THE CLASSIFICATION OF CHADIC
WITHIN AFROASIATIC

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DOOR

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Mijnheer de Rector Magnificus,

Dames en Heren Leden van de Universitaire Gemeenschap,

Zeer gewaardeerde toehoorders,

The Chadic language family consists of some hundred and fifty languages found in northern Nigeria, northern Cameroon, central Chad, and neighboring areas in West Africa. One of these, Hausa, is probably the largest indigenous language in sub-Saharan Africa, being spoken by an estimated 20 to 25 million people. It has been the subject of serious linguistic study since the middle of the 19th century, and can boast having some of the best grammars and dictionaries of any African language. The other Chadic languages taken together probably number less than three million speakers. While isolated descriptions of these languages date from the beginning of the 19th century,[1] they remained neglected on the whole until the 1930's, when they became the subject of study of Professor J. Lukas. While our knowledge of these smaller languages is still meagre by comparison with Hausa, an awakening of interest in Chadic over the past twenty years has resulted in new basic descriptions of many of these languages, such that is has been possible for scholars to embark on intra-Chadic comparative work and achieve significant results (see Barreteau & Newman 1978).

As part of his comprehensive classification of the languages of Africa, Greenberg (1950) proposed that Chadic be incorporated as an integral

1. A description of the Affade dialect of Kotoko by U. J. Seetzen dates from 1816. This work seems to have been completely overlooked until brought to the attention of linguists in recent years by Sölken (1967).

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part of the Hamito-Semitic (later renamed "Afroasiatic") phylum.[2] The proposal in effect embodied three separate hypotheses, none of which was original with Greenberg, but which when taken together, added up to a clear und unequivocal treatment of Chadic. The first claim was that Hausa, in spite of its numerical significance, was phylogenetically just one of a number of related languages in the area. Thus, in considering the possible relationship of Hausa to Egyptian or Berber or Semitic, one had to consider the whole Chadic group of which Hausa was a part and not just Hausa in isolation. Second, Greenberg rejected the putative Hamitic family and the well-established Semitic/Hamitic dichotomy, arguing instead for an overall Afroasiatic phylum with 5 parallel families, each provisionally treated as being fully coordinate with the others. Greenberg's third claim was that Chadic did indeed belong to Afroasiatic.

The first claim is now accepted as fact. Barth in 1862 already recognized the relationship of Hausa to Logone, a smaller language spoken south of Lake Chad, and by 1884, Krause was able to speak of a "haussa-musukanischen Gruppe", including Hausa, Musgu, Logone, Bade, and Margi, among others. Migeod (1911-13) correctly related Hausa more specifically to the Angas-Bole languages. Delafosse, in *Les langues du monde* (1924), included Hausa in an even larger "nigéro-tchadien" family,[3] a conglomeration that formed the basis for Westermann's "Hausa-Kotoko-Gruppe" (Baumann, Thurnwald, and Westermann 1940: 393-95) and ultimately for the presently-constituted Chadic family. Lukas (1936, etc.) introduced an artificial distinction between languages such as Hausa, Bade, and Kotoko, which had grammatical gender, and those such as Mandara and Margi, which did not, a division rejected by Greenberg and further demonstrated to be false by Newman and Ma (1966). Nevertheless, although Lukas may have narrowed the

2. Greenberg's 1950 article was reprinted as such in his 1955 book and with a much expanded comparative word list in his *Languages of Africa* (1963). For the sake of convenience, I shall go ahead and use "Afroasiatic" as the general term of reference for the phylum, even when speaking of historical periods prior to the introduction of the term. For the best general overviews of the field of Afroasiatic linguistics, see Hodge (1971, 1975) and Diakonoff (1974).

3. Delafosse's group also included a number of small non-Chadic languages spoken in the same geographical area about which little was known (e.g. Jarawa, Mundang, Waja). These non-Chadic languages were again listed in the 1952 edition, although a note was added that they possibly did not belong.

limits of his so-called "Chado-Hamitic" group unnecessarily,[4] he more than anyone else was responsible for taking Hausa out of its traditional isolated status and establishing its position within a well defined family of languages.[5]

The second hypothesis also gained quick and broad acceptance. This is undoubtedly due to the fact that Greenberg's rejection of the Semitic/ Hamitic dichotomy and its replacement by a super-phylum containing a number of coordinate branches was in line with the position that had been espoused for over a quarter of a century by Marcel Cohen, the leading figure in comparative Afroasiatic linguistics. The publication within a short period of time of Greenberg's classification (1950, 1955a) and two major works by Cohen (1947, 1952) finally destroyed the linguistic foundations of the Hamitic concept.[6] While many scholars doubt whether the various branches of Afroasiatic are really equally distant from one another, almost no one now believes that a valid sub-grouping of the phylum would show Egyptian, Berber, Cushitic, and Chadic to fall together into one common "Hamitic" branch as opposed to Semitic.[7]

Greenberg's third claim, the membership of Chadic in Afroasiatic, has not fared as well as the other two. While this classification has been accepted almost as a matter of course by Africanists in America and has

4. A brief evaluation of the "Chado-Hamitic" concept is found in Newman (1978).
5. Parsons' (1970) misguided attempt to cast doubt about the relationship of Hausa to Chadic was answered succinctly, but sharply, by Newman (1971). For a review of the literature concerning the classification of Hausa, see Meyer-Bahlburg (1975/76).
6. Unfortunately, however, numerous scholars in linguistics, anthropology, and history – not to mention bibliographers and booksellers – persist in speaking of Hamitic languages and peoples, thereby keeping alive this anachronistic and pernicious concept. Ironically, Marcel Cohen, who more than anyone else had fought against the idea of a Hamitic family, unwittingly contributed to the survival of the concept by his use of the term "chamito-sémitique", which embodied the dichotomy which he purported to reject.
7. Polotsky (1971 : 321-22) expresses what one might consider today's balanced view: "The Semitic languages thus constitute merely a 'family' within a 'stock' or 'phylum', to which the name Hamito-Semitic has been given. This name inevitably suggests a dichotomy into two major groups . . . Yet it is clear that there exists no 'Hamitic' family comparable to the Semitic family . . . The most sensible attitude is . . . to refrain from premature stratigraphical theories and to accept as of equal standing the four main groups, Semitic, Egyptian, Berber and Cushitic, – plus any group which further research may find it necessary to add, such as Chad-Hamitic (including Hausa)."

been endorsed as well by a wide range of scholars of various nationalities and disciplines (e.g. Westermann 1952, Meeussen 1957,[8] and Diakonoff 1965), it has not been universally accepted. No one has actually denied the relationship, as was common earlier, but a number of scholars have been reluctant to accept it. Many of these, Leslau (1962) for example,[9] have simply chosen to ignore Chadic as if it did not exist, and have described Afroasiatic as consisting of four groups only, namely Semitic, Egyptian, Berber, and Cushitic, a practice also common in standard reference works. Others, principally Marcel Cohen and his followers, have expressed their doubts more openly. Note, for example, the sharp rebuke found in a review by David Cohen of Diakonoff's *Semito-Hamitic Languages:* "Suivant une hypothèse ancienne, mais remise à la mode il y a quelques années par J. Greenberg, I. M. D'jakonov les intègre dans le chamito-sémitique, sans même signaler que des doutes continuent à s'exprimer à ce sujet parmi les chamito-sémitisants, aussi bien que parmi les spécialistes des langues tchadiennes" (D. Cohen 1971 : 204).

Before discussing the substantive question of the classification of Chadic within Afroasiatic, I would like to go back and survey the history of this "hypothèse ancienne".

The classification of Hausa (and thus ultimately of Chadic) as Afro-asiatic was first proposed in 1844 by the Berberist, Francis W. Newman. Drawing on Hausa data published the previous year by Schön (1843), Newman pointed out detailed similarities between Hausa and other languages now accepted as Afroasiatic. He presented a short list of common lexical items and then remarked: "Far more important is the similarity which the Haussa discloses in its pronouns to the Hebrew family in general, and in its prepositions and demonstratives to the Berber language" (p. 628). Newman did not unequivocally assign Hausa to Afroasiatic (his "Hebraeo-African" family) as he had done in the case of Berber, but his arguments all pointed in that direction.

The postulated relationship between Hausa and other Afroasiatic languages was subsequently adopted by Max Müller (1855, 1861), a leading general linguist of the period. Müller, who seems to have had a

8. Meeusen's overall evaluation of Greenberg's classification was high: "Greenberg heeft een meesterlijke klassificering van de Afrikaanse talen opgesteld" (1957 : 272).
9. "The existence of a Hamito-Semitic family is firmly established. The comparative studies going back to the beginning of the nineteenth century sufficiently prove that Semitic, Egyptian, Cushitic, and Berber have common features in morphology and in vocabulary " (Leslau 1962 : 44). Chadic is not mentioned.

clear understanding of hierarchic linguistic subgrouping, was aware that the different Afroasiatic groups were probably not all related to one another in exactly the same way: "Other languages which are supposed to belong to the Semitic family are the *Berber* dialects of Northern Africa . . . Some other African languages, too, such as the *Haussa* and *Galla,* have been classed as Semitic; and the language of Egypt, from the earliest hieroglyphic inscriptions to the Coptic . . . has equally been referred to this class. The Semitic character of these dialects, however, is much less clearly defined, and the exact degree of relationship in which they stand to the Semitic languages, properly so-called, has still to be determined" (1861 : 269).

The explorer Barth, who knew Hausa intimately from his long travels in Africa, was also convinced of the relationship (1862 : 470n). Not everyone, however, was prepared to accept the idea. J. C. Prichard, the physical anthropologist in whose earlier work Newman had published his ideas about Hausa, was extremely negative: "That such a people should bear *any* relationship to the Shemite nations is a fact so contrary to prejudice and prevailing opinion, that the assertion will not be believed without proofs" (1855 : 324, emphasis his). Similarly, C. Lottner, in an otherwise "remarkably prescient essay" (Greenberg 1950), explicitly excluded Hausa from among his Afroasiatic "sister families": "And I especially *most distinctly deny an assertion, which of late has been very confidently made, that the Haussa exhibits certain Semitic features"* (1860/61 : 114, emphasis his).

The most influential linguistic classification presented during this mid-nineteenth century period was that of R. Lepsius in the 2nd edition of his *Standard Alphabet* (1863). Lepsius accepted the relationship of Hausa to Berber, Egyptian, and Cushitic, but put all of these (along with Hottentot) in a family distinct from Semitic, which he termed "Hamitic".[10] His Hamitic and Semitic families were presumed to be ultimately related, in that they, along with Indo-European, belonged to the general category of "Gender languages",[11] but otherwise, there was no special relationship between the two. The languages of Africa that were neither Semitic nor

10. Contrary to oft-repeated statements on the subject, neither Lepsius nor Renan (1855) was responsible for introducing the term "Hamitic". For an excellent study, which finally provides reliable information on the history of this field, see Burrini (1978-79).
11. This was not a typological grouping. For Lepsius, all of these "gender-languages" were descended from "one original Asiatic stock" (1863 : 89).

Hamitic were put into a single "African" family. This same classificatory scheme was retained by Lepsius in his more extensive treatment of the languages of Africa which he published in 1880 as an introduction to his Nubian grammar.

Friedrich Müller (1867) followed Lepsius in treating Hamitic as a family separate from Semitic, but he excluded Hausa (as well as Hottentot), thereby pruning Hamitic down to its "orthodox" core of Egyptian, Berber, and Cushitic. The linguistic validity of this Hamitic group was demonstrated by grammatical comparisons involving pronouns, gender markers, plural formations, verbal extensions, etc. Interestingly, most of the phenomena later cited by Greenberg in support of Afroasiatic were already mentioned by Müller. In Müller's magnum opus, published in four volumes between 1876 and 1888, Hamitic and Semitic were still treated essentially as separate groups, although it was acknowledged that at a deeper level they constituted branches of a common family.[12] Hausa and other Chadic languages that were getting to be known were relegated to a place among the Negro-African languages.[13] Müller's classification, which was popularized by Cust in his *Sketch of the Modern Languages of Africa* (1883), became what was probably the dominant viewpoint on African and Afroasiatic languages for the next thirty years.[14]

The major linguistic event at the beginning of the 20th century – from which African linguistics is only now beginning to recover – was the publication of Meinhof's *Die Sprachen der Hamiten* (1912), followed soon thereafter by his *Introduction to the Study of African Languages* (1915). Meinhof went back to Lepsius' classification in including Hausa and Hottentot in his Hamitic family, but went beyond it in adding Fulani (a West-Atlantic Niger-Congo language) and Masai (a Nilotic Nilo-Saharan language). But more important than the exact membership of the family was the fact that Meinhof endowed his family with racial characteristics, both physical and psychological. From that point on, Hamitic ceased to be an arbitrary name for a group of non-Semitic

12. The idea that Semitic and Hamitic were, on the one hand, valid groups, but on the other, combinable into a higher level Semito-Hamitic or Hamito-Semitic family was proposed much earlier by Benfey (1869).
13. Müller (1877 : 235-37) explicitly acknowledged the existence of real similarities between Hausa and Hamito-Semitic, but explained these away as being due to Hamitic influence on Hausa at a very early date.
14. One of the major Afroasiaticists of the period who continued to include Hausa (and Musgu) in his comparative works was Reinisch (1909).

languages with Semitic-like features and became the name used for the languages spoken by a specific racial/ethnic group, the "Hamites", presumed to be fundamentally different from the "Negroes of Africa".[15] The idea that the Hamites were not only different from but inherently superior to the Negro Africans became a dominant theme among anthropologists and historians, as well as linguists.[16] Seligman's statement, for example, is typical: "Apart from relatively late Semitic influence . . . the civilizations of Africa are the civilizations of the Hamites . . . The incoming Hamites were pastoral 'Europeans' – arriving wave after wave – better armed as well as quicker-witted than the dark agricultural Negroes" (1966, p. 61 and 100). The following statement by Asirelli (1950 : 161) captures even more vividly the romantic aspect of the Hamitic concept: "Certains traits caractérisés se retrouvent identiques aussi bien chez les Hamites septentrionaux [Berbers] que chez les Hamites orientaux [Cushites], et le plus important est bien cette disposition affirmée à la spiritualité . . . une spiritualité brûlante, passionnée, fanatique même, qui distingue sans équivoque possible, la conscience hamitique de la placidité indifférente et conciliante des Noirs".

Meinhof recognized remote affinities between Hamitic and Semitic, but in terms of his overall classification of the languages of Africa into Sudanic, Bantu, Hamitic, Semitic, and Bushman, they were treated as separate families. For all practical purposes, Hamito-Semitic ceased to exist.

Not all scholars accepted Meinhof's total classification nor his views regarding the cultural/racial nature of the Hamites; but practically all those who accepted his idea of a separate Hamitic family also followed him in assigning Hausa to this group (e.g. O'Leary 1915, Trombetti 1923, Worrell 1927, Barton 1934). Westermann, in his introduction to Bargery's monumental Hausa dictionary, wrote, "Hausa is a Hamitic language . . . The main proof of the Hamitic character of the Hausa language is its distinction of grammatical gender in noun and pronoun. This distinction

15. Meinhof did not invent the idea of a Hamitic race, but he played a major role in promoting the idea by providing the link between the views of the linguist and the physical anthropologist (see MacGaffey 1966). Surprisingly, even Marcel Cohen, who had opposed the idea of a Hamitic language family so consistently, couldn't completely escape the attraction of the Hamitic myth: "Le terme de chamitique ne représente pas une unité définie; il répond grossièrement à une entité ethnique (les 'blancs' d'Afrique)" (1947 : 45).
16. See Drake (1959), Sanders (1969), and Miller (1976).

is fully developed in Hausa and shows in its formation clear affinities to the Berber dialects. This same characteristic . . . is one of the connecting links between Hamitic and Semitic languages" (1934 : xiii).[17] At first, scholars who accepted the membership of Hausa within Hamitic were essentially content to re-cite the evidence provided by Meinhof, but in the 1930's, new and important studies appeared which explicitly set out to demonstrate the validity of this putative relationship.[18] Perhaps the most important single study was Vycichl's long paper on Hausa and Egyptian (1934). But more influential in convincing other scholars that Hausa was Hamitic, or very probably so, was J. Lukas, who in a series of papers (1937/38 etc.) demonstrated the existence of unquestionable "Hamitic" characteristics, not only in Hausa, but in the whole group to which Hausa belonged. These were not isolated features but rather were extensive similarities covering the gamut of grammar, morphology, phonology, and lexicon. The term "Chado-Hamitic", coined by Lukas, proved effective in highlighting the wider external relationship of this group to the Hamitic family.

The approach to Afroasiatic that stood as the major competitor to Meinhof's classification during this period was the one championed by Marcel Cohen. As presented in 1924 in *Les langues du monde,* Afroasiatic was conceived of as a unitary family with four parallel branches of equal status, namely Semitic, Egyptian, Berber, and Cushitic. Although the hyphenated name "chamito-sémitique" was retained – a strategic mistake of the first order – it was emphasized that the latter three did not fall together in a common group as opposed to Semitic. "Il n'y a pas lieu . . . de croire à la parenté spéciale entre l'égyptien, le libyco-berbère et le couchitique que suppose leur réunion habituelle sous le nom de chamitique; il ne sera donc pas question ici d'un groupe chamitique"

17. Curiously, a few years later, Westermann forgot about Hausa's ties with Hamitic and classified it instead in the "Innersudanisch" group of the "Sudan-sprachen" along with Kotoko and other Chadic languages (see Baumann et al. 1940 : 393-95).
18. Klingenheben (1928/29) used Hausa data extensively in his comparative Hamito-Semitic works and thus implicitly contributed to the demonstration of the membership of Hausa in the phylum.

(Cohen 1924 : 83).[19] Cohen explicitly excluded Hausa from this family notwithstanding the existence of what he termed "quelques traits isolés d'homonymie avec des éléments grammaticaux chamito-sémitique" (p. 84) and relegated it to the chapter on Negro-African languages. Cohen's classification thus constituted a return to the position proposed without success by Lottner a half century earlier. As a matter of historical interest, it should be pointed out that this was hardly Cohen's rediscovery, since the idea of an Afroasiatic family with a coordinate four-branch tree structure had already been revived by French scholars some ten years earlier, namely by the Egyptologist Pierre Lacau (1912-13)[20] and, presumably independently, by Maurice Delafosse (1914), who, one might be surprised to hear, termed this family "Afro-asiatique"![21] Cohen, nevertheless, clearly became the leading advocate of this conception of Afroasiatic, both in terms of its rejection of Hamitic and in its exclusion of Hausa and Chadic. In 1924, Cohen simply dismissed Hausa with a passing phrase. Ten years later, in response to Westermann's assertion that Hausa *was* Hamitic, Cohen was more precise: "Les différences fondamentales du fonctionnement du haoussa et langues de son groupe d'une part, du chamito-sémitique de l'autre, et le manque de grandes séries de morphèmes communs, doivent faire écarter l'appartenance du haoussa à la famille chamito-sémitique" (1934/37 : 3). In his influential, but – if I may be excused an apostasy – grossly overrated *Essai comparatif sur le vocabulaire et la phonétique du chamito-sémitique,* published in 1947,[22] Cohen began to waver regarding Hausa: "Si on ne

19. Cohen also rejected the idea of Egyptian being a Semitic language, an idea that has had a following over a long period of time, e.g. Erman (1892), Albright (1923), Rössler (1971). Another idea that has also had a following is that Afroasiatic consisted of three branches, namely Semitic, Egyptian, and Hamitic, where Hamitic included at least Berber and Cushitic and often Hausa and other Chadic languages as well, see, e.g. Lexa (1922), Behnk (1928), and Edel (1955/64).
20. "Dès maintenant l'égyptien, les langues sémitiques, les langues berbères, les langues est-africaines (ou chamitiques = somali, galla, bichari, etc.) nous apparaissent comme quatre rameaux distincts issus d'une souche commune" (Lacau 1912 : 207).
21. Delafosse (1914 : 22) divides his "langues afro-asiatiques" into three groups: "sémitique", "hamito-berbère", and "hamito-kouchitique". He makes no mention of Egyptian since he was only concerned with classifying living languages, but one can assume that he would have treated it as a fourth parallel group. Hausa was purposely excluded and put in a "Nigéro-logonais" group among the African languages.
22. One of the few properly critical reviews of this work is Hintze (1951).

considère que les caractéristiques personnelles, on doit reconnaître que le haoussa et son groupe présentent des concordances *frappantes* avec le chamito-sémitique" (p. 44, italics mine). "Il s'imposait donc de ne pas exclure le haoussa d'une recherche lexicale" (p. 45). Although in the 1952 edition of *Les langues du monde* the classification of the earlier edition was readopted, i.e. an Afroasiatic family with four branches and elsewhere an all-embracing category of Negro-African languages to which Hausa and other Chadic languages were assigned, Cohen added a brief prefatory note in which he admitted that the classification of Lukas' Chado-Hamitic group represented a serious problem. Around 1970, as time for the next edition of *Les langues du monde* drew near, what to do about Chadic became, according to Cohen's own admission, an embarrassment. Cohen was obviously still not ready to reverse himself and welcome Chadic in his Hamito-Semitic family; but the publication in the meantime of Greenberg's classification and its broad acceptance by a wide range of Africanists and Afroasiaticists was making it more difficult to avoid. The solution – if one can call it that – was to sidestep the problem by leaving Chadic unclassified in a sort of linguistic purgatory: "Nous avons décidé de faire une place à part au haoussa [and related Chadic languages] en le détachant suffisamment des langues africaines sans l'inclure totalement dans les langues chamito-sémitiques" (1974 : 17). As David Cohen, Marcel Cohen's former colleague and successor in Paris, put it, "les langues tchadiennes sont encore bien trop insuffisamment étudiées pour qu'il soit possible, au stade actuel, d'aboutir à des conclusions définitives" (1968 : 1290).

But is this true? We know that there are scholars who have expressed and who continue to express doubts about the inclusion of Chadic within Afroasiatic; but scientifically, are these doubts justified? Is it really true that with all the developments of descriptive and comparative linguistics in the second half of the 19th century and some three-quarters of the 20th century, we are still not able to decide about the correctness of a hypothesis dating back to 1844?

The answer is that we can decide and that there is no question but that the entire Chadic family, including Hausa, constitutes an integral part of the Afroasiatic phylum. There is no room for doubt. Any scholarly work that omits Chadic in specifying the membership of the Afroasiatic phylum on the grounds that the classification is still unproved is committing an error of omission which is equally as serious as the

inclusion of some language or group of languages that does not belong. All of the hedging and vacillation under the guise of prudence and conservatism is nothing but a refusal to accept the facts. Admittedly the relationship between Chadic, Semitic, Egyptian, Berber, and Cushitic is a distant one – a separation of 10,000 years would not be an extravagant estimate – but using the normal criteria employed in linguistic classification, if Chadic languages had been spoken by Semitic-looking peoples in scattered oases in North Africa, their membership in Afroasiatic would have been settled long ago. But this is not the case. Chadic languages are spoken in sub-Saharan Africa by black people belonging to small "tribal" groups, and thus there has been not just a reluctance to accept Chadic, but rather a deep-seated resistence to the idea. When one looks objectively at the evidence, however, it is impossible to conclude anything else than that Chadic belongs within Afroasiatic.

Not surprisingly, some of the evidence presented over the past hundred years in support of the classification of Chadic as Afroasiatic is incorrect, being based on faulty interpretation of the data, unjustified generalization from Hausa to the Chadic family as a whole, or simply accidental resemblance. Other comparisons, however, continue to hold up, even under extremely careful scrutiny. Among the distinctive Afroasiatic features that can be shown also to exist in Chadic, one can cite: (a) a feminine formative t with the triple function "female/diminutive/singulative"; (b) an $n/t/n$ gender-number marking pattern in the deictic system (Greenberg 1960); (c) an $m-$ prefix forming nouns of place, instrument, and agent; (d) the formation of noun plurals, among other ways, by the suffixation of $-n$ and by the insertion of an internal vowel $-a-$ (Greenberg 1955b); (e) the formation of intensive ("pluractional") verbs by internal consonant gemination, also often accompanied by the use of an internal $-a-$;[23] and (f) an asymmetrical conjugational system involving suffixed feminine and plural markers in addition to pronominal prefixes.[24]

The lists of supposedly cognate lexical items between Chadic and

23. Greenberg (1952) correctly drew attention to the general Afroasiatic nature of such verb forms, but incorrectly described them as belonging to the aspect system rather than to the verb derivational system. In my opinion these verb forms represent, not "Present" stems, but rather iterative, habitual, intensive, or, what I prefer to call, "pluractional" stems. See Newman (1977b), Wolff (1977) and Frajzyngier (1979).
24. This system is described in a recently presented conference paper (Newman 1980).

other Afroasiatic languages presented in the past have on the whole been less reliable than the morphological comparisons.[25] But even here, if one examines the various suggested etymologies, using much stricter requirements for accepting cognates than formerly done, namely that (a) the Chadic form be reconstructable for Proto-Chadic and not merely be found in one or a number of scattered languages, and (b) that an appropriately similar form be found in at least two other families in Afroasiatic, one can still find a core of good, basic items. (I present a list of 28 such words in the Appendix). One might object that the number of good etymons is small – Marcel Cohen, for example, was concerned that he was only able to include some 60 Hausa citations among his 500 lexical items – but, as Olderogge (1960 : 796) correctly observed, how many real cognates should there be between languages as distantly related as, say, Hausa and Somali, even assuming that one could identify them all? The real issue is not how few cognates there are, but how, apart from common origin, to explain the cognates that one does find.[26]

In his opening address at the Hamito-Semitic Colloquium held in London in 1970, Diakonoff stated: "Many Semito-Hamiticists doubt the possibility of classing Chado-Hamitic among the Afroasiatic languages – erroneously, as my senior colleague Professor Olderogge has taught me to think – but it would seem that the demonstration of the advisability of such classing has not been convincing enough" (1975 : 32). Actually, the evidence in the aggregate has probably been more than sufficient. Nevertheless, in order to settle the question definitively, what I would like to do here is to describe three specific phenomena, previously not recognized or not fully appreciated, which demonstrate conclusively the validity of the Chadic/Afroasiatic relationship.

1. The pronominal system

From the time of Francis Newman (1844), all scholars who have looked

25. Hodge (1966), for example, presents a list of some hundred etymologies between Hausa and Egyptian, not one of which I would consider likely!
26. Rodinson (1950), in his review of Cohen's *Essai comparatif,* points out that if Cohen's intent had been to demonstrate the genetic unity of the Hamito-Semitic family – which it was not – he would have done much better to have presented a short list of "sure" etymons than to have presented 500 items, many of which were very questionable.

at Hausa comparatively have been struck by the remarkable similarity of its personal pronouns to those of other Afroasiatic languages. And rightly so, for what linguist looking at the beautiful tables in Lexa's (1922) monograph or at the large fold-out sheets accompanying Barton's (1934) otherwise out of date book could not respond to the monotonous sameness in the pronominal paradigms of Semitic, Egyptian, Berber, Cushitic, and Hausa? Even Marcel Cohen, in refusing to admit Hausa in the Afroasiatic family, had to admit that the resemblances in the pronominal systems were "frappantes" (1947 : 44). In fact, when one looks, not at present-day Hausa forms but at earlier forms reconstructable by comparison with other Chadic languages, the already striking similarities become even more so, such that any explanation other than retention from a common proto-system is ruled out. The proof of the common origin of the Hausa/Chadic system and that of other Afroasiatic languages lies not just in surface similarities, but in the nature of the pronominal system as a whole and in the details of shared asymmetries and irregularities. Consider Table 1, which illustrates non-subject pronouns in the five major branches of Afroasiatic.

Table 1. *Afroasiatic personal pronouns*

	*Afro-asiatic	Chadic (Old Hausa)	Berber (Tuareg)	Egyptian	Semitic (Akkadian)	Cushitic (Beja)
Sg. 1c	*i, *ni	wa, ni	i	ỉ	i, ni	ø
2m	*ka	ka	k	k	ka	ka
2f	*kim	kim	(kə)m	čm	ki	ki
3m	*šu/su	ši	s	f	šu	s
3f	*ša/sa	ta	s	s	ša	s
Pl. 1c	*na	na, mun	nəɣ	n	nu	n
2c	*kun	kun	wun kəmət (f)	čn	kunu kina (f)	kna
3c	*sun	sun	sən sənət (f)	sn	šunu šina (f)	sna

The first feature to note is the peculiar shape of the 2nd person feminine singular pronoun *kim, found in Chadic, Berber, and Egyptian. What is so strange about this form is (a) no other singular pronoun contains more than one consonant, i.e. the canonical shape of these pronouns is CV, and (b) the consonant −m, which here serves as a feminine marker, never has this gender-marking function anywhere else in any of these

languages. The existence of the *kim* forms in Egyptian and Berber was first described by Maspero (1899), who at the time fully appreciated their significance in indicating genetic relationship (cf. Edel 1955/64 : 2). Vycichl (1953 : 386, 1959 : 37) pointed out that the Chadic language Logone also had a form *këm* as its 2nd feminine singular pronoun; but this observation seems to have gone unnoticed. Even Greenberg (1963 : 47-48), who explicitly discussed Chadic pronouns in relation to Afro-asiatic, didn't mention this form. This was probably an oversight, although it is possible that Greenberg didn't consider an isolated citation from one out-of-the-way language a sufficient basis on which to make an assertion about Chadic as a whole.[27] It turns out, however, that *këm* in Logone is not an isolated case, but rather represents a form that is widely distributed throughout Chadic and is clearly reconstructable at the Proto-Chadic level.[28] The Chadic : Berber : Egyptian comparison in this regard is thus as valid, and as significant, as the generally accepted Berber : Egyptian one. There is something else of importance to add, since vowels are so often neglected in comparative Afroasiatic studies. The Chadic 2nd feminine singular pronoun differs from its masculine counterpart, not only in having a final *–m*, which is commonly lost, but also in having *–i* as its vowel as opposed to the masculine *–a*, a feature also paralleled elsewhere in Afroasiatic (cf. Maspero 1875). Note, interestingly, that in the 3rd person, the opposite is usually the case, i.e. it is the feminine pronoun which has *–a* and the masculine which has the high vowel (either *–i* or *–u*).

The other asymmetry in the pronominal system that Chadic shares with Afroasiatic is to be seen in the set of plural pronouns. While the 2nd and 3rd persons have the shape *CVn*, the C being the same consonant as found in the corresponding singular pronoun (see Maspero 1875), the 1st person plural pronoun is simply *nV* (most probably *na). Taking Hausa as the sole representative of Chadic, the "irregular" 1st

27. Methodologically the neglect was correct, assuming the form to be an isolated case. It is not justified to relate a form found in only one of some 150 Chadic languages to some look-alike in Egyptian or Akkadian no matter how striking the comparison might seem.
28. Apart from Logone (and the closely related Kotoko and Buduma, which belong to the Biu-Mandara branch), *kim* forms (or variants thereof) are found in West Chadic languages such as Bade/Ngizim, Boghom, and even Hausa (see Newman & Schuh 1974) and in East Chadic languages such as Mukulu and Nancere.

person plural form and the consequent asymmetry is not evident. The situation in Chadic has been complicated by the addition and spread of a new 1st person plural form *mu(n), resulting either in the complete loss of *na, or in its restriction in syntactic function,[29] or in its narrowing in meaning to 1st person plural exclusive.[30] Nevertheless, an asymmetrical system of the Afroasiatic type *is* evidenced to a greater or lesser extent in present-day Chadic languages and is reconstructable for Proto-Chadic. Again we find that Chadic has not only the same pattern of canonical shapes of the plural pronouns and the same consonants as one finds elsewhere in Afroasiatic, but that it also has the same arrangement of vowels, namely –a, in the 1st person vs. –u in the 2nd and 3rd persons.

2. Grammatical gender

In the history of African linguistic classification, grammatical gender has played an inordinately conspicuous role. It underlay the early classifications of Bleek (1862) and Lepsius (1863), and became one of the cornerstones of Meinhof's misguided Hamitic family. Hausa's candidature for membership within Afroasiatic – in some cases, even its acceptance – was due in great part to its having gender. The strong reaction by Diakonoff, for example, against the use of gender in historical classification has to be seen against the background of its misuse by other scholars, most especially Meinhof. "The importance of this feature has formerly been much overrated . . . It is obvious that this purely typological feature, and a typological feature not of the first order at that, can

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29. Compare Hausa, where the normal 1st person plural pronoun is *mu(n)*, but *na* is still to be found in the indirect object form *má-nà*, derived historically from a possessive. Meinhof (1921/22) tried to relate the Hausa form –*mu* to the general Afroasiatic *na* by a change *mu* < *nu* < *na–u*, a derivation repeated innumerable times since then, cf. e.g. Westermann (1934 : xvi–xvii). It is obviously not correct since both *mu(n)* and *na* can be reconstructed for Proto-Chadic.
30. For a generally neglected, but extremely interesting, study of pronominal systems in the languages of the world, see Forschheimer (1953).

in no way be proof of genetic relationship" (Diakonoff 1965 : 55).[31]
In one sense Diakonoff is correct – the mere presence or absence of
gender is of no historical significance – but in another sense he is
wrong. While gender as a crude typological feature is irrelevant for
historical purposes, detailed similarities in form, meaning, and function
in a gender system, and shared patterns of organization *can* be taken as
evidence of linguistic relationship. The studies of gender in Afroasiatic
by Klingenheben (1951) and Greenberg (1960), both of which include
material from Chadic, are significant because they go beyond surface
homologies and facile typology. In both of these studies, archaisms,
frozen constructions, and morphological reformulations in the gender
system are analyzed and interpreted in such a way that the existence of
historically related phenomena going back to a common Afroasiatic
source is thereby demonstrated.

In addition to identifying cognate forms for particular gender-marking
morphemes, another non-typological use of gender – which, to my know-
ledge, has never previously been suggested for Afroasiatic – would be
to identify and match the inherent gender specification of individual
lexical items. If Afroasiatic had a system of two genders, as seems
certain,[32] then each of the nouns in the Proto-Afroasiatic lexicon must
have had a definite gender specification. That is to say, some words,
such as 'man' and 'root', would have been masculine, while others, such
as 'woman' and 'egg', would have been feminine; and, in principle, this

31. For early scholars such as Bleek and Lepsius, the characterization of gender
as a "purely typological" feature is misleading. The importance they ascribed to
this feature is due to their view of it as reflecting a mental capacity, i.e. a racially-
based psychology. "The nations speaking Sex-denoting languages are distinguished
by a higher poetical conception . . . this faculty is not developed in the Kafir
mind" (Bleek 1862 : ix). "It is not accidental but very significant, that, as far as
I know without any essential exception, only the most highly civilised races – the
leading nations in the history of mankind – distinguish throughout the genders"
(Lepsius 1863 : 89).
32. Diakonoff (1965), going back to an old idea of Meinhof (1912), of whom he
is otherwise so critical, proposed that Afroasiatic gender developed from an older
system of numerous "grammatical classes". This idea, which has gained a following
of late, is wholly unsubstantiated. I see no evidence but that Proto-Afroasiatic
had a system of two grammatical genders such as one tends to find in Afroasiatic
languages today (i.e. a masculine vs. feminine contrast in the singular, with no
distinction of gender in the plural). Apparently in Indo-European it was otherwise,
i.e. although gender is widespread throughout the family, it is not so clearly
reconstructable for the proto-language (see Kuryłowicz 1964 and Lehmann 1974
for a discussion of ideas going back to Meillet 1931, if not before).

should be reconstructable. Changes in gender, like changes in phonology, do of course take place, but the changes are not as fluid and random as one is often led to believe. As Jespersen (1924 : 228) observed, "in the vast majority of cases the gender of words is handed down traditionally from generation to generation without any change". The idea of trying to reconstruct the gender of individual words in Afroasiatic might at first sight seem quixotic, especially given the near-absence of fully established proto-forms; however, I would suggest that an attempt in this direction *is* feasible, even at this stage in our knowledge. The feasibility is due to another curious phenomenon, namely that the gender of a word has a tendency to remain stable even though the stem, i.e. the phonological representation of that "sememe", might be replaced by another stem. In other words, one finds a pattern of matching genders for the same word in related languages even though the forms are not necessarily cognate.

In detailed comparative work within the Chadic family (Newman 1979), it was found that the pattern of gender assignment from one language to the next shared sufficient regularities (whether the corresponding items were cognate or not) such that is was possible to ascertain with reasonable confidence the Proto-Chadic gender of a core of basic nouns. This is less easy at the Afroasiatic level; nevertheless, given the tremendous time depth involved in the Afroasiatic phylum, the consistency in gender that does occur cannot be considered anything less than phenomenal. When one looks at a range of Afroasiatic languages from whatever branch, one finds that the words for 'blood', 'moon', 'mouth', 'name', and 'nose', for example, tend to be masculine; 'eye', 'fire', and 'sun', feminine; and 'water', grammatically plural, with strong indication that these gender specifications reflect the original situation in Proto-Afroasiatic. This is illustrated in Table 2, where the overall consistency in gender assignment contrasts strikingly with the considerable diversity in form. Obviously, this approach to gender reconstruction has to be used with care; nevertheless, the results so far are extremely promising and suggest that from this point of view Chadic is going to prove to be a very typical, conservative member of the Afroasiatic phylum.

Table 2. Reconstructed Afroasiatic gender [33]

	*Afro-asiatic	Berber (Tuareg)	*Chadic	Cushitic (Beja)	Cushitic (Rendille)	Egyptian	Semitic (Hebrew)
blood	*M	M ahni	*M *bar	M boy	M ɖiig	M snf	M dam
crocodile	*M	M arochaf	*M *kədam	M lema	M yahási	M msh	M tanin
egg	*F(?)	F tasedalt	*? *aši	M kuhi	F ukáh	F swḥ.t	F bēṣah
eye	*F	F tit	*F *idə	F lili	F il	F ir.t	F 'ayin
fire	*F	F temse	*F *akʷa	F naʔa	M dab	F x.t	F ʔeš
fly (n.)	*M	M êhi	*M *diwa	M tifa	M dahási	M ʿff	M zəbūb
louse	*F	F tillik	*F *?	F tát	F infir	- - -	F kinah
moon	*M	M eôr	*M *təra	M terig	M yéyah	M iʿh	M yareᵃḥ
monkey	*M	M abiddau	*M *badi	M lalunkwe	M lacéer	M ky	M qof
mouth	*M	M emi	*M *ba	M yaf	M af	M r(ʒ)	M peh
name	*M	M isem	*M *šəm	M sim	M mágah	M rn	M šem
nose	*M	M angur	*M *atin	M genuf	M sam	M fnf	M ʔaf
root	*M	M eke	*M *šar	M dai	M hey	M wʒb	M šoreš
sun	*F	F tafuk	*F *fati	F yin	F orráh	F itn	F šemeš
water	*pl	M/pl aman	*pl *am	pl yam	pl bicé	M/pl mw	M/pl mayim

33. For Proto-Chadic, the forms are cited as in Newman (1977a) (with minor modifications), and the reconstructed genders as proposed in Newman (1979). The Rendille and Hebrew items are taken as representative of the genders in Proto-(Narrow)-Cushitic and Proto-Semitic, respectively, without regard to what the forms of the proto-words might have been. Since Tuareg is generally accepted as the most conservative Berber dialect, it has been chosen to represent the entire group (citations from Foucauld 1951-52).

3. The imperative of 'to come'

In trying to establish genetic relationship, there is a temptation to keep on adding examples of greater or lesser cogency, forgetting that it is the quality, not the quantity, of the evidence that matters. A particular case of extremely high quality, but infrequently available, evidence is shared suppletion, such as one finds, e.g., in the English and Dutch use of *better* as the comparative of *good*. Greenberg has discussed this matter thusly: "Since it is precisely such arbitrary variations, 'irregularities' in nontechnical language, which are subject to analogical pressure, they tend to be erased in one or the other language, even if some instances existed in the parent-language. Where they exist, however, they are precious indications of a real historical connection" (1953 : 271). Such a precious archaism is to be found in Afroasiatic, namely in connection with the verb 'to come'. In many Afroasiatic languages, the imperative 'come!' is expressed, not by a regular imperative construction using the normal verb stem 'to come', but by a phonologically unrelated, suppletive form. Ferguson (1976 : 74-75) pointed out the existence of such irregular imperatives in Cushitic and Ethio-Semitic, but described them as manifestations of an Ethiopian areal feature.[34] But, in fact, the feature has a geographical distribution in Afroasiatic that goes far beyond the Ethiopian area. Consider Table 3.

Table 3. *Suppletive imperatives of 'to come'*

	Normal Verb Stem	Imperative Form
Proto-Chadic	*(-)sə	*ya
Berber (Kabyle)	as	eyya
Egyptian	ii	mi
Cushitic (Beja)	yiʔ	maʔa
Cushitic (Saho)	mat	amo
Semitic (Amharic)	mɛṭṭä	na

As one can see from Table 3, it is not only the phenomenon in a vague typological sense that is shared, but in addition the specific forms

34. Ferguson, unfortunately, failed to distinguish those cases where the language had a suppletive imperative form for 'to come' from those where the language used the normal verb stem but had some kind of irregularity in forming the imperative.

employed. These display an interesting interlocking pattern. Saho, for example, appears to have the same imperative form as Egyptian and Beja, but to share its normal verb form with Amharic. Proto-Chadic, Kabyle, Egyptian, and Beja all share the same root *y,* although in the first two cases the root is limited to the imperative, while in the latter two it is the normal verb form *not* used in the imperative. The *s* root found in Chadic and Berber as the normal verb stem 'to come' shows up in Egyptian as a special imperative form of the verb 'go!' (*is*). It should be emphasized that the two Proto-Chadic forms for 'come' were reconstructed with the shapes shown and with the specification of *ya* as a special imperative form *before* I was aware of the parallel phenomenon and cognate forms in Berber.[35] Given the arbitrariness of the relation between the normal and imperative forms of the verb 'come' represented in Table 3, and given the wide distribution of similar patterns involving similar forms, it is evident that we are dealing with inherited features of real classificatory significance. One could hardly present better proof of distant genetic relationship.

The classification of Chadic within Afroasiatic is no longer a question; it is a fact. In spite of cultural, geographical, not to mention racial differences between Chadic peoples and the Afroasiatic peoples of northern Africa and the Middle East, from the point of view of language, Chadic definitely belongs to this phylum. This is just as certain as the inclusion of Bantu in Niger-Congo or of Celtic in Indo-European. Using the words of Sir William Jones, Chadic in relation to Semitic, Egyptian, Berber, and Cushitic "bears a stronger affinity, both in the roots [of words] and in the forms of grammar, than could possibly have been produced by accident; so strong, indeed, that no philologer could examine them all . . . without believing them to have sprung from some common source" (quoted from Pedersen 1931 : 18). One still has to work out a hierarchic family tree structure for the phylum and determine precisely where Chadic should be placed in it;[36] and, eventually, one will have

35. In an observation that I had overlooked, Gouffé (1969/70 : 31) explicitly noted that the *y* form in Tuareg was like the similar Hausa form in being restricted to the imperative. However, he seems to have missed the significance of his finding.
36. My own impressions at this point favor a three-branch structure for Afroasiatic, each branch containing two members, namely, (1) Libyco-Chadic (= Berber + Chadic), (2) Egypto-Semitic (= Egyptian + Semitic), and (3) Cushitic (= Beja + "Narrow Cushitic", i.e. the languages normally included under Central, Eastern, and Southern Cushitic). I do not consider the Omotic languages (Greenberg's "Western Cushitic") to be Afroasiatic at all.

to explain the sequence of events and the patterns of dispersal that led to the present wide distribution of Afroasiatic speaking peoples. But at least the fact of the Chadic/Afroasiatic relationship can now be taken as established.

Aan het einde van deze rede gekomen, betuig ik mijn erkentelijkheid jegens al degenen die op enigerlei wijze hebben medegewerkt aan mijn benoeming tot hoogleraar aan deze universiteit.

Ik heb gezegd.

Afroasiatic Comparative Word List

The following list includes 28 highly probable Afroasiatic etymons for which a reflex exists in Proto-Chadic. Except for three new reconstructions, which are accompanied by supporting examples, all of the Proto-Chadic forms are taken from Newman (1977a). Note, however, that the symbol ṣ used in that work has been replaced here by š. Egyptian examples are transcribed according to Faulkner (1976), except for the substitution of č for ṯ and ǰ for ḏ. Berber citations are generally from Tuareg (Foucauld 1951-52) although examples from other dialects are sometimes used instead. For Cushitic, two citations are provided where possible, one from Beja and one from "Narrow Cushitic". The Proto-Afroasiatic reconstructions are provided in the form of a consonantal skeleton, even though one can assume that vowels were lexically significant for all classes of words. The numbers C225, G11, etc. refer to relevant entries in the comparative word lists of Cohen (1947) and Greenberg (1963).

Abbreviations: Ar = Arabic, Ber = Berber, Ch = Chadic, Cush = Cushitic, Eg = Egyptian, Heb = Hebrew, Rend = Rendille, Sem = Semitic.

1. 'body' *z   Ch: *zi; Eg: ǰ.t; Cush: Rend is 'self'

2. 'bone' *kš   Ch: *ʾJašu; Ber: ixṣ Eg: ḳs;
   [C225, G11]   Cush: Rend gaas 'horn' (?)

3. 'to build' *bn   Ch: *bən- [listed under 'hut']; Sem:
   [G40]   Heb banah; Cush: Rend min 'house'

4. 'child' *wl   Ch: *wəlo (e.g. Kanakuru lōwo, Kotoko wulya);
   [C498, G18]   Ber: ult 'daughter'; Sem: Ar walad;
        Cush: Rend weel

5. 'to come' *y   Ch: *ya (imperative form); Ber: iya
   [C25]   (imperative form); Eg: ìì, ìw;
        Cush: Beja yiʾ

6. 'to die' *m(w)t   Ch: *mətə; Ber: əmmet; Eg: mt; Sem:
   [C488, G23]   Heb met; Cush: Rend mut

7. 'to drink' *s   Ch: *sa; Ber: əsu, s-ass (intensive form);
   [C296, G25]   Eg: Coptic so

8. 'to eat' *t(y)   Ch: *ti; Ber: t-att (intensive form);
   [C315, G27]   Eg: tì 'bread'; Sem: Soqotri te; Cush:
        Beja tiyu 'food'

9. 'eye' *l   Ch: *ali (pl.) (e.g. Lamang ili, Kotoko al (pl.));
   [C63, G29]   Ber: allən (pl.); Eg: ìr.t; Cush:
        Rend il; Beja lili

10. 'fire' *k   Ch: *aku/*akwa; Ber: Shilh takat; Eg:
    [C142, G30]   x.t; Sem: Geez ḥaw [cf. Leslau 1962, no. 33]

11. 'to fly' *pr   Ch: *pərə; Ber: afrəw; Eg: pȝ;
    [C366, G32]   Sem: Soqotri fer; Beja: fir

12. 'four' *fḍ   Ch: *fwaḍə; Eg: fdw; Cush: Rend afar,
    [G35]   Beja faḍig

13. 'to hear, ear' *šm(ʿ)   Ch: *šəmi 'ear'; Ber: Ghadames isem 'ear';
    [C82, G26]   Eg: sǰm 'hear', wšm 'ear of corn' (?);
         Sem: Heb šomaʿ 'hear'

14. 'to know' *sn   Ch: *sənə; Ber: əssən; Eg: swn
    [G42]

15. 'moon' *tr   Ch: *təra; Ber: itri 'star'; Cush: Beja terig
    [G50]

16. 'name' *šm   Ch: *šəm; Ber: isəm; Sem: Heb šem;
    [G52]   Cush: Agau səm, Beja sim

17. 'root' *šr   Ch: *šari; Ber: aẓar; Sem: Heb šorɛš;
    [C260, G60]   Cush: Agau sər; Beja sar 'artery'

18. 'to see' *n   Ch: *na; Ber: əni; Eg: nw
    [C465, G62]

19. 'to smell' *sn   Ch: *sunə; Eg: sn; Cush: Somali san 'nose'
    [G54]

20. 'to spit₁' *tf   Ch: *tufə; Ber: sutəf; Eg: tf; Sem:
    [C319, G70]   Ar taffa; Cush: Rend tuf, Beja tūf

21. 'to spit₂' *ps   Ch: *pəsə 'spew, spray'; Ber: ssufəs;
                     Eg: psg

22. 'to steal' *kr   Ch: *xərə; Ber: akər; Eg: ič? 'thief'
    [C190, G71]

23. 'stone' *bn   Ch: *bəna 'millstone'; Ber: Shilha awwun;
    [C17]   Eg: bnw.t 'millstone'; Sem: Heb ʔɛbɛn

24. 'tongue' *lš or *ls   Ch: *alsi; Ber: iləs; Eg: ns; Sem:
    [C436, G72]   Heb lošon

25. 'tooth' *šn   Ch: *šan-; Ber: əsin 'incisor'; Sem:
    [C262, G73]   Heb šen

26. 'to twine' *lm or *lw   Ch: *ləmə (e.g. Angas lam, Tera ləmə);
    [Leslau 1962, no. 16]   Ber: əlləm; Eg: nw.t 'rope'; Sem: Ar lawā

27. 'water' *m   Ch: *am (pl.); Ber: aman (pl.); Eg: mw (pl.); Sem: Heb
    [C485, G75]   mayim (pl.); Cush: Beja yam (pl.)

28. 'what?' *m   Ch: *mi; Ber: ma; Eg: m; Sem: Heb ma; Cush: Rend maḥ
    [G77]

REFERENCES

[For journal abbreviations, see the master list in the annual *Linguistic Bibliography*/
Bibliographie Linguistique.]

Albright, W. F. 1923. 'The principles of Egyptian phonological development',
*Recueil de travaux relatifs à la philologie et à l'archéologie égyptiennes et
assyriennes* 40 : 64-70.
Asirelli, O. 1950. *L'Afrique polyglote*, trans. D.-P. de Pedrals. Paris: Payot.
Barreteau, Daniel, and Paul Newman. 1978. 'Les langues tchadiques', in *Inventaire
des études linguistiques sur les pays d'Afrique Noire d'expression française et
sur Madagascar*, ed. D. Barreteau, pp. 291-330. Paris: Conseil International de
la Langue Française.
Barth, H. 1862-66. *Collection of Vocabularies of Central-African Languages*.
Gotha: Justus Perthes.
Barton, George A. 1934. *Semitic and Hamitic Origins*. Philadelphia: University of
Pennsylvania Press.
Baumann, H., R. Thurnwald, and D. Westermann. 1940. *Völkerkunde von Afrika*.
Essen: Essener Verlagsanstalt.
Behnk, Frida. 1928. 'Über die Beziehungen des Ägyptischen zu den hamitischen
Sprachen', *ZDMG* 82 : 136-41.
Benfey, Theodor. 1869. *Geschichte der Sprachwissenschaft und orientalischen
Philologie in Deutschland*. Munich: Gotta'sche Buchhandlung.
Bleek, W. H. I. 1862. *A Comparative Grammar of South African Languages.
Part I. Phonology*. London: Trübner.
Burrini, Gabriele. 1978-79. 'Profilo storico degli studi sul camito-semitico', *Annali
istituto orientale di Napoli* 38 : 113-53, 39 : 351-84.
Cohen, David. 1968. 'Les langues chamito-sémitiques', in *Le Langage*, ed. A.
Martinet, pp. 1288-1330. *(Encyclopédie de la Pléiade*, vol. 25.) Paris: Gallimard.
Cohen, David. 1971. 'Review of *Semito-Xamitskie Jazyki* by I. M. D'jakonov',
BSL 66 (2) : 201-04.
Cohen, Marcel. 1924. 'Langues chamito-sémitiques', in *Les langues du monde*,
eds. A. Meillet and M. Cohen, pp. 81-151. Paris: H. Champion.
Cohen, Marcel. 1934/37. 'La question de la parenté du haoussa (Soudan Central)',
GLECS 2 : 1-3.
Cohen, Marcel. 1947. *Essai comparatif sur le vocabulaire et la phonétique du
chamito-sémitique*. Paris: H. Champion.
Cohen, Marcel. 1952. 'Langues chamito-sémitiques', in *Les langues du monde*[2],
eds. A. Meillet and M. Cohen, pp. 81-181. Paris: CNRS & H. Champion.
Cohen, Marcel. 1974. 'Ouverture', in *Actes du premier congrès international de
linguistique sémitique et chamito-sémitique*, eds. A. Caquot and D. Cohen, pp.
10-18. The Hague: Mouton.
Cust, Robert N. 1883. *A Sketch of the Modern Languages of Africa*. London:
Trübner.
Delafosse, M. 1914. *Esquisse générale des langues de l'Afrique et plus particu-
lièrement de l'Afrique française*. Paris: Masson.
Delafosse, M. 1924. 'Les langues du Soudan et de la Guinée', in *Les langues du
monde*, eds. A. Meillet and M. Cohen, pp. 463-560. Paris: H. Champion.
Diakonoff, I. M. 1965. *Semito-Hamitic Languages*. Moscow: NAUKA.

27

Diakonoff, I. M. 1974. 'Hamito-Semitic languages', in *The New Encyclopedia Britannica,* vol. 8, pp. 589-98. Chicago.

Diakonoff, I. M. 1975. 'Opening address', in *Hamito-Semitica,* eds. J. and T. Bynon, pp. 25-39. The Hague: Mouton.

Drake, Saint-Clair. 1959. 'Détruire le mythe chamitique, devoir des hommes cultivés', *Présence africaine* 24/25 : 215-30.

Edel, Elmar. 1955/64. *Altägyptische Grammatik.* Rome: Pontificum Institutum Biblicum.

Erman, J. P. A. 1892. 'Das Verhältniss des Ägyptischen zu den semitischen Sprachen', *ZDMG* 46 : 93-129.

Faulkner, R. O. 1976. *A Concise Dictionary of Middle Egyptian.* Oxford: Griffith Institute.

Ferguson, Charles A. 1976. 'The Ethiopian language area', in *Language in Ethiopia,* eds. M. L. Bender et al., pp. 63-76. London: Oxford University Press.

Forschheimer, Paul. 1953. *The Category of Person in Language.* Berlin: Walter de Gruyter.

Foucauld, C. de 1951-52. *Dictionnaire touareg-français,* 4 vols. Paris: Imprimerie Nationale de France.

Frajzyngier, Zygmunt, 1979. 'Notes on the $R_1R_2R_2$ stems in Semitic', *Journal of Semitic Studies* 24 : 1-12.

Gouffé, Claude. 1969/70. 'Compléments et précisions concernant le haoussa dans le cadre de *l'Essai comparatif* de M. Marcel Cohen', *GLECS* 14 : 27-43.

Greenberg, Joseph H. 1950. 'Studies in African linguistic classification: IV Hamito-Semitic', *Southwestern Journal of Anthropology* 6 : 47-63.

Greenberg, Joseph H. 1952. 'The Afro-Asiatic (Hamito-Semitic) present', *Journal of the American Oriental Society* 72 : 1-9.

Greenberg, Joseph H. 1953. 'Historical linguistics and unwritten languages', in *Anthropology Today,* ed. A. L. Kroeber, pp. 265-86. Chicago: University Press.

Greenberg, Joseph H. 1955a. *Studies in African Linguistic Classification.* New Haven: Compass Publishing Co.

Greenberg, Joseph H. 1955b. 'Internal *a*-plurals in Afroasiatic (Hamito-Semitic)', in *Afrikanistische Studien,* ed. J. Lukas, pp. 198-204. Berlin.

Greenberg, Joseph H. 1960. 'An Afro-Asiatic pattern of gender and number agreement', *Journal of the American Oriental Society* 80 : 317-21.

Greenberg, Joseph H. 1963. *The Languages of Africa.* Bloomington: Indiana University.

Hintze, Fritz. 1951. 'Zur hamitosemitischen Wortvergleichung', *Zeitschrift für Phonetik* 5 : 65-87.

Hodge, Carleton T. 1966. 'Hausa-Egyptian establishment', *Anthropological Linguistics* 8 (1) : 40-57.

Hodge, Carleton T. 1971. 'Afroasiatic: an overview', in *Afroasiatic: A Survey,* ed. C. T. Hodge, pp. 9-26. The Hague: Mouton.

Hodge, Carleton T. 1975. 'Lisramic II', *Anthropological Linguistics* 17 (5) : 237-72.

Jespersen, Otto. 1924. *The Philosophy of Grammar.* London: George Allen & Unwin.

Klingenheben, A. 1928/29. 'Die Tempora Westafrikas und die semitischen Tempora', *Zeitschrift für Eingeborenen-Sprachen* 19 : 241-68.

Klingenheben, A. 1951. 'Althamito-semitische nominale Genusexponenten in heutigen Hamitensprachen', *ZDMG* 101 : 78-88.

Krause, G. A. 1884. *Proben der Sprache von Ghat in der Sahara.*
(Mitteilungen der Riebeck'schen Niger-Expedition, II.) Leipzig: F. A. Brockhaus.

Kuryłowicz, J. 1964. *The Inflectional Categories of Indo-European.* Heidelberg: Carl Winter.

Lacau, Pierre. 1912-13. 'Notes de grammaire: à propos de la grammaire égyptienne de M. Erman', *Recueil de travaux relatifs à la philologie et à l'archéologie égyptiennes et assyriennes* 34 : 206-18; 35 : 59-82, 216-31.

Lehmann, Winfred P. 1974. *Proto-Indo-European Syntax.* Austin: University of Texas Press.

Lepsius, C. R. 1863. *Standard Alphabet,* 2nd ed. London: Williams & Norgate.

Lepsius, [C.] R. 1880. *Nubische Grammatik.* Berlin: Wilhelm Hertz.

Leslau, Wolf. 1962. 'Semitic and Egyptian comparisons', *Journal of Near Eastern Studies* 21 : 44-49.

Lexa, François. 1922. 'Comment se révèlent les rapports entre les langues hamitiques, sémitiques et la langue égyptienne'.
[Separate offprint of article from *Philologica,* vol. 1 and 2. 27 pp., 5 fold-out tables.]

Lottner, C. 1860/61. 'On sister families of languages, specially those connected with the Semitic family', *Transactions of the Philological Society,* pp. 20-27, 112-32.

Lukas, J. 1936. 'The linguistic situation in the Lake Chad area in Central Africa', *Africa* 9 : 332-49.

Lukas, J. 1937/38. 'Der hamitische Gehalt der tschadohamitischen Sprachen', *Zeitschrift für Eingeborenen-Sprachen* 28 : 286-99.

MacGaffey, Wyatt. 1966. 'Concepts of race in the historiography of Northeast Africa', *Journal of African History* 7 : 1-17.

Maspero, G. 1875. 'Des pronoms en égyptien et dans les langues sémitiques', *Mémoires de la Société de Linguistique* 2 : 1-8.

Maspero, G. 1899. 'Sur une forme du pronom féminin de la seconde personne du singulier', *Recueil de trauvaux relatifs à la philologie et à l'archéologie égyptiennes et assyriennes* 21 : 197-99.

Meeussen, A. E. 1957. 'Hamietisch en Nilotisch', *Zaïre* 11 : 263-72.

Meillet, A. 1931. 'Essai de chronologie des langues indo-européennes', *BSL* 32 (1) : 1-28.

Meinhof, Carl. 1912. *Die Sprachen der Hamiten.* Hamburg: L. Friederichsen.

Meinhof, Carl. 1915. *An Introduction to the Study of African Languages,* trans. A. Werner. London: J. M. Dent & Sons.

Meinhof, Carl. 1921/22. 'Was können uns die Hamitensprachen für den Bau des semitischen Verbum lehren?', *Zeitschrift für Eingeborenen-Sprachen* 12 : 241-75.

Meyer-Bahlburg, Hilke. 1975/76. 'