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Lepsius as a linguist: fieldwork, philology, phonetics, and ‘the Hamitic hypothesis’

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ABSTRACT

Karl Richard Lepsius (1810–1884) is mainly remembered as a founder of Egyptology. However, the largest share of his published work was about linguistics and philology, going from the decipherment and comparison of ancient writing systems to the classification of African languages. This article explores his linguistic work and the tensions within it: between different areas of expertise, between theory and observation, and between the study of languages with high and low philological prestige. In particular it focuses on his fieldwork in the Nile region in 1844, his design for a phonetic Standard Alphabet, and the hypothesis of a ‘Hamitic’ language family that connected Egyptian, Coptic, and Ethiopian with Berber as well as Khoisan languages.

KEYWORDS

Richard Lepsius; egyptology; linguistic fieldwork; phonetic alphabets; hamitic hypothesis; alphabetic Conference; Christian Bunsen; Friedrich Max Müller; Wilhelm Bleek

On the invitation of Chevalier Bunsen, some friends met at Prussia House, Carlton Terrace, on Wednesday, the 25 January 1854, in order to take into consideration the important question whether or not a uniform system of expressing foreign alphabets by Roman characters could be devised and agreed upon.

This is how the proceedings of the ‘Alphabetic Conference’ (published in Bunsen 1854: vol. II, 375–488) begin. It was a remarkable group of ‘friends’ that gathered at Prussia House four times over the next ten days. Among those present were Richard Owen, the leading British naturalist; John Herschel, the leading British astronomer and polymath; mathematician Charles Babbage, who has been called one of the inventors of the computer; the leading British Sanskritist, Horace Hayman Wilson, and his eventual successor, German émigré Friedrich Max Müller. Max Müller was one of the two presenters; the other, Egyptologist Richard Lepsius, arrived three days later for the next session, and left after the fourth because his wife had given birth. Also present were palaeographic expert Heinrich Pertz, the editor of *Monumenta Germaniae Historica*, representing the Berlin Academy of Sciences; Charles Trevelyan, the official whose policies worsened the Irish famine, and who later reorganised the Indian Civil Service; and the secretaries of the largest Protestant missionary networks. In short, it was a more

distinguished group of people than you would expect for a workshop on phonetic alphabets.

So why was phonetic transcription such an ‘important question’ for these representatives of the academic and social establishment? Owen was there as an anatomist; his pupil Henry Acland had spent time with Max Müller before the conference dissecting vocal organs (Müller 1902: vol. I, 148). Herschel was present as a pioneer of experimental musicology, Babbage as an expert on formal languages. For Trevelyan, the issue was less theoretical; he had written two papers in the 1830s recommending William Jones’ ‘Romanizing System’ for general use in British India (Trevelyan 1834, 1836; reprinted for the conference), and employed Max Müller and his phonetic system shortly after the conference to map the languages of the Black Sea area for the use of British officers during the Crimean War (Max Müller 1855). Prussian ambassador Christian Bunsen, who hosted the conference, was a Biblical scholar and Egyptologist of some distinction as well as a leading cultural broker between Germany and Britain, acting as a liaison for German missionaries, explorers, geographers, and orientalists (Kirchberger 1999: 348ff); both speakers owed their careers in no small part to his patronage (Mehlitz 2011; Van den Bosch 2002).

Though the announcement speaks only of ‘expressing foreign alphabets’, the problem they discussed was a double one: transcribing unwritten languages and transcribing non-European writing systems. The first was especially a problem for the missionary societies, who wanted to spread God’s word and have the Bible translated in as many languages as possible. For philologists like Lepsius and Max Müller, the problem was rather how to reconstruct the sounds of dead languages – at that point, Old Persian cuneiform had just been deciphered, and Egyptian was still poorly understood. Tellingly, ‘Hieroglyphic’ and ‘Coptic’ were the first examples that Lepsius (1854: 426–7) gave for applying his system, whereas Max Müller (1854b: 439) stressed the authority of ancient Sanskrit grammarians, whose classifications of vowels and consonants were ‘exactly the same’ as those espoused by modern physiologists.

The difference between the systems they presented was clear. Lepsius (1854: 405) wanted a system that was complete and consistent, in which every simple sound was expressed by a unique simple sign, and in which every modification was expressed by a specific diacritic sign. These diacritics – practically all accents used in European languages, but in new configurations, and several additional ones – could also be combined. So the result was a cluster of compound diacritic signs, requiring more than 200 different type heads; it has been described as a ‘printer’s nightmare’ (Irvine 2008: 335). Max Müller (1854b: 464, 437), on the other hand, held that ‘no harm is done if principles are sacrificed to expediency’: a practicable standard system should be *acceptable to the scholar, convenient to the*

missionary, and easy for the printer. So he marked phonetic distinctions only through italics, diphthongs, and accents for spiritus asper and lenis.

In spite of the institutional leverage, neither Lepsius nor Max Müller set an enduring standard – the IPA that linguists use nowadays owes more to the ‘phonotypic’ alphabet developed in the 1840s by Alexander John Ellis and Isaac Pitman, who were patently not invited (Ellis 1845, 1848; cf. Kemp 1994, 2001). One could describe the further evolution of the IPA through stenography, spelling reform, deaf education, and second language teaching as the victory of a group of vegetarians, teetotallers, Mormons, Fabians, and draft resisters against the Church of England, the Indian Civil Service, the British Army, the Berlin Academy of Sciences, and two laureates of the *Prix Volney* – a strong case against social constructivism in the history of knowledge, the more because IPA and its ancestors were hardly less of a printer’s nightmare. But back in 1854, Lepsius won the day, in part because he had already secured the support of the Berlin Academy and the Church Missionary Society. The Academy had special fonts cut; the C.M.S. was first among the Protestant missionary societies to endorse the Standard Alphabet and use it (or a simplified version) for its Bibles and missionary grammars. (A list of endorsements is in Lepsius 1855b: III–XI.)

One of the strongest innovative points of Lepsius’ Standard Alphabet is that he used vowel and consonant diagrams to represent and compare the sound system of a language – that is, which sounds are used and meaningfully distinguished by its speakers.¹ The diagram of all basic consonants was proudly on the title page. He also used these diagrams to show how his own system improved upon how previous and contemporary authors (mainly missionaries and orientalists) transcribed one particular language. In his London presentation, his examples were ten ancient ‘Oriental’ languages like Hebrew, Sanskrit, Classical Arabic, and Persian, but when he published his Standard Alphabet as a book, both in German (1855a) and in English (1855b; 1981 [1863]), he devoted much more attention to African languages – some of which he had encountered and studied on his 1842–45 Egyptian expedition. In the English version (1855b: 60–61) [Figure 1] he listed as sources his own grammars and vocabularies of three of those languages: Beja, Konjara [Fur], and Nubian, suggesting that the first two were in preparation and the last one forthcoming. Unfortunately, Lepsius was in the habit of doing too many things at once and leaving them unfinished; so only the Nubian grammar eventually appeared, and that 25 years later.

What this story about phonetic alphabets makes clear is how Egyptology, in Lepsius’ career and more generally, was interwoven with philology and linguistics. As the London debate with a naturalist, a mathematician, and

¹For the representation of vowel systems, Lepsius built upon the ‘vowel triangle’ introduced by Grimm (1840: 33). An *ur*-version of a sound diagram can be found in Høysgaard (1747: 5).

Figure 1. Sound systems of 8 African languages, from Lepsius (1855b)

a musicologist illustrates, these linguistic pursuits were in turn part of a wider history of knowledge. Finally, the applications of his Standard Alphabet show him alternating between the study of high-prestige and low-prestige languages: between languages that were old, dead, holy, venerable, and/or linked to high literary cultures and great empires, and languages that were not.

This article further explores these three aspects of Lepsius as a linguist. First, it traces his intellectual trajectory from philology to Egyptology and linguistics. Second, it follows him doing linguistic fieldwork in the Nile region in 1844. And third, it discusses the problematic hypothesis of a ‘Hamitic’ language family that informed his linguistic work, and by which he and Bunsen tried to fill gaps in the historical record. In each of these aspects – the trajectory from philology to linguistics; the intersection between linguistics, ethnology, and other fields of knowledge; and the tension between ‘high’ and ‘low’ – his work reflects wider currents in the 19th-century language sciences. As this article will show, there was a tension in his work not just between different areas of expertise and between high-prestige and low-prestige subjects but also between theory and observation. In Lepsius’ work, we can also trace the trajectories by which language was turned into an object of study: how it was documented in various kinds of language material and reformulated into linguistic data that were used in

overviews and linguistic theories. But we can also see how theories preceded and steered his observations, and we have reason to ask how his observation affected the languages he was studying.

From philology to egyptology and ethnolinguistics

The study of language, for Lepsius, was not a side interest. He was trained as a classical philologist, and most of his books, apart from the monumental *Denkmäler aus Ägypten und Äthiopien* (1849-59), are about linguistics and philology. Deciphering hieroglyphs, which was by no means a done deal after Champollion, required knowledge of Coptic and a deep understanding of dead languages. There is a clear trajectory there from the study of Latin and Greek to the ancient languages of the Middle East. But Lepsius' linguistic interests stretched more widely – and in particular, they included the languages of Africa, culminating in his last book, the *Nubische Grammatik* (1880).

