The Turkic Languages

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The Structure of Turkic

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CHAPTER 3

THE STRUCTURE OF TURKIC

Lars Johanson

INTRODUCTION

Throughout their history and in spite of their huge area of distribution, Turkic languages share essential structural features. Many of them are common to Eurasian languages of the Altaic and Uralic types. While often dealt with in typologically oriented linguistic work, most aspects of Turkic structure still call for more unbiased and differentiated description. The following survey will give some examples of characteristic common features and of more language-specific phenomena.

SOUND SYSTEMS

Vowels and consonants

Many Turkic languages exhibit eight vowel phonemes, \(a, i, o, u, ä, i, ö, \) and \(ü\), which can be classified with respect to the features front vs. back, unrounded vs. rounded, and high vs. low.

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Some Turkic languages display fewer or less clear-cut distinctions than indicated in this scheme. Thus, modern Uyghur lacks a clear differentiation \(i: ü\), while Iranicized Uzbek dialects show centralizing tendencies which affect all the distinctions \(ä: a, ö: o, ü: u, i: i\).

On the other hand, several Turkic languages display more distinctions than shown in the scheme. Some, such as Azeri, exhibit an opposition between an open \(ä\) and a more closed \(e\). Many languages have a phonemic contrast between long and short vowels. These length distinctions may be primary, as in Yakut, Turkmen, and Khalaj. Long vowels may also be present in loanwords or developed secondarily through consonant contractions. Long vowels are often diphthongs.

Near-high, lax vowels, on the other hand, are typical of the Volga region: Chuvash, Tatar, and Bashkir. In these languages, due to shifts dealt with in Chapter 6, the realization of vowel distinctions deviates considerably from the scheme given earlier, though the basic relations in principle remain valid.
The consonant systems are more different from each other. The phonetic realizations, with respect to the distinction front vs. back, varies a good deal. Gagauz and Karaim, which are strongly influenced by Slavic, show palatalized front consonants. The Sayan Turkic languages Tuvan and Tofan exhibit a glottal element functioning as a fortis consonant signal, e.g. a’t ‘horse’. Atypical sounds include the fricatives f, v, ž, θ and the affricates ts and dż. Long consonants normally only emerge at morpheme boundaries but may also be found, for instance, in numerals and affective words, e.g. Uzbek ik:i ‘two’, Turkish 〈anne〉 ‘mother’.

**Syllable structure**

A Turkic syllable typically consists of a vowel with one preceding and/or subsequent consonant, e.g. kum-da ‘in the sand’. Vowel hiatus and initial consonant clusters are avoided. Final clusters with one nasal, liquid, or sibilant occur commonly, e.g. Türk ‘Turk’, üst ‘upper side’. When two morphs join, maximally three consonants may cluster together, e.g. Turkish 〈dost-lar〉 ‘friends’.

Word-initial n, m, ŋ, l, and r are avoided, the only seemingly native exception being the interrogative nä? ‘what?’ Loanwords beginning with nasals and liquids are often provided with prothetic vowels, e.g. Kazakh orĩs ‘Russian’.

**Intrasyllabic sound harmony**

The most general sound harmony phenomenon is an intrasyllabic front vs. back harmony that affects whole syllables with their vowel and possible consonants. Each syllable is classified as front or back. The frontness or backness is signaled by both vowels and consonant segments. For example, a back syllable may be realized as kul ‘slave’, whereas its front counterpart is realized as kül ‘ashes’. There are, however, numerous exceptions to this phonetic situation. Not all consonants have clearly distinguished front and back variants. The reduced vowels of some languages do not signal frontness and backness in a clear-cut way. In loanwords, phonetically front vowels may go with back consonants and vice versa, e.g. Turkish 〈kâr〉 [kaːɹ] ‘profit’ ← Persian. Nevertheless, the syllable as a whole is classified as phonologically front or back.

Normally, the front consonants k and g occur in front syllables, whereas the back consonants ḳ, ġ, and γ occur in back syllables. In Yakut, however, k also occurs with high back vowels, e.g. ki:s ‘girl’, whereas χ, pronounced as an affricate [kχ], only occurs with the low vowels a and o, e.g. χaːs ‘goose’.

**Morphophonological variation in primary stems**

As regards morphophonological variation in primary stems, the second syllable of certain stems has an unstable vowel that does not appear in front of suffix-initial vowels, e.g. Tatar kürık ‘beauty’, kürk-i ‘its beauty’, Turkish 〈oğul〉 ‘son’, 〈oğl-u〉 ‘her/his son’. In primary stems with an unstable vowel, consonant assimilation may also create cases of variation, such as Tuvan ägin ‘shoulder’ vs. äk-tʃ-m ‘my shoulder’, the latter form going back to *ägn-im, and aːs ‘mouth’ vs. aks-im ‘my mouth’ < *aγz-im, with the syllable-final devoicing triggering progressive assimilation.

Certain Turkic languages show morphophonological variation of lenis (weak) obstruents: partial or full devoicing in syllable-final position, e.g. Turkish 〈ad〉 [ad] ‘name’,
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Intervocalic lenes are often further weakened, that is, fricativized or deleted, e.g. Turkish -gök-ü *its heaven*, Uyghur aviy-i *its foot*, Tuvan balı: < balı-yi *its fish*, Khakas aza:m < azay-im *my foot*. Morphemes with final lenis thus have two allomorphs. Polysyllabic stems end in lenes, while monosyllabic stems may also end in fortes, that is, strong consonants, e.g. Turkish -yük *burden*, -yük-ü *its burden*. This kind of lenis vs. fortis variation is not manifested in all Turkic languages, e.g. Khalaj topuq *ankle*, topuk-um *my ankle*, compared to Turkish -topuk, -topuğ-um.

Primary stem variation may also emerge through contraction, e.g. Uyghur -kî-p *doing* ← kîl- plus (b), ‘doing’, Tuvan a:-p *taking* ← al- plus (b), or through regressive simplification of a consonant cluster, e.g. Uzbek Tâskent-gâ *to Tashkent* ← Tâskent + -gâ.

The reason may be regressive devoicing, e.g. jas-sa ‘if X writes’ ← jaz- plus {-sA}. This kind of assimilation is frequent in Siberia, e.g. Yakut ak-ka ‘to the horse’ ← at ‘horse’ plus {+GA}. These languages exhibit other cases of primary stem variation due to diachronic processes, e.g. Yakut as- vs. an- ‘to stick’, ‘to pierce’. A specific kind of morphophonological variation in primary stems is caused by modern Uyghur so-called umlaut, a regressive assimilation of low vowels, e.g. baš *head* → beš-im *my head*.

**Morphophonological variation in suffixes**

The intersyllabic phonotactic relations are characterized by several assimilations of morphs within word forms.

**Intersyllable sound harmony**

The rules of intersyllable sound harmony vary across languages. Suffixes are often non-harmonic at an early stage of development. Their development into harmonic suffixes may also be blocked by foreign influence, e.g. by Iranian influence in dialects of Uzbekistan, Afghanistan, and Iran.

Front vs. back harmony, mostly called palatal harmony, is a systematic neutralization of the phonological distinction front vs. back in suffix syllables under the influence of a dominant immediately preceding syllable. This means the quality of the last syllable of a stem determines the quality of a following suffix with respect to front vs. back. Primary stems allow a free choice of front and back syllables, e.g. Tatar at *horse*, it *meat*, it ‘dog’, ut *fire*, iüt *pass!*, ụt *win!*, üt! *singe!* In the case of suffixes subject to intersyllabic front vs. back harmony, however, a front or a back variant must be selected to match the last stem syllable. Though this harmony manifests itself most clearly in the choice of vowels, it affects the whole syllable. Thus, dative suffixes are of the type {+GA}, with variants such as -kâ, -gâ, -ka, and -ya. If the harmony rules are applied consistently, back and front syllables exclude each other within word forms, e.g. Turkish <ev-ler-im-e> ‘to my houses’, <at-lar-im-a> ‘to my horses’.

It would be wrong to claim that the harmony is caused by the preceding vowel. It is also observed after stems with weak or vanishing minimal vowels, e.g. in Tatar dialects or after the neutral i in Uyghur. In loanwords, the final syllable may have a back vowel
but still be front, that is, take on front suffixes, and vice versa, e.g. Turkish ‹rol-ũ› ‘its role’, ‹harb-i› ‘its war’. Apart from nonharmonic suffixes, there are also many cases of phonetically less clear vowel realizations, notably in strongly Iranicized dialects. But not even here do we find any general breakdown of the syllabic front vs. back harmony.

Some languages only display this kind of harmony, e.g. the Tatar third-person simple past forms čï̄ḳ-tï̄ ‘X went out’, kït-tï ‘X went’, ụt-tï̄ ‘X won’, üt-tï̄ ‘X singed’. Others also apply a rounded vs. unrounded harmony, the so-called labial harmony, which is more of a real vowel assimilation. It implies neutralization of the distinction rounded vs. unrounded in suffix syllables: the quality of the vowel of the last stem syllable determines the suffix vowel. One additional property of the preceding syllable is thus reflected in the suffix.

In many languages, this harmony only affects high-suffix vowels, in Tatar and Bashkir only centralized vowels. This creates suffixes with vowels displaying a fourfold harmony, such as the Turkish first-person singular possessive suffix {-ɪ̄m} or the Bashkir third-person simple past suffix {-Dɪ̄}, e.g. Turkish ‹kız-im› ‘my girl’, ‹at-im› ‘my horse’, ‹el-im› ‘my hand’, ‹ip-im› ‘my rope’, ‹pul-um› ‘my stamp’, ‹yol-um› ‘my way’, ‹gül-üm› ‘my rose’, ‹göl-üm› ‘my lake’, Bashkir sï̄ḳ-tï̄ ‘X went out’, kït-tï ‘X went’, ụt-tụ ‘X won’, ü̈t-tụ̈ ‘X singed’.

Some languages go further, applying labial harmony to low-vowel suffixes as well, so-called labial attraction. Suffixes with low vowel are normally {A 2}, but they are in some languages extended to {A 4}, e.g. in Turkmen, Bashkir, Kirghiz, South Siberian, and Yakut, though not reflected in the Turkmen orthography. The vowel {A 4} is found in Yakut {-LA4r}, e.g. aγa-lar ‘fathers’, oγo-lor ‘children’, kihi-lär ‘persons’, börö-lör ‘wolves’. However, no Turkic language applies this extended harmony consistently. For example, the roundedness of the Yakut stem vowels u, ū, ü, and ȯ is not reflected in suffixes, e.g. u-lar ‘waters’. Kirghiz labial harmony does not apply after u, e.g. kus-ka ‘to a/the bird’, su-γa ‘to a/the water’. The scope of labial harmony must thus be specified for each language.

The distinction low vs. high always has semantic implications and is not subject to harmony, e.g. Turkmen dative aːdam-a ‘to a/the man’, accusative aːdam-ï̄ ‘the man’.

Consonant assimilations

Consonant assimilations create further suffix allomorphs. A very common phenomenon is progressive devoicing after voiceless consonants, such as d > t, j > ç, and g > k, e.g. Turkish ‹gel-di› ‘came’ vs. ‹git-ti› ‘went’, Uzbek ɨy-gat ‘to the house’ vs. eʃɪk-kat ‘to the door’. The devoicing is relatively weak in some languages and not always indicated orthographically. In this volume, it is ignored in the notations for a few languages, e.g. Azeri {-mAK-dA}.

Certain languages display progressive assimilation of suffix-initial l to n, d, getto t, etc., e.g. in the plural suffix {+LA跌幅}: Kazakh at-tar ‘horses’, köl-der ‘lakes’, Bashkir taw-dar ‘mountains’, Tuvan gol-dar ‘hands’, nom-nar ‘books’. Some Chuvash suffixes have allomorphs beginning with ɬ after l, r, and n otherwise with ŋ, e.g. vɪrman-də ‘in the forest’, tu-rə ‘on the mountain’.

Many suffixes have allomorphs with an initial consonant after stem-final vowels and with an initial vowel after stem-final consonants. With the type {-(V)C}, the vowel is dropped when the stem ends in a vowel, e.g. Turkish ‹ev-im› ‘my house’, ‹baba-m› ‘my father’. With the type {-(C)V}, the consonant is dropped when the stem ends in a
consonant, e.g. Turkish 〈başla-yan〉 ‘beginning’, 〈ol-an〉 ‘being’, 〈iki-şer〉 ‘two each’, 〈üç-er〉 ‘three each’. There are diachronic reasons for this variation, and it would be wrong to claim that the segments indicated in brackets are connective sounds inserted epenthetically to prevent hiatus or to break up consonant clusters.

A special kind of suffix variation is due to the so-called pronominal n occurring in many languages between third-person possessive suffixes and case suffixes, e.g. Turkish \{+(s)\(n\}\} in forms such as 〈baba-sin-a〉 ‘to his/her father’.

**Prosodic phenomena**

The main factor in word-level accent is the capacity to carry high pitch. Underived items are accentable, e.g. at ‘horse’, or unaccentable, e.g. \{dA\} ‘and’, ‘too’. Most Turkic languages have pitch accent, increase of the tone height, on the last syllable of native lexical items.

Suffixes are classified into accentable ones, e.g. Turkish \{-DI\} in 〈Uyu-dú〉 ‘X slept’, and non-accentable ones, e.g. \{+(y)dI\} in 〈Uyú-r-du〉 ‘X would sleep’. Pitch accent occurs on the last accentable syllable in word forms, e.g. Turkish 〈köy-lər-de〉 \[köy-lεr-dέ\] ‘in the villages’.

Personal suffixes of the pronominal type, copula markers, negation suffixes (except the negative \{-mAz\}/\{-mAs\} aorist) are unaccented, e.g. Uyghur 〈Săn kîm-sän?〉 ‘Who are you?’, 〈Yáz-mị-di〉 ‘X did not write’. This is also true of enclitic particles, such as \{dA\} ‘and’, ‘too’.

There is also an interacting changeable dynamic stress accent, characterized by more energy of articulation. It tends to fall on the first syllable and seems to be the original factor of intersyllabic progressive sound harmony and of rhyme patterns in Old Turkic poetry. Being sensitive to phonetic factors such as weight, it often falls on heavy syllables, that is, closed syllables or syllables with a long vowel, e.g. Turkish 〈ev-de〉 \[εvδέ\] ‘at home’.

