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Abstract

In popular conception, Altaic is often assumed to constitute a language family, or perhaps a phylum, but in reality, it involves a historical, areal, and typological complex of five separate language families of different origins—Turkic, Mongolic, Tungusic, Koreanic, and Japonic—to which Uralic also adheres in the transcontinental context of Ural-Altaic. The similarities between the individual Altaic language families are due to prolonged contacts that have resulted in both lexical borrowing and structural interaction in a number of binary patterns. The historical homelands of the Altaic language families were located in continental Northeast Asia, but secondary expansions have subsequently brought these languages to most parts of northern and central Eurasia, including Anatolia and eastern Europe. The present review summarizes the basic facts concerning the Altaic language families, their common features, their patterns of interaction with each other and with other languages, and their historical and prehistorical context.

DEFINITION AND TERMINOLOGY

In a neutral sense, Altaic is best understood as the cover term for a group of five distinct language families whose origins can be traced to the southern parts of Northeast Asia. Linguistic expansions in the last couple of millennia have taken these languages in different directions over the Eurasian continent, including the Japanese Islands in the east, Siberia in the north, parts of the Qinghai-Tibetan Plateau in the south, and the entire Central Asian belt in the west, extending from eastern and western Turkestan to the Iranian Plateau, Afghanistan, Anatolia, and parts of eastern Europe.

The five language families that have been classified under Altaic include, in a rough west-to-east succession, Turkic, Mongolic, Tungusic, Koreanic, and Japonic. Historically, the definition of Altaic has varied, and the term has also been used to denote only Turkic, Mongolic, and Tungusic, a complex also known as Micro-Altaic or Core Altaic. To these, Koreanic and Japonic are added in a context known as Macro-Altaic. Another term recently introduced for Macro-Altaic is Transeurasian. In a truly transcontinental framework, known as Ural-Altaic, Altaic has also been linked with the Uralic language family in the west.

An essential feature of all definitions of Altaic is that the concept has to include Turkic and Mongolic, a link also known as Turko-Mongolic (Németh 1912; Ramstedt 1914–1916). From this basic link, the concept has been expanded eastward to include Tungusic, Koreanic, and Japonic, in this order. Other classifications, proceeding from east to west, operate with similar links claimed to exist between Japonic and Koreanic (Koreo-Japonic), Koreanic and Tungusic (Koreo-Tungusic), or Tungusic and Mongolic (Mongolo-Tungusic), but these links, without Turkic, remain outside of the mainstream framework of Altaic.

It is important to note that Altaic should not be mistaken for a language family in the sense language families are normally understood in the framework of historical and comparative linguistics. The terms phylum or macrofamily, as occasionally used, are similarly misleading, since they also imply the presence of common genetic (genealogical) descent, though perhaps at a deeper time level. More appropriately we may speak of the Altaic complex, or the Altaic phenomenon, with the general reservation that these terms have a variety of implications, some of which go beyond the narrow definition of Altaic.

HISTORY OF THE CONCEPT

The term Altaic (Swedish *Altaisk*) was first used in 1845 by the Finnish linguist M. A. Castrén (Castrén 1846, pp. 184–185), who understood by it the transcontinental belt of languages including Finno-Ugric, Samoyedic, Turkic, Mongolic, and Tungusic, with the possible inclusion of other eastern languages. In the same context, Castrén also used the term Uralic (Swedish *Uralsk*), by which he meant the Finno-Ugric languages. This framework immediately gave rise to the term Ural-Altaic (German *Ural-Altaisch*), first used in 1847 by Herman Kellgren, another Finnish linguist (Kellgren 1847). Both earlier and later, several other terms, including Scythian, Ta(r)tarian, and Turanian, have been used for a varying selection of Inner Asian languages more or less equal to Ural-Altaic (Orlandi 2020).

Castrén's original idea was that the Altaic languages, which in his definition also included the Uralic languages, had expanded from the Altai region in southern Siberia and western Mongolia (Castrén 1849). At the same time, he presupposed an original genetic affinity between all these languages. Although the geographical association with the Altai region no longer has any serious support, the concept of an ancient Ural-Altaic affinity at the level of a macroscopic language family or phylum is still alive and has also led to even broader speculations concerning transcontinental linguistic relationships in Eurasia in the context of the Nostratic (Dolgopolsky 1998, Renfrew & Nettle 1999) and Eurasian (Greenberg 2000–2002) frameworks.

Critical scholars already rejected the idea of a Ural-Altaic affinity in the early twentieth century (Shirokogoroff 1931), after Uralic had been defined as a separate language family consisting only of Finno-Ugric and Samoyedic (Paasonen 1917). This left Altaic alone, but the idea of a relationship between the Micro-Altaic entities was further developed by G. J. Ramstedt (posthumously 1952–1966), also from Finland. After defining what he thought was a definitively proven language family consisting of Turkic, Mongolic, and Tungusic, he worked on Korean and Japanese and ended up including the former, but not the latter, in his final version of Altaic (Ramstedt 1949). This version of Altaic was subsequently adopted by Nicholas Poppe (Poppe 1960, 1965); however, he later also included Japanese (Poppe 1975).

The work of Ramstedt and Poppe created the basis for what may be called the standard formulation of the so-called Altaic Hypothesis, also known, misleadingly, as the Altaic Theory (Poppe 1965, pp. 125–156). As soon as this hypothesis had been created and presented in a systematic form, it was criticized on several different grounds by others, including Władysław Kotwicz (posthumously 1951), Sir Gerard Clauson (1956), Gerhard Doerfer (1963, pp. 51–105; 1966), A. M. Shherbak (1966), Louis Ligeti (1971), and András Róna-Tas (1974). This led to the formation of two camps, the so-called pro-Altai(ci)sts and anti-Altai(ci)sts, of whom the former are in favor and the latter against the Altaic Hypothesis. Although the issue is still being debated, the balance has been moving in favor of the anti-Altai(ci)sts, with the last pro-Altai(ci)sts being grouped around the Nostratic and Transeurasian frameworks, both of which are tarnished by serious methodological problems.

The principal specific issue regarding which new contributions have been produced by the pro-Altai(ci)st camp after Ramstedt involves the position of Japonic, as well as its possible relation to Koreanic (Lewin 1976). The possibility of the Altaic adherence of Japonic had been proposed already by Anton Boller (1857) and Heinrich Winkler (1909) in the context of Ural-Altaic, but it was reraised by R. A. Miller (1971, 1996) and K. H. Menges (1975), followed by S. A. Starostin (1991) and Martine Robbeets (2005). Typically, the arguments and databases presented in favor of this possibility differ widely from author to author, meaning that there is no consensus concerning the actual details. The inclusion of Japanese in the Altaic context has also found some support in Japan, but more often Japanese (Japonic) has been viewed as a mixed language with several components, one of which is thought to have been Altaic (Murayama 1975, Itabashi 2003).

The anti-Altai(ci)sts have, on their side, produced several pieces of scholarship that demonstrate in detail the problems involved with the conventional comparisons either generally (Georg 2003) or between selected pairs of languages, such as Tungusic and Mongolic (Doerfer 1985) or Koreanic and Japonic (Vovin 2010). The most obvious methodological fault of the conventional comparisons is that they are carried out on a nonbinary one-to-many basis in a framework that has been termed omnicomparativism (Doerfer 1973). In this framework, lexical items and grammatical features that are present in a given Altaic language or family are routinely, often with insufficient linguistic sophistication, compared with whatever similar items or features are found in any other Altaic language or family, a method that multiplies the possibility of genetically irrelevant chance similarities.

The Altaic Hypothesis also has a political dimension. Originally created to corroborate rising Finnish nationalism in the nineteenth century, it was later adopted by other young nations, including Turkey after World War I and Korea after World War II. For these nations, the alleged Altaic identity of their national languages has become a dogma, which is often taken to the literal extreme, in that not only the languages but also the peoples are assumed to have come from a common homeland in the Altai region. This populist and pseudohistorical aspect of the issue (Logie 2019) was exploited before World War II by the so-called Turanian movement, also known as (pan-)Turanism (Levent 2015), which flourished in countries such as Hungary, Turkey, and Japan

(which at that time also included Korea). Traces of Turanian ideology can still be discerned in the Turkic-speaking republics of the former Russian Central Asia.

ALTAIC LANGUAGE FAMILIES

When taken individually, the five language families covered by the term (Macro-)Altaic are all relatively shallow. In terms of their internal diversification they are typically small or medium-sized families, with the number of independent member languages varying from two (Koreanic) to some 30 or more (Turkic). Both historical information and the type of the inherited lexicon in each family allow their origins to be dated to a period ranging, roughly, from the late Iron Age (c. 2000 BP) to the late Middle Ages (c. 800–600 BP). Due to their shallow chronology, all Altaic language families exhibit a relatively modest degree of internal diversification, a circumstance that makes it occasionally difficult to determine the boundaries between transitional dialects and separate languages.

The languages and dialects belonging to each individual Altaic language family go back to a protolanguage, which may be defined as a relatively uniform idiom spoken by a historical or prehistoric population in a relatively compact geographical area. These protolanguages can be approached by the standard methods of historical and comparative linguistics, complemented by written information from historical sources. Time levels beyond the protolanguages can be reached by using the method of internal reconstruction, which allows some aspects of what may be called preprotolanguages to be recovered. Another source of preprotolanguage-level data is offered by traces of early contacts of the individual Altaic protolanguages with each other, or with other languages. In some cases this allows us to postulate parallel branches, or paralanguages, which add at least a few centuries to the depth of the otherwise reconstructable protolanguages.

All five Altaic language families are today reasonably well documented, with up-to-date handbooks being available on Turkic (Johanson & Csató 2021), Mongolic (Janhunen 2003), and Tungusic (Vovin et al. forthcoming), as well as Koreanic and Japonic (Tranter 2012). There are also more specific diachronic treatments on the history and internal diversity of Turkic (Räsänen 1949, 1957; Johanson 2021), Mongolic (Poppe 1955, Nugteren 2011), Tungusic (Benzing 1956), Koreanic (Lee & Ramsey 2011), and Japonic (Frellesvig 2010). Collective information on the languages of the Altaic complex is mainly available in pro-Altai(ci)st formulations, in which the terms Altaic (Blažek et al. 2019) and Transeurasian (Robbeets & Savelyev 2020) are used more or less synonymously. There are also philological compendia focused on written sources in the Core Altaic languages (de Rachewiltz & Rybatzki 2010). It has to be said, however, that compared with Core Altaic, both Japonic and Koreanic remain understudied for the purposes of historical and comparative linguistics. In particular, the possibilities offered by internal reconstruction and traces of external contacts remain insufficiently exploited.

The problem with Koreanic is that it is a very shallow and internally uniform language family. Although often described as an isolate, it is better understood as consisting of at least two distinct members, Korean (proper) and Jeju (Cheju), whose mutual separation goes back to the late Middle Ages, a period that marks the beginning of the written use of Middle Korean in a native phonemic script (*Hangul*). As a language, Middle Korean is essentially identical with Proto-Koreanic, and its transformation into modern Korean(ic) involves a rather straightforward and transparent process (Martin 1992). By contrast, the earlier history of Korean (Lee & Ramsey 2011, pp. 50–99), leading back to the period of Old Korean (late first millennium AD), is obscured by the scarcity of preserved written material, though there are indications that one or more Para-Koreanic lineages may have existed apart from the one that led to Middle Korean. Even so, internal evidence allows the history of Koreanic to be traced back no further than one and a half millennia, at most.

Compared with Koreanic, Japonic is several hundred years deeper, and its division into the Japanese (proper) and Ryukyuan branches, as well as the internal diversification of the latter into six or more separate languages (Bentley 2008), allow more insights to be gained about its background. Japanese is also historically well documented (e.g., Vovin 2020), and it offers good prospects for internal reconstruction (Martin 1987). A dating for Proto-Japonic is supplied by the archeological and protohistorical context, which suggests that Japonic was introduced to the Japanese Islands as a single lineage from southwestern Korea in the late Yayoi period (approximately 2000 BP). A parallel lineage, Para-Japonic, continued to be spoken in parts of Korea, until it was extinguished by the expansion of Koreanic. Unfortunately, the linguistic data remaining from Para-Japonic are too scarce to allow them to be used for any purpose other than identification.

Mongolic and Tungusic, which each have some 10 to 15 separate languages, share many features in their external development. Both families have had a historically important and, as it seems, relatively monolithic southern branch, which in the case of Tungusic is represented by the Jurchenic (Jurchen-Manchu) lineage and in the case of Mongolic by the Khitanic (Khitan) lineage. In addition, they both have a northern branch that is responsible for most of their synchronically documented internal diversity. A difference between the two families is that the southern branch of Mongolic, which yielded the Khitan literary language, as documented in written sources from the tenth to thirteenth centuries (Kane 2009), subsequently became extinct, while the northern branch emerged as Middle Mongol, the spoken and written language of the historical Mongols (twelfth to fifteenth centuries).

Taxonomically Khitanic, which is known only from written sources preliminarily deciphered in the twentieth century (Wu & Janhunen 2010, pp. 13–48), is best identified as Para-Mongolic, while the language family containing both Khitanic and Mongolic (proper) may be termed Macro-Mongolic, though the term Serbi-Mongolic has also been used (Shimunek 2017). In a similar way, it is useful for certain purposes to speak of Macro-Turkic (Janhunen 2016), which involves the Turkic language family in the largest sense and includes both Turkic (proper) or Common Turkic and Bulghar Turkic or Bulgharic, also known as Oghuric. The Common Turkic branch, with 30+ modern languages, including the taxonomically idiosyncratic Khalaj language (Doerfer et al. 1971), goes back to a protolanguage relatively close (though not identical) to Old Turkic, a language recorded in written monuments from the seventh to thirteenth centuries (Erdal 2004). The Bulgharic branch, by contrast, is synchronically represented by a single language, Chuvash.

ALTAIC LINGUISTIC EXPANSIONS

There are multiple reasons to assume that the homelands of the five Altaic language families were located in a compact region consisting of the Korean Peninsula and the adjacent parts of southern Manchuria, possibly extending to western Mongolia and what is today northern China (Janhunen 1996, pp. 216–256). From this region, each of the protolanguages concerned started expanding outside of its original location in connection with the formation of protohistorical political centers and states, which favored population growth, military conquests, and the absorption of neighboring languages.

It seems that there were, in particular, two ethnopolitical frameworks that conditioned the expansion of the Altaic language families. On the one hand, in the western part of the homeland complex, there were the entities known in Chinese sources as the Xiongnu and the Xianbei, often characterized as tribal confederations, of which the former came to be centered on Mongolia and the latter in the Liaoxi region of southwestern Manchuria. On the other hand, in the eastern part of the homeland complex, there were the protohistorical polities of the Korean Peninsula and the

adjacent Liaodong region in southeastern Manchuria, extending northward to parts of central and eastern Manchuria.

The political and linguistic map started evolving with the coexistence and rivalry of the Xiongnu and Xianbei, as well as their interaction with the Han dynasty of China (202 BC to 220 AD). The three actors represented the three regions of Northeast Asia: Mongolia, Manchuria, and China, among which Manchuria played a role against the China–Mongolia symbiotic axis (Barfield 1989). Although all protohistorical tribal confederations are likely to have been multiethnic, both linguistic and contextual circumstances suggest that the dominant language spoken in the context of the Xiongnu was Pre-Proto-Bulgharic, while the Xianbei were dominated by speakers of Pre-Proto-Mongolic. The collapse of Xiongnu power in Mongolia (after the second century AD) led to a series of nomadic migrations and accompanying waves of linguistic expansion westward, which must have brought the Bulgharic language to the Volga, where it survived until the late Middle Ages as the language of the Volga Bulghars, from whom it was transferred to the ancestors of the modern Chuvash.

The Xiongnu were followed by the Ancient Turks (*Kök Türk*) as rulers of Mongolia. The shift from Bulgharic to Common Turkic was probably relatively easy because of the relationship of the two languages. The Turk khaganates (546–744 AD), followed by the Uighur khaganate (744–840 AD), constituted the political power that spread the Common Turkic language northward to southern Siberia, where it was divided into the later Lena Turkic (Yakut), Sayan Turkic (Tyva), Yenisei Turkic (Yenisei Kirghiz), and Altai Turkic branches (Schönig 1999), of which Lena Turkic later continued its expansion northeast to central and northern Siberia. After the transfer of the Uighur political center to the Tarim basin, the road was open to the Turkicization of the whole of Central Asia (Golden 1992). The process involved large-scale language shift in which the local populations, which had previously spoken Iranian languages, as well as, in the west, Greek, adopted a Turkic language (Janhunen 2009).

Polities formed in the Xianbei realm included the Northern Wei (386–534 AD) of the Tabghach and the Liao (907–1125 AD) of the Khitan. The Tabghach (Toba) are known to have spoken a (Para-)Mongolic language (Ligeti 1970) and may be seen as the more or less direct linguistic ancestors of the Khitan. The difference between Khitanic and Mongolic is, however, considerable, which means that the Mongolic branch must have been formed by an early expansion from the Liaoxi region to northwestern Manchuria, probably in the context of the protohistorical Shiwei, a northern branch of the Xianbei. This became the homeland of the historical Mongols (Janhunen 2008), who after the collapse of the Uighur khaganate (840 AD) filled the political vacuum of Mongolia and created the Mongol empire (eleventh to fourteenth centuries), which ultimately resulted in the expansion and diversification of the modern Mongolic languages (Janhunen 2020). Recently, epigraphic evidence has been brought forth suggesting that Mongolic, or Para-Mongolic, was in Mongolia already prior to the historical Mongols (Vovin 2019), but the issue remains unresolved.

The linguistic history of the Korean Peninsula may be viewed in direct relationship with the protohistorical political division of the region into the so-called Three Kingdoms (*Samguk*): Koguryŏ (*Goguryeo*) in the north, Paekche (*Baekje*) in the southwest, and Shilla (*Silla*) in the southeast. Opinions diverge widely concerning the linguistic identity of these three polities, to which a fourth one, Kaya (*Gaya*) was joined in the south. However, Koguryŏ (37 BC to 668 AD), which extended from northern Korea to southern Manchuria, was located in a territory later occupied by its successor states Bohai (698–926 AD) and Jin (1115–1234 AD), the latter of which was the context of the Tungusic Jurchen. As there is no reason to assume a major linguistic change in the region, it is more than likely that Koguryŏ was also dominated by Tungusic speakers. From this southern homeland, Tungusic spread along the Sungari to the Middle Amur basin, which

then became the secondary homeland for the northern branch that later expanded all over Siberia (Janhunen 2005, 2012).

Compared with Koguryŏ, Shilla and Paekche were later formations (from the fourth century AD), though they were preceded by local tribal unions known as the Three Han (*Samhan*). As it was Shilla that ultimately subjugated both Paekche and parts of Koguryŏ, thus politically unifying the Korean Peninsula, it is obvious that it was also the source of Koreanic, which finally replaced the other languages once spoken in Korea (see also Unger 2001). Paekche, by contrast, is likely to have been dominated by Para-Japonic speakers, who had ethnopolitical ties across the Korean Strait with the Japanese Islands. Pockets of Para-Japonic speakers were still present in Korea after the political unification of the peninsula, as is confirmed by toponymic material in the dynastic history of the Three Kingdoms (*Samguk Sagi*). This material is often misunderstood as representing the language of Koguryŏ (Beckwith 2004), but it actually points to the former territory of Paekche (Toh 2005).

The expansion of Japonic from Korea to the Japanese Islands was apparently a process lasting for several centuries, but the dominant position of Japonic in Japan was confirmed only by the consolidation of the first Japanese state, conventionally known as Yamato, during the Kofun period (third to sixth centuries AD). Thanks to their access to more advanced methods of food production (especially rice cultivation), the population of immigrant Japonic speakers soon exceeded in size the Pre-Yayoi indigenous population of the Japanese Islands, whose languages had evolved in the context of the Neolithic Jomon culture (Hudson 1999). As a result, Japonic ultimately replaced virtually all of the former insular languages, with only one lineage, Ainu, surviving to historical times (cf. Shibatani 1990).

ALTAIC AS A TYPOLOGICAL SPHERE

The geographical closeness of the homelands of the five Altaic language families explains the fact that the Altaic languages share a conspicuous structural similarity, which may be generalized under the notion of Altaic typology. This similarity, however, also includes the Uralic languages. At the time of the Altaic protolanguages (approximately 1000 to 2000+ BP), the Uralic language family, which has a much more substantial depth, was already represented by nine distinct branches, ranging from Finnic and Saamic in the west to Samoyedic in the east (Grünthal et al. 2022). From this point of view it would be more appropriate to speak of Ural-Altaic typology, but for the sake of brevity and convention we may classify the Uralic languages as typologically Altaic in reference to the large Transeurasian areal context that may also be termed the Altaic typological sphere.

Altaic as a typology is firmly anchored in its areal environment, and its nature can be understood only in comparison with other typologies. In East Asia, Altaic typology contrasts with Sinitic typology, with the former being areally focused on Northeast Asia and the latter on Southeast Asia. Although Sinitic typology is prototypically thought to be associated with Chinese, as the term implies, it is most prominently present in languages distributed south of Chinese, including Hmongic (Miao-Yao), Taic (Tai-Kadai), and Vietnamese. Strictly speaking, Chinese is divided between the Altaic and Sinitic spheres, with the northern and western varieties (Mandarin Chinese) being more Altaic and the southern varieties (Cantonese and others) more Sinitic (Szeto & Yurayong 2021). The fact that Chinese has historically undergone a process of Altaicization was pointed out long ago (Hashimoto 1986), but it is today obvious that this process was preceded by a period of Sinicization. All of this means that typologies can be acquired by language contact.

Another point of contrast is offered by the so-called Pacific Rim typology, a controversial concept that covers some of the specific features of the non-Altaic languages of Northeast

Asia and Northwest America (Bickel & Nichols 2006). On the Asian side, these languages are conventionally labeled as Paleo-Asiatic or Paleo-Siberian, among which the two that have most often been considered in the context of Altaic are Ainu (Kurilic) in Japan and Ghilyak or Nivkh (Amuric) in the Amur basin and on Sakhalin. There is, indeed, no doubt that these languages show substantial structural differences as compared with Altaic typology. Even so, the circum-Pacific features quoted, in particular, from Ainu (as in Bugaeva et al. 2021), are conspicuously shallow and do not favor the assumption of wider historical or areal connections, while Ghilyak seems to have three typological layers, suggesting that its original structure has secondarily undergone both Altaicization and de-Altaicization (Gruzdeva & Janhunen 2020).

The phenomenon of Altaicization shows that Altaic typology is not a stable property of languages. It is also not a property reserved for the languages conventionally classified as Altaic. Rather, it is a typological orientation that can be both acquired and lost depending on the circumstances. Even so, it has been an expansive typology, in that the expansions of the Altaic language families, as well as of the Uralic languages, have brought it to regions where it was not originally present (Janhunen 2007). In the west, the principal contact zone of Altaic typology has been formed by the Indo-European languages, once widely spoken all over the Central Asian zone. In these regions, Altaic typology prevails surprisingly well, without having been massively modified by the typological impact of the linguistic substratum. Even under strong cultural influence and bilingualism, as in the Turkic languages spoken in the Islamic sphere, the basic properties of Altaic typology remain largely intact.

There are, however, examples of Altaic languages becoming de-Altaicized, meaning that they have acquired a significant number of non-Altaic features due to contacts with languages representing a different typology. This is the situation in areas where Altaic typology is involved in a Sprachbund situation, with a mutual structural levelling as a result. A case in point is the Amdo (Gansu-Qinghai) Sprachbund, located in the Upper Yellow River region at the border between China and Tibet, where Turkic, Mongolic, Bodic (Amdo Tibetan), and Sinitic (Northwest Mandarin) languages have been in intensive contact for centuries. While the local varieties of Chinese show traces of rather profound Altaicization, the Altaic typology of the Turkic and Mongolic languages in the region has also been obscured by the introduction of a strong component of Bodic and Sinitic features (Szeto 2021).

Since, consequently, Altaic typology can be both lost and acquired, it is logical to ask whether the actual Altaic languages, or some of them, might also have acquired this typology secondarily, that is, whether their observed adherence to the Altaic complex might actually be the result of a prehistoric process of Altaicization. This possibility is particularly obvious in the case of Japonic, which is in many respects the most typologically aberrant Altaic language family. Internal reconstruction allows a layer to be distinguished in Pre-Proto-Japonic that is more similar to Sinitic than to prototypical Altaic (Janhunen 1997). It has, indeed, been suggested on lexical grounds that Japonic, which spread to the Japanese Islands from Korea, may have arrived in Korea from the East Asian continent, where its original typological environment was certainly non-Altaic (Vovin 2021). In fact, both Japonic and Koreanic seem to have undergone circles of typological transformation, involving both Altaicization and de-Altaicization (Janhunen 1999, Yurayong & Szeto 2020).

Just how Altaic a language is typologically also depends on how it is described. Korean and Japanese are examples of languages that have often, especially after World War II, been described in frameworks that tend to obscure or distort their Altaic features. This is mainly because the traditions of Anglo-American grammatical analysis and terminology have been blindly transferred to these languages without considering their actual typological profile. When properly described

in the tradition of Altaic Studies, the modern forms of both Korean (Ramstedt 1939) and Japanese (Kiyose 1995) turn out to be fairly regular (Ural-)Altaic languages. This does not mean, however, that their prehistoric ancestors must have been equally Altaic in their typological orientation.

PROPERTIES OF ALTAIC TYPOLOGY

When it comes to the concrete properties of Altaic typology, they are best observed at the level of the protolanguages, for within each Altaic language family there is a considerable synchronic diversity as to how well the individual characteristics of Altaic typology are manifested in each given modern language. The number of structural features shared by all the Altaic protolanguages is surprisingly small, and many of these features are rather trivial and universally common. A very general characterization of Altaic typology would be that these are languages with a relatively simple phonemic and phonotactic system, a rich agglutinative suffixal morphology, and a verb-final syntax with a nominative-accusative argument structure (SOV), as well as with morphologically expressed adverbial forms of the verb, or converbs, linking subordinated clauses to the main clause.

A common property of all Altaic languages, including their corresponding protolanguages, is the interaction between nominalization and predicativization. All Altaic languages exhibit a grammatical distinction between nominals and verbs (verbals), but verbs in finite predicative position are normally not used as such, except, in some languages, in the function of imperatives. Instead, they occur with a nominalizing suffix, a feature sometimes referred to by the somewhat confusing terms verbalization and insubordination (Malchukov & Czerwinski 2021). This means that nominalized forms of verbs play a central role in the grammar. Typically, these forms, conventionally known as participles, are multifunctional entities, which are used in the roles of independent head nouns (infinitives), adnominal modifiers (participles proper), and finite predicates (cf. Yamakoshi 2014). With transparent case marking, they also occur as nonfinite predicates, or quasiconverbs, which, when fully grammaticalized, are the source of actual converbs (proper).

There are, however, also several features that divide the Altaic languages, suggesting that some of them may not have been so Altaic in the past. A selection of such features is presented in the following sections with a focus on phonology and morphology.

Morpheme Structure

The prototypical roots in most Altaic families are of the types (C)VC or (C)V(C)CV for nominals and (C)V for pronouns and auxiliaries, though the type (C)V is marginally also attested in the regular lexicon and may have been more common in the past. Clusters of two consonants are originally permitted only in medial position. Secondary deviations from these patterns are observed in the modern languages, but more importantly, Proto-Japonic differed from all the other Altaic protolanguages in that it had predominantly monosyllabic basic roots of the types (C)V(i) for nominals and (C)VC for verbs. Moreover, the verbal roots were always followed by a suffixal vowel, meaning that the language had only open syllables, a property still retained by modern Japanese, with the modification that the language also has two syllabic consonants (nasal and glottal).

Consonant Paradigm

All Altaic families may be said to exploit four places of articulation (labial, dental, palatal, velar), with sibilants placed in the palatal set, as well as five manners of articulation (nasals, stops, fricatives, glides, liquids). A fifth place of articulation, postvelar or uvular, is secondarily present in several modern languages due to language contact and internal developments. In other respects, there are considerable differences, especially between the Core Altaic languages and Koreanic and Japonic.

The Core Altaic consonant paradigm is best illustrated by Proto-Tungusic, which had two sets of stops, strong (p t c k) and weak (b d ɟ g); two fricatives (s x); four nasals (m n ŋ); two glides (w j); and two liquids (l r). Pre-Proto-Koreanic may have had a rather similar system, though it later underwent both simplifying and complicating developments, among which the origination of two additional sets of stops, aspirated and reinforced, was the most important. Japonic originally had a very simple paradigm with only 13 segments, consisting of four basic obstruents (p t s k), four prenasalized obstruents (mb nd nz ŋg), two nasals (m n), two glides (w j), and one liquid (r). Both the feature of prenasalization and the lack of a distinctive velar nasal set Japonic apart from the rest of Altaic.

Consonant Phonotactics

All Altaic languages have systematic restrictions for the liquids, which are generally not permitted in initial position, except for the lateral (l) in Tungusic and, secondarily, in Mongolic. Tungusic is also the only Altaic language family that permits the velar nasal (ŋ) in initial position, a feature that has areal connections elsewhere in both Northeast and Southeast Asia. The original weak obstruents in Koreanic (later lost), as well as the prenasalized obstruents in Japonic, were permitted only in medial position, a restriction that may point to the secondary origin of these segments.

Vowel Paradigm

The original vowel systems of Turkic, Mongolic, Tungusic, and Koreanic were closely similar, in that they all consisted of eight basic segments, including two high and two low rounded vowels (u y o ø) and two high and two low unrounded vowels (ɨ i a e), though for Turkic an additional distinction between low and mid-high unrounded vowels (a ɛ versus ə e) has also been reconstructed. Both Proto-Turkic and Proto-Tungusic had distinctive long vowels, as well as, possibly, sequences of two separate vowel qualities. Secondary mergers, especially of the two unrounded high vowels (ɨ i), have reduced the qualitative paradigm in Mongolic, Tungusic, and Koreanic, but the original system is synchronically well retained in most Turkic languages. While all of this is fairly uncontroversial, it is more difficult to reconstruct the original Japonic vowel system. With estimates ranging from four to eight, it is perhaps reasonable to postulate six primary vowels (u o a ə e i) and two diachronically secondary vowels (ɛ ɨ) (cf. Vovin 2020, p. 45), of which the distinctiveness of three vowels (ə ɛ ɨ) was later lost. What is in any case clear is that the vowel systems signal a clear difference between Japonic and the other Altaic language families.

Vowel Harmony

All Altaic language families, with the exception of Japonic, have a progressive vowel harmony that contains both the root and the suffixes. In the eight-vowel system, the vowels are divided into two mutually incompatible classes, conventionally identified by the phonetically neutral terms male vowels (u o ɨ a) and female vowels (y ø i e). The phonetic realizations of the two classes vary, in that in the west (Turkic, western Mongolic, western Tungusic), as also in Uralic, they are opposed on the front (palatal) versus back (velar) axis, while in the east (eastern Mongolic, eastern Tungusic, Koreanic) a difference in height and tongue root position is involved. The two types are also referred to as palatal-velar harmony (PVH) and tongue root harmony (TRH), respectively. Strictly speaking, the difference has little relevance as long as the number of distinctive segments in the paradigm remains unchanged, but the question as to which type of harmony is more original has become an issue of dispute between those favoring the western type (Janhunen 1981) and those favoring the eastern type (Ko 2018, Ko et al. 2014). Areally, TRH may be seen as a Pacific Rim feature since it is also present in other languages to the north (Amuric and Chukotic). Even

so, at least Mongolic and Tungusic must originally have had PVH, which, in a process of vowel rotation, was transformed to TRH in the eastern members of these language families (Barrere & Janhunen 2019). Again, the fact that Japonic remains outside of this phenomenon suggests a major typological split within the Altaic complex.

Tonality

Prototypically, Altaic languages have no tones, nor any other phonologically distinctive suprasegmental properties. Tonal distinctions, popularly known as pitch accent, are, however, present in Japonic, where the phenomenon has a wide range of realizations in the modern idioms (de Boer 2010). It seems that the monosyllabic roots of Pre-Proto-Japonic were marked by two [(C)VC] to four [(C)V] tones, while the creation of bi- and polysyllabic stems by compounding and derivation resulted in the synchronically observed relatively complex tonal patterns. As the Japonic tones cannot be shown to be due to external influence, they must be relatively original. A similar system of tonal distinctions, partly enhanced by Chinese but also connected with internal developments, was present in Middle Korean, as still preserved in a few dialects. The Korean tones are, however, secondary (Ramsey 1991) and may originally have arisen under the influence of continental Para-Japonic. Japonic is, thus, the only Altaic language family with endemic tones.

Property Words

An important division line within the Altaic complex that separates Core Altaic from Koreanic and Japonic is the status of property words, or adjectives. In all the Core Altaic language families, adjectival meanings are expressed by nominals, which are most typically used as modifiers before a head noun but also occur as independent nominal headwords and nominal predicates. In Koreanic, by contrast, all property words are static verbs, or verbal adjectives, which, when occurring in adnominal position, are used in a participial form. For this detail, Koreanic is reminiscent of Amuric, as well as possibly, though less transparently, Chinese. In Japonic, most adjectival meanings are likewise conveyed by verbs, or the so-called inflected adjectives, though there are also nominal or uninflected adjectives (Vovin 2020, pp. 377–406). Importantly, however, the Japonic static verbs are all derivatives containing a verbalizing suffix (-k-), and in many cases, the adjectival meaning can also be expressed by the corresponding nominal stem. This means that the verbality of adjectives in Japonic must be secondary. In all likelihood, this is a feature that was acquired by Japonic during its interaction with (Pre-Proto-)Koreanic at the time when both lineages were still interacting on the Korean Peninsula.

Grammatical Gender

Grammatical gender, in the sense it is known from, for instance, the Indo-European languages, is not characteristic of Altaic typology, and even the pronominal distinction between he and she is absent in the Altaic languages, unless it has been secondarily introduced as a marginal feature (as in modern Japanese). From this point of view, it is surprising that the Para-Mongolic Khitan language had a systematic distinction between masculine and feminine forms in both adnominal modifiers and finite verbs of the past tense range (Kane 2009, pp. 48, 144). Although the details of this phenomenon are still unknown, it seems to have been an original feature, a conclusion confirmed by the fact that Mongolic (proper) also has traces of gender-specific morphology. Apart from feminine forms of color terms and the numeral two (Poppe 1955, pp. 239–241), Middle Mongol had several finite forms of the verb, again of the past tense range, that were differentiated by gender (Weiers 1969, pp. 146–159). As gender is a feature alien to all neighboring languages, both Altaic and non-Altaic, its historical background in Mongolic remains enigmatic.

Number Marking

The use of a fully grammaticalized obligatory suffixal plural marker is typical of Turkic, and also of Uralic, although the Common Turkic plural suffix itself is secondary (Georg 1990). Tungusic likewise favors obligatory plural marking, though southern Tungusic is transitional toward Mongolic, which uses plural marking only for emphatic and individualizing functions, while the basic form of a noun with no marking can be used as a generic plural. Koreanic and Japonic might perhaps better be said to have quasi-plural collective markers (Lee & Ramsey 2011, pp. 174–175), which moreover, are used with lexical restrictions (Vovin 2020, pp. 110–125). In a number of lexicalized examples, Japonic also uses reduplication to convey plural meanings. All of this corresponds to the well-established areal fact that morphological synthesis in Eurasia tends to increase toward the west and north, while the languages distributed in the east and south, also within the Altaic complex, exhibit a more analytical typology (Austerlitz 1970).

Case Marking

The number of morphologically marked cases in the Altaic languages varies from just a few (in southern Mongolic and Manchu) to some 15 (in northern Tungusic). In Koreanic and Japonic it is often difficult to distinguish case suffixes from clitics and particles, but the analysis of all case markers as particles (Martin 1992, pp. 282–283) is certainly wrong. The functions expressed by the cases are typically grammatical, local, or modal, though many cases are multifunctional. The case systems signal two important divisions within the Altaic complex. First, in the local cases, the distinction between the locative (where?), ablative (whence?), and dative (whither?) functions are grouped in two different ways in Core Altaic, with Turkic opposing the dative to a locative-ablative case (Räsänen 1957, pp. 61–62) against Mongolic and Tungusic, which oppose the ablative to a dative-locative. This may suggest that the two systems originated in different areal contexts. A similar opposition exists between Koreanic and Japonic, in that the locative function is combined in Koreanic with the ablative (Martin 1992, pp. 503–504) and in Japonic with the dative. Second, Koreanic and Japonic differ from the other Altaic families in that they use overt case marking for both the nominative and the accusative, while the other families of the Altaic complex use the unmarked nominal stem in the function of the nominative. Moreover, Koreanic and Japonic feature a separate topic marker, which replaces the nominative case marker (and can be combined with other case markers) in sentences built in the framework of topic prominence. Topic marking with less grammaticalized elements is also present in Mongolic and Tungusic.

Person Marking

Suffixal person marking of actor (on finite predicates) and possessor (on nouns) was present at the protolanguage level in Turkic and Tungusic. Due to the use of nominalized forms of the verb as finite predicates, the two sets of person markers, though originally distinct, have in many modern languages been confused, and the system has also undergone constant recreation, especially in Turkic (Johanson 2021, pp. 455–460, 619–623). In both language families, the person markers are diachronically connected with the personal pronouns, but secondary developments have in some cases distanced them from the pronominal forms, suggesting that their suffixalization was completed relatively early in the corresponding preprotolanguages. Analogous markers are also present in those Mongolic languages that are spoken in the neighborhood of Turkic (in the west) or Tungusic (in the north), but person marking in Mongolic is a recent innovation that appeared only during the Middle Mongol period and is still synchronically not fully present in several modern languages. Koreanic and Japonic, on the other hand, lack person marking altogether, an obviously areal feature that also extends to most varieties of Manchu.

Negation

Negation is another feature for which the Altaic language families use different strategies. For the negation of finite predicates, Turkic and Japonic use the morphological strategy with a postverbal suffixal negation marker, while Mongolic and Koreanic originally had one or more preverbal negation particles, and Tungusic, like Uralic, has a fully conjugated negation verb combined with an invariant connegative form of the semantic main verb. The general trend to express grammatical functions by suffixes has, however, led to the secondary origination of postverbal suffixal (or postclitical) negation markers in Mongolic and Koreanic, as well as in some forms of Turkic and Tungusic.

Summarizing the selection of features described in this section, we can see that Japonic differs substantially from the other Altaic language families on as many as five points: morpheme structure, consonant paradigm, vowel paradigm, vowel harmony, and tonality. Japonic and Koreanic, as opposed to Core Altaic, are similar on several details concerning number marking, case marking (marked nominative), and (the absence of) person marking, although Korean conforms with Turkic on the system of local cases (locative-ablative). Korean stands originally alone with regard to the verbality of property words, secondarily followed by Japonic, while Mongolic is the only family showing (traces of) grammatical gender. Tungusic has some phonotactic properties (initial velar nasal and lateral) absent in the other Altaic language families. The strategies of negation divide the Altaic complex into three groups: Turkic and Japonic, Mongolic and Koreanic, and Tungusic.

MATERIAL EVIDENCE

The Altaic Hypothesis was originally based on the structural similarity of the Core Altaic languages, supported by material similarities in the lexicon. A further analysis of the material similarities revealed a number of regular correspondences, reminiscent of sound laws, as typically observed between languages descending from a common protolanguage. On this evidence, the pro-Altai(ci)sts concluded that the Core Altaic languages must be related to each other in the context of a language family. However, the correspondences exhibited by the Core Altaic languages are also accepted by the anti-Altai(ci)sts, who maintain that they are no proof of linguistic relationship. In fact, it is not rare that loanword corpora show perfectly regular sound laws, a good example being offered by the Sinitic components in the lexicon of Korean (Sino-Korean) and Japanese (Sino-Japanese).

The fact that the lexical corpus shared by the Core Altaic languages is a result of borrowing has been confirmed with three separate lines of argumentation. First, the Core Altaic languages do not share any nonborrowed items of basic vocabulary (Georg 1999/2000, Erdal 2019). An exception is formed by a few pronominal roots, notably first-person *mi/*bi and second-person *ti/*si, which, however, have a wide distribution all over Eurasia and are conditioned by nongenetic factors of language evolution (Nichols 2012), as well as, possibly, contact (Janhunen 2013). Second, the lexical items shared by the Core Altaic languages show a clear distributional pattern, in that they are divided into items shared by Turkic and Mongolic, or Mongolic and Tungusic, or by all the three families but not by Turkic and Tungusic. This indicates that the basic flow of loanwords was directed from Turkic to Mongolic to Tungusic (Doerfer 1985, pp. 274–283). Third, there is a clear isogloss, the so-called rhotacism–lambdacism, which shows that the oldest layer of loanwords from Turkic to Mongolic, conventionally classified as Proto-Altaic, actually derives from Pre-Proto-Bulgharic, a prehistoric language (of the late first millennium BC) that coexisted with Pre-Proto-Mongolic, apparently in the context of the Xiongnu–Xianbei interaction.

Rhotacism–lambdacism is understood to refer to the correspondence of Common Turkic [z] and [ʃ] to Bulgharic (Chuvash) and Mongolic [r] and [l], respectively. Rhotacism, in particular, is a regular correspondence observed in a large number of items, and it is conventionally explained by reconstructing a distinct protosegment, a palatal vibrant <ŕ>, an explanation that goes against universal trends of phonetic development. In fact, it has been shown that the correspondence derives from the regular sibilant *[s], which, in the position after long vowels and bisyllabic sequences, developed into [r] in Bulgharic and [z] in Common Turkic (Shherbak 1970, pp. 83–88). The failure to recognize this simple combinatory sound law divides Altaists up to the present day between rhotacists and zetacists, of whom the latter assume that the development was from vibrant to sibilant, rather than vice versa. Rather unexpectedly, some anti-Altai(ci)sts have also joined the zetacist camp (Doerfer 1988). The situation with lambdacism is different, for it requires the reconstruction of a separate protosegment, which most probably was a palatal (palato-alveolar) sibilant *[ʃ], though the conventional reconstruction of a palatal lateral [ʎ] also has support (Johanson 2021, pp. 399–401) in spite of its obvious phonetic unlikeliness. Incidentally, if we accept the rhotacist line of argumentation, a terminus post quem for the development is provided by the word for 'stirrup', which shows rhotacism in Bulgharic (Chuvash) and possibly in Mongolic (if the etymology is accepted) and cannot predate the invention of the stirrup (in the first millennium BC). This allows us to date not only the early Turko-Mongolic contacts but also the separation of the Bulgharic and Common Turkic branches of Macro-Turkic (Róna-Tas 1972).

It is, then, obvious that the old layer of Turkic borrowings in Mongolic, which shows the feature of rhotacism–lambdacism, originated in a Bulgharic language. The same language was also the source of borrowings to Samoyedic (Joki 1952, Róna-Tas 1980), as well as later, in its secondary western location, to Pre-Proto-Hungarian (Róna-Tas & Berta 2011). Apart from these early contacts, the interaction between Turkic and Mongolic has continued in a number of local contexts up to the present day (Shherbak 1997, 2005; Schönig 2001, 2003; Khabtagaeva 2009), as has the interaction between Mongolic and Tungusic (Janhunen 2015, Rozycki 1994, Khabtagaeva 2017). Turkic and Tungusic also finally came into contact after the expansion of Lena Turkic (from the southwest) and northern Tungusic (from the southeast) to central Siberia (in the second millennium AD). Some of the results of this very late contact are interesting from the point of view of areal linguistics (Pakendorf 2009).

Compared with the Core Altaic languages, which do share a large corpus of lexicon, though only on an areal basis, Koreanic and Japonic offer much less lexical material linking them to Core Altaic or to each other. Although pro-Altai(ci)sts have produced thousands of Macro-Altaic cognate sets (Starostin et al. 2003), their corpus has little value for comparative purposes, not only because of its inflated size but also because it was built without consideration of the generally accepted methods of historical linguistics (Vovin 2005). At the same time, the parallels mentioned in favor of a Koreo–Japonic relationship (Martin 1966, 1990; Whitman 1985, 2012) also suffer from technical problems, even though traces of actual contact between the two language families cannot be denied (Unger 2009). An attempt to save Macro-Altaic has been made in the Transeurasian framework by postulating a number of morphological parallels in the realm of verbal derivation, extending from Japonic to Turkic (Robbeets 2015). However, it has been shown that these parallels also apply to Uralic and are actually due to a misrepresented statistical illusion (Georg 2021).

FORMATION OF THE ALTAIC COMPLEX

It may be concluded that the Altaic complex is an areal-typological union of separate language families with a long history of contacts (Jankowski 2013). Moreover, the discrepancies in the typological details suggest that the member families joined this complex at different times and from different directions. Japonic, in particular, seems to be a relative newcomer to the Altaic

sphere, but Koreanic is also in some respects idiosyncratic enough to suggest the possibility that it was originally a language with a different typology that has been secondarily Altaicized under the influence of its neighbors. This leaves the Core Altaic families, with Uralic, as the candidates for the original source of Altaic typology. Within Core Altaic, again, each of the three language families has some idiosyncratic features, suggesting that they also originally developed in separate areal contexts. From the material point of view, however, Mongolic and Tungusic exhibit a few apparently nontrivial parallels that might suggest an ancient connection in the context of a Khinganic language family (Janhunen 1995). Unfortunately, the evidence is too scanty to permit a definitive conclusion.

It should be stressed that the Altaic complex is about languages, not peoples. The mistaken tradition of identifying peoples with languages has an old history in (Ural-)Altaic Studies (e.g., Winkler 1884), but we now know that languages often spread with surprisingly little gene flow. From this point of view, recent attempts at confirming the Altaic Hypothesis in the Transeurasian framework by using data from human genetics and a vague reference to the early agricultural populations in Manchuria and adjacent regions (Robbeets et al. 2021) miss the point. In fact, the multiple origins of the linguistic lineages in the region are reflected in the genetic diversity of the local populations (He et al. 2022).

Although the Altaic Hypothesis, including its Transeurasian follow-up version, cannot be corroborated by linguistic data, the formation of the Altaic complex remains a relevant topic for multidisciplinary research. The five Altaic language families, especially when viewed together with Uralic, offer a well-defined field for the analysis of areal typology, language contacts, lexical borrowing, and structural interaction. In this context, extralinguistic aspects, including geography, archaeology, cultural history, written sources, and human genetics, also deserve to be considered. As a field of research, Altaic Studies is a great tradition that still has potential to yield important new insights into the evolution of language in general and the development of the Eurasian linguistic landscape in particular.

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LITERATURE CITED

Austerlitz R. 1970. Agglutination in Northern Eurasia in perspective. In *Studies in General and Oriental Linguistics Presented to Shirô Hattori on the Occasion of His Sixtieth Birthday*, ed. R Jakobson, S Kawamoto. Tokyo: TEC Corp. Lang. Educ. Res.

Barfield TJ. 1989. *The Perilous Frontier: Nomadic Empires and China, 221 BC to AD 1757*. Oxford, UK: Blackwell

Barrere I, Janhunen J. 2019. Mongolian vowel harmony in a Eurasian context. *Int. J. Eurasian Linguist.* 1(1):46–77

Beckwith CI. 2004. *Koguryo, the Language of Japan's Continental Relatives*. Brill's Jpn. Stud. Libr. 21. Leiden, Neth.: Brill

Bentley JR. 2008. *A Linguistic History of the Forgotten Islands: A Reconstruction of the Proto-language of the Southern Ryūkyūs*. Lang. Asia Ser. 7. Folkestone, UK: Global Oriental

Benzing J. 1956. *Die tungusischen Sprachen: Versuch einer vergleichenden Grammatik*. Mainz, Ger.: Franz Steiner Verlag

Bickel B, Nichols J. 2006. Oceania, the Pacific Rim, and the theory of linguistic areas. *Proc. Annu. Meet. Berkeley Linguist. Soc.* 32(2):2–12

Blažek V, Schwarz M, Srba O. 2019. *Altaic Languages: History of Research, Survey, Classification and a Sketch of Comparative Grammar*. Brno, Czech Repub.: Masaryk Univ. Press

Boller A. 1857. *Nachweis, daß das Japanische zum ural-altaischen Stamme gehört*. Vienna: K. K. Hof- und Staatsdruckerei

Bugaeva A, Nichols J, Bickel B. 2021. Appositive possession in Ainu and around the Pacific. *Linguist. Typol.* 26(1):43–88

Castrén MA. 1846. Anteckningar om Samojediskans förvandtskap med de Finska Språken [Notes on the relationship of Samoyedic with the Finnish languages]. *Suomi: Tidskrift i fosterländska ämnen* 5(1845):177–86

Castrén MA. 1849. Hvar låg det Finska folkets vagga? [Where was the cradle of the Finnish people located?]. *Litterära Soiréer i Helsingfors under hösten 1849*. Helsinki: Litteratur-Sällskapets Tryckeri

Clauson SG. 1956. The case against the Altaic Theory. *Cent. Asiat. J.* 2:181–87

de Boer EM. 2010. *The Historical Development of Japanese Tone. Part 1: From Proto-Japanese to the Modern Dialects. Part 2: The Introduction and Adaptation of the Middle Chinese Tones in Japan*. Veröffentlichungen des Ost-Asien-Instituts der Universität Bochum 59. Wiesbaden, Ger.: Harrassowitz Verlag

de Rachewiltz I, Rybatzki V. 2010. *Introduction to Altaic Philology: Turkic, Mongolian, Manchu*. Handbuch der Orientalistik VIII.20. Leiden, Neth.: Brill

Doerfer G. 1963–1975. *Türkische und mongolische Elemente im Neupersischen*, Vols. 1–4. Akad. Wiss. Lit. Veröffentlichungen der Orientalischen Komm. 16. Wiesbaden, Ger.: Frank Steiner Verlag

Doerfer G. 1966. Zur Verwandtschaft der altaischen Sprachen. *Indoger. Forsch.* 71:81–123

Doerfer G, Hesche W, Scheinhardt H, Tezcan S. 1971. *Khalaj Materials*. Indiana Univ. Publ. Uralic Altaic Ser. 115. Bloomington, IN: Indiana Univ.

Doerfer G. 1973. *Lautgesetz und Zufall: Betrachtungen zum Omnicomparativismus*. Innsbrucker Beitr. Sprachwiss. 10. Innsbruck, Austria: Inst. Vgl. Sprachwiss. Univ. Innsbruck

Doerfer G. 1985. *Mongolo-Tungusica*. Tungusica 3. Wiesbaden, Ger.: Otto Harrassowitz

Doerfer G. 1988. Zetacism/sigmaticm plays no rôle. *Cent. Asiat. J.* 32:61–63

Dolgopolsky A. 1998. *The Nostratic Macrofamily and Linguistic Palaeontology*. Pap. Prehist. Lang. 1. Cambridge, UK: McDonald Inst. Archaeol. Res.

Erdal M. 2004. *A Grammar of Old Turkic*. Handbuch der Orientalistik VIII.3. Leiden, Neth.: Brill

Erdal M. 2019. The Turkic-Mongolic lexical relationship in view of the Leipzig-Jakarta list. *Int. J. Eurasian Linguist.* 1(1):78–97

Frellesvig B. 2010. *A History of the Japanese Language*. Cambridge, UK: Cambridge Univ. Press

Georg S. 1990. Some thoughts on the etymology of the Turkic plural suffix -lar/-ler. In *Altaica Osloensia: Proceedings from the 32nd Meeting of the Permanent International Altaistic Conference*, ed. B Brendemoen, pp. 141–52. Oslo, Nor.: Universitetsforlaget

Georg S. 1999/2000. Haupt und Glieder der altaischen Hypothese: Die Körperteilbezeichnungen im Türkischen, Mongolischen und Tungusischen. *Ural-altaische Jahrb. N. F. B* 16:143–82

Georg S. 2003. Japanese, the Altaic Theory, and the limits of language classification. In *Perspectives on the Origins of the Japanese Language*, ed. T Osada, A Vovin, with the assistance of Kerri Russell, pp. 429–49. Nichibunken Jpn. Stud. Ser. 31. Kyoto, Jpn: Int. Res. Cent. Jpn. Stud.

Georg S. 2021. On perfectly good-looking morphological comparanda and their (sometimes, however, lacking) significance for hypotheses of language relationship: some marginal footnotes on the (still ongoing?) Altaic debate. In *Historical Linguistics and Philology of Central Asia: Essays in Turkic and Mongolic Studies*, ed. B Khabtagaeva with the assistance of Zsuzsanna Olach, pp. 420–28. Lang. Asia Ser. 36. Leiden, Neth.: Brill

Golden PB. 1992. *An Introduction to the History of the Turkic Peoples: Ethnogenesis and State-Formation in Medieval and Early Modern Eurasia and the Middle East*. Turcologica 9. Wiesbaden, Ger.: Otto Harrassowitz

Greenberg JF. 2000–2002. *Indo-European and its closest relatives: The Eurasiatic Language Family*, Vols. 1–2. Stanford, CA: Stanford Univ. Press

Grünthal R, Heyd V, Holopainen S, Janhunen JA, Khanina O, et al. 2022. Drastic demographic events triggered the Uralic spread. *Diachronica* 39(4):490–524

Gruzdeva E, Janhunen JA. 2020. Notes on the typological prehistory of Ghilyak. *Int. J. Eurasian Linguist.* 2(1):1–28

Hashimoto M. 1986. The Altaicization of Northern Chinese. In *Contributions to Sino-Tibetan Studies*, ed. J McCoy, T Light, pp. 76–97. Leiden, Neth.: Brill

He G, Wang M, Zou X, Yeh H-Y, Liu C, et al. 2022. Extensive ethnolinguistic diversity at the crossroads of North China and South Siberia reflects multiple sources of genetic diversity. *J. Syst. Evol.* **https://doi.org/10.1111/jse.12827**

Hudson MJ. 1999. *Ruins of Identity: Ethnogenesis in the Japanese Islands*. Honolulu, HI: Univ. Hawai'i Press

Itabashi Y. 2003. Altaic and Austronesian language mixing in Old Japanese: evidence of core basic vocabulary and affixes. *Eurasian Stud. Yearb.* 75:5–58

Janhunen J. 1981. Korean vowel system in North Asian perspective. *Han-geul* 172:129–46

Janhunen J. 1995. Prolegomena to a comparative analysis of Mongolic and Tungusic. In *Proceedings of the 38th Permanent International Altaistic Conference* (Kawasaki 1995), ed. G Stary, pp. 209–18. Wiesbaden, Ger.: Harrassowitz Verlag

Janhunen J. 1996. *Manchuria: An Ethnic History*. Mémoires Soc. Finno-Ougrienne 222. Helsinki: Finno-Ugrian Society

Janhunen J. 1997. Problems of primary root structure in Pre-Proto-Japanic. *Int. J. Cent. Asian Stud.* 2:14–30

Janhunen J. 1999. A contextual approach to the convergence and divergence of Korean and Japanese. *Int. J. Cent. Asian Stud.* 4:1–23

Janhunen J. 2005. The lost languages of Koguryo. *J. Inner East Asian Stud.* 2(2):66–86

Janhunen J. 2007. Typological expansion in the Ural-Altaic belt. *Incontri Linguistici* 30:71–83

Janhunen J. 2008. Mongolic as an expansive language family. In *Past and Present Dynamics: The Great Mongolian State*, ed. T Kurebito, pp. 127–37. Tokyo: Tokyo Univ. Foreign Stud.

Janhunen J. 2009. On the Turkicization of Turkey in a Eurasian context. *Finnisch-Ugrische Mitt.* 32/33:139–50

Janhunen J. 2012. The expansion of Tungusic as an ethnic and linguistic process. In *Recent Advances in Tungusic Linguistics*, ed. AL Malchukov, LJ Whaley, Turcologica 89, pp. 5–16. Wiesbaden, Ger.: Harrassowitz Verlag

Janhunen J. 2013. Personal pronouns in Core Altaic. In *Shared Grammaticalization with Special Focus on the Transeurasian Languages*, ed. M Robbeets, H Cuyckens, pp. 211–26. Stud. Lang. Companion Ser. 132. Amsterdam: Benjamins

Janhunen J. 2015. Observations on the Para-Mongolic elements in Jurchenic. *Acta Linguist. Petropolitana* 11(3):575–92

Janhunen J. 2016. Towards Pre-Proto-Turkic: issues of definition and terminology. In *Eine hundertblättrige Tulpe: Festgabe für Claus Schönig*, ed. I Hauenschild, M Kappler, B Kellner-Heinkele, pp. 189–96. Berlin: Klaus Schwarz

Janhunen J. 2020. The differential diversification of Mongolic. *J. Historical Socioling.* 6(2):20190014

Janhunen J, ed. 2003. *The Mongolic Languages*. Routledge Lang. Fam. Ser. London: Routledge

Jankowski H. 2013. Altaic languages and historical contact. In *Current Trends in Altaic Linguistics: A Festschrift for Professor Emeritus Seong Baeg-in on his 80th Birthday*, ed. K Juwon, K Dongho, pp. 523–45. Seoul: Altaic Soc. Korea

Johanson L. 2021. *Turkic*. Cambridge Lang. Surv. Cambridge, UK: Cambridge Univ. Press

Johanson L, Csató ÉÁ, eds. 2021. *The Turkic Languages*. Routledge Lang. Fam. Ser. London: Routledge. 2nd ed.

Joki AJ. 1952. *Die Lehnwörter des Sajansamojedischen*. Mémoires Soc. Finno-Ougrienne 103. Helsinki: Suomalais-Ugrilainen Seura

Kane D. 2009. *The Khitan Language and Script*. Handbuch der Orientalistik VIII.19. Leiden, Neth.: Brill

Kellgren H. 1847. *Die Grundzüge der Finnischen Sprache mit Rücksicht auf den Ural-Altaischen Sprachstamm*. Berlin: F. Schneider & Comp

Khabtagaeva B. 2009. *Mongolic Elements in Tuvan*. Turcologica 81. Wiesbaden, Ger.: Harrassowitz Verlag

Khabtagaeva B. 2017. *The Ewenki Dialects of Buryatia and Their Relationship to Khamnigan Mongol*. Tunguso-Sibirica 41. Wiesbaden, Ger.: Harrassowitz Verlag

Kiyose GN. 1995. *Japanese Grammar: A New Approach*. Kyoto, Jpn.: Kyoto Univ. Press

Ko S. 2018. *Tongue Root Harmony and Vowel Contrast in Northeast Asian Languages*. Turcologica 112. Wiesbaden, Ger.: Harrassowitz

Ko S, Joseph A, Whitman J. 2014. Comparative consequences of the tongue root harmony analysis for proto-Tungusic, proto-Mongolic, and proto-Korean. In *Paradigm Change in the Transeurasian Languages and Beyond*, ed. M Robbeets, W Bisang, pp. 141–76. Stud. Lang. Companion Ser. 161. Amsterdam: Benjamins

Kotwicz W. 1951. Studia nad językami ałtajskimi [Studies of Altaic languages]. *Rocz. Orientalistyczny* 16:1–317

Lee K-M, Ramsey SR. 2011. *A History of the Korean Language.* Cambridge, UK: Cambridge Univ. Press

Levent S. 2015. Common Asianist intellectual history in Turkey and Japan: Turanism. *Cent. Asian Surv.* 35(1):121–35

Lewin B. 1976. Japanese and Korean: The problems and history of a linguistic comparison. *J. Jpn. Stud.* 2(2):389–412

Ligeti L. 1970. Le tabghatch, un dialecte de la langue sien-pi. In *Mongolian Studies*, ed. L Ligeti, pp. 265–308. Bibliotheca Orientalis Hungarica 14. Budapest, Hung.: Akadémiai Kiadó

Ligeti L. 1971. Алтайская теория и лексикостатистика. [The Altaic Theory and lexicostististics]. *Вопросы языкознания* (3):21–33

Logie A. 2019. Diagnosing and debunking Korean pseudohistory. *European J. Korean Stud.* 18(2):37–80

Malchukov A, Czerwinski P. 2021. Verbalization/insubordination: a diachronic syntactic isogloss in Northeast Asia. *Int. J. Eurasian Linguist.* 3(1):83–104

Martin SE. 1966. Lexical evidence relating Korean to Japanese. *Language* 42(2):185–251

Martin SE. 1987. *The Japanese Language Through Time.* Yale Lang. Ser. New Haven, CT: Yale Univ. Press

Martin SE. 1990. Morphological clues to the relationships of Japanese and Korean. In *Linguistic Change and Reconstruction Methodology*, ed. P Baldi, pp. 483–509. Berlin: Walter de Gruyter

Martin SE. 1992. *A Reference Grammar of Korean: A Complete Guide to the Grammar and History of the Korean Language.* Rutland, VT: Charles E. Tuttle Co.

Menges KH. 1975. *Altajische Studien* II. *Japanisch und Altajisch.* Abh. Kunde Morgenl. 41(3). Wiesbaden, Ger.: Steiner Franz Verlag

Miller RA. 1971. *Japanese and the Other Altaic Languages.* Chicago: Univ. Chicago Press

Miller RA. 1996. *Languages and History: Japanese, Korean, and Altaic.* Bangkok: White Orchid

Murayama S. 1975. Altaische Komponente der japanischen Sprache. In *Researches in Altaic Languages*, ed. L Ligeti, pp. 181–88. Bibliotheca Orientalis Hungarica 20. Budapest, Hung.: Akadémiai Kiadó

Németh G. 1912. Die türkisch-mongolische Hypothese. *Z. Dtsch. Morgenl. Ges.* 66:549–76

Nichols J. 2012. Selection for *m:T* pronominals in Eurasia. In *Copies versus Cognates in Bound Morphology*, ed. L Johanson, M Robbeets, pp. 47–69. Brill's Stud. Lang. Cognition Cult. 2. Leiden, Neth.: Brill

Nugteren H. 2011. *Mongolic Phonology and the Qinghai-Gansu Languages.* LOT 289. Diss., Neth. Grad. Sch. Linguist., Amsterdam

Orlandi G. 2020. The state of the art of the genetic relationship of Japonic: the Turanian and Altaic Hypotheses. *Int. J. Eurasian Linguist.* 2(1):29–69

Paasonen H. 1917. *Beiträge zur finnischugrisch-samojedischen Lautgeschichte.* Budapest, Hung.: Franklin-Vereins

Pakendorf B. 2009. Intensive contact and the copying of paradigms: an Èven dialect in contact with Sakha (Yakut). *J. Lang. Contact* VARIA 2:85–110

Poppe N. 1955. *Introduction to Mongolian Comparative Studies.* Mémoires Soc. Finno-Ougrienne 110. Helsinki: Suomalais-Ugrilainen Seura

Poppe N. 1960. *Vergleichende Grammatik der altaischen Sprachen.* Teil I: *Vergleichende Lautlehre.* Porta Linguarum Orientalium, Neue Ser. 4. Wiesbaden, Ger.: Otto Harrassowitz

Poppe N. 1965. *Introduction to Altaic Linguistics.* Ural-Altaische Bibliothek XIV. Wiesbaden, Ger.: Otto Harrassowitz

Poppe N. 1975. Altaic linguistics: an overview. *Sci. Lang.* 6:130–86

Ramsey SR. 1991. Proto-Korean and the origin of Korean accent. In *Studies in the Historical Phonology of Asian Languages*, ed. W Boltz, MC Shapiro, pp. 215–38. Curr. Issues Linguist. Theory 77. Amsterdam: Benjamins

Ramstedt GJ. 1914–1916. Zur mongolisch-türkischen Lautgeschichte, I-III. *Keleti Szemle* 15:34–150, 16:66–84

Ramstedt GJ. 1939. *A Korean Grammar.* Mémoires Soc. Finno-Ougrienne 72. Helsinki: Suomalais-Ugrilainen Seura

Ramstedt GJ. 1949. *Studies in Korean Etymology.* Mémoires Soc. Finno-Ougrienne 95. Helsinki: Suomalais-Ugrilainen Seura

Ramstedt GJ. 1952–1966. *Einführung in die altaische Sprachwissenschaft*, Vols. 1–3. Mémoires Soc. Finno-Ougrienne 104. Helsinki: Suomalais-Ugrilainen Seura

Räsänen M. 1949. *Materialien zur Lautgeschichte der türkischen Sprachen.* Studia Orientalia 15. Helsinki: Societas Orientalis Fennica

Räsänen M. 1957. *Materialien zur Morphologie der türkischen Sprachen.* Studia Orientalia 21. Helsinki: Societas Orientalis Fennica

Renfrew C, Nettle D, eds. 1999. *Nostratic: Examining a Linguistic Macrofamily.* Pap. Prehist. Lang. 2. Cambridge, UK: McDonald Inst. Archaeol. Res.

Robbeets M. 2005. *Is Japanese Related to Korean, Tungusic, Mongolic and Turkic?* Turcologica 64. Wiesbaden, Ger.: Harrassowitz Verlag

Robbeets M. 2015. *Diachrony of Verb Morphology: Japanese and the Transeurasian Languages.* Trends Linguist. Stud. Monogr. 291. Berlin: De Gruyter Mouton

Robbeets M, Bouckaert R, Conte M, Savelyev A, Li T, et al. 2021. Triangulation supports agricultural spread of the Transeurasian languages. *Nature* 599:616–21

Robbeets M, Savelyev A, eds. 2020. *The Oxford Guide to the Transeurasian Languages.* Oxford, UK: Oxford Univ. Press

Róna-Tas A. 1972. Did the proto-Altaic people know the stirrup? *Studia Mongolica* 13:169–71

Róna-Tas A. 1974. Общее наследие или заимствования? (К проблеме родства алтайских языков) [Common heritage or borrowings? On the problem concerning the relationship of the Altaic languages]. *Вопросы языкознания* 2:31–45

Róna-Tas A. 1980. On the earliest Samoyed-Turkish contacts. *Congressus Quintus Internationalis Fenno-Ugristarum* 3:377–85

Róna-Tas A, Berta Á. 2011. *West Old Turkic: Turkic Loanwords in Hungarian*, Parts 1–2. Turcologica 84. Wiesbaden, Ger.: Harrassowitz Verlag

Rozycki W. 1994. *Mongol Elements in Manchu.* Indiana Univ. Uralic Altaic Ser. 157. Bloomington, IN: Indiana Univ. Res. Inst. Inner Asian Stud.

Schönig C. 1999. The internal division of modern Turkic and its historical implications. *Acta Orient. Acad. Sci. Hung.* 52(1):63–95

Schönig C. 2001. *Mongolische Lehnwörter im Westoghusischen.* Turcologica 47. Wiesbaden, Ger.: Harrassowitz Verlag

Schönig C. 2003. Turko-Mongolic relations. In *The Mongolic Languages*, ed. J Janhunen, pp. 403–19. London: Routledge

Shherbak AM. 1966. О характере лексических взаимосвязей тюркских, монгольских и тунгусо-маньчжурских языков. [On the nature of the lexical relations of the Turkic, Mongolic, and Tungusic languages]. *Вопросы языкознания* (3):21–35

Shherbak AM. 1970. *Сравнительная фонетика тюркских языков.* [Comparative phonetics of the Turkic languages]. Leningrad, Russ.: Наука

Shherbak AM. 1997. *Ранние тюркско-монгольские связи (VIII-XIV вв.).*[Early Turko-Mongolic relations (8th to 14th cc.)] St. Petersburg, Russ.: Russ. Acad. Sci. Inst. Linguist. Res.

Shherbak AM. 2005. *Тюркско-монгольские языковые контакты в истории монгольских языков.* [Turko-Mongolic linguistic contacts in the history of the Mongolic languages]. St. Petersburg, Russ.: Наука

Shibatani M. 1990. *The Languages of Japan.* Cambridge Lang. Surv. Cambridge, UK: Cambridge Univ. Press

Shimunek A. 2017. *Languages of Ancient Southern Mongolia and North China: A Historical-Comparative Study of the Serbi or Xianbei Branch of the Serbi-Mongolic Language Family, with an Analysis of Northeastern Frontier Chinese and Old Tibetan Phonology.* Tunguso-Sibirica 40. Wiesbaden, Ger.: Harrassowitz Verlag

Shirokogoroff SM. 1931. *Ethnological and Linguistical Aspects of the Ural-Altaic Hypothesis.* Oosterhout, Neth.: Anthr. Publ.

Starostin SA. 1991. *Алтайская проблема и происхождение японского языка* [The Altaic problem and the origin of the Japanese language]. Moscow: Наука

Starostin S, Dybo A, Mudrak O, Gruntov I, Glumov V. 2003. *Etymological Dictionary of the Altaic Languages*, Vols. 1–3. Handbuch der Orientalistik VIII.8. Leiden, Neth.: Brill

Szeto PY. 2021. Revisiting the Amdo Sprachbund: genes, languages, and beyond. *Himal. Linguist.* 20(3):123–45

Szeto PY, Yurayong C. 2021. Sinitic as a typological sandwich: revisiting the notions of Altaicization and Taicization. *Linguist. Typol.* 25(3):507–49

Toh SH. 2005. About early Paekche language mistaken as being Koguryŏ language. *J. Inner East Asian Stud.* 2(2):13–31

Tranter N, ed. 2012. *The Languages of Japan and Korea.* Routledge Lang. Fam. Ser. London: Routledge

Unger JM. 2001. Layers of words and volcanic ash in Japan and Korea. *J. Jpn. Stud.* 27(1):81–111

Unger JM. 2009. *The Role of Contact in the Origins of the Japanese and Korean Languages.* Honolulu: Univ. Hawai'i Press

Vovin A. 2005. The end of the Altaic controversy. *Central Asiatic J.* 49(1):71–132

Vovin A. 2010. *Koreo-Japonica: A Re-evaluation of a Common Genetic Origin.* Hawai'i Studies of Korea. Honolulu: Univ. Hawai'i Press

Vovin A. 2019. A sketch of the earliest Mongolic language: The Brāhmī Bugut and Khüis Tolgoi Inscriptions. *Int. J. Eurasian Linguist.* 1(1):162–97

Vovin A. 2020. *A Descriptive and Comparative Grammar of Western Old Japanese.* Handbuch der Orientalistik V.16, Vols. 1–2. Leiden, Neth.: Brill. 2nd ed.

Vovin A. 2021. Names of large exotic animals and the Urheimat of Japonic. *Int. J. Eurasian Linguist.* 3(1):105–20

Vovin A, de la Fuente JAA, Janhunen J, eds. Forthcoming. *The Tungusic Languages.* Routledge Lang. Fam. Ser. London: Routledge

Weiers M. 1969. *Untersuchungen zu einer historischen Grammatik des Präklassischen Schriftmongolisch.* Asiatische Forschungen 28. Wiesbaden, Ger.: Otto Harrassowitz

Whitman JB. 1985. *The Phonological Basis for the Comparison of Japanese and Korean.* Cambridge, MA: Harvard Univ. Press

Whitman J. 2012. The relationship between Japanese and Korean. In *The Languages of Japan and Korea*, ed. N Tranter, pp. 24–38. London: Routledge

Winkler H. 1884. *Uralaltaische Völker und Sprachen.* Berlin: Ferd. Dümmlers Verlagsbuchhandlung

Winkler H. 1909. *Der Uralaltaische Sprachstamm, das Finnische und das Japanische.* Berlin: Ferd. Dümmlers Verlagsbuchhandlung

Wu Y, Janhunen J. 2010. *New Materials on the Khitan Small Script: A Critical Edition of Xiao Dilu and Yelü Xiangwen.* Lang. Asia 9. Folkestone, UK: Global Oriental

Yamakoshi Y. 2014. How can we define the "participles" in Mongolic languages: two problems in Shinekhen Buryat. In *Proceedings of the 1st Conference on Central Asian Languages and Linguistics*, ed. Ö Özçelik, AK Kent, Vol. 1, pp. 131–42. Bloomington, IN: Indiana Univ.

Yurayong C, Szeto PY. 2020. Altaicization and De-Altaicization of Japonic and Koreanic. *Int. J. Eurasian Linguist.* 2(1):108–48

Contents

Errata

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