2. From converb to subordinating conjunction

It is not uncommon for adpositions and subordinating conjunctions to share a common form (e. g., *before, after* in English). In such cases the adposition is usually the primary use of the expression which secondarily takes a clausal argument as well.

The same is true for many adpositions that originate in converbs. Just as a verb may take a noun phrase object which becomes the adposition's argument after the grammaticalization (subsection 6.1), it may take a complement clause which becomes the subordinate clause linked by the conjunction to its superordinate clause. Compare the following examples, where the (a) sentences show a converb-derived adposition, while the (b) sentences show the corresponding converb-derived conjunction or conjunctional expression. (In addition to the

converb, these conjunctional expressions often contain a general subordinator, e. g., English *that*, French *que*, etc.)

(76)   English (Quirk et al. 1985: 660)
       a.   (adposition)
            Considering her age, she has made excellent progress in her studies.
       b.   (conjunction)
            Considering that she is rather young, she has made excellent progress in her studies.

(77)   French (Grevisse 1986: 1539, 1653; *durant* from *durer* 'last')
       a.   (adposition)
            Durant la campagne, les ennemis se sont tenus enfermés dans
            during the campaign the enemies self have held enclosed in
            leurs places.
            their places
            'During the campaign, the enemy stayed locked in their places.'
       b.   (conjunction)
            Durant que j' hésitais, elle me reconnut.
            during that I hesitated she me recognized
            'While I was hesitating, she recognized me.'

(78)   Russian (*ne-smotrja* from [*ne*] *smotret'* [not] look')
       a.   (adposition)
            Nesmotrja na ego nedostatki, ja ego ljublju.
            in.spite of his shortcomings I him love
            'Despite his shortcomings, I love him.'
       b.   (conjunction
            Nesmotrja na to, čto ona živet v Amerike, on vljubilsja v
            in.spite of it that she lives in America he fell.in.love with
            nee.
            her
            'Although she lives in America, he fell in love with her.'

(79)   Lezgian (Haspelmath 1993: 389; *kiligna* from *kiligun* 'look')
       a.   (adposition)
            Aӡarluwili-ӡ kiligna ӡun fe-na-č.
            illness-DAT because.of I:ABS go-AOR-NEG
            'Because of the illness I didn't go.'
       b.   (conjunction)
            Wiči-n weӡifa-jar haqisaǧwile-ldi tamamar-uni-ӡ kiligna
            self-GEN duty-PL conscience-SRESS fulfill-MASD-DAT looking

kawxadi-ʒ   xürü-n   ʒemätdi-n   arada   jeke hürmet
chairman-DAT village-GEN people-GEN among big   respect
awa-j.
be-PAST
'Since he fulfilled his duties conscientiously, the chairman enjoyed
great respect among the villagers.'

Much like converb-derived adpositions, converb-derived conjunctions in Euro-
pean languages are infrequent in texts, have very special meanings and in general
show a relatively low degree of grammaticalization. The lists given in grammars
are quite long: Quirk et al. (1985: 998) list *assuming, considering, excepting, granting,
providing, seeing, supposing, given* for English, and Grevisse (1986: § 1025) lists for
French *étant donné que, cependant que, durant que, en attendant que, pendant que, suivant
que, excepté que, attendu que, pourvu que, supposé que, vu que.*

In contrast to this, there is one converbal verb form that is grammaticalized
in a large number of languages to a conjunction that occurs very frequently and
has a very abstract function: the converb form "saying". In addition to its origi-
nal use as a marker of direct speech, "saying" is commonly used to mark not
only complements to verbs of utterance, but also complements to verbs of
thinking and others. "Saying" does not have to be a converbal form, it may also
be a serial verb (cf. Bisang, this volume). Compare Saxena (1987), Ebert (1991)
for cross-linguistic studies of this phenomenon. Some examples of converbal
"saying" with verbs of thinking and knowing are given in (80).

(80) a.   Udmurt (Perevoščikov 1959: 245)
           Omel', aslaʒ malpam-eʒ   odno ik bydesm-o-ʒ
           Omel' self's intention-3SG definitely be.realized-FUT-3SG
           šuy-sa,   tuʒ mur osk-e.
           say-CONV very deep believe-PRES.3SG
           'Omel' is deeply convinced that his intention will definitely be re-
           alized.'
      b.   Mongolian (Bisang, this volume: example [139])
           Aav margaš ir-ne   ge-ʒ   med-ne.
           father tomorrow come-IMPF say-CONV know-IMPF
           'He knows that the father will come tomorrow.'
      c.   Kumyk (Džanmavov 1967: 316)
           Ör Qazanyš-da   qonaǧ-ym Adilbek-da   bir as
           Upper Qazanyš-LOC friend-1SG Adilbek-LOC one ermine
           de-p   ešit-di-m.
           say-CONV hear-PAST-1SG
           'I heard that my friend Adilbek in Upper Qazanyš has an ermine.'

This use of the converb "saying" is also described in this volume for Burushaski
(Tikkanen, example [11]), Tamil (Bisang, examples [79] and [80]), Lezgian (Has-
pelmath).

Other functions in which a converbal form "saying" is commonly employed
are (i) as a causal conjunction (cf. example [81]), (ii) with ideophones (cf. exam-
ple [82]).

(81) a.   Methei (Tibeto-Burman; Saxena 1988: 379)
           Ima   na aibo thabak-tu tou-de   hāi-bagi   šao-rammi.
           mother my I   work-CL do-NEG say-CONV angry-PAST
           'My mother was angry because I didn't do the work.'
      b.   Kumyk (Džanmavov 1967: 314)
           Sen bar de-p,   öl-me   gerek-biz-mi?
           you exist say-CONV die-INF necessary-1PL-Q
           'We have to die because you exist?'
      c.   Lezgian (Haspelmath 1993: 390)
           Bazardi-n   juǧ ada-ʒ, tars-ar   awa-č   luhu-ʒ,
           Sunday-GEN day he-DAT [lesson-PL exist-NEG say-CONV]
           tak'an xa-nwa-j.
           hateful be-PERF-PAST
           'He hated Sunday because there were no lessons.'

(82) a.   Nepali (Saxena 1988: 376)
           Saroja dhəmmə bhanera   pacchaany-o.
           Saroja IDEOPH say:CONV fall.down-PAST.DISJUNCT
           'Saroja fell down with a thud.' (lit. '... saying *dhəmmə.*')
      b.   Kumyk (Džanmavov 1967: 314)
           Čyq-lar tapur-tupur de-p   jer-jer-ge   sebelen-di.
           drop-PL IDEOPH   say-CONV place-place-DAT fall-PAST
           'Raindrops fell here and there with a *tapur-tupur* noise.'

6.3. From converb to applicative marker

In the previous two sections we saw cases where a converbal verb form becomes
a grammatical marker that is associated with its dependent. In this way, depen-
dent-marking constructions result. In this section we briefly look at a case where
a grammaticalized converb has become associated with and attached to its head,
resulting in a head-marking construction.

Chickasaw (Muskogean; Munro 1983) has a same-subject converb marked by
the suffix *-t.* Its use is illustrated in (83).

(83)   Chickasaw (Muskogean; Munro 1983: 232)

a.   *Mali-t   itti'   apakfoota-li-tok.*
run-CONV tree   go.around-1SG.ACT-PAST
'I went around the tree running, i. e., I ran around the tree.'

b.   *Ittola-t   sa-lbak   kobaffi-li-tok.*
fall-CONV 1SG.POSS-arm break-1SG.ACT-PAST
'I broke my arm when I fell.'

When the verb *ishi* 'get, take' is used as a converb, its meaning may be bleached so that it indicates mere instrumentality (cf. example [84 a]). This semantic grammaticalization is normally accompanied by phonological and morphological reduction, whereby the verb *ishi* (plus the -*t* converb suffix) becomes attached to the superordinate verb as a prefix *isht*- which functions as an instrumental applicative marker (cf. example [84 b]).

(84)   Chickasaw (Munro 1983: 234)

a.   *Tali' ish-li-t   isso-li-tok.*
rock take-1SG.ACT-CONV hit-1SG.ACT-PAST
'Taking a rock, I hit him.' Or: 'I hit him with a rock.'

b.   *Tali' isht-isso-li-tok.*
rock APPL.INSTR-hit-1SG.ACT-PAST
'I hit him with a rock.'

Finally, the examples in (85) show that all connections to the original verb have been lost and that *isht*- is synchronically a true applicative marker. In (85 a), the instrumental NP is not adjacent to the verb, and in (85 b), the meaning is even more abstract.

(85)   Chickasaw (Munro 1983: 234)

a.   *Pāsita   sa-pāshi'   ish-takchi-li-tok.*
ribbon 1SG.POSS-hair APPL.INSTR-tie-1SG.ACT-PAST
'I tied my hair with a ribbon.'

b.   *Isht-anompoli-li.*
APPL.INSTR-talk-1SG.ACT
'I talked about it.'

This development is interesting because applicatives are the functional equivalent of adpositions, using different structural means (head-marking rather than dependent-marking). And we saw in subsection 6.1 that adpositions may arise from converbs as well. (Indeed, the Chickasaw case is quite parallel to Yoruba *fi* 'put [instrumental]', which, however, is a serial verb rather than a converb.)

6.4. Converbs in periphrastic constructions

Like other nonfinite verb forms (participles, verbal nouns, infinitives), converbs are commonly used as the form of the main verb in aspectual periphrastic constructions, especially in progressives and resultatives/perfects. The auxiliary used in such constructions is a locative or existential copula (cf. Hengeveld 1992: 268–271).

Some examples of periphrastic progressives involving converbs are given in (86) to (88). The converb in a progressive periphrasis is usually a simultaneous converb.

(86)   Spanish (e. g., Reese 1991: 40–49)
Juan estaba hablando inglés.
'Juan was speaking English.'

(87)   Limbu (Tibeto-Burman)
Pe·k-ʔɛ-aŋ   pɔʔl-ɛ.
go-1SG.S:NPT-CONV be-1SG.S:NPT
'I am going.'

(88)   Tamil (Bisang, this volume: example [70])
Kumaar enkal   viitt-il   tank-i   iru-kkir-aan.
Kumar we:OBL house-LOC stay-CONV be-PRES-3SG.M
'Kumar is staying in our house.'

In Turkish and Lezgian, synchronic imperfective forms can be traced back to an original progressive periphrasis involving a converb.[19]

(89)   Turkish
yazı-yor   < yaz-a   yor
write-IMPF   write-CONV goes
'is writing, writes'

(90)   Lezgian (Haspelmath, this volume)
fi-zwa   < fi-z   awa
go-IMPF   go-CONV is
'is going, goes'

According to Bybee–Dahl (1989: 77), the most common source of progressives are locative expressions paraphraseable as 'to be located in or at an activity'. While converbs do not directly express location, the converbal strategy illustrated here is similar to the locative strategy in that (i) the auxiliary verb that is used with converbs is generally the locative copula (e. g., Spanish *estar*, contrasting with the nominal copula *ser*, and Lezgian *awa*, contrasting with the nomi-

nal copula *ja*) or a verb of motion (e. g., Turkish *yor*), and (ii) the converbs themselves often go back to locative forms of verbal nouns.

When an anterior or perfective converb is used in a periphrasis, a resultative construction (cf. Nedjalkov 1988) results, which may become a perfect (Maslov 1988; Bybee–Dahl 1989: 68–73). Some examples are given in (91) to (93).

(91)   Japanese (Bisang, this volume: example [104])
        Doa ga   shime-te   aru.
        door NOM close-CONV be:PRES
        'The door is closed/The door has been closed.'

(92)   Dialectal Russian (Trubinskij 1988: 389)
        Syn ženi-vši.
        son marry-ANT.CONV
        'The son is married.'

(93)   Avar (Nakh-Daghestanian; Saidov 1967: 795)
        Waʕ-un   wugo.
        come-CONV is
        'He has come.'

Like progressive periphrases, resultative and perfect periphrases may be formed in various ways, but the combination of 'be' auxiliaries with a perfective converb is one of the main strategies (cf. Nedjalkov–Jaxontov 1988: 19; Bybee–Dahl 1989: 68).

Like the other cases of grammaticalization (sections 6.1–6.3), where the converb itself is the grammaticalized element, periphrastic constructions involving converbs lead to an increase in the frequency of converbs and eventually to the disappearance of the converb (e. g. in [89] and [90].

Before leaving periphrastic constructions let us briefly look at one case where the periphrasis does not express an aspectual notion but an argument function. Consider examples (94) and (95).

(94)   Tamil (Bisang, this volume: example [75])
        Raajaa Kumaar-ukku.k katav-ai.t tira-ntu   kotu-tt-aan.
        Raja   Kumar-DAT   door-ACC open-CONV give-PAST-3SG.M
        'Raja opened the door for Kumar.'

(95)   Japanese (Bisang, this volume: example [109])
        Mary ga   otooto   ni hon o   yon-de   kure-ta.
        Mary NOM brother DAT book ACC read-CONV give-PAST
        'Mary read the book to my brother (for me).'

Here the auxiliary verb 'give' functions as a sort of applicative marker (a "periphrastic applicative"), introducing a new benefactive argument into the clause, and this construction is thus reminiscent of the Chickasaw case described in the previous section. However, here it is not the converbal form which is grammaticalized as an applicative marker, but a superordinate verb that is combined with a converbal form functions as an applicative auxiliary.

7. Notes on terminology[20]

As was mentioned in section 1, the two most common terms for converbs in the literature are *gerund* and *adverbial participle*. Unfortunately, both of these have so serious shortcomings that they are unsuitable for general use.

The use of the term *gerund* for "converb" is based on the gerunds in the Romance languages (Italian and Spanish *gerundio*, Rumanian *gerunziu*, Portuguese *gerúndio*, French *gérondif*). The Romance gerund is a rather typical converb, and so it might seem reasonable to extend its use to converbs elsewhere.[21] However, the term *gerund* also has another widespread use that potentially causes confusion: the Latin gerund as well as the English gerund (in the usage of many, especially traditional, grammarians, e. g., Zandvoort 1957; Huddleston 1984) is a kind of verbal noun, not a verbal adverb like the converb. This double use of the term *gerund* is, of course, not accidental: the Romance gerund has its origin in a particular use of the Latin gerund. English is typologically different from the Romance languages in that it makes extensive use of an inflectional verbal noun resembling the Latin gerund, so the term in its Latin sense was handy for grammarians of English. On the other hand, unlike the Romance situation, the English verb form that is used as a converb is also used as a participle, so the term *present participle* was sufficient for English converb-like constructions. Since both the Romance and the English grammatical traditions have been very influential in modern linguistics, adopting the term *gerund* for general use in either its Romance or its English sense would inevitably lead to misunderstandings that can be avoided by adopting the new term *converb* (as well as a new term like *masdar* or *verbal noun* for the Latin and English gerund).

A further complication comes in through the French use of *gérondif* for *gerund* (not only for French *en*-converbs such as *en chantant*, but also for converbs in other languages, e. g., Mirambel 1961 on Greek). Morphologically, French *gérondif* corresponds more directly to *gerundive*. *Gerundive*, however, has another totally different use: like Latin *gerundivum* , it refers to a modal participle with passive orientation (cf. Haspelmath 1994).[22]

The term *adverbial participle* is widespread in Slavic linguistics (in languages that do not have a special term like Russian *deepričastie*), e. g., Rappaport (1984).[23] The *adverbial* part of this rather cumbersome term makes sense—converbs are adverbial in nature. But the *participle* part is only justified historically: Slavic converbs go back diachronically to participles. Participles (i. e., verbal adjectives) and converbs (i. e., verbal adverbs) only share the property of being verb forms used in a nonprototypical syntactic function, and from a purely synchronic point of view it would be equally appropriate to call participles "adjectival converbs". Other terms involving *participle* are *indeclinable participle* (e. g., Bobran 1974 for Polish and Russian; Macdonnell 1927 for Sanskrit) and *conjunctive participle*.[24] This latter term is especially widespread in works on South Asian languages, following Grierson's (1903–1928) usage (cf. also Tikkanen, this volume). However, *participle* is even less felicitous for South Asian languages than for Slavic languages, because South Asian converbs are not diachronically connected to participles.

Another term that is sometimes used for Sanskrit and modern South Asian languages is *absolutive* (e. g., Schumacher 1977).[25] This term is also confusing, not so much because *absolutive* more often refers to a nominal case (contrasting with *ergative*), but especially because it suggests a connection with *absolute constructions* (cf. section 4.3.), leaving the nature of this connection open. In the term *absolute construction, absolute* is generally taken to mean 'not sharing an argument with the main clause' (cf. König–van der Auwera 1990: 338). However, Schlegel (1820), who first called the Sanskrit converb an *absolute participle*, must have had something else in mind: unlike the Latin and Greek *participium conjunctum* (and like absolute constructions), the Sanskrit converb does not show agreement with any main clause constituent and is in this sense "absolute" (at the same time, it lacks an explicit subject and is in this sense not "absolute").

The term *converb* was coined by the Finnish Altaicist Gustaf John Ramstedt (Ramstedt 1903: 55).[26] It was adopted by many other Altaicists for converbs in Turkic (e. g., Krueger 1962; von Gabain 1941), in Mongolian (Hangin 1968), and in Tungusic (Benzing 1955). In a general typological sense, the term *converb* was first used in Nedjalkov–Nedjalkov 1987.[27]

Abbreviations

ABL	ablative case	INESS	inessive
ABS	absolutive case	INSTR	instrumental
ACC	accusative case	INTR	intransitive
ACT	active	LOC	locative
ADESS	adessive case	MED	medial verb

ADV	adverbial	MASD	masdar (verbal noun)
ANT	anterior	NOM	nominative
AOR	aorist	NP	noun phrase
APPL	applicative	OBJ	object
ART	article	PAST	past tense
ASP	aspect	PERF	perfect
AUX	auxiliary verb	PFV	perfective
CAUS	causative	PL	plural
COND	conditional	POSS	possessive
CONV	converb	POSTR	posterior
DAT	dative	PRES	present
DEM	demonstrative	PREV	preverb
DS	different-subject	PT	particle
ERG	ergative	PTCP	participle
F	feminine	PURP	purposive
FUT	future	Q	question particle
G	gender (G9 = ninth gender)	REL	relative marker
GEN	genitive	SEQ	sequential
HAB	habitual	SG	singular
HOD	hodiernal tense	SIM	simultaneous
IDEOPH	ideophone	SRESS	superessive case
ILLAT	illative	SS	same-subject
IMPERF	imperfect	STAT	stative
IMPF	imperfective	SUBJV	subjunctive
IMPV	imperative	TOP	topic
INCL	inclusive	TR	transitive
INDIC	indicative	VP	verb phrase
INEL	inelative case		

Notes

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1. By contrast, there are categories of individual languages that are not universally applicable, e. g., the English *ing* form, the common/neuter gender distinction in the Nordic languages, umlaut as a morphophonemic phenomenon in Germanic languages, the Russian imperative as used in asyndetic conditional clauses (*pridi ja vovremja* ... 'if I arrived on time ...'), etc.

2. The term *masdar* comes from Arabic grammar (Arabic *maṣdar* 'origin; verbal noun') and is widely used in grammatical descriptions of western Asian and northern African languages (cf. Bergelson–Kibrik [this volume] for Tuva, and Haspelmath 1993 for Lezgian). I prefer it over *verbal noun* because it consists only of a single root, like *participle* and *adjective*.

3. Haiman (1985: chapter 4) seems to understand *subordination* in a rather different way. Thus, his arguments that converbal constructions are not "subordinate" but "incorporated" are not in contradiction with what I say in this paper.

4. Instead of using the term *implicit subject*, one could also use the equivalent terms *implied subject* (e. g., Quirk et al. 1985: 1121), *empty subject, covert subject, understood subject, unexpressed subject, silent subject*, or even the totally opaque but widespread Chomskyan term *(big) PRO*. The advantage of *implicit* over its closest competitor, *empty*, is that it leaves open the question of whether the subject is assigned an (empty) position in the constituent structure or not.

5. The attempt by some Soviet linguists to carry over the Russian clause/phrase distinction to typologically different languages like Turkic or Nakh-Daghestanian has sometimes led to the absurd consequence that free-subject converbal clauses are regarded as clauses when they contain an explicit subject, but as phrases when their subject is left implicit (e. g., Džanmavov 1967: 238–250; Gadžiev 1956).

6. This is not an ultimate solution, but it reduces the problem to an independently existing problem, that of identifying predicates.

7. These do not coincide with the criteria discussed in Haiman–Thompson 1984. Thus, their criticism of the notion of subordination does not apply in the same way to my notion of subordination.

8. For a first contribution to the typological study of participles, see Haspelmath 1994.

9. Other terms are *supplementive adjective clauses* (Quirk et al. 1985: 427), *appositive adjectives* (cf. V. Nedjalkov, this volume: section 8). The latter seems inappropriate because *appositive* already has the other uses: (i) 'non-restrictive' (as in *appositive relative clause*); (ii) *apposition* = 'noun modification by a coreferential noun phrase'.

10. However, the parallel between Ancient Greek/Latin and Jiwarli is not as complete as the example might suggest. While the Jiwarli -*rnu*-form also functions as relative clause head, it is not clear that this use can be called attributive/adjectival. In many Australian languages, relative clauses are "adjoined" (Hale 1976) rather than part of the NP they modify. However, the fact that the verb of the adverbial subordinate clause shows case agreement with its controller is a striking parallel to the ancient Indo-European type.

11. The term *medial verb* comes from Papuan linguistics and was apparently first proposed by Stephen Wurm (cf. Thurman 1975). It seems that it ultimately goes back to G. Pilhofer's term *Satzinnenform*, literally 'sentence-internal form' (in his grammar of Kâte, Pilhofer 1933: 35 and passim). The parallel between Papuan medial verbs and Altaic converbs was already observed by Brockelmann (1954: 242).

12. The term *clause chaining* can be traced back at least to McCarthy 1965.

13. Longacre (1985: 264) states that "all chaining languages which have been reported to date are those in which the predicate comes clause finally". However, it remains unclear why Longacre would not consider (51) an example of clause chaining.

14. Bickel (1991: 35) explicitly refers to an analogous Turkish example as showing *Reihung* 'clause chaining'.

15. However, a special label would seem to be justified for verbless constructions as in (i).
    (i) English (Kortmann 1991: 10)
        They sat side by side, their back against a boulder.

Such constructions seem to be peculiar to some European languages. However, it is their verbless nature that is surprising, rather than their "absoluteness".

16. Kortmann 1991 treats certain English infinitival constructions as a kind of "free adjunct", like participial "free adjuncts".

17. For example, Perlmutter (1984: 306–308) makes a completely parallel argument for the Italian *gerundio*.

18. Such sentences are not considered correct in modern standard Russian, but they are widely attested in the nineteenth-century literature. However, it could be that they are an artifact of artistic literature.

19. Cf. Bybee and Dahl (1989: 82), among others, on the development of imperfectives from progressives.

20. The complicated terminological situation in this area is also discussed in Masica (1976: 108–112) (with particular reference to South Asian languages), Kortmann (1991: 17–23) (on English), Tikkanen (1987 a: 36–37) (on Sanskrit).

21. The term *gerund* has been used for converbs is quite a few other languages, e. g., Sanskrit (Tikkanen 1987 a), Albanian (Buchholz–Fiedler 1987), Japanese (Martin 1975), Turkic (e. g., Poppe 1963).

22. Yet another use of *gerundive* is as a relational adjective of *gerund*, e. g., *gerundive nominalization, gerundive clause* (e. g., Haiman 1985: 196) – such expressions are the most confusing of all, because one does not even know whether a gerund or a gerundive are involved, let alone in what sense of these terms.

23. Another language where the converb is generally called *participle* is Modern Greek. Like Slavic converbs, the Greek converb goes back diachronically to a participle, cf. Mirambel 1961.

24. Masica (1976: 110) also mentions the term *verbal participle*, favored by some writers on Dravidian. *Verbal* here seems to be intended in contrast with "adjectival" participles. However, the whole point about participles and converbs is that they are verbal and adjectival/adverbial at the same time, so *verbal* is completely unsuitable to distinguish converbs from participles.

25. According to Tikkanen (1987 a: 37), this term "originated around the middle of the nineteenth century in generally anti-Boppian German-speaking circles" of Sanskritists. (Franz Bopp used the term *gerund* for the Sanskrit converb.)

26. The term *converb* should not be confused with the term *co-verb*, used especially in Chinese linguistics for a certain kind of grammaticalized serial verbs (cf. Bisang, this volume).

27. In (neo-)Latin, there are two variants of this term: *converbum* (a simple compound of *con-* and *verbum*) and *converbium* (a compound formed according to the pattern "prefix + stem + -*ium*" for exocentric compounds). In English and some other modern languages the suffix -*(i)um* is simply dropped. However, the form of the dropped suffix is relevant for the derived adjective in -*al*: *converbal* or *converbial*. For example, Krueger (1962: 141) uses *converbial*. We use *converbal* because it is more straightforward, and also because a converb is indeed a kind of verb (unlike an adverb, cf. *adverbial*, or a preverb – both *adverbium* and *praeverbium* are exocentric compounds), so the endocentric compound pattern is justified. Furthermore, *converbal* was already used by Ramstedt (1903), who first proposed the term *converb (converbum)*.

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