Pitch and stress accent may coincide in a non-final syllable, followed by a corresponding fall in the next syllable, which yields a higher degree of prominence. Lexical items displaying this feature are mostly of foreign origin, recent borrowings, or place and personal names. The accent falls on the nearest heavy penult or antepenult, e.g. Turkish 〈lokanta〉 \[loĸ’ɑ́ ntɑ\] ‘restaurant’, 〈pencere〉 \[pέndʒεrε\] ‘window’, or, if none of the syllables is heavy, on the nearest light syllable. Such patterns may, however, be replaced by word-final accent if the words in question are nativized.

Non-accentable suffixes often produce a coincidence of pitch and stress accent on the immediately preceding syllable, e.g. Turkish 〈Güzel-sîn〉 \[gy’zέlsîn\] ‘You are beautiful’. This phenomenon allows minimal contrasts between words such as Uzbek 〈Yāz-ma!〉 \[jɒ́ zmæ\] ‘do not write’ and 〈jîzmæ\} ‘writing’, 〈Āt-iy〉 \[őtîn\] ‘Throw!’ and \[utîn\] ‘your horse’. Conjunctions and adverbially used elements tend to be accented on the first syllable, e.g. Tatar 〈emma〉 ‘but’, Turkish 〈yalınız〉 ‘[j]âlnez’ ‘only’; compare the adjective 〈yalnez〉 ‘alone’. Items of compound origin and reduplications behave similarly, e.g. Tatar 〈nîçä〉 \[nîtʃε\] ‘how many’, 〈ap-pak〉 \[áp:ək\] ‘very white’, Turkish 〈nâslı〉 \[nâsîl\] ‘how’, 〈çimdî〉 \[ʃimdî\] ‘now’. This accent is often used for affective or emphatic effects, e.g. Turkish vocative 〈kardes〉 \[kûrdɛʃ\] ‘brother!’ ← \[kârdɛş\].

Both accent types are subordinated to higher pitch and stress patterns at phrase, clause, and sentence levels. The components of word accent are also distributed differently in
the individual Turkic languages. Central Asian languages often tend to give more prominence to the initial syllable; languages of the Volga-Kama region to the last syllable. The differences between pitch and stress accent are usually ignored in studies of Turkic accent systems. In general, reliable dates on Turkic prosodic phenomena are rather scarce. Intonation patterns are particularly poorly investigated.

MORPHOLOGY

Word structure

Synthesis and juxtaposition

The structure of the Turkic word is agglutinative. It is characterized by a highly synthetic structure with numerous bound morphemes and a juxtaposing technique with clear-cut morpheme boundaries and predictable allomorphic variation. An example is the Turkish word 〈para-siz-lık-lar-ın-dan〉 ‘because of their poverty’, which consists of 〈para〉 ‘money’, the privative suffix 〈-siz〉 ‘-less’, the abstractness suffix 〈+lık〉 ‘-ness’, the 3pl possessive suffix 〈+larỊ(n)〉, and the ablative suffix 〈+Dan〉.

There are rich possibilities of expanding stems by numerous bound morphemes, which serve word formation and the expression of grammatical notions. For many grammatical notions, the synthetic expression is the only available method, e.g. Turkish passive 〈yap-ıl-〉 ‘to be done’, causative 〈sev-dir-〉 ‘cause to love’, genitive 〈kral-in〉 ‘the king’s’, ‘of the king’. A high degree of combinability allows long chains of morphs. Since hundreds of forms may be derived from each single primary stem, it is difficult to present complete paradigms.

The bound morphemes mostly have a highly generalized content and thus a high applicability. For example, Turkish 〈+lik〉 ‘-ness’ and 〈+jılı〉 ‘professional’ are much more productive than corresponding English devices, e.g. 〈gazete-ci〉 ‘journalist’ ← 〈gazete〉 ‘newspaper’, 〈av-ci〉 ‘hunter’ ← 〈av〉 ‘hunting’, 〈su-cu〉 ‘water seller’ ← 〈su〉 ‘water’.

Regularity

All these factors contribute to a considerable morphological regularity. The morphemes have few and phonologically predictable allomorphs, added rather mechanically to the stem according to the rules of assimilation mentioned earlier. The agglutinative technique yields transparency: regular, easily segmentable structures. The content is readily matched with its segmental expression, e.g. Turkish 〈iş-ler-in〉 ‘affair + plural + genitive’, without any fusion of significance as, for instance, in the Latin counterpart rerum.

This regularity should, however, not mislead to unjustified simplifications concerning the meaning of complex forms. Certain combinations of morphs have grammatical functions not derivable from the functions of the components. Accent may also distinguish seemingly identical forms.

The few exceptions to phonological predictability include the choice of causative allomorphs and the choice between high and low vowels in the aorist suffix 〈-{V}r〉, e.g. Turkish causatives 〈bil-dir-〉 ‘to let know’, 〈anla-t-〉 ‘to let understand’, and aorists 〈bil-ır〉 ‘knows’, 〈dön-er〉 ‘turns’. Some irregularities in primary stems have been pointed out. Nevertheless, Turkic languages basically lack declensional and conjugational classes, irregular verbs, suppletive forms, etc.
The method is consistently affixing, one morph following the other. The primary stem is the leftmost morph. The affixes are thus suffixes. The primary stem can always be used as a free form, e.g. Turkish ‘at’ ‘horse’, a nominal stem, ‘At’ ‘Throw!’ a verbal stem. It remains intact, without infixes or additive or replacive elements. The few exceptions relate to the declension of pronouns, e.g. Turkish ‘ben’ ‘I’, ‘ban-a’ ‘to me’. Neither are there usually real prefixes. Elements preceding primary stems are mostly nominal elements that can also occur as free forms, e.g. ‘ön’ ‘front’ in the Turkish loan translation ‘ön-gör-’ ‘to foresee’, ‘to provide for’ ← French prévoir. Some languages under strong foreign influence have a few copied prefixes, e.g. Uzbek nā-toγri ‘incorrect’.

The originals of loanwords often represent morphological processes alien to Turkic, prefixation, ablaut, metatheses, etc. One Arabic root may be represented by various forms, e.g. hkm in Turkish ‹hüküm› ‘judgement’, ‹hikmet› ‘wisdom’, ‹hakim› [haːkim] ‘judge’, ‹hakim› [hakı:m] ‘wise’, ‹mahkum› [mahku:m] ‘sentenced’, ‹mahkeme› ‘law court’, ‹muhakeme› [muha:keme] ‘lawsuit’, ‹muhkem› ‘solid’, etc. Such processes are unproductive in the Turkic languages that incorporate the loanwords in question. Copies of Arabic plurals with internal inflection are sometimes used as singulars and provided with Turkic plural suffixes, e.g. Turkish ‹tüccar-lar› [tüǰǰaːr-lar] ‘merchants’ ← singular ‹tacir› [taːǰɪr].

Use of suffixes

It is a typical feature of Turkic to use morphological devices economically and avoid redundancy. There are few cases of agreement. Third-person singular forms are often unmarked, and the singular is used after cardinals, and certain suffixes, such as number, case, and possessive and copula markers, may be shared by several syntactically parallel segments and only attached to the last of them, e.g. Turkish ‹Gör-müş ve duy-muş-lar-do› ‘They had seen and heard it’.

The order of suffixes is subject to rigid rules. Suffixes form distributional classes according to their ability to occupy relative positions within the word, that is, their relative distance to the primary stem. Suffixes modifying the primary stem directly are closest to it, which means derivational suffixes precede inflectional ones. Each added suffix tends to modify the whole preceding stem, e.g. Kirghiz üy-lör-öm-dö (house-PL-POS1SG-LOC) ‘in my houses’.

Suffixes and enclitic particles

Suffixes must be distinguished from enclitic particles, which are free unaccentable units. They include postpositions, relators of other kinds, modal items, e.g. Uzbek burun ‘before’, e-di ‘was’. Enclitics are similar to suffixes in that they are often subject to assimilatory processes, such as sound harmony, e.g. Turkish {dA} ‘and’, ‘too’. Note that some free enclitic markers have suffixes of the unaccentable type as variants, e.g. Turkish {i-di} ~ {-(y)DĪ} ‘was’, {i-le} ~ {-(y)lA} ‘with’, Ottoman {iĉūn} ~ {+ĉūn} ‘for’.

Stem formation

Verbal and nominal stems are sharply distinguished, homonymous stems such as English face being extremely few, e.g. aːǰ- ‘to be hungry’ and aːǰ ‘hungry’. All stems, whether primary or secondary, can be used as free forms.
From verbal and nominal stems, expanded verbal or nominal stems are formed. Since nominal stems take on denominal suffixes, and verbal stems take on deverbal suffixes, there are four possibilities of derivation:

Denominal nominal stems, e.g. Turkish 〈yol-daş〉 ‘fellow traveler’ ← 〈yol〉 ‘way’
Deverbal nominal stems, e.g. Turkish 〈yat-ak〉 ‘bed’ ← 〈yat-〉 ‘to lie’
Denominal verbal stems, e.g. Turkish 〈yol-la-〉 ‘to send’ ← 〈yol〉 ‘way’
Deverbal verbal stems, e.g. Turkish 〈yolla-n-〉 ‘to be sent’ ← 〈yolla-〉 ‘to send’

The last two devices should be compared with the possibilities of analytical derivation of verbal stems. Denominal verb formation also includes lexicalized verbal phrases containing auxiliary verbs, such as et-, äylä-, kıl-, yap- ‘to do’ + incorporated nominal elements which do not function as free objects, e.g. Turkish 〈imza et-〉 ‘to sign’, 〈aff-et-〉 ‘to forgive’.

Similarly, a converb and a form of a second verb may form verbal phrases with strong semantic fusion, e.g. Uzbek ăl-ịp kel- ‘to bring’ (literally ‘to come taking’), yiγlȧ-b yubâr- ‘to start crying’ (literally ‘to send crying’). For postverbal constructions, there are also combinations of thematic stems with auxiliary verbs, such as er- ‘to be’ and bol- ‘to become’.

**WORD CLASSES**

The main word classes of Turkic languages are nominals and verbals. This division is not identical with the classification into nominal and verbal stems since verbals may also be nominal stems. Nominals comprise nouns, adjectives, pronouns, and numerals. The remaining parts of speech will be referred to as indeclinables.

**Nominals**

**Nouns**

Wherever an indefinite article is used, it is formally identical with the numeral ‘one’, e.g. bir in Turkish 〈iyyi bir ab〉 ‘a good horse’. Many languages use this device rather infrequently, e.g. Kirghiz ızakší at ‘a/the good horse’. Turkic lacks definite articles, though demonstrative pronouns may sometimes seem to be used in a similar way. Grammatical gender is also absent and thus cannot constitute an agreement factor. Even morphologically marked feminine lexical items are lacking, except a few derived with copied foreign suffixes, e.g. Turkish 〈kral-içe〉 ‘queen’, Karaim Ḳaray-ḳa ‘Karaim woman’.

Nouns may contain plural, possessive, and case suffixes. Their order and combinability are basically common to all Turkic languages, though in Chuvash possessive suffixes precede the plural suffix. Examples of inflectional paradigms are given in the individual chapters of the present volume.

The plural suffix is generally {+lAr}/{+LAr}, e.g. Tatar ḳolaḳ-lar ‘ears’, the Chuvash counterpart being {+säm}. Unmarked forms, e.g. ḳolaḳ ‘ear’, are referred to as singular forms, though they also have generic and collective uses.

Possessive suffixes typically express possession and correspond in function to English possessive pronouns. They often exhibit forms such as {+(Ị)m}, {+(Ị)ŋ}, {+(s)Ị(n)},
\{+(I)m[I]z\}, \{+(I)ŋ[I]z\}, and \{+LA[r]l(n)\}, indicating person and number of the possessor. The first- and second-person plural forms contain a plural element, \{+Iz\}.

There are usually five core cases expressed by accentable suffixes: a genitive in \{+NI[ŋ]\} or \{+(n)I[ŋ]\}, a dative in \{+GA\} or \{+(y)A\}, an accusative in \{+NI\} or \{+(y)I\}, a locative in \{+DA\}, and an ablative in \{+DAn\}. Headless genitives are created with suffixes of the type \{+K[I]\}, e.g. Kirghiz Bul at aγa-m-dï ̣-ḳï ̣ ‘This horse is my brother’s’. The nominative is suffixless, identical with the bare stem. There are many deviations from this scheme, e.g. coincidence of accusative and dative in Chuvash; of accusative and genitive in Uzbek dialects, Kumyk, and Karachay-Balkar; lack of the genitive in Yakut; and partitive use of \{+DA\} in the same language. Many case suffixes correspond in function to English prepositions. The core cases do not signal very specific relations but have rather wide functional areas. The genitive, the accusative, and partly the dative fulfill abstract-relational functions.

Certain descriptions also reckon with a more peripheral set of cases: equative (‘like’), directive (‘toward’), terminative (‘until’), comitative (‘together with’), instrumental (‘by means of’), proessive (‘for’), and comparative (‘than’). The markers of this group are mostly unaccentable. Some of them are rather like postpositions since they govern primary cases. Many similar suffixes, including several East Old Turkic ones commonly regarded as case markers, are unproductive and are only present in adverbial relicts.

Adjectives

Adjectives are not clearly distinguished from nouns in morphological respect. However, some suffixes primarily form adjectives, e.g. Turkish \{+l[I]\}, which is only attached to nouns. Adjective phrases are formed from adverbial locative phrases with suffixes of the type \{+GI\}, e.g. Uzbek yâz-dâ-gî ‘taking place in summer’ ← yâz-dâ ‘in summer’, Chuvash kun-tî ‘local’ (contraction) ← kun-ta ‘in this place’. Under foreign influence, some languages may mark adjectives with special copied suffixes, e.g. Ottoman \{+i:\}, copied from Arabic, Turkish \{+sAl\}, a neologistic suffix, Altay \{+niy\}, \{+skiy\}, Khakas \{+nay\}, \{+skay\}, copied from Russian in invariable forms.

The adjective in comparative constructions is, in some languages, followed by a comparative suffix, which may also simply signal a high degree of a property, e.g. Uzbek köp-râk ‘more’, ‘very much’. Yakut has a so-called comparative case in \{+TA:γAr\}.

Intensive forms may be formed from adjectives and adverbs with a preposed reduplication of the first syllable. Between the reduplication and the stem, an \(m\), \(p\), \(r\), or \(s\) is inserted, replacing a possible syllable-final consonant, e.g. Old Uyghur \(ap\) arîy ‘quite clean’, Uzbek yâm-yâšîl ‘quite green’, Kirghiz köp-kök ‘entirely blue’, Chuvash χɔp-χura ‘jet-black’, Turkish 〈büs-bütün〉 ‘altogether’.

Pronouns

Personal and demonstrative pronouns form a morphologically distinct nominal subclass. They often exhibit oblique stems that differ from their nominative stems, whereas most other pronouns are inflected like nouns. Gender distinctions are lacking, e.g. Bashkir ul ‘X’ = ‘it’, ‘she’, ‘he’.

As to personal pronouns, plural forms, with corresponding predicative forms, are often used for polite address. Reflexive pronouns can sometimes be used as more polite third-person personal pronouns, e.g. Turkish 〈kendi-si〉 ‘X in person’. As a rule, however, Turkic languages do not display very elaborate honorific systems.
Demonstratives mostly distinguish several deictic types for which features such as choice, distance, and visibility seem to be relevant. Most Turkic languages have at least three-way systems, e.g. Bashkir bïl, ošo, šul, without exact equivalents in the English system, ‘near’ vs. ‘farther away’. There are corresponding series of demonstrative nominals and adverbs, e.g. Turkish ğura-‘this place’, ğura-dan ‘from here’. Corresponding interrogatives are Turkish ğere-si ‘what place?’, ğere-de ‘where?’, Uzbek kayer-gâ? ‘where to?’, etc. Examples of pronominal verbs are Kazakh büyt- ‘to do this way’, Yakut 从严治党-?, Tuvan 从严治党-?, Ottoman näylâ-? ‘to do what?’, Kirghiz 从严治党 ‘What [is necessary] to do?’

Possessive pronouns are formally genitives of personal and demonstrative pronouns. They are often, but not always, used for emphasis, e.g. Turkmen men-iţ ad-ịm ‘my name’, Uyghur men-iţ kitip-lir-im ‘my books’. Especially in spoken varieties, a free possessive pronoun may also be followed by a noun without a possessive suffix, e.g. Turkish ğüş-im ‘my horse’. Independent forms are created with suffixes of the type {+KI}, e.g. Turkish ğiî-im-ki, Uzbek ğiî-ni-ki, Kazakh ğiî-di-ki, Chuvash ğiî-nî ‘ours’. There are also corresponding interrogative, reflexive, and other pronouns, e.g. Uyghur ğiî-nî ‘whose’, ğiî-ni-ki ‘belonging to what’, ğiî-ni-ki ‘belonging to myself’.

Reflexive pronouns such as ğendi, ğiî, ğet, Chuvash ğa are used attributively in the sense of ‘own’, e.g. Uyghur ğiî kiti-wim ‘my own book’, Kirghiz ğiî käl-um ‘my own hand’, Tuvan ğoîn-um-ni ğiî ‘my own work’, and in the sense of ‘(my)self’, etc., with possessive suffixes, e.g. Uyghur men(iţ) ğiî-üm, Yakut min ğe-em ‘I myself’, Tuvan ğoîn-um-ya ‘to myself’, Chuvash ğiî ğiî ‘you yourselves’, Karachay-Balkar ģe-îm ‘myself’. There are also reciprocal pronouns, mostly of the type ğiî-â-î ‘each other’.

Numerals

Modern Turkic languages normally have lexical cardinal numerals for the units 1–9, for 10–90, for hundreds, for thousands, etc. The tens 60–90 are of the multiplicative types alt-miš, yet-miš, saks-ân, doks-an; that is, they contain the digits 6–9 (altî, yet:i, sekiz, doku). Some languages use multiplicative juxtapositions with forms of on ‘ten’ for lower tens as well, e.g. Tuvan ğiî-ên ‘thirty’, Kirghiz dialects ğiî-ên ‘seventy’, Fuyû ğiî-ên ‘forty’.

Ordinals are often formed with suffixes of the type {+mîş}, e.g. Kirghiz ģe-îm ‘second’, ne-čan- şi, Crimean Tatar kač-în-ji ‘which in order?’. Chuvash uses the suffix {+mîş}. Collective numerals are formed with the type {+A:GU}, e.g. Old Uyghur ģiî-â-igail ‘three together’, Kirghiz ģe-î ‘six together’. There are also the types Tuvan {+A:AN}, e.g. ģiî-â-î ‘five together’, Khakas {+OLAN}, e.g. alt-olan ‘six together’, Uyghur {+LÁN}, e.g. ģiî-î-ä ‘two together’, and the Chuvash possessive element {+ši}, e.g. ģiî-â-î ‘two of them’, ‘a pair’. Distributives are often formed with the type {+SA:R} / {+ŠAR}, e.g. Turkish ģe-îm, Chuvash piîl-šar ‘five each’, Crimean Tatar yarîm-šar ‘a half each’.

Personal markers on nominal predicates

The first- and second-person personal markers on nominal predicates, ‘subject representatives’, indicating the person and number of the first actant, are unaccentable copula elements developed from personal pronouns, e.g. Turkish ģe-de-im ‘I am at home’,
Bashkir *Min yaðïw-sï-mïn* ‘I am a writer’, Kirghiz *Men kïrïj-zï-mïn* ‘I am a Kirghiz’. In the third person, there is mostly no personal marker as a copula, e.g. Kazakh *Dós-im žakïj adam* ‘My friend is a good man’, Khakas *Ol toyïs-cï ‘X is a worker’. In some languages, unaccentable suffixes of the type {+DIR} ‘is’ < tur-ur ‘stands’ may be used in the third person.

Negative copulas are formed with particles such as Kazakh, Kirghiz, Uyghur *ä-mäs*, Uzbek *e-mäs*, Chuvash *mar*, Turkish *değil*, Azeri *devil*, Turkmen *dâl*, Tatar, Bashkir *tügïl* ‘is not’, e.g. Uyghur *U muälːim ä-mäs* ‘X is not a teacher’, Kazakh *Men muyalïm e-mes-pin* ‘I am not a teacher’, Turkish *{Fena ďegil}* ‘It is not bad’.

The past tense copula is mostly *e-di* ‘was’ of the old verb *er- ‘to be’; e.g. Turkish *{Fena ďegil-di} < ďegil i-di* ‘It was not bad’. The Chuvash counterpart is the suffix {*i-či*}. There are also conditional copula particles of the type *e-sä ‘if . . . is’* and indirective particles such as *i-mïš* and *e-kän*. The old role of *er- has largely been taken over by copula verbs, such as *bol- and ol- ‘to be(come)*’.

**Verbals**

**Verbal morphology**

The verbal morphology is complex, comprising productive markers of actionality, voice, possibility, negation, viewpoint aspect, mood, tense, person, interrogation, etc., normally in the order given here. Long derived stems can thus be produced, e.g. Turkish *Kov-alala-n-ma-şs-ti-k* ‘We had not been persecuted’, i.e. ‘to persecute + iterative + passive/reflexive + negative + postterminal + anterior + 1PL’.

As regards actionality (*Aktionsart*), any verbal phrase has natural actional content with respect to its phrase structure.

Transformatives imply an inherent crucial limit, a natural turning point, with the attainment of which a transformation takes place, e.g. *öl- ‘to die’, yat- ‘to lie down’, ‘to lie*. They comprise two subclasses:

- Finitransformatives, in which the end of the action is the crucial limit, e.g. *öl- ‘to die’*.
- Initiotransformatives, in which the beginning of the action is the crucial limit, e.g. *yat- ‘to lie down’, ‘to lie’*

Nontransformatives do not imply any inherent crucial point, e.g. *yaz- ‘to write’*.

Actionality suffixes, modifying the action expressed by the verb stem, include markers of intensity and frequentativity, e.g. Crimean Tatar *käs-kälä- ‘to cut continuously’, Tuvan *bizi-gïlâ- ‘to write repeatedly’. Desideratives and simulatives such as Old Uyghur {*(V)G-sA*-} and {*(V)m-sïn-} are formed, e.g. *kör-üg-sï ‘to want to see*, _kel-im-sïn- ‘to pretend to come’.

Simple suffixes of this type are weakly represented in modern languages. Analytical methods of derivation are more strongly developed. As already noted, a converb of a lexical verb and a second auxiliary verb may form a verbal phrase with strong semantic fusion, a so-called postverbal construction. Such postverbal constructions have a common actancy pattern, and insertion of elements between the two verb forms is heavily restricted. The auxiliary verb, mostly with lost lexical meaning and generalized grammatical meaning, may contribute to describing the action in a more accurate manner. Such actional auxiliaries, often erroneously named ‘aspect verbs’, correspond to Indo-European preverbs and may thus be called postverbs. Examples: Uzbek *ušlȧ-p dûl- ‘to seize’ (‘to take grasping’), Uyghur *el-ip bar- ‘to lead’ (‘to go taking’), Chuvash
il-sä pïr- ‘to bring’ (‘to go taking’), Turkish 〈ol-up bit-〉 ‘to happen’ (‘to end becoming’), Karachay-Balkar ayit-jb koy- ‘to blurt out’ (‘to put saying’). The auxiliaries may specify a phase of the content of the preceding verb or indicate whether the action is lasting, repeated, momentary, attempted, e.g. Turkish 〈yaz-ip dur-〉 ‘to write permanently’ (‘to stand writing’), 〈gül-i-ver-〉 ‘to burst out laughing’ (‘to give laughing’), Uzbek yiylâ-b yubâr- ‘to start crying’ (‘to send crying’), Uyghur oku-p kör- ‘to try to read’ (‘to see reading’). There is sometimes fusion of the two verbs, e.g. Uyghur yez-įw-al- < yez-įp al- (‘to take writing’), Tuvan biz-įv-įt- < biž-įp ĩt- ‘to write down’ (‘to send writing’).

Various thematic stems can also combine with copulative verbs, such as er- ‘to be’ and bol- ‘to become’, e.g. East Old Turkic 〈-(V)r〉 bol- (‘to become doing’), indicating the transition to an intraterminal state, Turkish 〈-mĪš〉 ol- (‘to become having done’), indicating the transition into a postterminal state.

Voice is expressed by passive, reflexive-middle, causative, and cooperative-reciprocal suffixes, which modify the meaning of the preceding verbal stem and affect its actancy pattern by changing the syntactic roles of actants (see under Predications). The most common passive suffix is 〈-(V)l-〉, e.g. ört-ül- ‘to be covered’. Suffixes of the type 〈-(V)n-〉 often express the middle voice, e.g. Old Uyghur, Karakhanid al-įn- ‘to take for oneself’. Causative suffixes include 〈-(V)r-〉, 〈-GŬr-〉, 〈-(V)t-〉, 〈-DŬr-〉, 〈-(V)z-〉, e.g. öl-ńr- ‘to kill’, ye-dür- ‘to give to eat’. Cooperative-reciprocal suffixes are generally of the type 〈-(V)š-〉, e.g. kör-ńš- ‘to see each other’, ‘to meet’. These suffixes are used to express plurality in Kirghiz verb paradigms, e.g. Ḋal-įş-ti ‘They remained’, singular Ḋal-di, Jâz-iş-a-t ‘They write’, singular Jâz-a-t.

Possibility markers are postverbal combinations of converbs with auxiliary verbs, such as bil- ‘to know’ and al- ‘to take’, e.g. Kirghiz Ber-e al-a-t ‘X can give’. Most of them have developed into suffixes, e.g. Turkish 〈Ver-e-bil-ir〉 ‘X can give’.

The verbal negation suffix is 〈-MA-〉 and similar forms, e.g. Tuvan Kel-be-dį-ņ ‘You did not come’.

Verbal predicates, whether finite or non-finite, are marked with thematic suffixes expressing viewpoint aspect, mood, and tense. Certain verb forms may occur both as finite and as nonfinite items. It is important to note that they do not have identical meanings in these different syntactic functions, which has often been ignored by grammarians.

Finite forms

Finite thematic forms

Finite items constitute independent sentences and express various aspectual and modal perspectives relative to given temporal orientation points, notably the moment of speaking. Conjugated verb forms minimally consist of a verbal stem and a thematic suffix that signals such a perspective. Though most of them are morphologically nominal stems, e.g. Turkish 〈gel-ir〉 ‘coming’, 〈gel-miş〉 ‘having come’, 〈gel-ecek〉 ‘foreseen to come’, they readily fulfill the syntactic role of constituting sentences. As mentioned, however, their finite functions differ from their nonfinite ones.

The number of simple and compound viewpoint aspect-mood-tense forms is relatively high, and their designations are not standardized in the grammatical literature. Modern languages exhibit numerous past tenses, mostly more than one present tense, but seldom genuine future items.
Turkic languages make use of several viewpoint-aspect markers, which offer different ways of envisaging events with respect to their limits, that is, their beginning and their end: intraterminals, postterminals, and simple terminals. Most languages exhibit rather elaborate aspecto-temporal systems.

Intraterminals, postterminals, terminals

With intraterminal items such as presents and imperfects, the event is envisaged within its limits, i.e. after its beginning and before its end.

Some intraterminal items are more focal, putting a narrower focus on what is currently going on at the orientation point, sometimes in the sense of English progressives, e.g. Uzbek Kel-ạ-yạt-ịr ‘X is just coming’, Noghay Bar-a-yạt-ịr ‘X is just going’, Kazakh Žaz-ịp oṭịr, Uyghur Yez-iw-a-ti-du ‘X is writing’, Turkish ‘oku-mak-ta-üm’, Kirghiz oku.-da-ṃm ‘I am reading’.

Less focal items are used for events seen as ongoing within a broader period of time, for protracted, habitual, or general events, e.g. Bashkir Ḣal-shā-y ‘X works’, Noghay Bar-a-dị ‘X goes’, Tatar Yaz-a, Uyghur Yaz-i-du ‘X writes’, Uzbek Bil-ạ-män ‘I know’, Kazakh Ol Ḩal-yi ṣay Ḣaş-e-dị ‘X constantly drinks tea’, Ḳus uş-a-dị ‘A/the bird flies’.

There are corresponding past items, more or less focal imperfects, such as Turkmen Ḥa-yạ-r-dị-m ‘I was just eating’, Azeri Al-ịr-dị < Al-ịr i-dị ‘X was taking, took’, Kumyk Bar-a e-d-ịm ‘I was going’, Chuvash Šir-at-tïm ‘I was writing’. Several languages also have special habitual past forms, e.g. Kazakh Bar-ạ-tịn ‘X used to go’, Kirghiz Ṫoku.-cụ-mmm ‘I used to write’, Khakas Xiy-ịr-jan-ṃm ‘I used to read’.

With postterminal items, such as perfects, the event is envisaged after its relevant limit, i.e. typically after it has been carried out. The relevant limit varies according to the actional content. More focal items, with a narrow focus on the orientation point, are stative or resultative, e.g. Turkish ‘Öl-muş bul-un-uyou ‘X has (just) died’, i.e. ‘is in the state of having died’.

Less focal items are similar to English perfects, signaling the current relevance of a past event, e.g. Uzbek Yạz-yạn ‘X has written’, Kumyk Bar-γan ‘X has gone’, Uyghur Bu kitap-nị men oku-γan ‘I have once read this book’.

There are also corresponding pluperfects, indicating a postterminal aspect in the past, e.g. Azeri Yaz-mịş-dị-g < Yaz-mịş i-dị-k ‘We had written’, Kumyk Bar-γan e-d-ịm ‘I had gone’.

Special negative items include categorical pasts such as Uzbek Yạz-yạn-im yok ‘I have not written at all’ (‘there has not been any writing of mine’), Kazakh Kör-gen-im żok, Bashkir Kür-gän-im yok ‘I have not seen it’, Turkmen Bil-em-o:k ‘I do not know at all’, and items denoting that an event has not yet taken place, e.g. Kirghiz Kel-elek ‘X has not come yet’, Yakut Bar-a ilik ‘X has not gone yet’.

All Turkic languages have simple terminal items that present the event directly and as a whole, implying the attainment of its relevant limit: a simple past (preterite) of the type {-Dị}, e.g. Uzbek Yạz-dị-m, Chuvash Śir-dị-m ‘I wrote’.

Modal forms

Turkic also uses verbal suffixes to convey certain modal meanings with respect to the speaker’s attitude.
Imperatives exhibit different forms functioning at various levels of politeness. The thematic marker of the second-person singular is zero, e.g. Al! ‘Take!’.

Voluntatives and optatives, e.g. kör-sün, kör-gä(y) ‘X may see’, express desirable modality and often occur in purpose clauses. They have close connections with imperatives and conditionals, sometimes occurring in similar functions.

There are necessitative or obligative items of the types {-mAK}, {-(y)AsỊ}, {-mAlỊ}, e.g. Kirghiz Jön-ö-mök-püz ‘We must set out’, Tatar Bar-asį-bįz ‘We must go’, Azeri Gel-mäli-yäm ‘I ought to come’, and intentional items such as Uzbek {-mäk-čį}, e.g. Men-i kör-mäk-čį ‘X intends to see me’, Uyghur Män yaz-mäk-čį-mäń ‘I am going to write’.

The so-called aorist in {-(V)r} is mostly modal, expressing disposition, inclination, and prospectivity, e.g. Tatar Kil-är ‘X may/will come’, Chuvash Śir-i ‘X may/will write’, the latter based on the aorist (Johanson 1975) but misunderstood as a future-indefinite modality.

There are also more clear-cut prospectives or future items, e.g. Tatar Kil-äčäk ‘X will come’.

Most Turkic languages have special presumptive verb forms, e.g. Turkish ‹Uyu-yordur› ‘X is presumably sleeping’, intraterminal plus {+DỊr} < tur-ụr ‘stands’, Turkmen Ol oko-yän-nir ‘X is probably reading’, Uyghur Yäz-γan-dụ ‘X has probably written’, postterminal plus {+dü} < tur-ụr ‘stands’.

**Indirective/evidential forms**

Turkic languages also possess indirective categories, certain kinds of evidential items used to qualify the experience of the event spoken about. Indirective statements concern the conclusion regarding an event and thus do not present the event itself in a direct way. The source of information may be hearsay, inference from results, or direct experience (‘as is obvious’, ‘as it turns out’). The expression of this epistemic modification varies across languages. Postterminals such as {-mỊš} and {-(V)p-tỊr} tend to get indirective interpretations as subjective pasts, e.g. Turkish ‹Ali gel-miş› ‘Ali has [reportedly, apparently, obviously] come’, Uzbek Yäz-ipši-lär ‘They appear to have written’, Uyghur Yez-ip-ṭu ‘X appears to have written’, Kazakh Bar-ip-ṭi, Altay Bar-ip-tur, Yakut Bar-biṭ ‘X appears to have gone’.

Besides these deverbal past tense devices, there are also tense-indifferent indirective copula particles of the types i-miş and e-kän, which combine with nominal stems, e.g. Turkish i-miş/i+(y)mİš, e.g. ‹Ali gel-iyor-muş› ‘Ali is/was [reportedly, apparently, obviously] coming’, Turkmen {+mĮş}, e-ken, Uzbek e-miş, e-kän, Uyghur {i-miş}, ä-kän. The particle e-kän tends to convey the meaning ‘as is/was obvious’ or ‘as it turns/turned out’.

**Personal markers**

The most peripheric inflectional items are personal markers, ‘subject representatives’, indicating the person and number of the first actant. The dominant type of first- and second-person markers is the one used after nominal predicates: unaccentable markers of pronominal origin, e.g. Turkish ‹Gel-iyor-sun› ‘You come/are coming’, Kirghiz Kel-e-þiz ‘We come’. The third person is unmarked or sometimes marked by
an unaccentable suffix of the type \{+Di\}_r < tur-ur ‘stands’. Certain thematic stems, notably the simple past, take on accentable suffixes of the possessive type, e.g. Uzbek Kel-di-m ‘I came’.

The enclitic copula particles, developed from forms of the obsolete verb er- ‘to be’, have been mentioned. Past markers of the type e-di ‘was’ locate the thematic perspectives temporally, e.g. Turkish ‹Gel-miş-ti› ‘X had come’. The roles of indirective copula particles such as e-miş and e-kân have already been treated.

Nonfinite forms

Nonfinite thematic forms

Turkic is rich in nonfinite predicative forms based on verbal nominals (participant nominals, action nominals) and converbs. The corresponding suffixes function as thematic markers and serve to nonfinitize verbal stems. Some of them take on personal markers. Nonfinite verbals occur in the different clause types:

• Relative clauses (embedded clauses in adjunct function) based on participant nominals, e.g. Turkish ‹gel-en arkadaş› (come-PN friend) ‘the coming friend’, ‹al-diğ-im hediye› (get-PN-poss1SG gift) ‘the gift I have got’.
• Constituent clauses (embedded clauses in complement function) based on action nominals, e.g. ‹Ali’nin gel-me-si çok iyi› (Ali-gen come-an-3SG very good) ‘It is good that Ali comes’; ‹Ali’nin gel-diğ-i-ni duy-du-m› (Ali-gen come-an-3SG-ACC hear-term-1SG) ‘I have heard that Ali has come’.
• Adverbial clauses based on converbs, e.g. ‹Ali gel-ince sevin-dik› (Ali come-conv be.glad-term-1pl) ‘When Ali came we were glad’.

Participant nominals

Participant nominals refer to entities that act or undergo actions, typically carrying markers such as Turkish \{-y\}An or \{-DỊK\}, e.g. ‹yaz-an› ‘the one who writes’, ‹yaz-diğ-im› ‘what I write/wrote/have written’. Turkic participant nominals behave syntactically much in the same way as Indo-European participles, though they are verbal nouns rather than verbal adjectives. They can be used headless or as attributes to a head. When employed attributively, participant nominals are members of identity compounds of the type noun + noun, e.g. ‹mektup yaz-an kız› ‘one who writes/wrote/has written letters+ girl’, i.e. ‘the girl who writes/wrote/has written letters’.

Headless participant nominals can take on inflectional – possessive, plural, and case – suffixes, e.g. ‹söyle-diğ-ler-im-den› (say-an-PL-poss1SG-abl) ‘from what I have said’.

Many languages have special intraterminal (‘present’) participant nominals, presenting the event as current, e.g. Uzbek \{-ā\}-yât-gân, Kazakh \{-A żat-kan\}, Chu-vash \{-A\}-KAn, Khakas \{-p-ČAt-KAn\}, Tuvan \{-V\}p tur-ar, Turkmen \{-yA:n\}, e.g. Kirghiz oḳu-p jat-kan student ‘a/the student who is/ was reading’.
Participant nominals with postterminal/terminal meaning include Azeri {-mIš}, {-DIK}, {-yAn}, Turkmen {-A(ː)n}, Tatar {-GAn}, Uzbek {-Gȧn}, Chuvash {-nI}.

Prospective (“future”) participant nominals include Bashkir {-yAsAK}, Kumyk {-AžAK}, Tuvan {-Vr}, Chuvash {-As}, e.g. Kumyk oyu-žak ‘who will read’, and necessative forms such as Tatar {-As/-ysI}, Chuvash {-mA:A}, e.g. Tatar yaz-ası, Chuvash şir-mal’a ‘(necessary) to write’.

One type denotes events that have not yet taken place (‘participium nondum facti’), i.e. verbal nominal of something not yet done, e.g. Tuvan käl-gä-läk ‘not having come yet’, Altay kör-gä-läk ‘not having entered yet’, Kirghiz kör-ö e-lek ‘not having seen yet’.

Active participant nominal suffixes, e.g. {-GAn}, may often, notably in older languages, refer to entities different from the first actant of the verbs. This may yield impersonal functions and seemingly passive readings without passive suffixes, which is the basis for impersonal interpretations of relative clauses, e.g. Khakas say-an inäk (milk-PN cow) ‘a/the cow [that somebody has] milked’. In such cases, possessive markers may function in a way reminiscent of ergative markers: kör-gän-ịm ‘what I have seen’.

Action nominals

Action nominals refer to actions and are used to construct complement clauses, e.g. Turkish {-DIK}, {-yAJ̌ AK}, {-yIš}, {-mA}, Uzbek {-Gän}, {-Gän-lI}, {-yāy-gän}, {-yāy-gän-lIg-I}, {-ā-di-gän/y-di-gän}, {-I)}, Turkmen {-A(m)n}, {-jek}, Chuvash {-nI}. Chuvash also has rests of {-rI}, which goes back to *{-δUK}, e.g. sit-ri ‘its reaching’, şir-im ‘my knowing’ (Benzing 1959: 742), found in the terminal (preterite) stem {-rI}; cf. Volga Bulghar {-rU-i}/{-tU-i} < {-δUK-i}.

Action nominals are, as a rule, used with possessive suffixes as subject representatives, e.g. Turkish al-dığ-ım ‘that I take/took’ (‘my taking’). After nominal stems, corresponding copulative markers are used, e.g. forms of copula verbs such as (b)ol- ‘to be(come)’, copula particles of the type e-kän, e.g. Uzbek e-kän, e-kän-lIk, or other older derivates of er- ‘to be’, e.g. Ottoman i-dü-k, Turkmen {-dIK}. These markers also carry possessive suffixes, e.g. Turkish hasta ol-duğ-um (ill be(come)-AN-Poss1sg) ‘that I am/was ill’ (‘my being ill’).

Converbs

Converbs are adverbial forms of the verb signaling various semantic relations to the content of the superordinate clause. A few are simple, morphologically unanalyzable, e.g. (a) and (b), {-GAI}, {-GAČ}, {-sA}.

More elaborate forms are based on verbal nouns and mostly marked with adverbial cases, such as locative, dative, ablative, instrumental, equative, or with postpositions. Some converbs lack a clear one-to-one relationship of affirmative and negative forms. Intraterminal converbs are formed with (a), {-yArAK}, {-yVr} + locative, e.g. Bashkir al-a ‘taking’, Tuvan käl-ä ‘coming’, Turkish <gid-erek> ‘(by) going’. Converbs in (a) tend to occur in pairs, e.g. Yakut oqt-o oqt-o ‘running’. There are postterminal converbs including {-GAČ}, {-mIš} + locative, e.g. Bashkir al-yaθ, Tuvan al-yaś ‘having taken’. All Turkic languages possess terminal converb markers of the type (b), Chuvash {-sA}, Yakut {-A(n)}, e.g. Turkish {-yIp} in <gid-ip> ‘going (and...)’.

Conditionals may sometimes occur in finite functions.
Personal suffixes

Action nominals and participant nominals generally take on personal suffixes of the possessive type, e.g. Turkish ‹gel-diğ-im› (‘my coming’) ‘that I come/came’. Most simple converbs do not carry personal suffixes, but in Yakut they generally conjugate for person and number, e.g. bar-am-min ‘me going/having gone’. More elaborate converb endings often contain personal markers, e.g. East Old Turkic olor-duk-°m-a ‘as I sat down’.

The simple conditional mostly takes on accentable personal suffixes of the possessive type, e.g. Turkish ‹gel-se-m› ‘if I should come’ (hypothetical), which also combine with the past copula particle, e.g. Turkish ‹gel-se-y-di-m› ‘if I came’ (counterfactual). There are also combinations of nominal verb forms with conditional copula markers of the type e-sä ‘if . . . is’, e.g. Turkish ‹gel-ir-se-m› ‘If I come’.

Indeclinable word classes

The indeclinable word classes include adverbs, postpositions, copula particles, interjections, and conjunctions or similar relators signaling connections between the parts of a sentence.

Adverbs

Adverbs do not constitute morphologically well-defined categories in modern Turkic languages, e.g. Gagauz bü:n ‘today’, Uyghur bäk ‘very’, ämdi ‘now’, burun ‘formerly’, tünügün ‘yesterday’, Bashkir biyyl ‘this year’, Kirghiz beri ‘hither’. Many of them are fossilized case forms, such as old directives or instrumentals, old verbal nominals and converbs, or forms of unknown origin, e.g. Uzbek soyra ‘afterwards’, Bashkir yey-in ‘in summer’, East Old Turkic äögü-tï ‘well’, bir-lâ ‘together’. Adverbs may also be formed with productive equative suffixes, such as {-J ̆ A} or {-DAy}, e.g. Turkish ‹giz-li-ce› ‘secretly’, Uzbek bun-dȧy ‘this way’. Case forms of pronouns are often used as conjunctional adverbs, ‘adjunctors’, e.g. Kazakh son-dï ̣ḳ-tan ‘thus’. Certain Turkic languages make frequent use of converb forms as adverbs, e.g. Uyghur har-may ‘unremittingly’, yağši-la-p ‘in a friendly way’.

Postpositions

Turkic has rich systems of adpositions, grammatical relators that differentiate the relational concepts expressed by the cases. They are free word forms and, according to the left-branching syntax, postpositions. Some are homonymous with adverbs, e.g. bir-lâ ‘with’ or soyra ‘after’. Some go back to converbs, e.g. Uzbek kör-ä ‘according to’, āl-ip ‘from’, Uyghur karš-ä ‘to’. Many of them govern cases, e.g. the ablative, as in Uyghur biz-dïn burun ‘before us’, or the dative, as in Gagauz ban-a deyni ‘for me’. Some govern the genitive of personal and demonstrative pronouns, e.g. Kirghiz men-in menen, Uzbek men-(ïn) blän ‘with me’, Uyghur sän/sen-ïn üçün ‘for you’.

One kind of postposition clearly goes back to nouns, notably space nouns (nomina loci), provided with possessive and case suffixes, e.g. Uzbek äld-îm-dä ‘before me’, un-îy yän-i-gä ‘to him/her/it’. The possessive suffix may refer to a preceding noun phrase in the genitive or the nominative, e.g. Turkish ‹ev-(în) ön-un-de› ‘in front of the house’, ‹ev-(în) arka-si-n-dan› ‘from behind the house’, Bashkir öhtäł öht-tön-dä ‘on the table’, Uyghur sähär yän-i-da ‘near the town’, Chuvash tip ši-nä ‘on the ground’.
Conjunctions

Turkic languages possess few conjunctions. Even coordinative conjunctions meaning ‘and’, ‘or’, ‘but’, ‘for’, etc. are often copied from Arabic-Persian, Russian, etc., e.g. Uyghur päḳat ‘but’, Shor no ‘but’. East Old Turkic displays a few free conjunctors such as azu ‘or’; compare Tuvan azii. Many languages use enclitic particles, such as Uzbek {Đâ} in Kel-dj-dâ, ket-tî ‘X came and left’. Elements denoting ‘with’, instrumental cases or postpositions such as birlä and Turkish ‹ile›, may be used instead of coordinative devices, e.g. Uyghur ata bilän ana ‘father and mother’, Turkish ‹karga ile tilki› ‘the crow and the fox’, Chuvash nauka-pa praktika ‘science and practice’. With increasing Europeanization, pure juxtaposition without syndetic elements as ‘and’, ‘or’, etc. becomes less frequent.

Turkic clauses are embedded by means of suffixed subordinative elements, nonfinite predicative markers, referred to here as subjunctors. The use of free subordinative items, conjunctions, and relative pronouns is thus untypical. Where such items do occur, they are homonymous with interrogatives, e.g. kačan ‘when?’, kim ‘who?’, or copied from other languages. Fossilized converbs of verbs meaning ‘to say’, e.g. de-p, de-yụ̈, di-ye, te-se, te-yen, de-gan, de-gen, serve as unquoting particles placed after quoted direct speech or content of thoughts, e.g. Uzbek kel-ȧ-sȧn de-b (‘saying: you will come’) ‘with the idea that you will/would come’, ket-sịn de-b (‘saying: may he go!’) ‘in order for him to go’.

Many items referred to as conjunctions in the literature are in reality conjonctual adverbs, referred to here as adjunctors, e.g. Old Uyghur, Karakhanid an-in ‘therefore’, Kumyk şo saya-li ‘for that reason’, Kazakh son-dïḳ-tan ‘thus’, Chuvash ančaχ ‘however’, Uyghur şuŋla-š-ḳa ‘therefore’, ‘hence’.

SYNTAX

Nominal phrases

Since Turkic syntax is basically head-final or left-branching, i.e. dependents precede their heads according to the so-called rectum–regens rule, the head of a nominal phrase succeeds modifiers such as adjectival, genitival, and participial attributes. A common order pattern is demonstrative pronoun + cardinal number + adjectival attribute + head, e.g. Turkish ‹bu üç mavi kuş› ‘these three blue birds’. In languages that use the numeral bir as an indefinite article, the latter tends to stand next to the head, e.g. Turkish ‹büyük bir ev›, Uzbek kȧtːȧ bir üy ‘a big house’. There is no agreement in number or case between dependents and heads.

One type of nominal phrase is the combination adjectival attribute + noun, e.g. Turkish ‹büyük ev-ler› ‘big houses’. A second type, in which the attribute has predicative force, i.e. can take complements, is the combination of participle nominal attribute + noun, e.g. Turkish ‹bekle-yen adam› ‘the man who is/was waiting’, ‹kal-dığ-ım ev› ‘the house I stay/stayed in’; see relative clauses.

The attributive use of adverbials is limited, e.g. Crimean Tatar ačlïḳ-tan ȯlüm ‘death by starvation’, Turkish ‹taş-tan duvar› ‘wall of stone’, ‹Londra’da (otur-an) bir Türk› ‘a Turk (living) in London’, ‹halk-a (yap-ıl-an) hizmet› ‘service (rendered) to the people’. Some adverbial expressions can be used attributively with the addition of {+kị}, e.g. Turkish ‹sokak-ta-kị adam› ‘the man in the street’, ‹bu-gün-kụ gör-üş-me› ‘today’s meeting’.
Genitive constructions

In the combination genitival attribute + noun, the first element, expressing the possessor, carries a genitive suffix, whereas the head, indicating the entity possessed, is provided with a possessive suffix. Examples with third-person possessive suffixes are Kirghiz aṭ-ṭūn baš-i, Chuvash laš-a puś-i ‘a/the horse’s head’. Uzbek aðām-niŋ üy-ị ‘the man’s house’, Turkish âlegt-Ịn kitab-Ị ‘the teacher’s book’, eṣ-in kapi-ṣ ‘the door of the house’, Tatar kitap-niŋ tïš-ị ‘the cover of the book’, Bashkir kala-niŋ baksê-hi ‘the park of the town’. In Yakut, which lacks a genitive suffix, the attribute is in the nominative, e.g. kii̯i̯ jii̯-tâ ‘the man’s house’. If the head is an action noun, e.g. Turkish âlegt-İn bekle-me-si ‘Ali’s waiting’, Kirghiz kii̯i̯n-dii̯i̯ cii̯i̯s-i ‘the rise of the sun’, it has predicative force, i.e. can take complements. Genitive constructions with headless adjectives may be used to express superlativity, e.g. Uyghur aṭ-ṇiŋ yayč-si ‘the best of (the) horses’.

Compounds

The dominant type of nominal compound adheres to the possessive pattern noun + noun + third-person possessive suffix, e.g. Turkish eṣ-cënt-si ‘handbag’, cęv kapi-ṣ ‘front-door’, Turkmen yo:l hârückâ-t-i, Kirghiz jol kiyîmil-ị ‘road traffic’, Uyghur uγγur hêlk-i ‘the Uyghur people’, Kirghiz k̄̄r̄γ̄i̯z tîl-i ‘the Kirghiz language’. A possessive suffix expressing personal possession replaces the third-person suffix, e.g. Turkish eṣ-cënt-m ‘my handbag’. Unlike in the genitive construction, no element can be inserted between the nouns. Numerous cases of absence of the possessive suffix, notably in nominative forms of the compound, are observed in older and modern languages, e.g. Karachay-Balkar alma terek ‘apple tree’, compare cases such as alma terek-İn-dën ‘from an/the apple tree’. There is also a similar neologistic Turkish compound type, e.g. budun-bilim ‘(people science)’ ‘ethnology’.

Identity attribution means that two nouns referring to the same entity are juxtaposed asyndetically as qualifying attribute + head, e.g. Turkish kādîn âlegt-ı ‘woman teacher’, hâyädut polîs ‘brigand policeman’, dost-um Ali ‘my friend Ali’. The attribute often refers to materials, e.g. Turkish taş köprü ‘stone bridge’, Chuvash cůl sîr ‘stone house’, Turkmen alîn thâyat ‘golden watch’, Turkish âlîn ełma ‘golden apple’. The attribute may also be a participant nominal with predicative force, that is, the basis of a relative clause, e.g. Turkish konûs-an adâm ‘the man who speaks/spoke’, sev-diğ-im kâdîn ‘the woman I love(d).’

The asyndetic type noun + noun is also used in coordinative compounds, so-called twin words or binomes. In this case, two parallel nouns with similar meanings form a synonym compound, hendiadys, e.g. East Old Turkic i:ş kûč ‘efforts’ (‘work’, ‘strength’), or a hyponym compound to express a higher concept, e.g. Uzbek bār-îš-kel-îş ‘mutual relations’ (‘going-coming’), Karachay-Balkar al-îš-ber-îş ‘trade’ (‘taking-giving’), Uzbek âtâ-ânâ ‘parents’ (‘father-mother’), Yakut iye-aña ‘parents’ (‘mother-father’), Tuvan imïraː-säːk ‘flying insects’ (‘mosquito-fly’). This type often includes alliteration and rhyme formations, e.g. Kazakh kïjîm-keşek ‘clothing’, Turkish kâr-koça ‘married couple’ (‘wife-husband’), de-di-ko-du ‘gossip’ (‘said-laid’). Sometimes, only one of the elements has a lexical meaning, e.g. Karakhanid Turkic yaːš yoːş ‘vegetables’, ‘greens’, Turkish çoluk çoučuk ‘family’, ‘wife and children’.

Turkic languages often display echolaly constructions expressing ‘etcetera’, ‘and the like’: A given word is followed by a reduplicating echo word with an initial labial
consonant, m-, b-, or p-, which replaces a possible original consonant, e.g. Uzbek nån pån ‘bread and similar baker’s ware’.

Adjective phrases

Compound adjectives, such as Karachay-Balkar karaḳaš ‘with black eyebrows’ are rather frequent. Due to the head-final structure, adverbials precede their head in the adjective phrase, e.g. Uzbek jüdȧ issiḳ ‘very hot’, Karaim aṣṭrī kati ‘very hard’. Adjectives may also be used as heads of nominal phrases, e.g. Uzbek yăş-lȧr ‘young ones’. In older languages and some modern Siberian languages, adjectives may serve as abstracts denoting qualities, e.g. Yakut bay ‘rich(ness)’, without a suffix of the type {-lỊK}, which forms abstract nouns in most Turkic languages, e.g. Karachay-Balkar bay-lïk ‘wealth’.

Use of possessive and plural forms

In addition to its normal possessive function, a third-person singular possessive suffix may refer to a known entity or, anaphorically, to something preceding it in the discourse, e.g. Kirghiz baːr-ï ‘all (of it, them)’, Turkish ‹başka-sı› ‘the other (one)’. This limited function does not make it a definite article in the proper sense. There are often duplications of the possessive suffix, such as in Turkish ‹bir-i-si› ‘one of them’, Uzbek köp-i-si ‘most of it’. Third-person singular possessive suffixes can also have adverbializing functions, e.g. Uzbek keçȧ-si ‘at night’.

Plural suffixes mostly signal individual plurality, e.g. Turkish ‹elma-lar› ‘[single] apples’, Chuvash pürt-săm ‘(a number of individual) houses’. The singular has a broad, partly number-indifferent range of use, which also includes collective or generic reference, e.g. Turkish ‹Elma al-di-m› ‘I bought apple(s)’. Plural suffixes may also be used in an honorific sense, to express respect. Plurality expressed by cardinal numerals and other quantifiers mostly excludes agreement in the form of plural marking, e.g. Turkish ‹iki at› ‘(two horse)’ ‘two horses’. Numerators (counting words) are sometimes placed after the numeral, e.g. Turkmen dağ-ni ‘count’, Uzbek dânȧ, Kirghiz da:na ‘piece’, Uzbek bâş ‘head’ (animals), Tatar tüp ‘root’ (plants). Uzbek has numerators of the type bit-tȧ, ik-tȧ, uš-tȧ, where -tȧ means ‘piece(s)’.

The syntax of numerals

The syntax of numerals is rather regular. Complex numerals are formed by combining the primary cardinals for digits, tens, hundreds, thousands, etc. Hundreds, thousands, etc. are expressed multiplicatively, e.g. Turkish ‹iki yüz› ‘two hundred’, Tatar biš yüz ‘five hundred’, iki yüz miŋ ‘two hundred thousand’. Intermediate numbers are expressed additively, e.g. Turkish ‹on iki› ‘(ten two)’ ‘twelve’. Higher numerals precede lower ones, the highest decimal place being the leftmost one, e.g. Tatar un-bîr ‘eleven’, miŋ i:i ikä ‘1052’, Kazakh jîyîrma jeṭi miŋ beš jüţ tokson bîr ‘27,591’, Turkish ‹bin dokuz yüz dok-san dokuz› ‘(thousand nine hundred ninety nine)’ ‘1999’. Approximative numbers are often expressed by means of juxtaposition, e.g. Turkish ‹altı yedi› ‘six or seven’.

While most Turkic languages count in tens and units, Karachay-Balkar displays, as in earlier Kumyk, a vigesimal system based on the number 20 as a counting unit, e.g. Karachay-Balkar jîyîrma bile on (‘20 + 10’) ‘thirty’, eki jîyîrma bile on (‘2 × 20 + 10’) ‘fifty’, beš jîyîrma (‘5 × 20’) ‘one hundred’, on jîyîrma (‘10 × 20’) ‘two hundred’;
compare French *quatre-vingt* (‘4 × 20’) ‘eighty’. Khalaj has variants such as *ākːi otːuz* (‘2 × 30’) ‘sixty’, *ākːi kīrֳk* (‘2 × 40’) ‘eighty’, *ūc hotːuz u yIRMİ* (‘3 × 30 + 20’) ‘one hundred and ten’.

Yellow Uyghur still partly preserves an older subsystem of higher rank counting, combining the digit numeral with the numeral of the higher ten, e.g. *pər yıgirmA* (‘one twenty’) ‘eleven’, *per otus* (‘one thirty’) ‘twenty-one’.

**Predications**

The term ‘actant’ is used here to denote the potential properties of dependence-based participants, which can be morphologically realized as subjects, direct objects, and indirect objects. Dependency grammars often use the term ‘argument’ instead of actant.

A first actant can be unmarked, e.g. Turkish ‹Yaz-iyor› ‘X writes’ or realized as a nominative subject phrase, e.g. ‹Ali yaz-iyor›. Turkish ‹Yaz-iyor-um› ‘I write’ contains the personal suffix, which represents the first actant, without being the subject.

A second actant is found in Turkish ‹Mektub-u yaz-iyor› ‘X writes the letter’, for which the accusative object case is realized.

A third actant is found in ‹Ali sana mektup yaz-iyor› ‘Ali writes letters to you’ and realized by the dative case (‹sana› of ‹sen› ‘you’).

With respect to relational typology, Turkic languages adhere to a so-called nominative-accusative pattern.

There is a first actant that may manifest itself as the subject of a predication. The nominative marks the first actant of intransitive verbs, independently of semantic roles, agents, and non-agents being coded in the same way. With transitive verbs, the nominative marks the first actant ≈ mostly agent, and the accusative marks the second actant ≈ mostly patient. There are no clear tendencies to code, as in so-called active languages, agentivc complements of intransitives differently from nonagentivc ones, or to mark, as in ergative languages, the agent of transitives with a special case. Note that some postterminal verbal nominals may refer to non-agentivc first actants of intransitive verbs, whereas they refer to non-agentivc second actants of transitive verbs, e.g. Turkish ‹yanık› (‘having) burned’ ← intransitive ‹yan-› ‘to burn’, ‹kesik› (‘having been) cut’ ← transitive ‹kes-› ‘to cut’.

A Turkic predication minimally consists of a predicate. An overt subject is optional, and personal markers are often missing in the third person, e.g. Turkish ‹Ye-r› ‘X will eat’. A verbal predicate consists of a predicate core, provided with a thematic marker and mostly with a personal marker, e.g. Turkish ‹[Sen] gel-iyor-sun› ‘You come’. A nominal predicate contains a nominal or adverbial item as the predicate core, e.g. Turkish ‹Öğretmen› ‘X is a teacher’, ‹Burada› ‘X is here’.

**Actancy patterns**

The predicate can be expanded according to specific actancy patterns, which determine the overt syntactic relations between predicate core and complements. Most of these relations are signaled by case suffixes and postpositions.

**First actants**

A central first actant, typically an agent, as the source of the action, is necessary for subject realization. It may be realized overtly as a subject and/or as a personal marker as
'subject representative', e.g. Turkish ‘Ali asker’ ‘Ali is a soldier’, ‘Uyu-du-m’ ‘I have slept’. Personal markers are used whether an overt subject is present or not. Some thematic stems, however, do not take on personal suffixes, e.g. Turkmen Men gel-jek ‘I will come’, Uyghur Men yaz-yan ‘I have written’. In Salar and Yellow Uyghur, finite verb forms normally dispense with personal markers altogether, Salar Men kil-år ‘I will come’, Yellow Uyghur Sen par-ar ‘You will go’. Number agreement between inanimate subject referents and the predicate core is virtually never marked, e.g. Uzbek Esik-lår yâp-ı-k ‘The doors are closed’. With animate subject referents, there are varying language-specific rules, but there is a tendency to avoid two plural markers very close to each other, e.g. Turkish ‘Oğrenci-ler gel-di-(ler)’ ‘Students/the students have come’.

As was noted in connection with the verbal nominals, lack of a first actant referent yields impersonal predications. This is often possible without passive-marking, especially at older language stages. There are remnants of diathetically less elaborated systems, where actant relations are less explicitly marked and where subject omission may suggest that no specific first actant is meant, e.g. Karakhanid Al-ı̄n arslan tut-ar ‘[One] can catch a lion by guile’. This diathetical indifference is still common in certain types of relative clauses. Even some finite items in modern languages may be used this way, e.g. the necessitative {-mA-lỊ} in Turkish sentences, such as ‘Ne yap-ma-h?’ ‘What should one do?’

Second actants

Second actants typically represent affected or effected goals of the action. In simple active verbal clauses, second actants of transitives are realized as direct objects, typically as patients, in the form of accusative or nominative complements according to certain rules of topicality/specificity, e.g. Uzbek kitâp-nị oḳi-, Kirghiz kitep-tị oḳu-, Chuvash kınākā-nā vula- ‘to read the book’; compare the corresponding syntagms Uzbek kitâp oḳi-, Kirghiz kitep oḳu-, Chuvash kínäkä vula- ‘to read (one or more) books’.

Second actants of intransitives are realized as complements by means of adverbial cases or postpositions, e.g. the dative as with Kirghiz ğaḳ-, Karakalpak una-, Noghay yara- ‘to please’, Noghay yol-īk- ‘to meet’, Karakalpak isen-, Noghay iñan- ‘to believe’, Kirghiz oḳšo-, Karakalpak usa-, Yakut marınna- ‘to resemble’, the ablative as with Kirghiz tayman-, Azeri ğorχ-, Karakalpak ḏor-, Yakut kuttan- ‘to fear’, the locative as with Turkish ‘israr et-’ ‘to insist on’, or postpositions as with Turkish ‘ile yetin-’ ‘to be contented with’.

Third actants

A third actant may occur as a complement in the dative, as ‘indirect object’, typically the ‘recipient’, the entity that receives a ‘patient’, e.g. Turkish ‘bir şey-i bir kimse-yi ver-’ ‘to give something to somebody’, Uzbek Men-gâ kitâp-nį ber-in ‘Give me the book!’’, Kirghiz Asan maya kitêp-tį ber-di ‘Hasan gave me the book’. It can also be in other cases, e.g. in the ablative, such as in Turkish ‘bir kimse-yi bir-şey-den kurtar-’ ‘to rescue somebody from something’.

Other relations

Free adverbial constituents, not required by any actancy pattern, function as qualifiers at different levels and express location, direction, origin, means, beneficient, manner,
time, companionship, reason, etc. In addition to their abstract-relational uses, Turkic datives have local, directive, allative, and terminative functions. In some Siberian languages, the dative is also used in functions otherwise typical of the locative, e.g. Tuvan Män Kızıl-γa çurt-ta-p tur-γan män ‘I have lived in Kyzyl’. The locatives have very wide meanings of place in time or space, ‘in’, ‘on’, ‘at’. The ablatives denote, in a concrete or figurative sense, source, origin, starting point (‘from’, ‘out of’), way, channel (‘along’, ‘through’), reason, means, standard of comparison, etc. Equatives express similarity but also have mensurative and prosecutive functions, expressing extension in time and space. As noted, they sometimes serve as general adverb suffixes, e.g. Crimean Tatar sayï-ja ‘numerically’, Turkish ‹güzel-ce› ‘beautifully’, ‹Fransız-ca› ‘French’ (‘in the French way’).

Other relations are specified by various means, notably postpositions, i.e. relators that form a constituent with a given dependent and connect it with the predicate core, e.g. Turkish 〈bir kimse ile konuş-› ‘to talk with somebody’.

Manner adverbials may be expressed by equative suffixes, converses, or other means, e.g. Turkish 〈gizli-ce› ‘secretly’, 〈gizli ol-arak› (‘being secret’) ‘secretly’, 〈gizli birşekil-de› ‘in a secret way’. Many times, adverbials are unmarked, e.g. Turkish 〈bir gün› ‘one day’, 〈bir saat› ‘for an hour’.

A secondary predicative relationship in the sense of ‘being’, ‘as’, ‘in the function of’ may be established between a nominal constituent and a second copredicative nominal. Subjective predicators (‘subject adjuncts’) are often provided with esse markers meaning ‘being’, e.g. Turkish 〈Öğretmen ol-arak çalş-iyor›, Kirghiz Muyalim bol-up ište-y-t ‘X works as a teacher’. With certain transitive verbs, a corresponding secondary predicative relationship may obtain between the direct object and an objective predicative (‘object adjunct’), even without an esse marker, e.g. Turkish 〈Ali-yi başkan seç-ti-ler› ‘They elected Ali as president’.

Diathetic patterns

Diathetic relations are encoded by means of passive, causative, reflexive, medial, and cooperative-reciprocal voice markers, which systematically modify the basic actancy patterns and the roles of participants.

Cooperative-reciprocals and reflexives

Cooperative-reciprocal markers, such as {(V)š-}, express cooperation or competition of participants.

So-called reflexive markers, such as {(V)n-}, indicate that the action does not transcend the domain of the first actant referent but remains immanent, not related to any external entity (‘immanence’). The first actant may be the goal of the action (‘reflexive’), or the source of an action without a specified goal (‘deobjective’, ‘anti-transitive’, etc.). The first actant can also be the beneficient of the action (‘middle voice’), in which case the verb may govern direct objects: ‘do something for oneself’. Thus, the Tuvan reflexive form biži-t-tịn- ← biži- ‘write’ can be interpreted as ‘to write’ (deobjective), ‘to write for oneself’, and ‘to be written’. Unambiguously reflexive meanings are mostly expressed by reflexive pronouns, e.g. Turkish 〈kendi-ni öl-dür-› ‘to kill oneself’. Furthermore, the suffix {(V)n-} is ambiguous in many Turkic languages since it may also serve as an allomorph of passive markers, e.g. Turkish 〈tara-n-› ‘to be combed’, ‘to comb oneself’.
East Old Turkic \{-l°n\-\} and \{-\(\circ\)d\-\} seem to signal the middle voice, whereas \{-\(\circ\)K\-\} derives intransitives from transitives in a more general way. Many reflexive verbs have special lexical meanings, e.g. Turkish \(\text{\textless} \text{sev\textless} \) ‘to love’, \(\text{\textless} \text{sev\textless}-\text{in\textless} \) ‘to rejoice’.

**Passives**

Common to passive and causative patterns is that they signal ‘transcendence’ in the sense that the range of the action transcends the domain of the first actant, which is either the goal or the source of the action. In the first case, with passives, the transcendence is exogenic (originating from outside). In the second case, with causatives, it is endogenic (originating from within).

Passive patterns typically have one actant less than the corresponding active initial or non-diathetic pattern. The first actant of the corresponding active pattern, the initial subject, is demoted. It is not necessarily expressed, not even with passives derived from intransitives, e.g. Turkish \(\text{\textless} \text{Burada güzel yaşam\textless}-\text{n\textless}-\text{iyor\textless} \) ‘One lives well here’. With passives derived from transitives, a non-first actant of the corresponding active pattern is promoted to first-actantship, typically as patient, e.g. Turkish \(\text{\textless} \text{Ali resim çek\textless}-\text{ti\textless} \) ‘Ali took a picture/pictures’ → \(\text{\textless} \text{Resim çek\textless}-\text{il\textless}-\text{di\textless} \) ‘A picture/pictures was/were taken’.

Passivization is thus often used as a device not only for backgrounding but also for concealing the agent of an action. This function is similar to that of impersonal active constructions not referring to specific first actants. An agent may be optionally indicated by adjuncts based on postpositions, such as East Old Turkic \(\text{\textless} \text{üze\textless} \) or items copied from other languages, such as Turkish \(\text{\textless} \text{taraf\textless}-\text{in\textless}-\text{dan\textless} \) and Uzbek \(\text{\textless} \text{təmä\textless}-\text{van\textless}-\text{dan\textless} \). Some languages, e.g. Chuvash, make rather restrictive use of passives.

In languages such as Chaghatay, Uzbek, and Uyghur, passive verbs may also occur with accusative-marked direct objects, e.g. Chaghatay \(\text{\textless} \text{Ol ramaza\textless}-\text{n\textless}-\text{në\textless} \text{Xoǰand\textless}-\text{ta öt\textless}-\text{ker\textless}-\text{il\textless}-\text{di\textless} \) ‘That Ramadan was spent in Khojand’, Uzbek \(\text{\textless} \text{Čåy\textless}-\text{në\textless} \text{ič\textless}-\text{il\textless}-\text{di\textless} \) ‘The tea was drunk’, Uyghur \(\text{\textless} \text{Aš\textless}-\text{në\textless} \text{ye\textless}-\text{il\textless}-\text{gän\textless} \) ‘The food was eaten’. Here, first actant suspension by means of the passive is combined with direct object topicalization by means of the accusative.

Passive markers may also be used for pure intransitivizing, e.g. Turkish \(\text{\textless} \text{açıl\textless}-\text{\textless} \) ‘to open (intransitive)’, or to express reflexive meaning, e.g. Turkish \(\text{\textless} \text{kat\textless}-\text{il\textless}-\text{di\textless} \) ‘to attach oneself’, ‘to join’.

**Causatives**

Causative patterns typically provide one actant more than the corresponding initial non-diathetic patterns. Causative markers signal that the first actant is the source of the action as its causer (initiator, permitter).

The first actant of a corresponding non-diathetic pattern (initial subject) is demoted and expresses the causee in the function of a direct or indirect object. Causative suffixes added to intransitives yield transitives, e.g. Turkish \(\text{\textless} \text{İbrahim, Ali\textless}-\text{yi öl\textless}-\text{dür\textless}-\text{dü\textless} \) ‘İbrahim killed Ali’, ‘İbrahim caused Ali to die’. Added to transitives, they yield causative patterns in which the direct object of the corresponding non-causative active pattern may occur, e.g. Turkish \(\text{\textless} \text{İbrahim resm\textless}-\text{i çek\textless}-\text{tir\textless}-\text{di\textless} \) ‘İbrahim had the picture taken’. A causee agent, corresponding to the first actant of the non-diathetic pattern, can be optionally expressed, like the agent in passive patterns, though in this case mostly a dative complement is used, e.g. Turkish \(\text{\textless} \text{İbrahim resm\textless}-\text{i Ali\textless} ye çek\textless}-\text{tir\textless}-\text{di\textless} \) ‘İbrahim had the picture taken by Ali’.
In some languages, causative suffixes added to transitives may also imply that the first actant is the patient, the entity affected by the action, e.g. Tuvan öl-ür-t- ‘to let kill’ or ‘to be killed’ ← öl-ür- ‘to kill’. This is the meaning of transcendence mentioned earlier. The agent, the entity performing the action and corresponding to the first actant of the non-diathetic pattern, is in the dative, e.g. Tuvan Xoy börü-pa ći-dır-t-kän ‘A/the sheep was eaten by the wolf’. The first actant referent is animate, and there is an implication of disadvantage for it, though the responsibility for this is not necessarily attributed to it. Such reversive forms and patterns are widespread in Eurasian languages and present in East Old Turkic already. Without being identical to any of them, they show affinity to permissive causative constructions (‘to let do’) and also to passives (‘to be done’), since an initial non-subject constituent is promoted to subject position.

There are also complex causative-passive, causative-causative, and causative-causative-passive forms, such as Uyghur kör-su-t- ‘to be shown’, Turkish öl-dür-ül- ‘to be killed’, öl-dür-t- ‘to cause to kill’, öl-dür-t-ül- ‘to be caused to kill’.

However, causative suffixes cannot follow so-called passive suffixes unless these have antitransitive or reflexive readings, e.g. Turkish kviṛ-ıl-t- ‘to cause to curl’. There is little need to causativize passives, such as aç-ıl- ‘to be opened’, since the primary stems, such as aç- ‘to open’, function as their transitive counterparts.

Possessive constructions

Possessive constructions, corresponding to English ‘have’ constructions, are of the type possessor + genitive suffix + possessed entity + possessive suffix + bar ‘existent’ or yok ‘non-existent’, e.g. Uzbek Pul-im bär ‘I have money’ (‘my money existing’), Uyghur Dadi-sị yok ‘X has no father’. Compare, however, the Khalaj type Hat va-r:um ‘I have a horse’ with va-r: ‘existing’ + possessive suffix. There are also locative constructions of the type Kirghiz Anda kitep bar ‘X has a book’, Turkish Ali-de para var ‘Ali has money’ (‘at Ali money existing’). In nonfinite clauses, the words bar and yok are mostly replaced by a verb of the type bol- ‘to become’, ‘to be’, and its negation bol-ma-, e.g. Turkish para-si ol-ma-yar (‘the one) not having money’, para-si ol-ma-diğ-i (‘his/her not having money’) ‘that X does/did not have money’, para-si ol-ma-yarak ‘without having money’.

Comparative, equative, and similitative constructions

The comparative degree of gradable adjectives and adverbs is normally expressed by adding an ablative suffix to the segment denoting the standard of comparison, e.g. Turkish buz-dan soğuk ‘colder than ice’, Uzbek men-dan yaşşi ‘better than I’, Chuvash tu-ran pišik ‘bigger than the mountain’. The adjective may be preceded by a word for ‘more’, or, as noted, followed by a comparative suffix e.g. Turkish daha iyı, Tatar yaşşį-rak ‘better’, Chuvash pišik-raq ‘bigger’, Uyghur uzun-raq ‘longer’. Superlatives are mostly formed with adverbs such as en, Chuvash ći, in front of the adjective, e.g. Uzbek en yaşşį ‘best’.

In grammatical constructions expressing equality or similarity, e.g. ‘A is as big as B’ or ‘A sings like B’, a postpositional phrase or an equative suffix usually marks the standard of comparison (as, like), e.g. Azeri gādär, Uyghur kādār ‘so much’, Azeri kim ‘like’, Turkmen ya-li, Tatar kībįk, Yakut kurduk. Thus, ‘white as snow’ may be rendered as Karakalpak kar-day aḵ, Uzbek kår-dāy āp-pāḵ, Tatar kîr šikîl-li aḵ, Yakut xar kurduk.
mayan, etc. The standard marker may be accompanied by a reinforcing emphatic element, such as Turkish ‹tiπk› ‘exactly’, ‘just’.

Order of constituents
Since the Turkic languages are, as noted, basically head-final, the unmarked order of constituents is subject + object + predicate core. The predicate core is normally clause-final, preceded by complements and free adverbials, the subject being the first complement. Adverbials referring to the entire clause often appear initially. Postpositions per definition take the final position in postpositional phrases. Note that the order of determination within the clause is the reverse of the successive modification through suffixes within the word. The order rules are also valid for nonfinite clauses and even tend to be more rigidly observed there than in finite clauses.

Finite clauses
 Predications are realized as clauses, basic text-building units occurring in pluripredicative constructions within the limits of sentences. They may be finitized as main clauses and non-finitized as dependent clauses.

In the former case, they function as independent sentences, optimally marked for aspect, mood, tense, personal reference, and illocution. Their first actants are realized as subjects in the nominative.

In yes/no questions, an interrogation marker is placed after the whole predication or the constituent asked for, e.g. Turkish ‹Ali bugün gel-iyor mu›? ‘Does Ali come today (or does he not)?’, ‹Ali mi bugün gel-iyor? ‘Is it Ali who comes today (or who)?’, ‹Ali bugün mű gel-iyor? ‘Is it today Ali comes (or when)?’ The placement of the marker in relation to personal markers varies across languages and also within the same language to some degree, e.g. Uyghur Sen muällim-mu-sän? ~ Sen muällim-sän-mụ? ‘Are you a teacher?’; compare the only Turkish option ‹Sen öğretmen mi-sin?›.

The verbal negation can vary its scope without changing its place, whereas more mobile nominal negation particles, such as Uyghur ämäs and Turkish ‹değîl› (Chuvash mar) ‘not’ may be used specifically for constituent negation, e.g. Uyghur Beş-im ämäs, köz-ŭ̈m ayî-y-du ‘What aches is not my head, but my eyes’. Note that certain verb forms of a stronger verbal nominal nature do not use {-mA-}, but particles of this kind, e.g. Tatar Kil-ăčäk tügịl ‘X is not coming’, Turkmen Men git-ček däl ‘I will certainly not go’.

Chuvash has a special imperative negation: the postposed particle mar in the first person and the preposed element an in the other persons, e.g. An kil! ‘Do not come!’

Discourse-pragmatic functions of word order
Finite clauses often display systematic deviations from the unmarked constituent order. This versatility is motivated by modifications of the functional sentence perspective by the assignment of communicative, discourse-pragmatic functions.

Postpredicative elements
The permitted deviations often include loosening of the final position of the predicate core. The postpredicative position may be occupied by extraposed elements from the
clause, defocused constituents, often representing topics already activated, afterthoughts, etc. The elements are often detached from the preceding predicate core by an intonational juncture, e.g. Turkish «Git-ti, postacı» ‘He has already gone, the postman’. The postpredicative position seems to be a natural place for some types of sentence adverbials, for example, those expressing comments on the proposition, such as Turkish «herhalde» ‘certainly’, ‘probably’.

The postpredicative position is not the position for new information, for interrogative pronouns and adverbs, or for unmarked direct objects with specific reference. Subject pronouns found in this position cannot have topic function. Note that postpredicative elements are not confined to less carefully planned speech but have also been part of written varieties throughout the history of Turkic.

**Topic**

There are mostly no fixed syntactic configurations to the left of the predicate core. Since the syntactic relations between constituents are clear from case-marking, word-order modifications may be used for prominence relations, notably for topic and focus assignment.

As expected, the initial position is the preferred place of the sentence topic, the constituent that often contains known information and about which the rest of the predication gives new information. In rhetorically neutral sentences, it is identical with the subject, e.g. Turkish «Ali resm-i çek-ti» ‘Ali took the picture’. There are also special topicalization markers following the topicalized nominal phrase, such as Turkish «i-se», Turkmen bol-θa (‘if it is’) ‘as for’, e.g. Turkish «Ali i-se resm-i çek-ti» ‘As for Ali, he took the picture’.

Other constituents may be topicalized by taking the initial position, e.g. Turkish «Resm-i Ali çek-ti» ‘As for the picture, Ali took it’. A direct object can be topicalized by passive constructions, e.g. Turkish «Resim Ali taraf-in-dan çek-il-di» ‘The picture was taken by Ali’, but this option is less often chosen because of the devices offered by the constituent order.

**Focus**

The position immediately in front of the predicate core is used for focused constituents, offering new or relatively important information. This is the natural position for unmarked direct objects and for interrogative pronouns asking for new information, e.g. Tatar Sin kim-ni kür-di-ŋ? ‘Whom did you see?’ A non-object in this position is emphasized so that the sentence cited above, Turkish «Resm-i Ali çek-ti», may also be rendered as ‘It was Ali who took the picture’.

This device is more common than only marking focus by stress as in English, where nonsubjects normally do not take the initial position in active clauses. Another method is to use a cleft sentence with a participant nominal as subject in initial position and the focused element as a nominal predicate, e.g. Turkish «Resm-i çek-en Ali’-ydi» ‘It was Ali who took the picture’ (‘The one taking the picture was Ali’).

**Position and specificity**

In most Turkic languages, the position in front of the predicate core is open to nontopical nominative direct objects, e.g. Turkish «Ali (bir) resim çek-ti» ‘Ali took a picture’, and thus allows a formal contrast with respect to specificity. An accusative object in this
position seems to be marked as ‘specific’, e.g. Turkish ‹Ali, resm-i çek-ti› ‘Ali took the picture’, ‹Ali, bir resm-i çek-ti› ‘Ali took a certain picture’, whereas a nominative object is not. When the direct object is separated from the governing verb, accusative marking is mostly necessary, e.g. Uyghur Jawap-ni muällim bür-dị ‘It was the teacher who gave the answer’. The topicalization itself may also often suggest ‘specific’ readings.

**Participant reference**

Most Turkic languages are relatively unexplicit with respect to participant reference. Under certain conditions, actants may remain overtly unexpressed. A constituent representing an old text topic may often be omitted. Thus, anaphoric pronouns can also largely be dispensed with if the referent is assessed as identifiable from co-text and/or situational context, e.g. Azeri Gel-ır ‘X comes’. This is also true of causers and causees in causative patterns, e.g. Turkish ‹Çalış-tır-iyor› ‘X lets [someone] work’. Explicit expression is, however, normally required in a predication that starts a discourse. A subject pronoun such as Turkish ‹o› ‘he, she, it’ cannot introduce a new text topic if it occurs in postpredicative position.

**Nonfinite clauses**

Action nominals, participant nominals, and converses allow nonfinite realizations of predications as embedded clauses. The suffixes of these categories function as subjunctors, marking the clauses as embedded, much like English subordinative conjunctions and relative pronouns or adverbs. As dependents, nonfinite clauses typically precede their heads. The embedding is recursive in that the clauses may contain nonfinite clauses themselves. They may also be coordinated with each other. Their thematic suffixes occupy positions corresponding to those of aspect-mood-tense suffixes of finite clauses, but the inventories in question are different and less elaborate. For example, not all forms carry personal markers.

**Action clauses**

Clauses based on paradigmatic verbal nouns, action nominals, are complement clauses, mostly corresponding to English *that* clauses. They mostly take on possessive personal markers, and their syntactic functions in the matrix clause are marked by case markers or postpositions. The formal relationship with their subjects mostly corresponds to genitive constructions, e.g. Turkish ‹Orhan›-n bil-diğ-i ‘that Orhan knows/knew’ (‘Orhan’s knowing’). The nominative is also often used, e.g. Chuvash aça-sâm kay-nî ‘the children having gone’. In cases where the subject can take on both cases, genitive-marking tends to express specificity, much like the accusative-marking dealt with earlier, e.g. Turkish ‹para/para-nın kayb-ol-duğ-u› ‘the fact that money/the money disappeared’. There is usually a difference between factive and nonfactive action clauses. Factive complement clauses are embedded propositions having illocutionary force, allowing them to express a truth value, i.e. to be asserted or denied. They are built with suffixes, such as {-GA'n} and {-DİK} + possessive suffixes, e.g. Turkish ‹Ali›-nin burada otur-duğ-un-u söyle-iyor ‘X says that Ali lives/lived here’, Uzbek Kel-gañ-in-i bil-ā-mān ‘I know that X has come’, Aybek-nil bu kitāb-nil yaz-γañ-in-i bil-ā-mān ‘I know that Aybek has written this book’, Kirghiz Men siz-din ayli-ya bol-γon-ųγuz-du bil-em ‘I know that you have
been to the village’, Turkmen Niːräː göč-en-ịn-ị bil-e-moːḳ ‘I do not know where X has moved’. The suffixes used have various aspecto-temporal meanings. Thus, Uzbek {-ā) yāt-gān} is intraterminal, presenting the event as current, while {-Gān} is not.

Action clauses based on nominal predicates use copulative forms, such as Uzbek e-kān and Turkish ol-duk, or extended forms, such as Uzbek e-kān-lījk and Kirghiz e-ken-dījk + possessive suffixes. Forms in {-lIK} and {-DIK} go back to the copula verb ār- ‘to be’, compare Ottoman i-dīk, e.g. in Turkmen O-nụŋ aya-m-dīj-ịn-ị tana-dīj-m ‘I realized that he was my elder brother’. Suffixes of this kind can be added to participial forms, e.g. Turkmen {-A(n)-dIK} and {-YA:n-dIK} in gel-en-dīj-i ‘his/her having come’ or öl-yān-dīj-i ‘his/her being dying’, Kirghiz {-GAn-dIK} in Bala oku-yan-dīj-ịn bil-em ‘I know that the child reads’, Uzbek {-Gān-lIK}, {-yāt-gān-lIK}, etc. Such extended action noun forms are not used as attributes to form relative clauses.

Action clauses referring to nonfactive actions are based on suffixes such as {-mA}, {-Iš}, and {-Uw}, e.g. Tatar išl-i-w ‘work(ing)’, Kazakh žasa-w ‘do(ing)’, Kumyk get-iw ‘go(ing)’. They can be used to form purpose clauses, such as Turkish ‹Ali gel-mek ist-iyor› ‘Ali wants to come’. Such clauses often imply first-actant coreference with their verbal head without carrying personal markers, e.g. Uzbek Men ič-iš-ni istȧ-y-mȧn ‘I want to drink’, Turkish ‹Ali gel-mek ist-iyor› ‘Ali wants to come’.

Relative clauses

Relative clauses, nominal actor clauses, refer to participant entities to which actions are ascribed and are based on participant nominals. They can be used as the head of a nominal phrase, e.g. Turkish ‹gel-en› ‘(the) one coming/having come’, Kirghiz ayt-kan-i ‘what X has said’, Uyghur eyt-kan-lir-injiz ‘(your said [things])’ ‘what you have said’, Tuvan kör-gān-im ‘what I have seen’, Yakut ulal-ː-bat ‘who does not work’. They can also be attributed to a head in the sense of an identity attribution, e.g. Uyghur kel-gān kişι ‘a/the man who has come’, Azeri oğu-duy-um kitab ‘a/the book I read’.

The participial nominal markers used, e.g. Turkish -(y)An, -(DIK), -(y)AJAK, -(mIš), -(mIš) ol-an, Uzbek -(Gān), -(y)āt-gān, -(a-dig-ān/ydig-ān), or Tuvan -(V)r, -(GAn), are relative subjunctors comparable to English relative pronouns and adverbs. They also signal various aspecto-temporal meanings. There are thus postterminal participial nominals, as in Kazakh kel-gen kişι, Chuvash kil-ni şin ‘a/the person who has arrived’, Tuvan uş-kan iyaş ‘a/the fallen tree’, more focal intraterminal participial nominals, as in Kazakh kel-e žat-kan kişι, Uzbek kel-ā-yāt-gān kişι, Chuvash kil-ācān şin ‘a/the person just coming’, less focal intraterminal participial nominals, as in Uzbek yāz-ā-dīj-ān kişι ‘a/the (usually) writing’, prospective participant nominals, as in Tuvan kel-ir čil ‘a/the coming year’, etc. Some subjunctors have a more general terminal use, e.g. the Turkish and Azeri markers -(y)An and -(DIK). Predicates such as Turkish gör-en and gör-duğ-ū can thus be rendered as ‘who sees/saw/has seen’ and ‘whom [somebody] sees/saw/has seen’.

Coreference with the first actant

If the first actant of the relative clause is coreferential with the head, it is not signaled by any personal marker, e.g. Tatar kil-gān kişι, Chuvash kil-ni āpām ‘a/the man who has
come’. In this case, Turkish and similar Oghuz varieties use the type of relative subjunctors that do not take on personal markers, e.g. \{-(y)An\}.

The same situation obtains if the head is coreferential with the ‘possessor’ of the subject of the relative clause, e.g. Turkish \<-ev-i yan-an adam> ‘a/the man whose house is burning/burnt’, Uzbek \-an-\-si käsäl bol-\-γan bālā ‘a/the child whose mother is ill’, Kirghiz kïz-\-i suluː bol-\-γon kïsi ‘a/the person whose daughter is beautiful’. Here, the heads, \-adam ‘man’, etc., are coreferential with the genitival attributes of the corresponding constructions Turkish \-adam-\-in evi ‘a/the man’s house’, etc.

There are also similar nominal constructions, e.g. Uzbek \-kâllä-\-si kâttâ kïsi ‘a/the man whose head is big’, where kïsi ‘man’ is coreferential with the possessor of kâttâ \-kâllä ‘big head’, Kirghiz balïγ-\-i bar köl ‘a/the lake full of fish’ (‘its fish existing lake’). Possessive constructions of this kind, e.g. Uzbek \-an-\-si käsäl ‘whose mother is ill’, Kirghiz kol-\-u ačïk ‘generous’ (‘his/her hand open’), el-\-i köp ‘densely populated’ (‘its people numerous’), are sometimes called bahuvrihi compounds by analogy with the Old Indian pattern bahu vrīhi (‘abundant rice’) ‘rich in rice’, indicating somebody having much (bahu) rice (vrīhi), with the reverse order of elements in Turkic.

Coreference with other entities

The head may also be coreferential with an entity other than the first actant, i.e. another actant or an entity expressing time, location, direction, source, instrument, etc. In such cases, most Turkic languages make use of the same participant nominal and the same order of elements.

An isolated syntagm such as kör-\-gen kïsi, Chuvash kur-\-nį şin, etc. may thus in principle mean both ‘a/the person who has seen’ and ‘a/the person whom somebody has seen’. The precise relation between the modifying clause and its head noun is established by pragmatic means alone. As noted, this allows impersonal expressions that do not refer to any specific first actant referent, e.g. Uzbek bår-\-γan yer ‘a/the place [someone has] gone to’, Kirghiz jaz-\-γan kat ‘a/the letter [someone has] written’. With causatives, the agent is in the dative, e.g. Kirghiz ma-\-γa soy-dur-\-γan koy ‘a/the sheep which they [= someone] had me slaughter’. These constructions should not be confused with constructions containing passives, such as Kirghiz jaz-\-il-\-γan kat ‘a/the written letter’.

The first actant may be expressed by a subject, e.g. a subject pronoun, as in Azeri men ač-\-an ġapï ‘a/the door I open(ed)’. Uzbek men yaz-\-γan kitäb ‘a/the book I have written’, men bår-\-γan yer ‘a/the place I have gone to’, Tatar sin kör-\-gän kïsi, Chuvash äşi kur-\-nį ädäm ‘a/the man you have seen’, äşi yul-açan yurį ‘a/the song you are singing’, äpir kaya-\-gan poyezd ‘a/the train we are going in’, Kirghiz aya-m jaz-ba-\-γan kat ‘a/the letter that my father has not written’, Uyghur men oku-\-γan kitap ‘a/the book I have read’. This simple construction is common in many languages.

The first actant may also be expressed by a personal marker of the possessive kind. This marker may be added to the head of the construction, e.g. Uzbek yaz-\-γan kitäb-\-im ‘a/the book I have written’, bår-\-γan yer-\-im ‘a/the place I have gone to’, Kumyk sat-\-ib al-\-γan at-\-im ‘a/the horse I have bought’. A corresponding subject referring to a specific entity normally stands in the genitive, e.g. Turkmen men-\-iγ al-\-an kitab-\-im ‘a/the book I have bought’, Uzbek Nāvāï-\-nįγ yaz-\-γan asär-lår-\-i ‘works/the works which Navā’ï has written’, men(\-iγ) yaz-\-γan kitäb-\-im ‘a/the book I have written’, men(\-iγ) bår-\-γan yer-\-im ‘a/the place I have gone to’.

The personal marker may also be added to the participant nominal, e.g. East Old Turkic ešit-miš-\-i ‘what X has heard’, Turkish \-al-diğ-\-im ‘what I take/took/have taken’.
Turkish and partly Azeri use special types of subjunctors, {-DIK}, {-y)AJAK}, in these cases, e.g. Turkish ‹otur-duğ-um köy› ‘the village I live(d) in’, ‹gel-diğ-im gün› ‘the day I arrive(d)’. The presence of personal markers requires genitive subjects, e.g. Turkish ‹Orhan›-n gör-duğ-ü adam› ‘the man whom Orhan sees/saw/has seen’. A corresponding relativization out of possessive constructions is possible when the head is coreferential with a possessor of an entity other than the first actant, e.g. Turkish ‹baba-si-ni tan-duğ-im çocuk› ‘the child whose father I know/knew/have known’.

Thus, relative constructions, such as Turkish ‹gör-duğ-ün at› ‘the horse you see/saw/ have seen’ and ‹ye-diğ-im et› ‘the meat you eat/ate/have eaten’, correspond to the Kirghiz type *sen kör-gön at, men je-gen et.* However, even Turkish may use the latter type, notably if the first actant referent is nontopical/nonspecific and the head refers to a place, e.g. ‹su ak-an yer› ‘a place where water flows’, ‹don-dur-ma sat-il-an dükkan› ‘a/the shop where ice cream is sold’. It can also, for example, use the participant nominal in {-y)AJAK} in the impersonal way discussed earlier, e.g. ‹oku-yacak bir kitap› ‘a book to read’; compare Kirghiz *oku-r kitep*, Bashkir *uḳï-hï kitap*.

As noted, the precise relation between the relative clause and its head is not specified by the syntactic construction itself. Thus, Kirghiz *men kel-gen şaːr* means ‘the town I have come to’ or ‘the town I have come from’, and Turkish ‹taşı-n-diğ-im ev› may mean ‘the house I move/moved have moved into’ or ‘the house I move/moved have moved out of’. If necessary, the relation may, of course, be specified, e.g. by means of possessive postpositions, such as *ič-in-e* ‘into its interior’ and *ič-in-den* ‘from its interior’, e.g. Turkish *ič-in-e taşın-diğ-im* ‘into which I move(d)’ and *ič-in-den taşın-diğ-im* ‘from which I move(d)*.

**Nonpropulsive relative clauses**

Due to the left-branching subordination, prepositive Turkic relative clauses are not propulsive, i.e. they cannot advance the plot beyond the point of time represented by the head clause unless the sequence of the events is specified by other means. It is difficult to express the sentence ‘I found the house which I moved into’.

**Converb clauses**

Converb clauses, adverbial action clauses, are based on converb markers. The latter are mostly monofunctional, i.e. they do not serve to form other clause types. Some are morphologically simple, e.g. Turkish *gel-erek* ‘coming’, Uzbek *yaz-γaš* ‘having written’, whereas others may be rather complex, for example, consisting of combinations of action nominals with case markers, postpositions, or nouns, e.g. Kirghiz *kel-gen-de* ‘when arriving’, Turkish *gel-dik-ten sonra* ‘after coming’, *gel-diğ-i zaman* ‘when X comes/came’. Subjects of converb clauses are usually in the nominative. Some markers require identity between the first actants of the converb clause and the head clause, e.g. Yakut {-A(ː)n}, Turkish {-y)lp}, with few exceptions. Most markers do not require this identity, e.g. Turkish *(Ali gel-ince Osman şaşır-dı)* ‘When Ali came, Osman was surprised’.

**Semantic relations**

Converb markers express various semantic relations, a wide range of aspectual, temporal, and other relational concepts: intraterminality, postterminality, terminality, anteriority,
posteriority, temporal inclusion (‘while’), abtemporality (‘since’), terminativity and limitation (‘until’, ‘as long as’), reason (‘because’), means, instrumental (‘by’), purpose (‘in order to’), contrast (‘whereas’), accordance (‘as’), substitution (‘instead of’), preference (‘rather than’), condition (‘if’), etc.

Conditional clauses are usually based on suffixes of the type {-sA}, with personal markers of the possessive kind and copula particles of the type e-sä ‘if . . . is’. The conditional forms may contain particles and auxiliary verbs to express various temporal and other distinctions, e.g. Uyghur yaz-γan bol-saŋ e-dị ‘if you had written’. In many languages, conditional clauses may be introduced by copies of the Persian conjunction agar, e.g. Uyghur eger yaz-sa-m ‘if I (should) write’.

Subjunctors of the types di-ye, de-p ‘saying’ form other kinds of adverbial clauses, e.g. purposive and motivating causal clauses containing optatives or prospectives, e.g. Turkish ‹ev yan-sın di-ye› (‘saying: the house may burn’) ‘in order for the house to burn’, Chuvash saćir iläs tä-sä (‘saying: will buy sugar’) ‘in order to buy sugar’.

Nonmodifying converb clauses

Not all converb clauses are used in a propositionally restrictive sense, modifying the head clause semantically. Those based on markers of the {b} type, e.g. Yakut {-{A)n}, Chuvash {-sA}, Tuvin {-GAš}, may, though they are syntactically dependent clauses, represent events of equal narrative value with the event of the head clause. They can thus often be rendered with English coordinative constructions, e.g. Gül-ǖp oda-dan çıktı ‘X laughed and left the room’, Kirghiz Oku-p tüşün-dü ‘X read and understood’, Chuvash Kil-sä kur-çị ‘X came and saw it’. These nonmodifying converbs are terminal and thus propulsive, capable of ordering events linearly, e.g. Turkish ‹Ali kay-ip düş-tü› ‘Ali slipped and fell’. Beside their purely joining function, these markers may get various contextual readings, such as anteriority, cause, concession, manner, and condition. Ambiguity between converb clauses of this kind and the postverb constructions mentioned earlier, e.g. Kirghiz Oku-p tur-du ‘X read it and stood up’ vs. ‘X kept reading’, are prevented by prosodic features, notably pitch patterns.

Nonmodifying terminal converbs of this type are ideal for the discourse function of narrative linking and serve as central text-constructing units in traditional narrative styles. They allow periodic chain sentences of considerable length to be constructed, corresponding to whole text paragraphs in other styles: extended sequences of propulsive clauses, representing thematically closely interconnected narratively equal events, e.g. Kirghiz Men eriŋ menen tur-up zaryadka żasa-p kiyin-ip żu:n-up mektep-ke bar-a-żat-a-m ‘I get up in the morning, do gymnastics, dress, wash myself and go to school’. No link in such chains necessarily modifies the next one, and only the final head clause is fully equipped to permit a definitive personal, aspectual, modal, temporal, and illocutional interpretation of the chain. Different converb types may be used as text-subdividing devices signaling different degrees of thematic closeness between the events of the chain. These old and widespread narrative patterns are vanishing in more Europeanized styles.

Questions of scope

Since finite clauses are asserted as a whole, embedded modifying converb clauses are outside the scope of illocutionary markers signaling assertion. They are also outside the scope of a negation of the head clause and must take on negative markers of their own.
Negative converb markers, such as Turkish {-mA-dAn} and Tuvan {-BAyn} are modifying (‘without doing/having done’), e.g. Turkish ‹Selam ver-me-den git-tim› ‘I left without greeting’. Nonmodifying converb clauses may, however, be included in the scope of negation, e.g. Turkish ‹Gel-ip gör-me-din› ‘You did not come and [did not] see’. There are also nonmodifying negative markers of the type {-mA-yỊb}, e.g. Turkish ‹Selam ver-me-yip çık-tı-m› ‘I did not greet, but left’.

A final interrogative particle questions the content of a whole sentence, e.g. Turkish ‹Ali gel-ince git-tı-n mi?› ‘Did you leave when Ali came?’ As with all modifying adverbial constituents, the content of a modifying converb clause may be interrogated separately by shifting the position of the interrogation marker, e.g. Turkish ‹Ali gel-ince mi git-tın?› ‘Was it when Ali came that you left?’ This is impossible in most other Turkic languages.

Other forms of junction

There are also other forms of clause junction, commonly regarded as copies of Indo-European subordinative structures, e.g. postpositive clauses that modify the preceding clause or a constituent of it. They are provided with predicative markers typical of finite clauses and preceded by junctors such as kim or ki ‘who?’, ‘that’, ḳačan ‘when?’, etc.

Though such clauses may resemble English constituent and relative clauses, they often differ considerably from them. The junctor signals a close semantic connection with the subsequent clause but normally does not introduce it, e.g. Turkish ‹San-ır-ım ki, gelecek› ‘I think X will come’, Uzbek Men bil-di-m kì, siz kel-gàn e-di-ŋìz ‘I got to know that you had come’. Clauses of this type are mostly not embedded as postpredicative constituents of the preceding clause but appended to it in a looser way. In certain modern languages, such as Turkish, most imitations of this kind are not stylistically acceptable anymore.

On the other hand, languages that have been under strong Persian or Slavic influence tend to reproduce the originals in a more genuine way. Some of them make use of native junctors modeled on foreign ones, e.g. Gagauz ani ‘who’, ‘which’, ‘that’. There are even tendencies to use conditionals and optatives in the sense of Indo-European subjunctives.

Free junctors plus conditional or optative predicate cores (‘whoever’, ‘whenever’, etc.) are very often used for generalizing relative and adverbial constructions, e.g. Old Uyghur kim körk-sar ‘whoever fears’, Turkish 〈ne ol-ur-sa ol-sun〉 ‘whatever may happen’. Languages under predominantly Slavic influence prefer indicative forms in such cases, e.g. Chuvash Kìm ıslâ-mâs-t, vijl ści-mâs-t ‘Who does not work, does not/should not eat’ (present tense).

REFERENCES AND FURTHER READING

The following list includes titles in which the terminology and the analyses adopted in this chapter are elaborated on. See Johanson (2021) for more.