For Lepsius, and for Bunsen as well, the origin of Egyptian civilisation was an ethnolinguistic puzzle; and studying the languages of Africa was one way in which Lepsius hoped to solve it. What he was looking for were languages related to Egyptian, part of a language family that he called 'Hamitic', of which the surmised origins lay outside Africa. The guiding idea here was not just that studying related languages could help understand Egyptian but also that comparative philology could fill gaps in the historical record, tracing the migrations of peoples and cultures through language relatedness.

The sound systems of ancient languages that Lepsius presented at the Alphabetic Conference have their origin in his first published works of two decades earlier. In *Paläographie als Mittel für die Sprachforschung* (1834) he argued that reconstructing the evolution of a writing system and reconstructing a sound system went together, because a sound must once have been pronounced the way it was written, and if a language made a significant phonetic distinction between two sounds, then this must have been marked in the writing system. Then in the two essays (Lepsius 1836) that gained him the *Prix Volney* of the Institut de France (which Max Müller also later won), he elaborated this further. In the essay on ancient alphabets, he argued that the order of letters in the Hebrew and Devanagari alphabet reflected both their place in the sound system, their evolution from a logographic to a syllabary to an alphabetic writing system, and possibly their common origin.

The argument could be extended further: the alphabet as a phenomenon was an outstanding example of linguistic migration between language families, and this, he argued in the second essay, was also the case for numerals. Encouraged by Bunsen, Lepsius started his career as an Egyptologist with an open letter to Ippolito Rossellini in which he pointed

out how such comparisons and genealogies could be used to improve upon Champollion's posthumously published *Grammaire égyptienne*, especially where the distinction between ideographic, phonetic, and 'intermediate' signs was concerned (Lepsius 1837: 24ff). Then the last substantial thing he published before he embarked upon the Egyptian expedition was his reconstruction of the Book of the Dead (1842), which did not offer a full translation but rather a corpus for further philological work – copied, summarised, and divided into chapters.

The ethnolinguistic strand of Lepsius' work can be seen on the very first plate of the *Denkmäler*. Figure 2 shows an ethnolinguistic map of Egypt and the Sudan, with a smaller map of *Völkerfamilien in Afrika* inserted on the top right. The red line that trails down the Nile is the trajectory of Lepsius' expedition – much further south than the area covered by the *Description de l'Égypte* and the Franco-Tuscan expedition of Champollion and Rosellini in 1828–29 (Champollion 1835–45; Rosellini 1832–44). Marked in brown is the language area of Nubian, the language to which Lepsius devoted most of his spare time while on board and during evenings; the pink area is where Beja is spoken. A third language on which he compiled a grammar and vocabulary was Konjara (grey), spoken in Darfur; a fourth language on which he gathered more scant material was Dinka, a Nilotic language spoken in southern Sudan (marked with no specific colour; classified as 'Negro tribes'). In the legend, in the left bottom corner, the languages on the map are classified as 'Semitic', 'Hamitic', and 'Middle African' – essentially, 'other ones'. Furthermore, Arabic place names are transcribed in the Standard Alphabet, pointed out by Lepsius (1981 [1863]: 6n) as 'the first time the author introduced the new alphabet to a great extent'. While this is not a statement about the alphabet's genesis, it is significant that Arabic was also the writing system used for Nubian texts written down on his request.

Lepsius (1849: 16) claimed to have added a new geographical area to the study of ancient Egypt by documenting in detail the monuments south of the second Nile cataract, like the temples of Napata and the pyramids of Meroe. This was half-true: they had previously been described by Cailliaud (1826–27), who travelled there before the decipherment of hieroglyphs. Moreover their place in history was a bit more complicated, since most of the Nubian monuments that he was studying were not left by Egyptian rulers but by the Kingdom of Kush, which had ruled over Egypt in the 8th–7th century BCE and which lasted into the Roman Era. Even if this was, as Lepsius (1844: 392–3) described it, essentially an Egyptian culture or one derived from it, it was still located in a different language area. What certainly played in the back of his mind was how to combine 'African' and 'civilisation'.

Figure 2. Languages and peoples of the Nile region, from Lepsius (1849-59). Courtesy of Universitäts- und Landesbibliothek Sachsen-Anhalt, Halle (Saale).

Linguistic fieldwork between the pyramids

Linguistic fieldwork was not part of the official tasks of the Egyptian expedition; yet the letters that Lepsius sent as reports to dignitaries in

Figure 2. (Detail) Classifying the peoples of Africa. Courtesy of ULB Sachsen-Anhalt, Halle (Saale).

Berlin² from the Nile Valley show that he systematically compiled word lists, made notes about phonetics, and sought to obtain translations and grammars. The period in which he was actually doing this ‘in the field’ was not very long – intermittently from February to September 1844 – but he could also find Nubian speakers and Ethiopic manuscripts in Cairo, and in fact his best informant was a *dragoman* there (Lepsius 1880: *Vorwort* [n.p.]).

The first time Lepsius writes in detail about Nubian is from Korusko (20 November 1843; Lepsius 1852: 117–9), south of Aswan, a place now at the bottom of Lake Nasser, where the expedition also hired a local ‘camel Sheik’ to accompany them south; Lepsius described him as well-built, athletic, with ‘an incomparably beautiful and expressive way of speaking’ (2 March 1844: 125). At least three times Lepsius called upon local

²Recipients of individual letters are unspecified in Lepsius (1852), but included King Friedrich Wilhelm IV, the Minister of Education, Alexander von Humboldt, and Bunsen; moreover, several were printed in the *Preussische Staatszeitung* and copied in other journals upon arrival (vii).

authorities to supply him with informants. In Khartoum he tried to collect a Dinka vocabulary from some of the Pasha's slaves, but made little progress because they did not understand what he wanted, so he only got the numbers 1–100 and a few pronouns (2 March 1844: 160). In Meroe Lepsius arrived in the aftermath of an uprising which had been brutally repressed, and had a long interview with a captive Sheik about the Beja language and its speakers.

All tribes of Taka speak the same language, but only a few understand Arabic as well. I suspect that it is the same as the language of the Bishâri tribes. It has many, and well-distributed vowels and is very euphonous, as it is without the harsh guttural sound of the Arabs. On the other hand it has a peculiar alphabetical letter, which seems to stand between *r*, *l*, and *d* to our ears, a cerebral *d*, which, like the Sanskrit, is pronounced by throwing back the tip of the tongue upwards. (22 April 1844 : 211 | Lepsius 1853: 201)³

There was a well-understood trade-off here, for Lepsius used the opportunity to study the vowel-richness of the language, and the Sheik used it to plead his innocence in front of the Bey. Finally, on his way back north Lepsius met again with a soldier from Darfur who had accompanied them before, and who was given leave from the Pasha in order to instruct Lepsius about his language. Though their sessions only lasted half an hour at a time, Lepsius concluded that Konjara [Fur] is totally different from Nuba and 'seems to show stronger analogies with certain South African languages' – the first time he hypothesised about links with Khoisan, which subsequently became an *idée fixe* (23 June 1844: 254).

What transpires from these examples is how Lepsius was creating something of a laboratory situation *in situ* – you don't do proper fieldwork by simply walking around with your notepad. What also transpires is how Lepsius was lifting the prestige of the languages that he studied. You see this most clearly in how he writes about conversations with his Nubian fixer, Ahmed abu Nabût:

I have sometimes tormented him with questions in the boat for five or six entire hours in one day, for it is no small trouble for both of us to understand each other about grammatical forms and inflections. He has, at any rate, at the same time acquired more respect for his own language, here everywhere considered bad, and inferior to the Arabic, and which it is thought one ought rather to be ashamed of. (15 June 1844: 251 | Lepsius 1853: 232–3)

Constructing a grammar for an unwritten language is a very tiresome process, and Lepsius' account of how they struggled to understand each other with Arabic and Italian as interlanguages is all too recognisable; but the effect of it was not only that Ahmed came to think more highly of his

³Longer passages are quoted from the 1853 translation, with minor alterations.

language, but also that a learned audience in Germany was urged to regard Nubian, and African languages more generally, as an object of study, at a moment when linguistic information about Africa was still rare in Europe (Irvine 2008). In elaborating his grammatical notes, and in having Nubian songs written out in Arabic script, Lepsius was turning it into a language with a codified grammar and a written record – though initially only so for the use of Europeans.

At the same time, Lepsius struggled with ‘Nubian’ as a term for a language and a people. First of all, he did not know where to put it: though the language was grammatically complex enough in its own right, it showed no relation whatsoever to Egyptian, or to Semitic languages for that matter. So if the ancestors of these people had adopted Egyptian civilisation, why was their language not Hamitic? And then, there was the problem of Nubians and Nuba, the latter an ethnic group that lives further south. Decades later, in the *Nubische Grammatik*, he assumed that they basically spoke the same or a related language, and used *Nuba* and *Nubisch* interchangeably there; but in his letters he also mentioned the ‘languages of the Nuba’ in plural (22 April 1844: 221). His ad hoc solution was to hypothesise that the Nubian homeland must have been in the south (15 June 1844: 251); in the Nubian grammar, he distinguished between the two as ethnic groups but not as linguistic groups (Lepsius 1880: LXIV–V).

Beja was the language that filled the gap. On his return in Korusko, Lepsius encountered a Bishari called ‘Ali, born in the desert region around Wadi Ellaqi in between the Nile and the Red Sea, whom he made his teacher in this language. ‘He calls the land of the Bishari tribes *Edbai* and their language *midâb to Beg’auîe*, the Beja language, which clearly indicates that it is identical to the language of the mighty Beja people often mentioned in medieval sources’ (17 August 1844: 261). In the prospectus to the *Denkmäler* Lepsius (1849: 22–23) went further along this line of historical reconstruction and linked Beja to the undeciphered language of the Meroitic inscriptions. More generally he assumed that the ancient Nubians must have been of a Caucasian race, and that the current ethnic map of the region must have been the result of ethnic miscegenation.

I hope that we shall obtain many important results from studying the native inscriptions, as well as the present living languages. The Ethiopian name comprehended much that was dissimilar among the ancients. The ancient population of the whole Nile valley as far as Khartoum, and perhaps, also, along the Blue River, as well as the tribes of the desert to the east of the Nile, and the Abyssinian nations, were in former times probably more distinctly separated from the Negroes than now, and belonged to the *Caucasian* race. The Ethiopians of Meroe (according to Herodotus, the parent-state of all Ethiopia) were a red-brown people, similar to the Egyptians, but darker, as they are at the present day. The monuments also prove

this, on which I have more than once found the *red* colour of the skin in the kings and queens preserved. In Egypt, especially in the Old Monarchy, before the mixture with the Ethiopian race, at the period of the Hyksos, the women were always painted yellow; and the Egyptian women even now, who are blanched in the harem, incline to the same colour. But red women appear even after the 18th Dynasty, and the Ethiopian women were always so represented. It appears that much Ethiopian blood is mingled with the nation of the so-called Barâbras,⁴ so widely distributed at the present day, and this perhaps will also one day appear still more distinctly from their language. This, no doubt, is the ancient *Nubian*, and has been still retained in somewhat distant regions to the south-west under this name; for the Nuba languages in and round Kordofan, as can be proved, are partly related to the Berber language. I have also found indications in the local names that this last, which is only now spoken from Aswan to Dar Schaiqieh, south of Dongola, in the Nile valley, predominated for a long while also in the province of Berber, and still higher up. (22 April 1844: 221 | Lepsius 1853: 208–9)

In this lengthy passage, we can see the Hamitic hypothesis taking shape. Lepsius not only describes ‘the ancient population of the whole Nile Valley down to Khartoum’ as relatively light-coloured, but also suggests a connection to Ethiopians and Berbers, two ethnic groups that he identifies as ‘Caucasian’ and whose languages he later listed as ‘Hamitic’ in the second English edition of his *Standard Alphabet* (Lepsius 1981 [1863]: 303). The result of these comparisons and genealogies is somewhat paradoxical in that his approach entailed both documenting ethnolinguistic diversity in detail and reducing it to what was quite literally a black-and-white picture.

To understand the implications of his reports from the field, we should take a closer look at the overview of *Völkerfamilien in Afrika* in the top right corner of Figure 2. This map is dated 1859, so as far as Central Africa is concerned the interior is empty or guesswork, especially as regards the Congo basin and the Great Lakes. But the outlines are clear enough. Marked in blue are the Bantu languages – first called by that name around the same time in Bleek (1858). In the far south are Khoi and San peoples. In the north are three varieties of Hamites, sometimes overlapped by Semites. In the prospectus to the *Denkmäler*, ten years before this map, Lepsius (1849: 23) had already stated his intention to ‘single out’ the latter from the many other languages of this ‘mysterious continent’ according to ‘clear principles’, and to trace them back to their Asian homeland. So what he describes comes close to an African *Herrenvolk*, but one that comes from outside Africa.

The Hamitic hypothesis

The designation of Africans as the ‘tribe of Ham’ goes back at least to Isidore of Seville, given new lease by early modern legitimations of the slave trade;

⁴The Nubians of the Nile valley – the Kunuz, Danagla, and Mahasin – were traditionally called “Barabra” in opposition to the Nubians of Darfur and Kordofan’ (Rilly & de Voogt 2012: 72).

though Jones (1807 [1792]: 199; cf. Trautmann: 42–52) and Beke (1834: 226ff) spoke of a ‘Hamian language’ and ‘Hamitish languages’, Lepsius was the first to single out ‘Hamitic’ as a language family distinct from other, sub-Saharan, languages of Africa in 1849 (cf. Rohrbacher 2002: 94ff, 2017). Still, he was only one of the intellectual authors of the ‘Hamitic hypothesis’. Bunsen’s role is significant too, and it is sometimes difficult to disentangle the two. Bunsen’s interest in Egypt was not antiquarian. His lifelong agenda was to reconcile Protestant theology and Biblical history with modern historical-philological method, and if this meant that some parts of the Bible had to be read metaphorically, it also meant that they had to be true on a deeper level. In his *Outlines of the Philosophy of Universal History* (Bunsen 1854) he combined this with an overview of the latest ‘ethnological and linguistic results’ of comparative philology, co-authored by Max Müller and others. For Bunsen, the triad Semitic, Hamitic, and Japhetic (i.e. Indo-European) represented the fundamental unity and common origin of human civilisation in Mesopotamia. Half of the first volume is taken up by a ‘Letter’ by Max Müller (1854a), in which all *other* Asian languages were lumped together as ‘Turanian’; the proceedings of the Alphabetic Conference were published as an appendix to Vol. II.

Bunsen had intended Lepsius to be co-author of a six-volume work about ‘Egypt’s place in world history’, in which he offered wilder hypotheses in the same vein (Bunsen 1844–57). The first three volumes were about fairly normal Egyptological issues like chronology, dynasties, and the names of gods and kings; a major contribution was the division of Egyptian history into the Old, Middle, and New Kingdoms, still accepted today (Richter 2014: 17). More adventurously, the later volumes offered an outline of universal history in which five main language families represented five stages of world-historical development with corresponding levels of grammatical complexity and *Gottesbewusstsein* – all the way back to 20,000 BCE! The five stages were I. Chinese, II. Turanian/Tibetan, III. proto-Semitic/Iranian, or Chamitic, IV. Semitic, and V. Iranian or Aryan (Bunsen 1844–57 vol. V.4–5, 336–7; Stage III is where recorded history starts; the end of the New Kingdom marks the advent of Stage IV). What Lepsius thought about this stadial model is unclear; at any rate, he avoided being mentioned as co-author.

Especially with a view on African languages, there is a third figure to take into account: Wilhelm Bleek, who gave the Bantu languages their name. Bleek had been the first student to write his PhD dissertation about African languages in 1851, and already there he had argued that the basic distinction between languages was between those that marked male and female grammatical gender and those that did not (Bleek 1851; cf. Irvine 1995). It was, so to speak, a linguistic ‘missing link’. Khoikhoi languages like Nama and Kora did, as did the ‘Semito-African’ and Coptic languages spoken in North Africa; Tswana and Xhosa did not. That in itself is a typological fact. But

for Bleek, it was not a neutral fact: in his eyes, only gender-marking languages had the potential for poetic imagination and abstract thought (Bleek 1868: XXI–XXV). The others were literally ‘infertile’. The Khoi and San had a veritable mythology; Zulus only had fables (Bleek 1864: XX–XXV).

Bunsen’s and Bleek’s ideas about language relatedness are reflected very literally in the second edition of the *Standard Alphabet*. By then, the examples of the Lepsius alphabet had grown into a comprehensive overview of the world’s languages and writing systems, with sound systems and sample texts. The basic distinction that Lepsius makes in this overview is indeed between ‘gender languages’ and ‘no-gender languages’; the former are divided into Japhetic, Semitic, and Hamitic, the latter sorted only by region, as a rest category to Bunsen’s Biblical triad. And in this overview, ‘Hamitic’ includes four branches: A. Egyptian and Coptic, B. Ethiopian, C. Berber and Hausa, and D. ‘Hottentot’ [Khoisan]. He still used this same classification later in his Nubian grammar.

But Lepsius (1880: II) also made an important proviso: *Völker* and *Sprachen* never fully overlap. People migrate and intermarry, speak several languages, and adopt the languages of conquerors. Thus, Khoisan languages were Hamitic, but Khoi and San were not Hamites (Lepsius 1880: LXVII–VIII). That proviso was common sense among even the most racist of 19th-century linguists, but even so, by 1880 (when Bleek and Bunsen were dead) his closest readers were unconvinced of a Hamito-Khoisan connection. The Austrian linguist Friedrich Müller, who based most of his own overview of the world’s languages (Müller 1876–88) on Lepsius (1981 [1863]), saw Hamitic and Khoisan speakers as belonging to different human races and therefore too far apart to belong to the same language family; Cust (1883: vol. I, 94–6), who put Lepsius first in his pantheon of great Africanists, even demoted Hamitic to a ‘group’ of languages rather than a family, and firmly disconnected it from the ‘Hottentot-Bushman’ group (vol. II, 345ff). Lepsius (1880: XVIII) himself made a slight reservation on this point: he put ‘(IV.) Hottentottisch’ between brackets.

Lepsius (1880) contained not only a Nubian grammar and dictionary, but also – again – an overview of the languages and peoples of Africa, laid out in a 126-page introduction. The main difference with his earlier classification in Lepsius (1981 [1863]: 301–8) was that he introduced a new category of ‘Misch-Negersprachen’, situated in between Hamitic and Bantu – in other words, a generalised version of his ideas about miscegenation. Nuba was in that category, as were 28 others, mainly West African Niger-Congo languages and languages that he had classified as ‘isolated’ [or isolated clusters] in 1863. To make his case, he identified 12 characteristic phonetic and morphosyntactic features of Bantu languages (especially prefixes, lack of grammatical gender, and vowel harmony) and then pointed out traces and analogies in the ‘mixed languages’, or predominantly Hamitic/Semitic

features (gender, inflection, suffixes) instead. Thus Nubian had no grammatical gender, rudimentary infixes, and a relatively simple syllabic structure, but a rich system of conjugations. If this was to be explained from ages of Egyptian, Kushitic, and Arab domination in Nubia, it is unclear how this would square with equating Nubian and Nuba, as Lepsius did on the basis of a short vocabulary (LXVII–VIII), since the Nuba had never been ruled by either.

Physical anthropology played an auxiliary role in these classifications: it could corroborate but not falsify them. If language family and ‘physical type’ did not match, as with Khoisan and Hausa, the explanation was miscegenation.⁵ Though Lepsius regularly pointed to physical characteristics (‘red’, ‘brown’, ‘black’, ‘taller’, ‘lighter’, ‘noble’) to underpin his linguistic genealogies, he was dismissive of Friedrich Müller’s classification of the world’s languages by race, if only because racial classifications were notoriously unstable, and even more so because Müller’s theory that four races with twelve subdivisions would have independently developed up to 100 *Ursprachen* would not survive Ockham’s razor (Lepsius 1880: IV–V, LXX–LXXI). Also, he criticised Bleek (1868), who saw Khoisan as the key to the origin of language, for viewing Khoi as a ‘pristine, unchanged, almost Adamitic’ language rather than as mixed and degraded (Lepsius 1880: LXIX).

Given his preference for Beja over Nubian, it may seem surprising that Lepsius devoted his efforts to his Nubian grammar instead. Lepsius indeed regretted not having done more fieldwork on Beja; in the end he simply had more Nubian materials and interlocutors. Sixty pages of Lepsius (1880: 201–60) are taken up by the Gospel according to St Mark and by four Nubian songs with translation and notes, the remains of a lost larger collection; for Beja he had nothing comparable. On top of that, he had three well-qualified Nubian informants with whom he could spend prolonged periods: Ahmed abu Nabüt on the Nile, who spoke two Nubian dialects as well as Arabic and basic Italian; the erudite and widely travelled *dragoman* Haġi Hassan in Cairo, who made the St Mark translation; and finally, Ali wed Šaltūf, who had accompanied explorer Wilhelm von Schlieffen back to Schlieffenberg in Pomerania in 1853. Thus, Lepsius could continue to add to his knowledge of the language from a distance, using the Arabic learning of the latter two to make them reflect upon and document their native language.

On the whole, Lepsius the language gatherer cuts a more sympathetic figure than Lepsius the linguistic theorist. To learn a language you have to treat the speakers as human beings; moreover, Lepsius was not simply registering but entering into conversation with people who were literate

⁵Hausa was classified as ‘Hamitic’ on account of its gender-marking and ‘the position of the verb between subject and object’, although it was lexically and morphologically similar to neighbouring ‘mixed’ languages. Still, Lepsius discussed it among ‘mixed’ languages on racial grounds. (Lepsius 1880: xvii, II–LI).

and polyglot, who made translations and transcripts for him and corrected his findings. Paying respect in print to their intelligence and learning was even an epistemic strategy – a statement about the reliability of his own work. References to *Ahmed*, *Hassan*, and *Ali* recur throughout the text, especially to mark grammatical and lexical variants.

Conclusions

The 1842–45 Egyptian expedition, mainly remembered for filling the Neues Museum in Berlin with antiquities, stands out as one of the earliest examples of a trained professional linguist doing fieldwork. Unlike missionaries who set up a printing press, and unlike explorers who mainly collected word lists, Lepsius was analysing language structures primarily in order to compare them and to communicate the results back to Europe. The differences in method should not be exaggerated: the Standard Alphabet, for instance, integrates the C.M.S. *Rules for Reducing Unwritten Languages to Alphabetical Writing* (Schön & Lee 1848) and resembles the notation system used by Koelle (1963 [1854a]) before he explicitly adopted the Standard Alphabet (Koelle 1968 [1854b]: xi; cf. Spencer 1966); mid-19th-century missionaries, especially German Protestants who filled the C.M.S. ranks, had often had advanced philological instruction in Latin, Greek, and Hebrew. But the differences between linguists and missionaries are there all the same, and not just in the more intensive use of jargon and diagrams.

The combination of carefully hedged formulations and apodictic judgments is typical not just of Lepsius. As a practitioner of the science of language, Lepsius was circumspect about empirical observations but also strove to reduce them to more general explanations: racial theories, inferred genealogies, and philological scrutiny of ancient sources were three of the main approaches to get beyond surface phenomena. Speculations about origins were part of the logic of 19th-century ethnolinguistics; the Hamitic hypothesis is not much more outlandish than Max Müller's Turanian, than Friedrich Müller's classification of the world's languages by hair type, or than Wilhelm von Humboldt's search for a missing American-Polynesian link.

Such theories had real-world consequences. 'Bantu' was a category in Apartheid legislation; the Hamitic hypothesis developed into a tenet of physical anthropology that cemented Tutsi-Hutu hierarchies under German and Belgian colonial rule (cf. Mintjens 1999: 252–7). This is not to hold Lepsius personally accountable for the Rwanda genocide, or Bleek for Apartheid; it is not something they could have known. But their most prominent successor in the study of Bantu and Hamitic languages, Carl Meinhof, who wrote a Herero grammar shortly after the Herero genocide, and who later joined the Nazi party, has more to answer for.

It was not, of course, only professional linguists who speculated. Missionaries had their own theories about Babel and Eden; Koelle linked Vai and Kanuri words with Greek and Hebrew roots; Bunsen's speculations dwarfed those of Max Müller and Lepsius. The question was rather which speculations were permissible. Falsifiability was clearly not the deciding factor: the Hamitic hypothesis, for one, had a huge confirmation bias. But in view of the linguistic achievements of Lepsius and Bleek, the least one can say is that their *idées fixes* were productive. Bleek searched for the first evolutionary stages of language and built a unique corpus of oral literature (Bleek & Lloyd 1911); the Hamitic hypothesis informed phonetic and grammatical comparisons by Lepsius and others, and created a research agenda for *Afrikanistik*.

The Standard Alphabet, eventually, functioned less as a practical system than as a protocol; a 'meta-alphabet' by which to assess, correct, and standardise the transcriptions of others, as Lepsius did in successive editions (1855a, 1855b; 1981 [1863]), and in his reconstruction of the Zend alphabet (1863b). In the Nubian grammar, he painstakingly transliterated Haġi Hassan's St Mark translation into the Standard Alphabet. Steinthal (1867) reformulated missionary grammars (including Koelle's), starting with Standard Alphabet sound systems; Bleek consistently used it in his *Bushman Folklore* notebooks, enriched with five signs for clicks, and instructed his sister-in-law, who took over the project, to do the same (Irvine 1995; Solleveld 2020). The C.M.S. endorsement of the Standard Alphabet explicitly distinguished between its theoretical and its more restricted practical use:

This Alphabet is available for two very different classes of readers – the European student, and the uncritical Native. For the former, whether traveller, missionary, or philologist, the whole apparatus of diacritical marks will be needed, and more especially for such works as Grammars, Praxes, Dictionaries, &c, where the object is technical and linguistic. For the latter, many of the diacritical marks may be dispensed with, or will gradually drop off of themselves; and the Alphabet readily admits of such simplification, while preserving all its essential principles in their integrity. (Lepsius 1981 [1863]: xii)

Likewise, Brugsch and Erman (1889), revising the Standard Alphabet for the use of Egyptologists, distinguish between simplified transcriptions for common readers, accentuated transcriptions for historians, and technical transcriptions for professional Egyptologists. With further revisions, the Lepsius alphabet is still at the basis of the transcription system used by Egyptologists today.

Why, then, did it lose out to IPA in other domains? The 'printer's nightmare' argument, used by Jespersen (1904) to write it off as unwieldy and outdated, does not suffice, since it applies to both. One significant factor is

that IPA was an evolving series of proposals rooted in practical applications rather than an imposed standard. Meinhof (1928: 229) argues that Lepsius confused the linguistic problem of distinguishing meaningful sounds within a language with the phonetic problem of classifying all the sounds of human language, of which ‘there are many more than Lepsius imagined’. Still, Meinhof continued using a version of the Standard Alphabet throughout his career, predicting that ‘[t]he newly invented letters of the *Association Phonétique* will, except for a few happily chosen symbols, in all probability win few adherents and will meet with the same fate as other such inventions’ (234). But he was a dissenting voice within a wider debate. *Pace* Meinhof, the International Institute of African Languages and Cultures (1927), chaired by his pupil Dietrich Westermann, moulded its Africa Alphabet on IPA.

As an instrument of 19th-century ethnolinguistics, the Standard Alphabet belongs to a phase in the history of knowledge that could be called ‘the mapping of the world’. That mapping included linguistic and geographic surveys, naturalistic and archaeological expeditions; it also entailed lumping people under general denominators. The last prominent advocate of the Standard Alphabet was Schmidt (1907); appropriately enough, Father Schmidt coordinated an ethnolinguistic information network through the Catholic missionary Society of the Divine Word (cf. Marchand 2003) and edited a language atlas of the world (Schmidt 1926). Schmidt, however, incorporated wandering Hamites in a diffusionist model of overlapping *Kulturkreise*, which are a problematic story of their own (Rohrbacher 2002: 189–195; Rebay-Salisbury 2011).

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