The Linguistic Ideas of Joseph Edkins (1823–1905)

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This paper analyzes and evaluates the linguistic ideas of the British Protestant missionary Joseph Edkins (1823–1905), as well as the linguistic trends of his time, in order to recognize the merits and the achievements in the field of historical Chinese phonology. Furthermore, this paper seeks to demonstrate that many ideas about the sound system of Old Chinese were posited or at least presaged by Edkins in his philological works, where the earliest attempt to reconstruct the old language of the ancient Chinese classics took place for the first time.

Nullum est iam dictum, quod non dictum sit prius.
(Terence, *Eunuchus*, Prologue, 41)

1. INTRODUCTION

The first reconstruction of Old Chinese[1] is generally attributed to the great Swedish sinologist Bernhard Karlgren (1889–1978). While this paper will not embark on a campaign to discredit Karlgren and his pioneering works, it should be made clear at the outset that the first attempts to recover the sound system of Old Chinese were made in the second half of the nineteenth century, long before Karlgren's *Études sur la phonologie chinoise* (1915–1923). Even those who are vaguely aware that anyone had given any thought to the subject of Old Chinese phonology before Karlgren's *Études* still consider the pre-Karlgrenian period as a distant prehistory or, even worse, as an *aetas horribilis* of little or no relevance. In fact, we hold the view that one cannot fully understand the history of contemporary studies of historical Chinese phonology without knowledge of the history of Chinese philology in the nineteenth century. Karlgren's system was both the foundation of twentieth-century historical Chinese phonology and the culmination of nineteenth-century Chinese philology. In fact, Karlgren (1915) continued in the tradition that Joshua Marshman (1768–1837) had started 106 years before (1809), and that, in Edkins's hands, turned into the subject of intense debate that has dragged on until our day.

On an additional note, this writer holds the view that Edkins's linguistic theory formed an organic whole and that this fundamental unity should not be broken up into disconnected parts. The reader, thus, should be aware of the fact that Edkins's view about, say, linguistic stadialism influenced his view about, say, sound changes in Old Chinese. Hence, when dealing with the latter we must be aware that its understanding is not totally possible without knowledge of the former.

In order to understand the raison d'être of Edkins's ideas, it is necessary to epitomize briefly his life, as well as his almost sixty years of experience in China.

1. By Old Chinese is generally meant the language from the Western Zhōu (1046–771 BCE) to Early Hàn (206 BCE–220 CE). Edkins did not speak of "Old Chinese" or "Archaic Chinese," but it is clear that he was aware of the fact that the Chinese language of the early classics (*Shījīng*, *Shàngshū*, etc.) was different from the medieval Chinese language of the Suí dynasty (581–605).

2. THE LIFE AND TIMES OF JOSEPH EDKINS (1823–1905)

The following information about Edkins's life comes from different sources, ranging from Cordier (1905) and Bushell's obituaries (1906) to more recent works, e.g., Penny (2007), Chén Zhé 陳喆 (2011), Zhāng Hǎiyīng 張海英 (2015), etc.[2]

Joseph Edkins, known in Chinese as Ài Yuēsè 艾約瑟, graduated in arts from the University of London in 1843. On December 1847 he was ordained by the London Missionary Society and in the following year assigned to do ministry in Hong Kong. He worked in the London Missionary Society Press in Shanghai under the supervision of the famous English Congregationalist missionary Walter Henry Medhurst (1796–1857), who is still remembered for his great contributions to the field of grammar studies. From 1852 to 1858 he was the editor of the *Chinese and Foreign Concord Almanac* (*Huáyáng héhé tōngshū* 華洋和合通書), later known as the *Chinese and Western Almanac* (*Zhōngxī tōngshū* 中西通書), a position that allowed him to cooperate with many Chinese scholars, e.g., Lǐ Shànlán 李善蘭 (1810–1882) and Wáng Tāo 王韜 (1828–1897).[3] In 1858 he left for England. However, when he returned, one year later, he brought his bride Jane Rowbotham Stobbs, the first of three wives, to Shanghai, where they married on February 7, 1859. One year later they moved from Yāntái (Shāndōng) to Tiānjīn. Jane died before 1863 at the young age of twenty-two. In 1863 Edkins remarried; his second wife was Janet Wood White, and that same year they settled in Běijīng, where he collaborated with the American Presbyterian missionary William Alexander Parsons Martin (1827–1916), known in Chinese as Dīng Wèiliáng 丁韙良, on the publication of *Peking Magazine* (*Zhōngxī wénjiàn lù* 中西聞見錄).

In the following three years he traveled to England, returning to Běijīng in 1876. In 1880 he resigned from the London Missionary Society to become a translator for the Chinese Maritime Customs Service (Dàqīng huángjiā hǎiguān zǒng shuìwù sī 大清皇家海關總稅務司), where he edited and translated many Western scientific works into Chinese. In 1877 his wife passed away, and in 1881 Edkins married Johanna Schmidt, his third wife. In 1903 he survived typhoid. In 1905, an eighty-one-year-old Edkins passed away in Shanghai. He was a prolific writer who penned many books that covered several fields, from history to religion, from grammar to phonetics. He had a profound knowledge of the Northern dialects of China, and was able to read Latin, Greek, and Hebrew. Edkins was a tireless scholar, who was still writing at the age of eighty-one.[4] Although Edkins's ideas sometimes were greeted

2. Concerning Edkins's linguistic works, this author considers Penny's *More Than One Adam?* (2007) the best reference available, despite an inclination to question the alleged influence of Darwin's *On the Origin of the Species* on Joseph Edkins. Penny (2007: 43) believes that the Darwinian "position, was, of course, more than acceptable to Edkins, providing him with a mechanism of linguistic change to apply to his grand model of the development of the world's languages." This writer may be mistaken but he does not see in Edkins's works that Darwinism played much of a role in the production of linguistic ideas. As we shall see in this paper, Edkins viewed linguistic evolution as an inevitable ascent through a preordained hierarchy of developmental stages: from nasal sounds to labial sounds, from labial sounds to dental sounds, from dental sounds to guttural sounds, and so on. This kind of "designed progress" was at the basis of the Lamarckian paradigm, not the Darwinian one. In fact, Darwin's evolution is an open-ended process governed by natural selection, adaptation, specialization, and random change. Most importantly, Darwin saw evolution as individual, while Edkins replaced this individual basis with a community of speakers. In other words, surely Edkins's works were influenced by the concept of evolution—Edkins's *The Evolution of the Chinese Language* (1888) speaks for itself—but this kind of evolutionary thinking was non-Darwinian, actually much closer to the Lamarckian paradigm.

3. Lǐ Shànlán was a Chinese mathematician. Edkins's collaboration with him on the translating into Chinese of Western mathematical and natural science texts and terminologies has produced great results. The interested reader can consult Wāng Xiǎoqín 2001.

4. For a list of Edkins's more than 130 publications, see https://kansai-u.academia.edu/GeorgOrlandi.

with criticism, most notably from the English barrister and sinologist Edward Harper Parker (1849–1926), Edkins was among the most—if not *the* most—respected scholars of Chinese philology of his time and received praise also from August Friedrich Pott (1802–1887), Ernst Friedrich von Mohl (1849–1929), and the Rev. Archibald Henry Sayce (1845–1933) (Edkins 1884b: 731–32).

He studied the dialect of Amoy with Reverend John Stronach (1810–1888), and the Hakka dialect with Hóng Réngān 洪仁玕 (1822–1864), cousin of the famous rebel Hóng Xiùquán 洪秀全 (1814–1864). Edkins was also able to understand Cantonese[5] and, especially, the Shànghǎi dialect, though we do not know from whom he learned it. We know, in addition, that Edkins consulted indigenous grammatical treatises, e.g., Bì Huázhēn's 畢華珍 *Yǎnxù cǎotáng bǐjì* 衍緒草堂筆記 (Edkins 1868: 58).

It is important to bear this chronology of events in mind in the analysis of Edkins's linguistic ideas, because we will be compelled to observe that an influence, of course, was exerted upon him from a field that lies outside the domains of phonology and comparative philology: religion.

3. THE PRIMEVAL LANGUAGE, TURANIAN, AND THE AFFILIATION OF THE CHINESE LANGUAGE

Edkins was influenced by Max Müller's (1823–1900) classification of the agglutinative languages (i.e., the Turanian family). The Turanian hypothesis, in spite of the consistent number of its supporters (including Edkins), has been controversial from its very beginning. Basically, in 1730, Philip Johan von Strahlenberg (1676–1747) noted structural similarities among a consistent number of languages, which he classified into six groups: (1) Turco-Tatar languages; (2) Samoyedic; (3) Mongolian and Manchu; (4) Tungusic; (5) Uighur (which wrongly included also Finno-Ugric), (the language of the) Huns and Baraba Tatars; and (6) the languages of the "tribes living between the Black and Caspian seas" (Poppe 1965: 125; Campbell & Poser 2008: 237). In 1834, the great Danish linguist, Rasmus Rask (1787–1832), included in his "Scythian languages" (in which were contained the "prodromes" of the Indo-European family) European, North Asian, and Caucasian languages, as well as idioms from Greenland, North America, and Basque Country. He also included Strahlenberg's "Tatar languages." Max Müller (1854; 1861) expanded Strahlenberg's and Rask's families, and included Thai, Tibetan, Malayan, and Dravidian under his hypothetical "Turanian family."[6] Therefore, by that point in the development of the field of the linguistic science, this classification merely represented the non-Indo-European and non-Semitic languages on the basis of the incidence of agglutinative morphology and monosyllabic typology (Müller 1854: 23–24; Campbell & Poser 2008: 237). Since, as many linguists of his time, Müller associated the agglutinative languages with a particular stage in the social evolution of different ethnic groups, these languages were called "nomadic languages" (Müller 1854: 25; Poppe 1965: 125).

5. Nevertheless, Edkins's views on Cantonese and Hakka were not always accurate. For example, he writes, "that the Hakka is newer than the Canton dialect is quite certain" (1885: 252), a very disputable claim. Elsewhere he seems to imply that Cantonese is very conservative, which is also not completely true. Cantonese, for example, has not preserved voiced sounds (which survive partially only in Wú, Xiāng, and Mǐn dialects), and does not differentiate 精 (ts-), 莊 (ʈʂ-), 章 (tɕ-), and 知 (ʈ-), unlike part of Wú and a very small part of the Hakka dialects. In addition, the glide system of the medieval language has also collapsed in Cantonese, but it is retained in Hakka.

6. Müller was also influenced by Klaproth (1814; 1823), Rémusat (1820), Arndt (1819), Schott (1836; 1849), Castrén (1844; 1845; 1849; 1850; 1853), Boehtlingk (1851), and von der Gabelentz (1832); see Müller 1954: 10–15.

The influence of the Turanian family on Joseph Edkins's linguistic ideas is abundantly clear in his *China's Place in Philology* (1871, chaps. 9, 10). However, it should not be exaggerated, since the core of this monograph was not to show that Sinitic was a branch of Turanian, but that Turanian, Chinese, Indo-European, and Semitic were related. For example, Edkins compiled a list of alleged "common roots" and "sound laws" (see Table 1) which could further prove, in his view, the existence of a "primeval macro-phylum," of which the Chinese language was the most conservative relic:

Table 1. Turanian, Chinese, and Indo-European common roots (Edkins 1871: 168–69)

Gloss	Tamil	Mongol	Japanese	Chinese	Indo-European
foot	kâl	köl		kak	to kick
head	talei	tologai	atama	du, dug	
stone	silei	cilaγun	ishi	zhag	saxum
hand	karam	gar			kara (Skt.)
dog	nây	noqai	inu		
rain	marei	borōn	ame	mo (*mist*)	bârân (Pers.)
house	kiragam	ger		ke	casa
younger brother	tammulu	degüü	otōto	de	ἀδελφός
night	irá		yoru	ya	
much	adigam		dake		
much	wegu	yeke	okini		
oil	teyilam	tosu			
chariot	ter	tereg		t'e	dray, drag
hunger	paṭṭini		hidaru		
wood	maram	modo		mok	
sin	agan	ma eke	aku	ak	wicked
blackness	kâr	qara	kuroi	kek	caligo
egg	aṇḍam	undug			ώόν

On the basis of this comparative list, Edkins formulated a law according to which the main vowel of the stem is identical (e.g., **u**nd**u**g, m**o**d**o**, etc.), so that the structure of the Turanian roots is $CV_1CV_1(C)$, while roots such as $*CV_1CV_2(C)$ are not admitted. Edkins explained all the irregularities (e.g., t'*o*ss*a*, d*egu*) in the following way: "If it does not repeat itself exactly, it takes the form of an allied vowel. In Mongol *a* and *o* are allied; *e* and *u* are also allied." (Edkins 1871: 169)

But Edkins went even further. As many other linguists of his time, including Rask (1787–1832) and Schleicher (1821–1868), he was not analyzing language affiliation per se. Rather, the real core of the subject was the history of "races" and, in this respect, he was a commit-

ted supporter of the "Western origin of Chinese people."[7] More precisely, he believed, for religious reasons, that Chinese people descended from Hamites.[8] The "Hamitic race" was believed to be a subgroup of the "Caucasian race." Since in *China's Place in Philology* and, especially, in "Accadian and Chinese," Edkins affirms that "the Chinese roots belong to the same set which are found in Semitic languages" (1887a: 767) and that "Chinese chronology, astronomy, metallurgy, morality, Imperial government all bear the clear marks of origin in Western Asia" (1887a: 768), it is not merely possible but very probable that Edkins considered Hamites and Semites as belonging to the same monophylum.[9]

We shall see better in the next paragraphs that the very idea of Turanian languages, and their assumed close relationship with Chinese, had a significant influence on Edkins's ideas about consonantal stops in *rù* tone.

4. EDKINS'S CONTRIBUTIONS TO CHINESE PHONOLOGY

Many current ideas, though revised and refined by several modern scholars, were proposed, or at least presaged, by Joseph Edkins.[10] Unlike Chalmers (1874), Kühnert (1890), and Schaank (1897), Edkins did not understand the decoding of rime tables as a formal problem. For Edkins (and Karlgren)—whom we could dub somewhat anachronistically as the "reconstructionists" as opposed to the "formalists"—the decoding of rime tables was intended as a powerful tool for the recovery of the sound system of Old Chinese. As many linguists of his time, Edkins was working in the received tradition of "phonetic realism." For example, he explained vocalic change in the following way:

> The causes of variations in letters [vowel shifts, GO] may be noticed quite plainly in some cases. When it is said that back vowels such as *a*, *o*, *u* and some others are fond of *k*, it means that the muscular contraction producing *k* affects the size of the oral cavity. When final *p* changes to final *k* the tongue moves down by sympathy, widens the cavity and produces some one of the back vowels. (Edkins 1888: 20)

If Schaank some years later was strongly influenced by Wilhelm Viëtor (1850–1918),[11] then Edkins was clearly influenced by the works of Alexander Melville Bell (1819–1905):

> Mr. Melville Bell also divides vowels into primary and wide. The vowels in 衣 *i*, 舍 *she*, 分 *fen*, are primary. The vowels in 他 *t'a*, 山 *shan*, 新 *hsin*, are examples of wide vowels. The vowels in 都, 多 *tu*, *to* are primary while *u* in 東 *tung* is wide. Wide quality is occasioned by the expansion of the pharynx and the drawing back of the soft palate. In Shanghai the wide vowels belong to the short tones in most instances.[12] (Edkins 1888: 20)

7. Edkins believed that similarities between civilizations (what he called "resemblance in genius and early conventions") imply consanguinity in "race." (Edkins 1871: 1) Furthermore, in Edkins's words, "the characteristics of the six families of languages reviewed in the preceding chapters are, in the Chinese *order*, in the Semitic *life*, in the Himalaic *quietness*, in the Turanian *extension*, in the Malayo-Polynesian *softness*, and in the Indo-European *elevation*" (ibid.: 390). It is self-evident that Edkins's ethno-linguist affiliation was based not only on religious beliefs but also on Eurocentric bigotry.

8. From the biblical Ham (Hebrew: חָם). According to the *Tables of Notion* in the *Book of Genesis*, he was a son of Noah.

9. Instead, it was believed that both the "Semitic race" as well as the "Hamitic race" were subgroups of the "Caucasian race"; see Montagu 1960: 456. See also Seligman 1930 and Sergi 1901.

10. For a detailed analysis of Edkins's reconstructed sound system, see Orlandi 2019.

11. See Schaank 1897: 465 n. 1.

12. What Bell referred to as "primary" and "wide" is what the modern phonetician would refer to as "tense" and "lax." In his monumental work *Visible Speech* (1867: 15–16), Bell divided the mouth into nine cardinal regions, viz., front, mixed (i.e., central), and back along the hard and soft palates, versus the high, mid, and low degrees

Furthermore, Joseph Edkins is routinely cited in both Chinese and Western works on historical Chinese phonology as the first scholar to have posited initial consonant clusters for Old Chinese. To the best of this writer's knowledge, this trend was started by Lín Yǔtáng 林語堂 (1933: 3–5),[13] and has been somewhat reinforced by Chu Chia-ning 竺家寧 (1982: 54–59).[14] However, Edkins cannot be credited with the discovery of initial consonant clusters for Old Chinese for two reasons: first, Edkins did not posit initial consonant clusters for Old Chinese;[15] second, Lepsius (1861: 457–58, 496), on the basis of comparisons with Written Tibetan, conservative dialects, and phonetic loans, had already rejected the idea that Old Chinese was monosyllabic, and had also indicated, though indirectly, that at an early phase of its history the Chinese language must have possessed initial clusters. Wilhelm Grube (1855–1908) was the first scholar to have explicitly posited the existence of initial clusters, such as **kl-* and **gl-*. For example, in his *Die sprachgeschichtliche Stellung des Chinesischen*, he said that the Chinese word for "moon," *gwat* in the Amoy dialect, was cognate with other Tibeto-Burman languages that have a *Cl-* initial, therefore:

> Alle diese Formen weisen auf ein ursprüngliches kl oder gl im Anlaute hin. (1881: 16–17)
> [All these forms indicate an original kl or gl in the initial.]

The existence of evidence attesting initial consonant clusters in Old Chinese has been discussed in many other scientific publications, e.g., Gotō Asatarō 後藤朝太郎 (1908), Henri Maspero (1930), Peter Boodberg (1937), Tōdō Akiyasu 藤堂明保 (1953), and, of course, Bernhard Karlgren (1915–1926).

Edkins, instead, should be credited as the first scholar to have discovered that a phoneme *x* in Dialect *P* corresponded regularly to a phoneme *y* in Dialect *Q*, and that this systematic relationship might somehow imply a common ancestor language *S*, which may in turn explain the phonetics of both Dialects *P* and *Q*. This crucial point is very clear in his *Introduction to the Study of the Chinese Characters* (1876: 185–86, 189) and especially in his article in *The Chinese Recorder* (1885), where he writes:

> I soon found that *k* final in Shanghai was a sure index to *k* final in the Amoy dialect. [. . .] the old pronunciation with finals *m*, *k*, *t*, *p*, and the initials *b*, *p*, *g*, *k*, *d*, *t*, are the remain-debris in the south-eastern provinces of what the early language was everywhere. (Edkins 1885: 251, also quoted in Branner 2006: 216).

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of tongue height. Furthermore, each region could be subdivided by inner versus outer shifts (i.e., retracted versus advanced), and higher versus lower shifts (i.e., raised versus lowered) into smaller regions. All these regions were either primary (tense) or wide (lax).

13. See also Miller 1956: 266.

14. During the 36th National Conference on Historical Chinese Phonology at Fu Jen Catholic University, Taipei, in 2018, this writer discussed consonant clusters directly with Chu Chia-ning, producing concrete evidence that Edkins was not the first scholar to have posited initial consonant clusters, and that actually Edkins rejected such a hypothesis.

15. In his *Introduction to the Study of the Chinese Characters* (1876: 190), Edkins writes: "It is hard to believe then that *l* has not come out of *k* somehow. In German and English we have *gleich*, the same as *like*. Here *l* has been inserted, as I suppose, and *g* has then been pushed away and lost. But *it is contrary to the genius of Chinese phonology to insert* l *after an initial mute* [emphasis added]. Such a physiological fact may occur at any time, but where is the dialect which will prove its occurrence by furnishing examples of it? I again ask may not *k* have changed to *ni*, or *ng* have changed again to *l*? But there is a third hypothesis. When y is inserted after g or k in the Shanghai dialect, *g* and *k* are heard like *d* and *t*. *Giô* 'sedan chair,' nearly = *diô*. *Kiô* 'a religion,' nearly = *tiô*. New-comers write *giô* 'bridge' *jaw*. Natives correct their pronunciation, and try to bring them back to *g*. Still they prefer *j* as more near to what they hear. This is evidence of a tendency from the guttural to the dental region. [. . .] On the *y* coming in, the *g* would be changed to *dj* or *d*, and this *d* might become altered to *l*, as was common long ago. Of the three hypotheses this seems the best."

The translation "Division" for *děng* 等 also seems to go back to Edkins (1874; 1876: 171–73; Branner 2006: 19). Other breakthroughs shall be presented below.

4.1. Sources of Evidence for the Reconstruction of Old Chinese

It is a truism that sources of evidence for the reconstruction of Old Chinese may be found in (1) rime tables and the general phonological structure of Middle Chinese; (2) paleographic evidence and phonetic loanwords (viz., *xiéshēng* 諧聲, *jiǎjiè* 假借, *xíngshēng* 形聲, etc.); (3) rimes in ancient poetry, especially *Shījīng* 詩經; (4) comparisons with related languages (Tibeto-Burman); (5) Sino-Xenic materials; (6) transcriptions of foreign words; (7) loanwords from unrelated languages; and (7) analysis of modern Sinitic languages (i.e., Chinese dialects) (Baxter & Sagart 2014: 9–40).

Many of these sources of proof were not only well known to Joseph Edkins, but were systematically exposed, for the first time, by the British missionary with more clarity than by any other scholar of his time. In his review of Zenone Volpicelli's study on the subject (1896), Edkins writes:

> My sources of proof are ten. (1) The dialects, in which Mr. Volpicelli has also worked. (2) The Japanese, Annamese and Corean transcriptions. (3) Kanghi's tables, and the syllabic spelling. (4) Discoveries of native authors, who have studied the classics in order to find out the ancient sounds. (5) The dictionaries mentioned by Kanghi, as also the mandarin and dialect dictionaries. (6) The characters bear their own witness to the old sounds. (7) The Buddhist Classics and Sanscrit alphabet. (8) The surrounding languages, Tibetan, Mongol, Japanese, Corean, and Manchu. (9) The Semitic languages. (10) The Aryan languages. (Edkins 1896: 568)

Edkins's approach was far from widely accepted at his time. Many linguists, including the famous Dutch sinologist Gustaaf Schlegel (1840–1903),[16] believed that there was no reason to have such a wide range of proofs, and that the comparisons with Mongol and Tibetan were superfluous or even inaccurate. Edkins's reply to these arguments was as follows:

> My reason for taking this wide range has been that educational prejudgment against the identity of Chinese with our own language is so strong that it becomes necessary to multiply proofs. In a matter of this kind it is more scientific in my opinion to make a wide search than to take a narrow field. Those who prefer a narrow field depend on authority too much, or on unfounded assumptions of some kind. (Edkins 1896: 568)

Of course, the general methodology was correct, but in many specific cases Edkins was undoubtedly mistaken. He seemed unaware of the principle of "phonetic loan," and he forced all his discoveries to fit into the idea of language "stadialism," intended as the theory according to which languages not only evolve (or decay) from a primitive (Chinese) to a perfect stadium (Semitic and especially Indo-European), but also evolve through a preordained hierarchy of developmental stages, such as "labial age," "dental age," "guttural age," etc. For example, in his "All Roots Labial" (1887c: 48), Edkins said that *bié* 別 (separate) and *fēn* 分 (divide) are related forms ("allofams"[17]?), but *bié* must be the oldest form because it has a bilabial plosive in initial position, while *fēn* has a labiodental fricative, i.e., *bié* belongs to the "labial age," the first phase of language evolution, while *fēn* clearly indicates the passing

16. See Schlegel 1872: xi–xiv, 3.

17. By "allofam," a term coined by Matisoff, is intended one of the two or more surface forms that are assumed by a single "word-family."

phase from the labial to the dental age.[18] This is clearly wrong, since by this point in the development of the field we know that both characters need to be reconstructed with initial **p-*.[19] In addition, Edkins's other mistake was identifying "related characters" merely on the basis of semantic congruity, without paying too much attention to phonetic similarity, and this is what differentiates his approach from all other approaches since Karlgren (1934).

4.2. Edkins's "Linguistic Stadialism"

It is well known that the early linguists of the nineteenth century believed that language change was due to evolution and decay and that linguistic typology reflected the evolutionary stage of its speakers. Wilhelm von Humboldt (1767–1835) even claimed that the grammar of a language reflected differences in thought, and it was responsible for shaping these different "worldviews":[20]

> Ein Volk spricht, wie es denkt, denkt so, weil es so spricht, und dass es so denkt und spricht, ist wesentlich in seinen körperlichen und geistigen Anlagen gegründet. (*Gesammelte Schriften*, 6: 334) [A people speaks as it thinks and thinks so because it so speaks, and that it so thinks and speaks is essentially grounded in its corporeal and spiritual dispositions.]

In his *De l'origine du langage*, the French philosopher and reformist Ernest Renan (1823–1893) wrote:

> Il compte ainsi trois âges dans le développement du langage: —un premier âge de simplicité et de pauvreté, dont le chinois nous présente encore les traits essentiels; —un second âge, qui fut celui des flexions synthétiques, où les relations des idées étaient exprimées par des mots parasites attachés à la suite du radical et un faisant qu'un avec lui, comme cela a lieu en sanscrit, en grec, en latin; —un troisième âge, où le peuple, incapable d'observer une grammaire aussi savante, brise l'unité du mot fléchi, et préfère l'arrangement inverse des parties de l'expression. (Renan 1864: 9–10) [It, thus, counts three ages in the development of language: a first age of simplicity and poverty, of which Chinese still presents the essential features; a second age, which was that of the synthetic inflections, when the relations of the ideas were expressed by parasitic words attached to the following root, as in Sanskrit, in Greek, in Latin; a third age, when the people, unable to observe such a learned grammar, break the unity of the inflected word, and prefer the inverse arrangement of the parts of the expression.]

Edkins agreed with this view of language change, and was an adherent of the idea of the superiority of Indo-European.[21] However, he also believed that language change must, somehow, undergo another evolutionary process. The first step of this process is the "labial age":

18. Elsewhere, Edkins seems to claim that before the "labial age" (first phase), there must have been, in Chinese, a pre-phase when the sounds were all nasals: "There would be the nasals *m*, *n*, *ng*. These would have the priority because the nose tube is usually open for respiration and it remains open while these letters are pronounced. The letters *b*, *g* and *d* agree with these letters in regard to closing the mouth barriers but differ in requiring the nose channel to be shut. There is therefore more difficulty in pronouncing *b*, *g* and *d*, and this would naturally give *m*, *n* and *ng* in the first place." (Edkins 1888: 13)

19. In Baxter and Sagart's system (2014), 分 is reconstructed as *pə[n], while 別 is reconstructed as *pret.

20. Wilhelm von Humboldt was not the first philosopher to make this assertion. Johann Gottfried Herder (1744–1803) believed that the language of industrious nations must have, as a consequence, an abundance of moods in their verbal system. See Herder 1812.

21. "So it has been with the Indo-European languages. They have aimed high in thought, enlarged the field of poetic feeling, advanced scientific inquiry, and led the human race forward on the path of civilized progress to an unequalled degree. The greatest thinkers in philosophy, the creative intellects of science, the most noteworthy conquerors and legislators, have been those whose speech was Indo-European" (Edkins 1871: 320). See also Edkins 1988.

> In the natural order of linguistic development we see in the first tsages [*sic*] of language much gesture, of which the action of the lips is a part. Afterwards gesture ceases when language by attaining greater variety and complexity in its sounds also becomes more efficient. Men then abandon gesture in order not to spend more energy than the occasion requires. This first period when lip letters were much in use and other letters of rare occurrence and when there was the incessant employment of various gestures caused by the action of the hands, face and other parts of the body, may be called from the preponderance of labial letters at that time the labial period. (Edkins 1888: 11)

Of course, the Chinese language was proof of the validity of this theory. Given that in the Chinese language a series of lenitions occurred (viz., $p > f$, and $f > h$), Edkins deduced that "as a rule the order observable in the changes of letter whether initial or final is from lips to throat or from lips to teeth or from teeth to throat, but not from teeth and throat to the lips" (ibid., 10).

Edkins had no doubts about the fact that the Old Chinese language possessed three main vowels, viz., *a*, *i*, *o*. He, again, explained this fact both in terms of linguistic stadialism and phonetic realism:

> The vowels *a*, *i*, *o*, would naturally be the oldest of all vowels. There is a wider opening of the mouth for *a* than for the other two. The letter *a* then would be aided in obtaining currency by its superior visibility. So *o* would be aided by its roundness and *i* by the narrowness of the aperture. (1888: 15–16)

If this was not enough, Edkins also illustrated the great vowel shift that occurred in the transition from the old Chinese language to the Mandarin of his time:

> These primitive vowels were followed by *u*, *ü* which are less visible from without and would be later. There are other Chinese vowels found in 旦 *tan*, 丁 *ting*, 更 *keng*, 舍 *she*, 角 *chio*. All these vowels may have been formed from *a* by tendency to variation. The modern Chinese *o* represents the ancient *a*. The *i* of old Chinese as formed by the convex front of the tongue advancing to very near the palatal arch is after *s*, *sh*, *ch*, in modern Chinese exchanged for a peculiar vowel *ï* formed by narrowing the orifice between the tongue and palate. The older *o* and *ü* have both become *u*. So it is with other vowels. The old have changed into new. The lesson taught by studying the ancient sounds and dialects is that the farther we go back the nearer we approach to unity. As the consonants are reduced to labials in the first instance, so the vowels are reduced to *a* which would be the first to obtain currency because it is most observable by the eye. (1888: 16)

We can see that, for Edkins, Old Chinese root structure was *CaC, with C being a *voiced* (see 4.3) labial obstruent, and -a- being the only main vowel admitted in roots. Vowels -i- and -o- also belong to the first phase, or "labial age." A second phase, presumably Edkins's "dental age," saw the increase of Old Chinese vowel inventory, with the formation of -u- and -ü- [y]. In the later Mandarin language of his time, a series of vowel shifts, both conditioned and unconditioned, had already occurred, viz., Old Chinese *i* became Mandarin *ï*, Old Chinese *o* and *ü* merged into *u*, and Old Chinese *a* became Mandarin *o*.

In addition, Edkins was aware of the existence of two medials *w* [w] and *y* [j], as well as their "aspirated" counterparts *hw* [^{h}w] and *hy* [^{h}j]. However, as Edkins explained, they arose in a later stage of Chinese:

> In regard to *w* and *y* with their aspirates *hw*, *hy* they are probably letters of an origin later than the primitive age. *Y* is chiefly a substitute for *d*, *t* or *ng* which once existed in its place. *W* is a substitute for *m* or *ng*. They need not then be primitive. *Y* and *W* are in close relation to *i* and *u*. In the letter *y* we have voice with the front of the tongue contracting the passage between it and the roof of the mouth. *I* has the same configuration but the channel is less contracted and shorter. The

> aspirate precedes the configuration of *y* for *hy*. In *w* the lower lip and back of the tongue contract the oral passage at the same time that the voice passes. In *hw* the aspirate precedes. (1888: 15)

A remark must be added in regard of medial *y* [j]. It is well known that a palatal glide existed in Middle or Late Middle Chinese (Pulleyblank 1984: xvi, 164; Baxter 1992: 31). This feature was envisioned long ago by John Chalmers (1874: 338), much as found in modern languages, and was retained almost intact by Kühnert (1890), who shared the belief according to which palatalization was involved in Grades III and IV rimes. The palatal feature was abandoned by Volpicelli (1896), but one year later Simon H. Schaank (1897) "reconstructed" a medial -i- in Grade III rimes, and two medial-looking symbols, which probably represent a particular though unclear quality of the initial consonant (Branner 2006: 161). Karlgren (1915–1926) made further adjustments to Schaank's system, on the basis of Sino-Korean, and proposed a new theory involving palatalization, which reigned as the supreme paradigm until the 1990s. Karlgren, at least initially, proposed no fewer than five forms of palatalization; Edkins instead followed the much simpler picture depicted by Chalmers.

Edkins's linguistic stadialism forced him to believe that voiced and unvoiced stops could not co-occur in Chinese words, and that one set must be older than the other. For several reasons, he believed that as a linguistic universal, voiced phonemes must be older than voiceless phonemes. Chinese was no exception to this rule. It follows that, in Edkins's view, stop codas in *rù* tone were voiced in origin, and then devoiced in a later stage (1871: 53–55; 1887c: 31–39; 1888: 13–14). In Edkins's words:

> There have been three great periods of 1,500 years each. The first saw the earliest formation of the surd and aspirate series, with that of a triple tone system. The second witnessed an extensive dropping of the final letters *k*, *t*, *p*, and *ng*, and the growth of the tone system ending in the quadruple formation of the dictionaries. The third period, perhaps the most revolutionary of all, saw the sonant initials [i.e., voiced initials], and the finals *k*, *t*, *p*, *m* for ever dismissed, one of the primeval tone groups completely broken up, and the syllabic spelling of the Hindoo Buddhists thrown into chaotic confusion. (Edkins 1871: 86)

> Coming to *b*, *g* and *d* with *p*, *k* and *t*, the voiced and unvoiced checks which belong to the three mouth barriers we ask which are the older. There is a reason for regarding *b*, *d* and *g* as the older. In the modern language *p*, *t*, *k* have been evolved from them. This happened when *b*, *d* and *g* were abandoned by the mandarin dialect. It is probable that it was by a like process at some ancient date that the old *p*, *t* and *k* took the place of *b*, *d* and *g*. We cannot tell when this was because the rhymes of poetry do not help us here. Another reason for assigning priority to *b*, *d*, *g* is that they are more audible and in primitive times this advantage would be of no little value. Also Manchu and Mongol have *b*, *d*, *g* and not *p*, *t*, *k*.[22] (Edkins 1888: 13)

The "voiced stop codas" theory according to which Old Chinese stop codas in *rù* tone were voiced is still upheld by many Chinese scholars, e.g., Yú (1984), Pān (2000), Zhèngzhāng (1987; 1990; 2003), Song (2014). Zhèngzhāng, for example, reconstructed voiced stops **-b*,

22. As this writer's expertise does not lie in Mongolic and Tungusic languages, this paper is not in a position to judge Edkins's Manchu and Mongol forms. Nevertheless, to the best of this writer's knowledge, Manchu does have a set of unaspirated plosives (*p*, *t*, *k*). In addition, the plain velar fricative is pronounced [q] before /a/, /ɔ/, and /ʊ/. Khalkha Mongolian has *p*, *t*, *g*. Moreover, at least from what this author apprehends from Svantesson et al. (2005: 118–12), given that plosive and uvular stops are in complementary distribution according to vowel harmony class, the only back plosive phonemes that need to be reconstructed are */k/, */kʰ/ (~ *[k], *[qʰ]). We do not know which version of Manchu and Mongolian Edkins studied, and unfortunately his works (1871; 1888; 1892; 1899b; 1899c; 1900a; 1900b; 1900c) do not offer any clear indication.

*-*d*, *-*g* on the basis of comparisons with Written Tibetan, Sino-Japanese "loanwords,"[23] phonetic transcriptions of Sanskrit words where MC *-t* corresponds to Sanskrit *-d*, *-r*, *-l*, and Chinese dialects (2003: 187, 219). Voiced stops in entering tone were independently reconstructed, on the basis of Written Tibetan, by Walter Simon (1928–1929; 1930) but were promptly rejected by Karlgren in his lengthy article on Tibetan and Chinese (1931).[24]

4.3. Edkins's View on Chinese Tones

The linguistic stadialism must have convinced Edkins that the Chinese language originally had no tones, and that they arose ("were derived" in Edkins's words) for emphatic reasons (Edkins 1889: 61).[25] He said it clearly in his *The Evolution of the Chinese Language*: "At first tones were not needed, they came in when final letters began to be dropped." In this work Edkins traces back the historical phases which saw the gradual evolution of Chinese tones:

> In the Odes of B.C. 800 there are three tones, but in the poetry of the Han dynasty there are four. Thus we learn that tones are of gradual introduction. Language began without them. In the Chinese development of language it was the nasals, sonants, and vowels that were most important. At first tones were not needed, they came in when final letters began to be dropped. This we learn from the fact that it was only in words with vowel endings that the rising tone was at first used. All the words ending in *m*, *n*, *ng*, were then heard in the even tone and this state of things continued down to the time of the poet Ch'ü-yuen, about B.C. 300. If we consult Twan-yü-ts'ai's tables we find that 壽 *sheu* 'old age', 就 *tsieu* 'approach', were with 道 *do* 'way, doctrine' heard in the rising tone. But 共 *gong* 'together', 送 *song* 'to escort', were in the even tone. … Before the Odes were written, if we judge by the evidence before us, no single word ending with *ng*, *n* or *m*, had left the even tone. The same is true down to the time when the departing tone with vowel finals first appeared. In the Han poetry departing tone words with vowel finals began early to rhyme with each other. […] First in the Han dynasty the vowel finals moved and after the age of the Three kingdoms, A.D. 300, the consonant finals followed. Thus it was in the 5th century when the discovery of the tones was made, the number was stated to be four. The poetry of the Three kingdoms enables us to decide that the departing tone, Sir Th. Wade's 4th tone, was not completed till the 4th century.
>
> The four tones remained undisturbed from the fifth century till about the 11th when the even tone on account of the change from sonant to surd which then took place was divided into two parts, the 1st and the 2nd tones of Sir Th. Wade. Intonation began to play the part which had hitherto been played by surd and sonant. China became weary of sonants and abandoned them for ever. Aspirates and surds took their place and they were pronounced in a new tone. The additional muscular force which makes voice was exchanged for that which produced an intonation. A little later the entering tone lost its finals *k*, *t*, and *p*. They do not appear in the Baschpa ['Phags-pa, GO] transcription made in Marco Polo's time. The cause was that the muscular force required to close the mouth barriers was felt to be too great an exertion. The brigade of words which belonged to this tone became scattered, some joining one of the new tones and some

23. Many of these "Chinese loanwords" are at least suspicious, and some of their Old Japanese reconstructions, from which both Pān (2000: 165–66) and Zhèngzhāng (1987; 1990) omit asterisks, are incorrect. Voiceless obstruents in Old Japanese had voiced prenasalized counterparts / b, d, z, g/ (Miyake 2003: 196, Frellesvig 2010: 42). It follows that the correct reconstruction of *fude* 'writing brush' is not *pude, but *puNte. For a parallel, words such as *tubu* (grain), *kadi* (rudder), and *piza* (knee) are reconstructed as OJ *tuNpu, *kaNti, and *piNsa (Frellesvig 2010: 43). The reconstructions of *mono* 'thing' and *kumi* 'draw water' are even more problematic, because Pān and Zhèngzhāng derive both Japanese -n- and -m- from Old Japanese *d.

24. See also Karlgren 1954: 256.

25. Elsewhere, Edkins (1871: 57) seems to imply that the old Chinese language must have had at least the even tone. We have reasons to believe that he later reviewed his positions on tones and "tonogenesis."

> another. This was a relief to the tone-forming muscles in the walls of the larynx which objected to the extra work caused by the bisection of the even tone. (Edkins 1888: 25–26)

As we can see from the above remarks, Edkins divided the process of formation of Chinese tone into five phases, each corresponding to a historical stage: (1) a first stage in which the Chinese language that was spoken before the invention of writing was non-tonal (2500 BCE); (2) a second phase, from 800 BCE to Western Han (206 BCE–209 CE), which saw the formation of three tones. From this period to 300 CE all the words ending with nasal consonants were in the even tone; (3) the third phase, from 300 to 400 CE, saw the emergence of the departing tone from the rising tone (see also Edkins 1887b: 268); (4) from the fifth to the eleventh century the Chinese language had all the four tones. In this phase, the entering tone lost its consonantal finals (with the sole exception of few Southern dialects), whereas the even tone split into two types; (5) from the twelfth century until now, the tones had the general structure they have in the Mandarin language that was spoken in Edkins's times.

The entering tone, or *rù* tone, deserves a special mention. Edkins again returned to Bell's phonetic theory to explain its nature:

> The tone called *ju sheng* by the makers of the early sound tables was heard as it is at present in south China with the catch of what Mr. Melville Bell speaks as a depression of the epiglottis such as any one may observe when in the act of swallowing. This is precisely what the Chinese use as the entering or short tone, when *k*, *t*, *p*, are not pronounced as at Shanghai where *p* and *t* as finals are no longer heard. The epiglottis closes the glottis and this is indicated by final *h* in the dictionaries of Morrison, Medhurst, and Williams. (1888: 24)

Edkins was also aware of the existence of an "upper series" (*yīnshēng* 陰聲) and a "lower series" (*yángshēng* 陽聲):

> The question when the upper and lower series commenced is historically very much the same with the question when the distinction between voiced and unvoiced consonants or sonants and surds began. It is necessary to bear in mind that the difference between voiced and unvoiced does not affect the quality of a vowel. In the Tang dynasty the difference in pitch which we now find uniformly maintained from Shanghai to Canton must have certainly existed, and we may assume that it existed long before that time, the mandarin pronunciation in which the sonants have disappeared being then entirely unknown. (1888: 23)

Even though Edkins perceived that tones and accents must be different concepts, he nonetheless believed that Latin and Greek possessed a system of intonation that was presumably very similar to the tonal system of Chinese:

> There is an analogy between the late use of tones in Chinese and their late introduction into European speech. The use of the upper rising inflection for questions in European languages is a case in point. This interrogative inflection has pushed out the interrogative particles to a large extent and taken their place. We can ask questions in modern speech without special particles because we have this inflection. Greek and Latin were much more plentifully supplied than we are with interrogative particles. [...]
>
> In the Greek language the prevalence of tones was a very peculiar and deeply marked characteristic. As in Chinese tones followed the alphabetic development and took the place to some extent of various old forms which are found some of them in Homer. When Aristophanes of Byzantium marked the Greek accents B.C. 200, he professed to follow Attic models. As to the age when tones entered the Greek language we are in ignorance. All we know is that Attic speech paid great attention to the tones. There was time enough between the age of Homer and B.C. 200 for considerable changes to take place in tones, but what those changes were we cannot tell.

> There can be no doubt that in Cicero's time the interrogative force was marked by inflection. He says of Catiline: "Hic tamen vivit. Vivit? immo vero etiam in Senatum venit." The first "*vivit*" has the inflection of the indicative which would be either even or quick falling. The second "*vivit*" necessarily has the rising or interrogative inflection and it must have been uttered with great vivacity to open the way for the sentence following: "he comes even into the Senate." In this sentence the chief accent is on the middle syllable of *Senatum* and the verb *venit* at the end is lightly pronounced. It is by the influence of Turanian grammar that the verb occurs at the end of the sentence. (1888: 28–29)

Edkins's explanation of the facts, despite all its artfulness, entirely fails to reveal the difference between "tone," "accent," and "intonation."[26] Nevertheless, more recent theories about the origin of Proto-Indo-European (PIE) accent sometimes argue in the same direction. For example, based on his analysis of Sanskrit accentuation, Alexander Lubotsky (1988) has advanced the position according to which PIE was in fact a tonal language. Lubotsky was able to demonstrate that the lexical accent of *u*-stems, *i*-stems and *o*-stems in Sanskrit may be predicted, with a consistent degree of success, from the phonological shape of the word. For example, roots with voiceless obstruents are barytonic, while roots with voiced obstruents are oxytonic. Unfortunately, Lubotsky's hypothesis is uncorroborated by complementary research, hence the nature of the PIE accent remains still unknown (Clackson 2007: 78).

But the important thing is that the theory according to which Chinese tones are a late development was common currency among nineteenth-century Chinese scholars. Gù Yánwǔ 顧炎武 (1613–1682) and, above all, Duàn Yùcái 段玉裁 (1735–1815), for example, believed that. Edkins added his own detail to his theory of the timing of the evolution of tone, based on his philosophical and especially "evolutionary" views. It must be stressed, however, that Edkins was not a party to the theory of ancient morphology that emerged among Western scholars late in his time.[27]

5. EDKINS'S CRITICS

As argued above, Edkins was undoubtedly one of the main authorities of Chinese philology and phonetics of his time. Nevertheless, his works, though serving in Europe as the major reference texts on these subjects, were also greeted by harsh critiques. At first, doubts toward Edkins's works started to be raised by one lone voice: that of Edward Harper Parker (1849–1926).[28] For example, Parker could not convince himself of the fact that there ever existed a uniform old Chinese language in ancient times:

26. For "accent" is meant a "particular prominence attached to one syllable of a word or phrase by some phonetic means such as stress or pitch," or a "particular system for assigning prominence to certain syllables of words or utterances, such as the stress accent of English or the pitch accent of Japanese" (Trask 1996: 4). "Intonation" is referred to as "the use of pitch, and possibly of additional prosodic phenomena such as loudness, tempo and pauses, over a stretch of utterance generally longer than a single word for the purpose of conveying meaning. Intonation is used for a variety of purposes: for marking grammatical boundaries (phrases and clauses), for signalling sentence types (e.g., statements and questions), and for conveying the speaker's attitude (surprise, irony, anger, etc.) Intonation is a complex topic, and a wide variety of approaches has been adopted with varying degrees of success." (Trask 1996: 184). "Tones" refer to "the phenomenon, occurring in many languages, in which words of different meaning which consist of identical sequences of consonants and vowels are distinguished merely by contrasts of pitch," or to "any one of the lexically contrastive pitches occurring in such a system. Mandarin Chinese, for example, has four tones: level, rising, falling and falling-rising" (Trask 1996: 396).

27. Verbs with a causative meaning show a marked predilection for the upper range of tones. Jespersen (1894) attributed this phenomenon to the former presence of a now-lost formative prefix, of which the only remaining traces in modern Chinese are the upper tones and the voiceless initials associated with them.

28. For an evaluation of Parker's linguistic ideas, the best reference available is Branner 1999.

> My hypothesis is this: that, in the whole wide world, no large tract (say over 100 miles square) has ever existed where the people spoke uniformly, barring, perhaps, Russia. I say let A be a tribe speaking uniformly: it gradually throws off B, and B throws off C, whilst A meanwhile throws off D. Each of these four may perish, flourish, commingle, throw off, and do all manner of things, and according to the things they do the result is a jumble of dialects or the purification of dialects. (Parker 1884: 116)

Another point deserves a special mention. There is a parable of the Indian subcontinent that has been translated into Chinese as *mángrén mō xiàng* 盲人摸象 (blind men feel the elephant),[29] which perfectly represents Parker's criticism of Edkins's "reconstructionist" approach. For Parker, what Edkins learned from the façade of the earliest classics was not what Old Chinese was all about. In other words, he believed that the reconstruction of Old Chinese was epiphenomenal and did not necessarily correspond to real Old Chinese:

> I utterly reject the opinion of Dr. Edkins (shared by von Gabelenz [*sic*]), that the old spoken language of China was the stiff and stilted language of their old literature. Before the discovery of pens and paper writing or scratching must have been laborious in the extreme, and the art of scribes would naturally consist in reducing the jabber of conversation to the pith of learning. Just now, where the expense of telegraphy forces us to reduce and minimise our words, we have an excellent instance for comparison. An ordinary telegram is usually pure ancient Chinese in form. Modern mandarin literature most probably began to flourish for the same reasons that modern colloquial languages were (in the thirteenth and fourteenth centuries in Italy, and later in the north of Europe), gradually honoured with literary notice. (Parker 1884: 116–17)

Furthermore, Parker argued that phonetic transcriptions of foreign words were often imprecise and had low explanatory force for comparative philology:

> What I said amounted to this: authors place a blind confidence in them (the Hindoos), which the Hindoos, as evidenced by their irregular spelling of Chinese, never could have pretended to claim. I do not question the virtues of the Hindoos, but I deprecate the vices of the authors; and Dr. Edkins is, I think, one of the greatest offenders. (1884: 115)

> As to the Sanskrit pronunciation of Buddhist words, the Chinese seem to me to have done a thousand years ago just what they do now,—to have applied to a foreign sound the first character which struck them as apt. The person first using the character, no matter what his dialect, sets the example, and it is accepted by all; just as now the Cantonese and Hakkas accept Fatlansai or Faplanse because the French were first called Fa-lan-si by the "mandarins." I found the utmost irregularity in Sanskrit words:—thus, for Musala (garbha) Eitel gives 牟娑洛, 摩沙羅, 謨薩羅, 目娑羅, and my humble experience is that similar irregularities run throughout all departments of Chinese history. (1895: 276)

Phonetic transcriptions of foreign words may be a useful tool for testing our hypotheses, but they should not replace internal evidence. Rather, Edkins was often looking for confirmations, and intentionally looked away from what might have been "dangerous" for his theory. To sum up, Parker's impression was as follows:

> Moreover, instead of working back from definite evidence, Dr. Edkins in effect starts with the assumption that Chinese dates back to the common language of the Tower of Babel, and tries to force all facts to fit in with that theory. (1899: 84)

29. In Chinese this appears for the first time in the *Dàbān nièpán jīng* 大般涅槃經 (*Mahāyāna Mahāparinirvāṇa Sūtra*), j. 32. This sutra originated in the first century CE in Andhra and was substantially expanded by Chinese translators in the fifth century.

Parker's remained the minority view well into the twentieth century, when Karlgren's academic blow (1915–1926: 13–14) completely excluded him from the discussion. It seems that, back in those days, linguists and sinologists had another agenda, and instead of trying to solve Parker's objections they merely chose to ignore them.

Another serious critic of Edkins's reconstructing technique was the German sinologist and historian Otto Franke (1863–1946). In his lengthy review of the current status of Chinese philological studies, *Chinese and Philology* (1893), he smeared Edkins and other philologists in the following way:

> Instead of the scrupulously careful researches, the cautious and almost shy way of forming conclusions, and the mathematically demonstrable laws and facts of the Aryans, we generally find a lively intuition, hasty combinations and misty and boundless theories in the works of our modern sinologues, as far as they refer to comparative philology. (1893: 311)

Franke's drubbing of Edkins's reconstructing techniques, though extremely harsh, was undoubtedly reasonable. Franke was a great connoisseur of Indo-European studies. Therefore, it is not surprising that a large part of his work (1893) was dedicated to comparisons between the status of Indo-European and Chinese studies, in order to prove that, despite the claim of Chinese philologists, the reconstructing technique adopted to recover the phonetic structure of Old Chinese was very different from the Neogrammarian model. For example, Edkins even claimed to have discovered something similar to Grimm's law (erroneously considered as an Indo-European sound change), when he stated that voiced consonants were followed in the next stage by a set of aspirates (*k'*, *t'*, *p'*, *t's*), which later became assibilated in *s*, *ts*, *sh* (Edkins 1871: 79). In fact, as Franke argued:

> Grimm's law is nothing at all Indo-European; it is together with Verner's important "Accentgesetz," only the explanation of a regular change of certain consonants in the Germanic (or Teutonic) primitive speech, which took place during or after its separation from the rest of the family. (1893: 315)

Another attack was launched against Edkins's notion of "language family." As we have seen, Edkins was aware of the fact that languages are classified according to different families, but, in the end, he was still convinced that all languages derived from the common language of the Tower of Babel. As Franke has pointed out:

> Families of language—a fundamental notion, to which Dr. Edkins points, and still he seems only too often to forget that there is something like an Aryan family. If he, for instance, compares the Chinese with the Celtic, or derives the Latin syntax from the Turanian, or declares the Greek accents to be the Chinese tones, he acts against his own principles: for Chinese and Celtic are members of different families, and only whole families or members of the same family can be compared with each other. (1883: 311)

This methodical fault had already been criticized by the Italian scholar Domenico Pezzi (1844–1905). In his *Glottologia aria recentissima* he wrote:

> Nè [i.e., né] maggior fede c'ispirano gli strani paragoni dello Edkins tra parole greche e sino-mongoliche, tra voci latine e sino-mongoliche, tra voci inglesi e cinesi: dai quali paragoni l'autore è indotto a credere che la civiltà sino-ariana possa venir conosciuta come l'aria primitiva! Noi staremo paghi di deplorare che l'Edkins non abbia compresa la necessità di un metodo scientifico e che una rivista francese, generalmente degna di molta lode per la sua potenza critica, abbia dato intorno a questo lavoro un giudizio che indubbiamente pecca di soverchia indulgenza. (1877: 66) [Nor may the strange comparisons by Edkins between Greek and Sino-Mongolian words, between Latin and Sino-Mongolian voices, between English and Chinese voices inspire in us

> greater faith: whose comparisons induce the author to believe that the Sino-Aryan civilization might be known as the primitive Aryan civilization! We cannot but deplore the fact that Edkins did not understand the need for a scientific method, and that a French journal, generally worth of praise for its critical power, has given this work a [positive] judgment that undoubtedly suffers from excessive indulgence.]

Pezzi's criticism, however, did not remain unanswered. In his reply to Pezzi, Edkins held that "the morphological resemblances between Chinese, Tibetan, Mongol, Sanscrit, and the European languages, are such that the hypothesis of a common origin ought to be regarded as proved." (1899a: 68)

6. CLOSING REMARKS

From the analysis above we may draw at least two firm conclusions. First, the earliest attempt to reconstruct the sound system of Old Chinese was made by Edkins in the second half of the nineteenth century. Of course, Edkins's reconstructing technique was neither the Neogrammarian comparative method nor the most refined technique of our days. Nevertheless, the reconstructing technique still adopted today is a sui generis method rooted in a genuine native tradition of classification and identification of certain phonological categories. This is exactly what Edkins (and others) did, though with methods that were far behind both the Neogrammarian comparative method and the reconstructing techniques of contemporary linguists of Chinese phonology. Surely, Karlgren's system of reconstruction was far more systematic and complete, though he has never been satisfied by comparisons with (un-)related languages. For character structure, Karlgren drew mostly on native Chinese phonology, heavy on seal scripts, bronze inscriptions, and *tōngjiǎ*; Edkins, instead, did not try to reconstruct sound based on character structure. Successively, Lù Zhìwéi 陸志韋 (1894–1979) applied chi-squared tests, a method he had taken over from his training in psychology in the United States, to assess the stability of rime classes. Baxter's approach at the beginning of the 1990s incorporated probabilistic testing in his analysis of the rime groups, which resulted in a definitive moving away from the philological approach started by Edkins. However, we must admit that at least part of the sources of evidence for the reconstruction of Old Chinese was discovered by Edkins, and that, most importantly, the idea of a common diasystem, which may explain the phonology of different Chinese dialects, was first posited by Edkins.

Second, nineteenth-century philology is in some ways a predecessor to twentieth-century analytical and phonological traditions that crystallized as the "Karlgrenian method." This must not be taken to imply that Edkins held *any* of the same views about the Old Chinese language as Karlgren or as the modern linguist, but that his philological treatises underwent radical changes that inevitably contributed to the development of modern studies in Chinese phonology. Of course, the crucial distinction between the patterns of thought that dominated this early period and those that followed in the twentieth and especially twenty-first centuries is self-evident at the present day, but we must at least recognize that this "crystallization" of phonological studies about Old Chinese can be seen as having been prepared by the philological activity of the nineteenth century.

One may now wonder what would have been the general status of historical Chinese phonology if information about Old Chinese had not fallen into Edkins's hands. This paper will not attempt to give an answer to the question; it is hoped though that it provokes its readers to think about it.

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