On Turkic converb clauses

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1. Turkic converb segments

The following remarks on certain diachronic aspects of the structure and use of Turkic converb clauses are also intended as a contribution to the general discussion of converbs, all the more as Turkic languages – like Mongolian, Tungusic, Korean, Japanese, Dravidian, etc. – exhibit particularly elaborate converb systems. Among all possible properties of Turkic converbs and the syntactic segments they carry, the focus will be on features relating to different levels of construction, to semantic modification, and – for some main types – to aspectual content.

Most features typical of converbs in the modern languages are already found in the oldest known Turkic texts.[1] In dealing with these common elements, we will take the *converb segment* (CS) to be a nonfinite unit which is constructionally subordinated to – a base segment (BS).[2, 3] The converb segments, minimally consisting of a verb form, but expandable to full-fledged clauses, are provided with suffixed *subjunctors*, used much like subordinative conjunctions in European languages. The following example from Modern Turkish may provide a first illustration:

(1) Turkish

Ali gel-ince	*Osman şaşır-d-ı.*
Ali come-CONV	Osman be surprised-TRM.PAST-3.SG
CS=subjunct$_{subjunctor}$	BS=superjunct

'When Ali came, Osman was surprised.'

2. Levels of construction

The formal patterns of Turkic converb syntax and the possibilities of linkage display various language-specific features. For the discussion of diachronic developments it is, however, essential to define, in a more general way, a few relevant levels of construction. The base segment with which the converb segment is in construction may be a full predication, a more reduced one, or a more limited predicative element. We distinguish four cardinal levels.

2.1. Level 1

At level 1, the base segment and the converb segment are "full" predications in the sense that each has a first actant (A^1) of its own, whether overtly expressed or not:[4]

predication 1 ([subj] predicate) + predication 2 ([subj] predicate).
CS BS

This different-first-actant ("absolute") construction is present in the Turkish example (1) given above: *Ali gelince Osman şaşırdı* 'When Ali came, Osman was surprised'.

2.2. Level 2

At level 2, the converb segment and the base segment have the same first actant, the base segment just constituting a second predicate:

predication ([subj] predicate 1 + predicate 2)
CS BS

This same-first-actant construction is present in, e. g.,

(2) Turkish
Ali gel-ince şaşır-d-ı.
Ali come-CONV be.surprised-TRM.PAST-3.SG
'When Ali came, he was surprised.'

This use of the converb segment is thus comparable to the normal uses of English free adjuncts, French *gérondifs*, and Slavic converbs.

Already at level 2, there may be semantic fusion of various degrees, change of notional structure, representation of complexes rather than separate actions, creation of new integrated concepts. Increasing fusion is accompanied by stronger formal constraints with respect to insertion of elements between the segments.

2.3. Level 3

In this case, the base segment is a still more limited element. A common verbal phrase is formed, in which the base segment just constitutes a second predicate core:

predication ([subj] predicate (predicate core 1 + predicate core 2))
CS BS

(3) Turkish
al-ıp *gel-*
take-CONV come
'to bring'

(4) Turkish
ol-up *bit-*
come into existence-CONV end
'to happen'

The converb segment and the base segment together have a single actancy pattern. Insertion of elements between them is heavily restricted or excluded. There is strong semantic fusion (representation of one single event) and a tendency towards lexicalization.

2.4. Level 4

The base segment is just part of the predicate core, i. e., of a periphrastic construction in which it functions as a grammatical marker. The converb segment subjunctor plus the base segment verb stem form a postverb expressing actionality, for instance, durativity by means of *-ip gel-*.

predication ([subj] predicate (predicate core (lexeme + postverb)))
CS BS

The converbs used at this level are typically aspectual ones of intra- or postterminal origin (see section 8).

If there is not enough segmental context to allow for deciding upon the level, prosodic features (pitch patterns, junctions) generally prevent ambiguity, for instance in the case of Kirghiz

(5) *Oqu-p* *tur-d-u.*
read-CONV stand-TRM.PAST-3.SG.
'He kept reading.' (level 4)
'He read and [then] stood up.' (level 2)[5]

3. Further developments

Forms of level 4 combinations may also develop into aspecto-temporal categories. Thus, periphrastic combinations of a postterminal converb plus copula (e. g., *turur* 'stands'), have developed into stative postterminal predicators. Actional periphrases involving an intraterminal converb have developed into intra-

terminal predicators (see Johanson 1971: 133, 1976 a [1991 a]: 10–103, etc.).[6] Thus, the Turkish present form *yaz-iyor* 'he writes' seems to go back to the following construction:[7]

(6) **yaz-a yorï-r*
write-CONV walk-AORIST.3.SG

Another common development is the reanalysis and grammaticalization of converb forms of individual verbs as connectives (postpositions, conjunctional adverbs, etc.), for instance, Turkish *gör-e* (*gör-* 'see') 'according to', *ol-arak* (*ol-* 'become, be') 'being', 'as', 'in the quality of', or *diye* (*de-* 'say') 'saying', 'that', a subjunctor marking complements to verbs of utterance, thinking, knowing etc., with causal, purposive and other meanings. (See Yüce 1973: 7–11, 19–20 for further examples.)

4. Turkic converb clauses

In the following, we shall deal exclusively with the levels 1 and 2. Here, the converb segments are *converb clauses*, nonfinite realizations of predications, basic text-building units participating in pluripredicate constructions within the limits of sentences. Within their superordinate base ('matrix') clauses they function as free adverbial adjuncts not required by any actancy pattern.[8] The embedding is recursive in that converb clauses may contain converb clauses themselves. They may also be coordinated with each other, though this is seldom done by means of conjunctions. As is natural for basically head-final languages, a Turkic converb clause typically stands in the prefield of the predicate core of the superordinate base clause.[9]

The converb subjunctors signal various semantic relations between the converb clause and the base clause, i. e., aspectual, temporal and other relational ideas. Whereas the finite sentence is optimally marked for aspect, tense, mood, modality, personal reference, and illocution, converb clauses take no mood markers of their own, no ordinary tense markers, only restricted sets of aspect markers, and seldom person and number markers. They are frequently within the scope of the sentence operators. We shall deal with some of these properties below.

5. The formal structure of converb markers

Some converb subjunctors are primary in the sense of being morphologically unanalyzable, some are verbal nouns in an adverbial case, with a postposition, with an absolutely used noun, or with some other element added.

In Old Turkic proper, the first known written variety of Turkic documented mainly in inscriptions in so-called "runic" script (the eighth to the eleventh century), we find a number of converb markers which will be listed here, for the time being without any discussion of functions and without regard to the corresponding negative forms.[10]

1. Morphologically unanalyzable units:
a. one with a suffix-final vowel (variants: *-a, -i, -yu*, etc.)
b. the suffixes *-p* and *-pan* (the latter probably *-p* + instrumental)[11]
c. *-°ča*[12]
d. *-γali.*
It should be stressed that, in spite of numerous speculative proposals regarding the etymology, the origin of these oldest Turkic converbs is still unknown.
2. Verbal noun: *-sar*[13]
3. Verbal noun (*-duq*, etc.) in an adverbial case (dative in *-γa*, logative in *-δa*, instrumental in *-ən*), or with a postposition (*üčün* 'because').
4. Combination *-r* (aorist) + *ärk*[*ä*]*li.*

In later varieties, this general picture is preserved, but certainly also widened. In group 1, we find other morphologically unanalyzable units such as *-vač.* The suffix *-sar* of group 2 changes to *-sa* and thus joins group 1. In group 3, there are numerous forms based on verbal nouns in adverbial cases (locative, dative, ablative, instrumental, equative), with postpositions, or with nouns in an absolute use. The combination with *ärk*[*ä*]*li* under 4 is followed by similar combinations (with *ärkän, ekän*, etc.).

6. Converb markers and function classes

Many Turkic predicator suffixes are, particularly in the older languages, rather versatile and not strictly bound to only one of the functions of marking sentences, adnominal clauses and complement clauses.[14] Converb markers, however, are, as a rule, syntactically monofunctional ("noncombined").

Though the Turkic converb has thus proved rather stable as a function class, there have nevertheless been some cases of transition, toward it and away from it.[15] Besides, prototypical participles (verbal adjectives) may sometimes appear in converb-like functions. The "copredicative" use of *-mış* in modern Turkish seems to be influenced – or at least reinforced – by similar French constructions, e. g.:

(7) Turkish
Bolu'dan ayrıl-mış Ankara'ya doğru yol al-ıyor-uz.
Bolu-ABL depart-PST.PTCP Ankara-DAT straight way take-PRES-1.PL
'Having left Bolu, we advance towards Ankara.'

7. First actant reference

Some converbs, mainly those representing group 3, carry subject representatives as markers of first actant reference, indicating person and number, for instance:

(8) Old Turkic
olor-duq-ə-m-a.
sit-TRM.VN-POSS-1.SG.-DAT
'as I sat down.'

These converbs represent the fixed first actant (fixed-A^1) type, which is typical of Yakut (cf. the similar situation in Tungusic languages). Most converbs, however, are uncommitted as to personal reference, representing the open first actant (open-A^1) ("unpersonal") type. In this case, the first actant of the converb clause and the base clause may be referentially identical or not. The "controller" of the nonrealized first actant of the converb clause may be the first actant or another actant of the superordinate clause, but also an "indirect" participant (for instance, the possessor of an actant) or a referent not mentioned in the sentence, but identifiable from the preceding discourse or situation. Thus, the first actant reference is often determinable by pragmatic inference only. The Turkic languages differ considerably from each other with respect to control conditions, the modern Europeanized norm languages generally tending to stricter syntactic principles.[16] Still, all of them allow for cases where the first actant of a subjectless converb clause based on an open converb is not coreferential with the first actant of the base clause:

(9) Old Uighur (Schulz 1978: 127)
Äšäk-ni ber-ginčä, bo: ye:m-ni ye:-zün.
Donkey-ACC give-CONV this feed-ACC eat-OPT.3.SG
'Until [someone] gives the donkey back, it shall eat this.'

(10) Turkish (Swift 1963: 162)[17]
Tekrar izah ed-ince, anla-d-ım.
Again explanation do-CONV understand-TRM.PAST-1.SG
'Upon [someone's] explaining again, I understood.'

Though contrasting same first actant (same A^1) and different first actant (different-A^1) converbs are not typical of Turkic, some converbs tend towards one of these types, i. e., prefer one of the constructional levels 1 and 2. In such cases, then, the first actant of the converb clause is in some way "controlled" by the base clause. The conditions differ considerably across languages.[18] There are no consistent comparative personal reference tracking ("switch reference") systems where each converb signals either identity or change of first actant in the next predication. The diachronic tendency of some converbs towards the same first actant type will be dealt with below.

8. Semantic relations

What semantic relations between converb and base clauses are signalled by Old Turkic converbs? It seems that *-vali* expresses abstemporality ('since') and purpose ('in order to'), *-sar* condition ('if'), *-r ärk*[*ä*]*li* temporal inclusion and contrast ('while', 'whereas'), *-duq* plus *üčün* reason ('because'), *-duq* plus the ablative case marker means ('by'), etc. In Old Uighur, the second known written Turkic variety (known from manuscripts in various alphabets from the eleventh century on), there are several additional units, among which *-vïnča* is limitative ('until', 'as long as'), *-vu* plus dative case markers purposive, *-maq* plus dative case markers causal, and *-maq* plus instrumental or ablative case markers is instrumental.

It is, however, obvious that certain converbs express aspectual ideas, various perspectives in which the events referred to are envisaged. In our discussion of these perspectives, we shall use the following terminology with respect to the cardinal aspectual categories: *Intraterminal* units envisage the event *within the limits* of its occurrence, *postterminal* ones *after its relevant limit*, whereas *terminal* units present the event directly and as a whole, implying *attainment of its relevant limit*.[19] It is not unusual for aspectual units to combine or to vacillate between postterminality and terminality.

As far as the Old Turkic converbs are concerned, the marker 1 a (i. e., with suffix-final vowel) is clearly intraterminal, whereas 1 b (*-p*) and 1 c (*-°ča*) seem to be postterminal to terminal. In Old Uighur, there are, in addition, combinations of three units, an intraterminal *-r*, a postterminal *-miš* and a terminal *-duq*, with case markers (locative, dative, ablative, instrumental or equative). Thus we find, for instance, temporal converbs with the locative case marker such as *-r* plus *-da* (intraterminal), *-miš* plus *da* (postterminal), *-duq* plus *-da* (terminal). The complex marker *-r ärkän* is, like the equivalent *-r ärk*[*ä*]*li* in the inscriptions, intraterminal by virtue of its *-r* element.[20]

Later written varieties of Turkic present similar situations.[21] In the further development of the Turkic languages, there is an increasing number of converbs, expressing manifold relational ideas of aspect, sequence, manner, circumstance, etc. Sequential relations can be established by means of special converbs signalling relative anteriority ($_{ant}E_1 \Rightarrow E_2$; 'after'), relative posteriority ($_{post}E_1 \Rightarrow E_2$; 'before'), temporal inclusion ($_{incl}E_1 \Rightarrow E_2$; 'while'), limitation ($_{lim}E_1 \Rightarrow E_2$; 'usque', 'until the relevant limit of E_1 is attained' (i. e., the relevant limit of the converb clause event is the final limit of the base clause event), etc.[22] None of these temporal converbs express absolute tense meanings.[23]

Aspectual units always form the core of the systems, though the expression of the cardinal categories is subject to considerable variation. To facilitate comparison, etymologically identical forms of different languages and developmental stages will, in the following, be written in stereotyped forms within angular brackets. Thus, the above-mentioned converb category with suffix-final vowels will be rendered as ⟨A⟩, *-p* and its etymological relatives as ⟨B⟩, *-°ča* etc. as ⟨IČA⟩, the aorist *-r* as ⟨R⟩, *-miš* as ⟨MŠ⟩, the similar category *-γan* as ⟨GN⟩, *-γač* as ⟨GČ⟩, the comparative suffix *-raq* as ⟨RQ⟩, etc. Most languages possess intraterminals such as ⟨A+RQ⟩, ⟨R+LOC⟩, postterminals such as ⟨MŠ+LOC⟩, terminals such as ⟨B⟩, ⟨IČA⟩ etc.[24] Thus, for instance, ⟨B⟩ derives its functions from values established in oppositions with intraterminal converbs, normally ⟨A⟩.[25] There are, however, often functional differences between etymologically related forms.

9. Interpretations of aspectual converbs

The aspectual converbs present in all Turkic converb systems will be the main concern of the present contribution. First of all, it is important to state that their values are frequently mistaken for temporal or other meanings. This is largely due to approaches departing from language-independent cognitive contents and seeking language-specific devices for expressing them. Such analyses are, of course, perfectly legitimate; but as they easily overlook ideas which do not quite meet the linguist's expectations, unbiased search for language-specifically expressed ideas is a necessary corrective. Several Turkic converbs inevitably appear semantically "vague" if interpreted in such preconceived extrinsic terms. This is still the case in many grammars dominated by one-sided temporalistic thinking. Prejudiced European Turcologists have even claimed that languages with "vague" converb categories (not fitting into the aprioristic schemes) represent relatively primitive stages of linguistic development.[26]

Contextual determination and pragmatic implications may suggest rather wide ranges of various readings. Aspectual values can, for example, be subject to temporal interpretation by taxis to the time of the base clause event: intraterminality as nonanteriority (temporal overlapping, simultaneity; "doing"), postterminality as anteriority (precedence; "having done"); see Johanson 1971: 100–104, 283, 1990b: 138–141, 1991b: 104–105.[27] Intraterminals may be interpreted in terms of durativity, manner, instrument, etc., postterminals in resultative, causal, and other terms. Terminal converbs such as ⟨B⟩ are often claimed to express a multitude of relations, simultaneity, concomitance, cause, concession, purpose, comparison, manner, circumstance, condition, etc. (Džanmavov 1967: 43, 62–74, 275–277; Schulz 1978: 142–147). All these particular "contextual readings", which may more or less correspond to the speaker's intention and/or to the addressee's interpretation, result from the predicational linkage as such, and not from the converb; they are realizations under specific conditions, determined in complex ways by various semantic elements and pragmatic factors. None of them are pertinent converb values; few of them are systematically present under definable grammatical or semantic conditions.

10. Modification

A second important point to stress here is that the alleged problems of semantic indeterminacy of some converb markers, particularly in non-Europeanized Turkic varieties, also arise from a typical eurocentric fallacy, the identification of constructional subordination with semantic modification.

Modification [+mod] is taken here in the sense of converb clause information expressing a propositional restriction which determines, characterizes, modulates, explains or comments on the base clause event, specifying its circumstances, constituting a frame of reference for it, situating it cognitively (for instance, as to reason, purpose, consequences, conditions, etc.). If the converb clause content modifies the base clause content, it adds a feature which makes the latter more specified. We refer to modifying converb clauses as *satellites* and use the sign ⇒ for their special relationship to the superordinate clause (CS ⇒ BS).

Turkic converb clauses often function as satellites, answering to questions such as: When/how/under what circumstances does the base clause event occur? They thus provide further information about the kind of event, its sequential relations, its purpose and cause, its conditions and consequences, the degree, manner, means of its realization, etc. This property reduces their discourse relevance, their narrative value, their degree of communicative dynamics. Satellite

converb clauses typically do not assert, do not move the text towards its communicative goal, have only secondary relevance for the development of the central events, and may rather be interpreted as "backgrounding", frequently even as "old (presupposed) information". This discursive behavior emanates from the feature [+mod], modification.

All this is in accordance with the situation in modern standard average European languages, where temporal, conditional, causal, instrumental, comparative, and other modifications are expressed by subordination. Thus, European linguists often expect subordinated predications to be satellites in general and to be translatable by subordinate conjunctional clauses of their own languages. Turkic converb clauses are constructionally subordinated, but this does not prevent some of them from suggesting, in a rather systematic way, readings typical of European coordinate clauses.[28] This is only a consequence of their ability to be nonmodifying. From the feature [–mod] follows the ability to represent equal events, i. e., events of equal narrative rank with the base clause events. By virtue of this discourse relevance or narrative value, nonmodifying converb clauses may be interpreted as "foreground", "new information", and thus bring a text closer to its total communicative goal. We use the sign ⇔ for this special relationship between a subjunct and its superjunct, i. e., in this case, between the converb clause and the superordinate one (CS ⇔ BS).

Since this behavior is not typical of subordinate clauses in European languages, certain Turkic converb clauses have been claimed to be of "coordinative character", though they only deviate in their ability of being nonmodifying. Subordinate predications may, in principle, be interpreted restrictively or nonrestrictively. To be able to discover and describe covariation of subordination and modification, it is essential not to use identical terms for both concepts, for instance, to speak of subordinative constructions that "express coordination", or confusing terms like "cosubordination" which seem to blur the borderlines between different independent criteria.[29]

At level 1, converb clause satellites contribute to the specification of the full predication expressed by the base clause, for instance, *Ali gelince Mehmet gitti* 'When Ali came, Mehmet left', where *Ali gelince* adds a feature to the event of "Mehmet leaving". In European languages, this modification is mostly expressed by finite adverbial clauses provided with conjunctions. At level 2, the modificatum is the predicate expressed by the base clause, e. g.,

(11) Turkish
Ali gül-erek gir-d-i.
Ali laugh-CONV enter-TRM.PAST.-3.SG
'Ali entered laughing.'

where *gülerek* adds a feature to the activity of "entering".[30] In several European languages, this modification is expressed by verbal noun plus case/adposition.

In modern Turkish, *-arak* is typically modifying intraterminal and *-ınca* modifying terminal, whereas *-p* may function as a nonmodifying terminal.

11. Scope of operators and focusability

Modifying converb clauses are outside the scope of illocutionary main clause markers signalling assertion. A main clause containing a converb clause is only asserted as a whole.[31] Similarly, an interrogative operator carried by a base clause questions the whole block CS plus BS (the content of the base clause as modified by the converb clause), for instance, in modern Turkish:

(12) Turkish
Ali gel-ince git-t-in mi?
Ali come-CONV go-TRM.PAST-2.SG Q
'Did you go when Ali came?'

Since satellites are focusable, however, the content of the converb clause can be interrogated separately by shifting the position of the operator, e. g.,

(13) Turkish
Ali gel-ince mi git-t-in?
Ali come-CONV Q go-TRM.PAST-2.SG
'Was it when Ali came that you went?'

If, on the other hand, a converb clause is used in a nonmodifying way, it is integrated within the temporal, modal and illocutionary scope of its base clause, i. e., it shares the operators with it. See, for instance the following sentences:

(14) Turkish
Gel-ip gör-sün.
come-CONV see-OPT.3SG
'Let him come and see.'

(15) Turkish
Herkes çık-ıp 'Ben Türk-üm' di-yebil-meli.
everybody come-out-CONV I Turk-COP.1.SG say-POSSIB-NEC.3SG
'Everybody should be allowed to step forth and [should be allowed to] say that he is a Turk.'

The scope of the interrogation extends over the whole junction:

(16) Turkish
Gel-ip gör-sün mü?
come-CONV see-OPT.3.SG Q
'Shall he come here and see?'

Only converb clauses used in a propositionally restrictive sense are focusable. We shall return to the interesting and complicated problem concerning the conditions under which the content of ⟨B⟩ clauses can be interrogated separately. The scope of negation will also be dealt with briefly in section 22.

12. Aspectual satellites and nonmodifying terminals

All Turkic languages possess intraterminal, postterminal and terminal satellites. The perspective they express is bound to some orientation point (O), which coincides with the localization point of the base clause event. Thus, the aspectual perspective on one event (E_1) at some orientation point modifies a second event (E_2) occurring there, for instance, ${}_{intr}E_1 \Rightarrow O{=}E_2$ or ${}_{pst}E_1 \Rightarrow O{=}E_2$. (${}_{trm}E_1 \Rightarrow E_2$). Terminal satellites (${}_{trm}E_1 \Rightarrow E_2$), imply attainment of the relevant limit of the converb clause event (E_1*) as a condition for the base clause event: "as soon as/when/if E_1* is reached", "on reaching E_1*". Terminal satellites are commonly based on converb types such as ⟨IČA⟩, ⟨DQ+LOC⟩, ⟨R+DAT⟩.[32]

All these satellites may be interpreted temporally (as simultaneous, preceding, etc.; "doing", "having done", "on doing"), but their perspectival meanings are the basic ones. In terms of narrative value, they typically present the converb clause event as backgrounded rather than equal to the base clause event, even if they do not necessarily convey "old information" only (cf. Foley 1986: 200).

Nonmodifying terminals can, however, by virtue of their terminal value, present the converb clause in a direct, event-oriented way, and, by virtue of the value [−mod], nonmodification, present it as narratively on a par with the base clause content: ${}_{trm}E_1 \Leftrightarrow E_2$. The converb clause event is not bound to the base clause event, but presented as being of equal rank, as foreground information of primary narrative value. The linkage is rather "E_1 occurs, E_2 occurs" than "E_1 occurring, E_2 occurs". This does, of course, not exclude close connections between the events.

This nonmodifying terminal use is most typical of ⟨B⟩, Yakut *-an*, Chuvash *-sa*, Tuvan *-γaš*, etc. Still, it is a widespread and deeply rooted misunderstanding in European Turcology that these units are always used as adjuncts expressing circumstances connected with the base clause event.[33] Even if a circumstantial

reading is often a possible interpretational option, propositional restriction is not – and has apparently never been – a pertinent feature of ⟨B⟩.

Since ⟨B⟩ may present the converb clause event as on a par with the base clause as far as the narrative value is concerned, an Old Turkic (Orkhon Turkic) sentence such as:

(17) Orkhon Turkic
Qïšla-p sü: tašəq[ə]-δ-əməz
winter-CONV army set.out-TRM.PAST-1.PL

should be rendered as 'We wintered and [then] set out' rather than as 'After wintering, we set out'. Compare the following Old Turkic sentences (the first one Orkhon Turkic, the second one Old Uighur):[34]

(18) Orkhon Turkic
Türk bäglär boδən ögər-əp säβ-ən-əp
Turk lord-PL people rejoice-CONV be glad-CONV
toŋət-miš köz-i yügärü kör-d-i.
turn down-PST.PTCP. eye-POSS.3.SG. upwards see-TRM.PAST-3.SG
'The Turkic lords and people rejoiced, they were glad, and their downcast eyes looked upwards.'

(19) Old Uighur
Ol ö:d-ün bo: üč tegin-lär ö:z
That time-INSTR these three prince-PL self
köŋül-lär-in-dä-ki sa:qïn-miš sa:β-lar-ï-n
mind-PL-POSS.3.SG.-LOC-ADJ think-PST.PTCP. word-PL-POSS.3.SG.-ACC
sö:zlä-š-ip ötrü örü tur-up ol arïγ
speak-REC-CONV then up stand.up-CONV that wood
ič-in-dä taqï ič-gärü kir-d-i-lär.
interior-POSS.3.SG-LOC also interior-DIR enter-TRM.PAST-3-PL
'Then these three princes told each other what they thought deep in their hearts, and then they stood up and went deeper into that wood.'

13. Vacillation and diachronic development

The borderlines between postterminality and terminality or between modification and nonmodification are not always clear. Materials of earlier historical stages do not lend themselves to focusing tests and similar operations. There are differences between varieties and periods as far as the use of etymologically

identical units is concerned. Originally postterminal units seem to have been terminalized, roughly speaking, in the sense of "having done, he did" > "he did and [then] did".[35] (As for ⟨B⟩, see Johanson 1990 b.)

The distinctions in questions are not always encoded in an unequivocal way. Some converbs seem to vacillate with respect to presenting events as "circumstantial" or "(narratively) equal", and with respect to envisaging an 'equal' event in a postterminal or in a terminal perspective. This indeterminacy is obvious in several modern languages, for instance, with the type ⟨GČ⟩, to which Tuvan *-vaš* belongs. The type ⟨SA⟩, which, in other Turkic languages, is a modifying converb with conditional and postterminal uses (see, for instance, modern Kirghiz), may also function as a nonmodifying terminal in Chuvash. As for the nonmodifying terminal readings of the Kirghiz ⟨B⟩ converb, Imart remarks that "la frontière avec le gérondif prédicatif circonstanciel reste toujours vague" (1981: 1598). Sentences such as:

(20) Turkish
Otur-up konuş-t-uk.
sit-CONV speak-TRM.PAST-1.PL

and

(21) Kirghiz
Oqu-p tüšün-d-ü.
read-CONV understand-TRM.PAST-3.SG

might be translated by 'We sat down and talked' and 'He read and understood' as well as by 'Having sat down, we talked' and 'Having read, he understood'. One might, for instance, hesitate whether, in the Uzbek sentence

(22) Uzbek
Tun ket-gač, tâŋ âqâr-gač, quš-lar sayra-y
night pass-CONV dawn whiten-CONV bird-PL sing-CONV
bâšla-d-i.
begin-TRM.PAST.3.SG

the two converb clauses based on *-gač* should be translated as: (1 a) postterminally envisaged circumstances (interpretable in terms of relative anteriority): 'When the night had passed and it had dawned, the birds began to sing'; (1 b) terminally envisaged circumstances: 'When the night passed and it dawned, the birds began to sing'; (2 a) postterminally envisaged equal events: 'The night had passed, it had dawned, and the birds began to sing'; or (2 b) terminally envisaged equal events: 'The night passed, it dawned, and the birds began to sing'. The readings (1 a) and (1 b) imply that the two converb clauses modify, en bloc, the

event of the last predication. This would be in line with Kononov's interpretation "Kogda noč′ prošla i rassvelo, pticy načali pet′" ['When the night had passed and it had dawned, the birds began to sing.'] (1960: 243). The readings (2 a) and (2 b) imply no modification and would certainly not be less adequate.

It is, however, important to realize that the nonmodifying readings are indeed structurally justified. There are many cases – particularly obvious in chains of ⟨B⟩ and ⟨GČ⟩ predications – where a modifying interpretation is excluded. The units in questions cannot be defined as "converbs" or "medial verbs" by criteria such as "subordination" vs. "cosubordination" in the sense of Foley–Van Valin (1984: chapter 6), since they indeed combine both types. And the situation is by far not so simple that these converb clauses represent the first type at level 2 (sharing the first actant with the base clause), and the second type at level 1 (having a different first actant).

14. Propulsion ("plot advancement")

In narrative texts, the interpretation of events as nonsequential or sequential may be contextual, for instance, follow from the general iconic principle of linear successivity (Johanson 1971: 246–247) which operates in case no other order relation is signalled.[36] Intra- and postterminal units are *ruptive*, as they break this successivity and do not propel the action (advance the "plot"). Nonmodifying terminal units, on the other hand, are, by virtue of their values, particularly apt for ordering events in linear sequences. As for Turkish ⟨B⟩, it signals a unidirectional additive "and" relation (Johanson 1975 a [1991 a: 222]; cf. Bickel 1991: 35), often interpretable as chronological priority of the converb clause event (envisaged directly, as a whole, and a narratively equal) to the base clause event: "E_1 and [then] E_2", for example:

(23) Turkish
Ali kay-ıp düş-t-ü
Ali slip-CONV fall-TRM.PAST-3.SG
'Ali slipped and fell.'

The unidirectionality allows for a propulsive ("plot-advancing") function, the ability to lead forwards to new points on the discursive agenda. In a monograph on aspect categories in Turkish, we suggested that *-arak*, much like the finite predicator *-ıyor-d-*, has the ability of expressly turning off the principle of ordering suggested by terminals (*-p* and *-d-*), with resulting possible interpretations of "simultaneity", "subsidiary condition", "commentary", "instrument", "motivation", etc., and that this use is not temporal, but basically aspectual (1971:

261). Slobin (1988: 39 and in this volume) characterizes this proposal as an "intriguing solution". It should, however, be emphasized that we did not try to reduce the function of *-arak* and *-yor-d-* to simply "turning off" the functions of contrasting forms. The interruption of the successivity suggested by terminal units is just one of the functions resulting from intraterminality.[37] It should also be kept in mind that discursive propulsion is often used to represent other kinds of priorities than just chronological ones.

15. Contextual readings

Thus, converbs of the ⟨B⟩ type by no means link predications together in an "asemantic" way. On the other hand, they do not, as is sometimes claimed, signal a number of other relations between the predications ⟨B⟩ (temporality, causality, instrumentality, conditionality, concessivity, etc.). ⟨B⟩ conveys no additional semantic idea. Of course, the addressee is free to establish various other connections between E_1 and E_2, for instance, "E_1 occurs and [because of, as a result of, in spite of, under the condition of this:] E_2 occurs". In our last Old Uighur sentence, (18), *turup* may be interpreted in accordance with the values just discussed, and in the same way as *sözläšip*. If we choose to give *turup* a "modal" interpretation, as Hanser does (1974: 171), this is rather arbitrary and by no means warranted by the converb itself.

In the Tuvan sentence

(24) Tuvan (Šamina 1987: 94)

Aʔd-ïm	*čït-käš,*	*čaday*	*qal-d-ïm.*
horse-POSS.1.SG.	get lost-CONV	on foot	remain-TRM.PAST.1.SG

the relations between the two events can be interpreted in terms of chronological order (E_1 is anterior to E_2), in other logical terms (E_1 is a condition or a reason for E_2) or in both ways: 'After/as my horse had got lost, I had to walk'. As a matter of fact, the relation between the propositions is just as open as in European juxtapositions and coordinations such as *My horse got lost; [and] I had to walk*. It is left to the addressee to reconstruct a possibly intended logical relation ("therefore", "thus", "then", etc.); but no such relation is encoded in the verb forms. It is not a sign of a more primitive stage of development, if some Turkic converbs display similar properties. It is a valuable linguistic function as such not to have to be more specific about interclausal relations; and there are always more explicit forms at the speaker's disposal if needed.

16. Narrative chaining

Units of the kind just discussed thus represent the type of syndetic ("copulative", "conjunctive", "narrative") converbs common in Central, South and Far East Asia (in Mongolian, Tungusic, Japanese, Nivkh, Hindi, Tamil, etc.). Since they can build up texts linearly, suggesting which events come earlier, they are ideal for the discourse function of narrative chaining. The capability of implying an additive relation is the minimum condition for this function. With satellite converb clauses, no simple linear serialization is possible in complex combinations, because they modify the contents of their base clauses recursively.[38] Non-modifying terminal converbs, on the other hand, allow for extended series, representing narratively equal events. In chains such as ⟨B⟩/⟨B⟩/⟨B⟩/⟨B⟩, no individual nonfinal predication necessarily modifies the following one. On the other hand, the events represented in the chain are thematically tied to each other, each one representing just one portion of the message "packet". In the following Kirghiz sentence, all the events represented are closely connected with each other; but none of the ⟨B⟩ predications functions as a circumstance of the next or the final one. (Compare, however, Imart 1981: 600.)

(25) Kirghiz

Men erteŋ menen tur-up, zaryadka žas-ap,
I morning with stand.up-CONV gymnastics do-CONV
kiy-in-ip, žu:-n-up, čay ič-ip, mektep-ke
dress-PASS-CONV wash-PASS-CONV tea drink-CONV school-DAT
bar-a-žat-am.
go-PRESS-1.SG
'In the morning I stand up, do gymnastics, dress, wash myself, drink tea, and go to school'.

In this type, events of thematically equal rank are represented by successive predications, of which the nonfinal ones are carried by terminal converbs, whereas the last member, the chain base, is a sentence-head form, optimally equipped with the syntactic-semantic information essential for the interpretation of the preceding chain links. A finite chain base is, as it were, the trunk by which the entire sentence is carried and through which it is rooted in the discourse "ground". The sentence-final form may root the chain temporally, signalling, for instance, that all events represented are to be interpreted as occurring in the past. In narrative discourse types, there is little need for separate modal and illocutional marking of individual events. Chains may, however, also be based on nonfinite predicate cores, carrying "branches" in the "sentence tree".

Propulsive converbs are central text-constructing units in all non-Europeanized narrative styles of Turkic languages. By means of the chaining technique, numerous converb clauses are easily concatenated within one sentence to form pluripredicate periods. Periodic chain sentences may be of considerable length and correspond to whole text paragraphs in other styles.[39] In all Turkic varieties, however, representation of temporally successive events by a series of sentences is a perfectly possible alternative technique, albeit far less dominant than in modern standard average European languages, which lack propulsive converbs.

It should be stressed that the difference between bi- and pluripredicate constructions is unimportant as far as the linguistic values of the converbs are concerned, and that extensive chaining is not based on any special qualitative features. The observation made by some authors that "syntactic dependence" (that is, constructional subordination) is not always accompanied by "semantic dependence" (i. e., modification) is valid irrespective of the number of events represented (cf. Juldašev 1977: 241–244).

17. Chain subdivision

Chaining techniques also include text-subdividing devices to signal tighter or looser bonds within the sentence. Generally, one type of converb signals a closer connection (generally ⟨B⟩, in a few languages ⟨GČ⟩), whereas another one signals thematic hiatus, different relations of tension between the converb clause and the base clause: confrontation, contrast, comparison, polarization, antithesis, turning point, incision, for instance, "on the one hand"/"on the other hand", "X, for his part ... Y, in his turn".

In the following Chaghatay example, the intraterminal converb unit *kelädurγanda* divides the sentence into two parts:

(26) Chaghatay
Samarqand-dïn qač-ïp kel-ädurγanda Sultan ʿAli Mirza
Samarkand-ABL flee-CONV come-CONV Sultan Ali Mirza
čïq-ïp uruš-up bas-ïp öltür-d-i.
set.out-CONV fight-CONV defeat-CONV kill-TRM.PAST-3.SG
'When he just came fleeing from Samarkand, Sultan Ali Mirza set out, fought, defeated and killed him'.

The second converb of this sentence can safely be interpreted as modifying. But even if this option applies, such converbs can often be primarily regarded as "hiatus" devices. In the following Bashkir example, the closer connections are marked with /, and the hiatus with //:

(27) Bashkir
Běδ kěy-ěn-ěp,/ toqsay-δar-ïbïδ-δï aθ-ïp,/ räxmät
We dress-PASS-CONV bag-PL-POSS.2.PL-ACC hang-CONV thank
äyt-ěp/ kürěš-käs,// ular běδ-gä yul öyrät-ěp/
say-CONV say-farwell-CONV they we-DAT way teach-CONV
yěbär-δ-ě-lär.
send-TRM.PAST-3-PL
'We dressed, shouldered our bags, thanked them and said good-bye; and they showed us the way.'[40]

There are old and widespread narrative sentence patterns using such devices in a systematic way. Not always, however, can the hiatus units be considered satellite converbs; this is particularly true of non-Europeanized varieties and styles, where ⟨GČ⟩, ⟨IČA⟩ and other units are often used in a nonmodifying way to mark narratively equal sequences of events (see Johanson 1992 b and in press a).

Since it is only natural that the cut in the chain is often accompanied by first actant shift, there may be a certain covariation of hiatus forms and reference shift. As already mentioned, however, no Turkic language has a consistent comparative personal reference tracking system in which converbs signal identity or change of first actant in the next predication. It is not the main function of the hiatus forms to signal "switch reference". Tuvan *-r ... ya* is used as a hiatus form marking a looser connection of the events than *-yaš*.[41] By virtue of this, it tends towards level 1 and noncoreferentiality (the different first actant type), but it is not a genuine shift form, since it can also be coreferential, for example:[42]

(28) Tuvan (Šamina 1987: 45)
Bir minn-ir-im-gä, a:l čan-ïn-da
once be.conscious-CONV.1.SG village surrounding-POSS.3.SG-LOC
täy qïr-ïn-da ün-üp käl-gän čor män.
hill edge-POSS.3.SG-LOC go.out-CONV come-PERF.1.SG
'As I regained consciousness, [I found that] I had arrived at the edge of the hill outside the village.'

18. Europeanization

One important diachronic development is a gradual assimilation of the dominant written registers of many Turkic languages to modern European ones. In the latter, subordination covaries strongly with modification and is not typically used to express series of narratively equal events. Thus, as a rule, nonmodifying Turkic converb clauses cannot be rendered adequately by subordinated clauses

in these languages. Under predominantly Russian and French influence, subordination has come to be used more in accordance with European text-building patterns, copied onto the Turkic systems. The use of nonmodifying converbs has been restricted, which has led to a certain atrophy of the converb syntax in some languages, particularly in the western parts of the Turkic world. In modern Turkish, for instance, the use of ⟨B⟩ has been decreasing.[43]

First of all, there is a historical development limiting the use of nonmodifying converb clauses at level 1. Whereas Old Turkic and many later varieties do not prescribe any systematic "subject control" – in the sense of first actant determination – by the base clause, some modern varieties apply severe constraints on level 1 and new "control" conditions. The modifying ⟨A⟩ converbs have always tended to the same first actant type. Thus, for instance, modern Turkish *-arak* is highly limited at level 1. The similar tendency of ⟨B⟩ is a more recent one. This unit has largely developed from the varying first actant type of converb to the same first actant one. Level 1 is in general more easily permitted when there is a stronger semantic connection between the converb clause and the base clause. If there is no such connection, as at level 2, due to a common first actant, at least some entities of the converb clause and the base clause are referentially involved in each other, say, by part-whole or *possessor-possessum* relationships. In some languages, ⟨B⟩ constructions of level 1 have become rather marginal; for Turkish, see Csató–Johanson 1993.[44] The fact that ⟨B⟩ is subject to far fewer limitations at level 2 supports König and van der Auwera's implicational contention that if a language has both "same-subject" and "different-subject" marking constructions and one of these patterns is marginal, it is usually the latter that plays the marginal role (1990: 340).

With the loss of ⟨B⟩ at level 1, the periodic chain sentences of genuinely Turkic narrative styles have disappeared from the norm registers of Europeanized languages. The extensive ⟨B⟩ chains of older Ottoman are considered "abusive" today (Deny 1921: 882). The only substitutes are series of finite sentences, juxtaposed or linked together by coordinative conjunctions. Such patterns have been reinforced under European influence. It is incompatible with genuine Turkic left-branching subordination to build progressive chains of nonmodifying, propulsive relative predications of the type *He worked for two hours/whereupon he went to town/where he met Mary/with whom he had lunch.* Such techniques are, in some Turkic languages, to a certain extent possible with imitations of Indo-European postpositive relative clauses: sentences preceded but not really introduced, by a connector such as *kim* or *ki*,[45] and signalling a close semantic connection with the subsequent predication. In many languages, however, for instance in modern Turkish, these imitations are in general not considered stylistically acceptable.

19. Developments at level 2

The development just discussed has also had consequences for level 2. Even here, ⟨B⟩ chains are, as a rule, not used in modern Turkish. In the following sentence, a chain such as *bas-ıp/kay-ıp/düş-üp/kır-dı* would hardly be acceptable:

(29) Turkish
Muz kabuğ-u üst-ün-e bas-ıp
Banana peel-POSS.3.SG upper surface-POSS.3.SG-DAT step-CONV
kay-d-ı sonra tepetaklak düş-üp bacağ-ın-ı
slip-TRM.PAST.3.SG then on.his.head fall-CONV leg-POSS.3.SG-ACC
kır-d-ı.
break-TRM.PAST.3.SG
'He stepped on a banana peel and slipped, then fell on his head and broke his leg.'

Thus, the ⟨B⟩ use is restricted to cases which are formally similar to those in which satellites, for instance, *-ınca* clauses, occur. This might be regarded as the result of a satellitization process in the sense of restriction to the binary *modificator* : *modificatum* pattern. Whereas with the truly nonmodifying use of ⟨B⟩ – for instance, in the old chain sentences – the content of ⟨B⟩ clauses cannot be interrogated separately, this is possible in the reduced structures. In the following modern Turkish sentence, the converb clause is obviously used as a satellite.[46]

(30) Turkish
Otur-up mu konuş-t-ular?
sit-CONV Q speak-TRM.PAST-3-PL
'Did they speak (while they were) sitting?'

There even seems to be a tendency in certain Turkish registers towards representing sequences of equal events by means of coordinative structures. However, Wurm (1987: 4) certainly goes too far in his generalization to the effect that, due to Western influence, young urban speakers of modern Turkish make less use of ⟨B⟩, preferring, for example,

(31) Turkish
Oda-ya gir-d-im ve otur-d-um.
room-DAT enter-TRM.PAST-1.SG and sit-TRM.PAST-1.SG
'I went into the room and sat down.'

to the traditional construction

(32) Turkish
Oda-ya gir-ip otur-d-um.
room-DAT enter-CONV sit-TRM.PAST-1.SG

A further interesting phenomenon which cannot be dealt with here is that, whereas the use of ⟨B⟩ is reduced in the modern language, *-arak* has developed into a very frequent converb that even seems to be taking over the functional domains previously occupied by ⟨B⟩. In modern sentences such as the following, *-arak* exhibits a use which would even, in temporal terms, have to be characterized as "anterior sequential ordering". We consider it an inherential-instrumental realization ("thus", "doing so") of the intraterminal value.[47]

(33) Turkish
Ayrıl-arak akşam köy-e gel-d-ik.
depart-CONV evening village-DAT come-TRM.PAST-1.PL
'We left, and [so] arrived in the village in the evening.'

20. Stability of converbs

In some Turkic languages, as a result of long and strong contact influence, a further decline of nonmodifying terminal converbs can be observed (Johanson 1992: 363–364). Due to a high degree of Iranization, Kashghai, spoken in Southern Iran, has lost ⟨B⟩ and all constructions typical of this converb (including the postverbial constructions of level 4), but instead copied Persian patterns. This has produced a remarkable parallelism with Persian syntax (Soper 1987: 401).

Iranian and Slavic contact influence has led to a general reduction of the use of converbs in some Turkic languages. In old literary languages such as Chaghatay and Ottoman, in modern standard languages such as Uzbek and Azerbaijani, as well as in all spoken nonstandard varieties influenced by Persian, converb clauses have to a certain extent been replaced by imitations of Indo-European adverbial (mostly temporal, purposive, and causal) clauses with free prepositive junctors ("connectives"). In some varieties, the use of converbs has diminished considerably. As for the situation in Afghanistan Uzbek, see Reichl (1983). In Khalaj, spoken in central Iran, converbs are, in accordance with Persian patterns, largely avoided (Doerfer 1988: 130).

In general, however, converb clauses have remained rather stable throughout the history of Turkic; and they still play a remarkably central syntactic role even in informal spoken registers. They have also proved to be rather attractive in language contact situations. Thus, Tajik, which belongs to the Iranian language group, has extensively copied Uzbek verb serialization patterns, basing them on a participial form (preterit stem plus *-a*), whose use as a converb is rather restricted in other varieties of New Persian (Perry 1979).

As a matter of fact, Turkic converbs and the techniques connected with them offer obvious advantages. From a psycholinguistic point of view, converb clauses seem to present few problems. Slobin (this volume) shows that *-ınca* and *-ırken* are already used by two-year-old Turkish children and that *-ıp* is acquired somewhat later. (Compare Aksu-Koç–Slobin 1985.)[48] One advantage is the above-mentioned monofunctionality in the sense of unambiguous correspondences of form and function classes. Another reason is the surface structure of the converb clauses, which meets the requirements of the spoken language particularly well. Converb clauses are mostly very similar to "canonical" finite sentences, displaying nominative subjects and few if any specifics with respect to constituent order patterns.[49] Not until the end of the clause does the speaker have to decide whether to close it as a finite sentence or to nonfinitize it as a converb clause and let a base clause follow (Johanson 1975 b).[50] This explains the good correlation between the frequent use of clause-linking patterns based on converbs and verb-final word order (see König–van der Auwera 1990: 352).[51] As a matter of fact, the head-final constituent order tends to be more rigid in converb clauses than in main clauses (cf. the "penthouse principle", described by Ross 1973). Thus, it may be more than a coincidence that the recent constraints on ⟨B⟩ just discussed are particularly heavy in modern Turkish, where a loosening of the verb-final order can be observed.

The tendency of head-final languages to use converbs for narrative purposes is, however, understandable only if we assume structures that are not necessarily modifying. Long series of prepositive converb clauses with extensive prefields – as common in non-Europeanized Turkic varieties – would be difficult to process if they were really satellites of their base clauses in a consistent way. The resulting heavy recursive determinations would be prohibitive for spontaneous speech. If, on the other hand, modification is not necessarily involved, new predications can be added continuously without much forward planning.

21. Possible paratactic origin

In view of the highly developed Turkic converb systems, it is even possible that some converbs that carry satellites today were once open with regard to [± mod] interpretation (modifying : nonmodifying). The text-building properties of certain converbs in many non-Europeanized texts – both popular narratives and elaborated literary products – support this impression. Given this situation, it may be natural to pose the speculative question whether the converb clause plus base clause junctions go back to series of main clauses, i. e., whether Turkic converb hypotaxis has developed from parataxis. This is possible, though by no

means empirically demonstrable. Turkic converb suffixes are postpositive elements, pointing forwards in the text and signalling a relationship to the subsequent predication. The oldest ones might have developed from particles which were originally placed between two neighboring predications. Compare the status, in some later Turkic languages, of the above-mentioned connectors *kim/ki*, which, as already pointed out, announce, but do not introduce a semantically closely connected following predication. Like other copied connectors (such as *ama* 'but'), they are not part of the second sentence, but prosodically joined to the end of the first one. The particles might later on have been reinterpreted as subjunctors marking the embedding of the first predication into the second one and forming a closing part of it, for instance, according to the patterns "E_1, [then] E_2" > "E_1-when, E_2". Note that several subordinated clause types in European languages have emerged in an analogous way, though with the difference that a forward-pointing element was taken to the second predication as a opening (introductory) subjunctor marking its embedding into the first predication. If our speculative assumption concerning the oldest Turkic converbs is true, no voluminous prefields would have existed originally, just chains of predications with progressively cataphoric marking.

Is this development supported by any morphological evidence? Are there indications that the oldest converb markers – such as ⟨A⟩ and ⟨B⟩, which are both very old units with reduced material shapes and without identifiable diachronic sources – could once function as sentence predicators? As pointed out, cases of transition between converb and other function classes are known even in historical times. In Old Turkic, ⟨A⟩ combines with *-r*, probably the remains of the copula *är*[...], to form the intraterminal so-called aorist, for instance, *ba:šla:-yu-r* 'he leads' ('lead' plus ⟨A⟩ plus aorist; Johanson 1991 b [1976 b]: 141–146, cf. 1981: 14–16). Compare the combination of the element *sa* (< *sa:-* 'reckon') with the aorist *-r* to form the Old Turkic conditional *-sa-r*. Some Turcologists suggest that ⟨B⟩ was originally a sentence predicator. Kormušin, for instance, supposes that it belonged to the Common Altaic "perfects" and that its use as a converb was secondary (Kormušin 1984: 44, 1991: 38; cf. Johanson in press b). Several modern Turkic varieties display a finite use of ⟨B⟩, which might also, however, rather be regarded as the remnant of the periphrastic form ⟨B⟩ + *turur* ('stands'). In any case, both ⟨A⟩ and ⟨B⟩ might originally have been bare aspect stems that could also be used as sentence predicators. Compare, again, this situation with that of the thematic stem ⟨SA⟩. In Chuvash, *-sa* corresponds functionally to ⟨B⟩, but in several Upper Chuvash dialects it can also be used – without any auxiliary verb or suffixes – as a postterminal past tense, for instance, *epĕ śĭr-sa* 'I have/had already written' (Benzing 1959: 743–744). According to Gabain, *-sar* clauses might originally have been "logically

dependent" main clauses ("formal unverknüpfte, aber logisch abhängige Hauptsätze", Gabain 1941: 187).

Khalaj, which displays many highly archaic features, uses *-di* as a functional equivalent of ⟨B⟩, for instance *al-di* ('take' -CONV) equivalent to common Turkic *al-ïp*. This unit might be closely related to or even originally identical with the past tense in *-d* (e. g., *al-d-i* 'take'-TRM.PAST-3.SG). Doerfer remarks that, in spite of functional and accentual differences, such a connection should not be excluded ("trotz der Bedeutungsverschiedenheit und des verschiedenen Akzents sollte ein Zusammenhang mit dem Präteritum ... nicht ausgeschlossen werden", 1988: 133). In our view, the functional similarities are considerable, and the accent difference – for instance, according to Doerfer, past tense [al'di] vs. converb ['aldi] – quite expectable, since in varieties using both a ⟨B⟩ converb and a ⟨B⟩ past tense, these forms usually differ from each other with respect to prosodic features (see, for instance, Wurm 1945: 81, 88). The past marker *-d* is not likely to have been a verbal noun marker **-t*, as is sometimes claimed (see Johanson 1979: 42–43, 51), but might originally have been an aspect stem **d* assuming personal markers (possessive suffixes). The real problems of connecting the Khalaj converb with the past tense pertain to the phonetic nature of the dental segment. The converb suffix is more reminiscent of the second part of the Old Turkic suffix *-maDi[n]*, the negative equivalent of ⟨B⟩. This unit containts an element *-di* or *-ti*, which may be identical with a known petrified adverb suffix of the same shape. Pritsak assumes the existence of an Old Turkic converb in *-ti*, of which *-mati* would be the negative form (1961: 143).

22. Negation

With this last comment, we have arrived at the complex problems of negation. Already in Old Turkic, the negative converbs show interesting irregularities. The suffix *-ma* is generally used for negation, but there is no one-to-one-relationship of affirmative and negative forms. (On cases of suppletion, see Grønbech 1955.) Thus, Old Turkic *-ma-Di[n]* is generally regarded as the negative form of both ⟨A⟩ and ⟨B⟩. Its successors in later languages, *-may, -madan, -masdan*, etc., are generally modifying ('without doing', 'before doing', '[on account of] not doing' etc.).[52] The opposition of ⟨A⟩ and ⟨B⟩ appears to be neutralized.

In certain older and later languages, however, ⟨B⟩ possesses a negative form of its own, for instance, Karakhanid *-maδïp*, Turkish *-mayïp*, Azerbaijani *-mayïb*.[53] This allows for a [± mod] distinction between "E_1 not occurring, E_2 occurs" (or, expressed caritively, "without E_1 occurring, E_2 occurs") and "E_1 does not occur, E_2 occurs", for instance, in Turkish (Kissling 1960: 200):

(34) Turkish
Selam ver-meden oda-dan çık-t-ım.
greeting give-NEG.CONV room-ABL go.out-TRM.PAST-1.SG
'Without greeting, I left the room.' [+ mod]

(35) Turkish
Selam ver-me-yip oda-dan çık-t-ım.
greeting give-NEG.-CONV room-ABL go.out-TRM.PAST-1.SG
'I did not greet, but left the room.' [− mod]

The infrequent use of negated ⟨B⟩ forms in Turkish is, however, a further sign of the disappearance of nonmodifying subordinated clauses.

With respect to the scope of base clause negation, there are interesting diachronic developments, which have not been studied in detail yet. In older Turkic texts, converb clauses based on ⟨B⟩ are outside the scope of a negation carried by its base clause; see Schulz's remark on Old Turkic: "im Gegensatz zum Osmanischen bewirkt eine negierende Verbalform der Basisfügung nicht, daß auch das vorangehende Konverbium auf -(°)p zu einem negierenden Konverbium wird" (1978: 128).

The later possibilities of extending the scope over the converb segment show considerable variation across the Turkic systems. At level 1, it seems to be generally excluded. Below level 2, on the other hand, the converb segment is always integrated in the scope. As for level 2, the converb clause is normally integrated in modern Turkish, for example:

(36) Turkish
Ev-e gel-ip el-ler-in-i
house-DAT come-CONV hand-PL-POSS.3.SG-ACC
yıka-ma-d-ı.
wash-NEG-TRM.PAST-3SG
'He did not come home and [did not] wash his hands.'

This is, of course, not possible with modifying converb clauses, for example:

(37) Turkish
Ev-e gel-ince el-ler-in-i
house-DAT come-CONV hand-PL-POSS.3.SG-ACC
yıka-ma-d-ı.
wash-NEG-TRM.PAST-2SG
'When he came home, he did not wash his hands.'

An integrative interpretation may be blocked by a particle such as *de* 'and; also', for instance: *Eve gelip de ellerini yıkamadı* 'He came home, and did not wash his

hands'. However, the scope of negation may be narrow even with ⟨B⟩ clauses; the interpretation depends, according to Yüce, on "the context" ("geht aus dem Zusammenhang hervor"; 1973: 25):

(38) Turkish
Ara-yıp *bul-am-yor.*
search-CONV find-IMPOSSIB-PRES.3.SG
'He is looking for it, [but] cannot find it.'

The rules for the application of wide and narrow scope of negation in the different Turkic languages have not been properly described so far. One of the many good reasons for starting on this task is that the integration of ⟨B⟩ clauses within the scope of base clause negation is closely connected with the expulsion of ⟨B⟩ from level 1.

Abbreviations

A^1	first actant (i. e., "subject", whether "explicit" or "implicit"; see note 4)
ABL	ablative (case)
ANT	anterior(ity)
BS	base segment
CS	converb segment
DAT	dative (case)
DIR	directive (case)
E_1	the first of two events expressed by neighboring clauses
E_2	the second of two events expressed by neighboring clauses
EQU	equative (case)
IMPOSSIB	impossibility
INCL	temporal inclusion
INSTR	instrumental (case)
INTR	intraterminal(ity)
LIM	temporal limitation
LOC	locative (case)
NEC	necessitative
[± MOD]	modifying : non-modifying
[+ MOD]	modifying
[− MOD]	non-modifying
O	(temporal) orientation point
POSSIB	possibility
POST	posterior(ity)
PST	postterminal(ity)
REC	reciprocal, reciprocity
TRM	terminal(ity)
VN	verbal noun
⇒	modifies
⇔	equal with respect to narrative value
*	the relevant limit of an event (e. g., E_1*)

Notes

1. For traditional definitions of Turkic converbs and treatments of their use, see Johanson 1990 a: 200–202, 246–249.
2. The term *finite* is used here for predicate cores functioning as heads of independent sentences.
3. *Subordination* is used here in a purely constructional sense. In a subordinative construction *xy*, the members *x* and *y* hold different ranks in the sentence hierarchy, *x* being dependent upon *y* as the base (head) of the construction. In its syntactic behavior, *xy* is more similar to *y* than to *x*. Turkish *xy*-constructions are, e. g., *beyaz ev* 'the white house', *ekmek ye-* 'to eat bread', *Ali geldi* 'Ali has come', *yavaş konuş-* 'to speak slowly'. In this sense, the converb segment is constructionally carried by the base segment. Thus, a Turkish converb segment plus base segment construction such as *öğreterek öğren-* 'to learn by teaching' is, in its syntactic behavior, more similar to its base segment (*öğren-* 'to learn'; superjunct) than to its converb segment (*öğret-erek* 'by teaching'; subjunct). This concept of subordination does not include other independent criteria such as semantic restrictiveness ("modification"), position of the subjunct in relation to the superjunct, or capability of containing cataphoric pronouns and "zero-cataphors" (nonexpressed first actants coreferential with the subject of a following superjunct).
4. A^1, the central actant in Turkic languages, is, according to rules that cannot be discussed here, realized as a *subject* ("explicit subject"), and/or as a *subject representative*, a suffixed person/number marker ("agreement"); or it is not realized overtly ("implicit subject"). See, e. g., Johanson 1990 c. Turkic languages are generally much less explicit with respect to first actant reference than modern standard average European languages are.
5. Imart 1981: 1599 uses the junction sign # between the two segments to mark what we refer to as level 2.
6. See section 8, on the terms postterminal and intraterminal.
7. On the formation of the aorist and the present tense in Turkish and Azerbaijani, see Johanson 1989.
8. *Adverbial* is used here for noncomplemental, nonadnominal segments in construction with other predicative segments. The semantic property of "modifying" is not part of the definition; see section 9. Like certain other adverbial elements, Turkic converbs may even appear within adjectival formations, e. g., Turkish *-ken-ki* in nominal groups such as *uyu-r-ken-ki resm-i* (sleep-CONV-ADJ picture-poss.3.sg) 'the picture of him sleeping'; cf. *yarın* 'tomorrow' + *-ki* = *yarınki* 'pertaining to tomorrow'.
9. By "prefield" is meant the area in front of the head of a clause (or another 'domain'; cf. Dik 1989: 339).
10. Throughout this article, suffixes are cited in one allomorph only.
11. Instrumentality is a rather productive idea in Turkic converb formation, being expressed and renewed by different means (see Johanson 1988).
12. The sign ° symbolizes a possible (supposed) vowel segment of unknown quality and quantity.
13. Probably a so-called "aorist" participle, *-sa-r*, of the verbal stem *sa:-* 'reckon'. There are also combinations such as *-d-i ärsär* (*-d* past + *är-* ('be') + *-sar*.
14. For example, modern Turkish *-acak* is tri-functional, capable of marking all these predication types; see Csató (to appear).
15. Thus, *-a-rak*, otherwise a typical converb, is used adnominally in some Anatolian dialects. Yakut *-an*, the functional equivalent of *-p*, is not, however, likely to go back to the verbal noun in *-γan* (Poppe 1959: 682), but rather to the type *-uban* (*-p* + instrumental; with intervocalic loss of the labial; see Johanson 1988). Similarly, the Tuvan converb *-viša:n* is hardly etymologically related

to the participle in *-miš* (and certainly not, as has been claimed, a combination of the participles in *-miš* and *-γan*), but ought to go back to a postverbial construction with *-p*.

16. The connectives developed from converb forms of individual verbs (section 3) are free from first actant control.
17. Swift claims that the identification of the "performer" of the action of the subordinate clause "results from the meaning of the utterance and not from anything in the grammar".
18. According to Efremov (1980), most of the morphologically simple Yakut converbs are used in same first actant constructions only.
19. We use *terminal* for nonintraterminal and nonpostterminal units, and reserve *adterminal* for marked units explicitly signalling the attainment (such as Russian perfectives).
20. In Old Uighur, this intraterminality can be combined with the ideas of actional focality (*-a turur ärkän* 'just doing') and imminence (*-γal-ïr ärkän* 'being on the verge of doing').
21. The third known variety of the written language of the older period is Karakhanid (eleventh to twelfth centuries), written mainly in Arabic script. Major varieties of the written language of the "middle" period ("Middle Turkic") are Khorezmian Turkic, Volga Bulgarian, Old Kipchak, Old Ottoman, and Early Chaghatay. The "newer" period (from the sixteenth century on) comprises varieties such as Middle and Late Ottoman, Late Chaghatay, and Volga Turki. The "modern" period is represented by standard languages such as Turkish, Azerbaijani, Gagauz, Turkmen, Tatar, Bashkir, Crimean Tatar, Kumyk, Karachay, Balkar, Nogay, Chuvash, Uzbek, Kazakh, Karakalpak, Kirghiz, New Uighur, Altay, Khakas, Tuvan, and Yakut, as well as by nonstandard varieties such as Dolgan, Khalaj, Kashghai, etc.
22. Often forms of the type ⟨GIN+ČA⟩ (*-γï|n|ča, -γanča*, etc.; Old Ottoman: *-ïnǰa[q)], -ïnǰaγaz*). This type is also frequently used as a substitutive-comparative converb, expressing preference, etc. ("rather than", "instead of").
23. Not even Turkish *-d-i mi* is preterital in the absolute, primarily deictic sense. For example, *akşam oldu mu* (evening become-TRM.PAST.3.SG Q) 'once the evening has come'.
24. ⟨A+RQ⟩ is found in Old Ottoman: *ara-yu-raq gäl-d-i* (search-⟨A+RQ⟩ come-TRM.PAST-3.SG) '[by] searching, he arrived'. Later on, it largely replaced the type ⟨A⟩ which, in modern Turkish, is used almost exclusively in a fully reduplicated form, e. g., *ara-ya ara-ya* (search-⟨A⟩ search-⟨A⟩) 'incessantly searching'. ⟨RQ⟩ is generally used as a comparative suffix, and other converbs with ⟨RQ⟩ in Turkic languages, e. g., Uzbek *-ib-råq*, have a meaning of '...ing somewhat [more]'. According to Mundy (1954: 15), Old Ottoman ⟨RQ⟩ may express "manner".
25. At low levels, the oppositions are often neutralized (Johanson 1990 b).
26. Many Soviet Turcologists have stressed the beneficial effects of Russian syntactic influence on Turkic languages, particularly the copying of subordinative constructions with subordinating conjunctions (Comrie 1981: 34). Hanser seems inclined to consider the acquisition of European conjunctional structures an ideal ultimate goal for Turkic languages, the genuine morphosyntax of which is allegedly not very explicit and thus not very progressive (Hanser 1974: 156–161).
27. Since terminals do not always express sequential ordering, and intraterminals do not always express nonsequentiality, these categories are, in temporalistic accounts, often claimed to be used "instead of" each other. A comprehensive account of the aspecto-temporal system of finite units in Turkish is given in Johanson (1994).
28. As for verbal adverbs of this type, cf. Comrie's remark that "often the most neutral English translation is just a coordinate construction" (1981: 82).
29. See Foley–Van Valin 1984: chapter 6; cf. the discussion in Johanson 1975 a.
30. It does not specify the kind of action talked about, but reduces the perspective on the action to an intraterminal one.
31. Cf. Foley–Van Valin 1984: 220–223.

32. For instance, Old Turkic *-duqta*, probably *-°ča*, Old Anatolian Turkish and Ottoman *-ǰaq, -ǰaγaz*, Turkish *-ınca*, many languages in the northwest and southeast of the Turkic area ⟨GČ⟩ (*-γač.. -γas, -š*) and expansions (e.g., Chuvash *-ušăn*, Karaim *-qačox*), and Tuvan *-r...γa* (claimed by Bergel'son–Kibrik 1987: 31, however, to be devoid of aspecto-temporal meaning).
33. Guzev defines Turkic converbs globally as circumstantial forms of the verb (1990: 126). According to Hanser, ⟨B⟩ expresses a "Begleitumstand" of temporal or modal character (1974: 165).
34. (17) from the Bilgä Qaghan inscription, (18) from the Suvarṇaprabhāsa; cf. Tekin (1968: 243); Gabain (1941: 271) (with different transcriptions).
35. This is sometimes described, in temporalistic terms, as "neutralization of a relative tense".
36. This does not, however, mean that the event reported in an earlier clause is always presented as occurring earlier (cf. the discussion in Haiman 1985: 216).
37. Intraterminality (as signalled by Turkish *-ıyor-d-, -arak*, French *imparfait*, etc.) can often be interpreted in terms of inherence, temporal inclusion, instrumentality, concomitance, etc. ("thus", "thereby", "therewith", etc.; Johanson 1971: 68–69, 255–259; 1975 a: 113–114).
38. Thus, in a sequence such as *-arak -ınca -d-*), converb segment *-arak* modifies base segment *-ınca*, whereas converb segment *-ınca* modifies base segment *-d-*.
39. Not, however, to the extent that a whole story is told in sentence-internal forms; cf. Scott (1978: 156–158).
40. Juldašev (1977: 179) translates: "Kogda my odelis', vzvalili na sebja meški i, poblagodariv ix, rasprostilis', oni pokazali nam dorogu, po kotoroj my pošli" ['When we had dressed, shouldered the bags and, having thanked them, said good-bye, they showed us the way to go'].
41. In Tuvan, ⟨GČ⟩ is characteristic of level 2, whereas ⟨B⟩ is restricted to lower constructions.
42. According to Bergel'son–Kibrik (1987), *-γaš* signals coreferentiality, but may expand into the field of *-r...γa*, which allegedly signals noncoreferentiality only.
43. This observation should by no means be understood as a claim about a declining use of converbs in general.
44. Level 1 seems to be more easily permitted when the base segment is a subjunct itself (see Csató, to appear).
45. The connector is not actually part of the sentences in question.
46. The converb segment type *-d-i mi* 'as soon as', 'once' (see note 23) is, although it contains the element *mi*, synchronically not a question any more.
47. Cf. note 37. See, e.g., Johanson (1975).
48. On the acquisition of Turkish converbs and their use for temporal reference, see Slobin (1988 and in this volume).
49. Certain other nonfinite clauses require a choice between a genitive and a nominative subject according to rules of communicative perspective (Johanson 1977; 1990 c).
50. Gabelentz 1901: 418: "Da hat man denn bis zum Aussprechen der Verbalform die Wahl, ob man den Satz schließen oder in den oder jenen Zusammenhang mit dem folgenden bringen will."
51. Thus, Amharic, which is not genetically related to Turkic and has had no close contacts with it, exhibits a very similar constituent order and corresponding patterns of converb subordination.
52. Cf. the negative-limitative *-mayïn/ča/* 'as long as ... not'.
53. If negated ⟨B⟩ forms exist in other languages, they are mostly used below level 2, for instance, Uzbek *-ma-b* (Kononov 1960: 241).

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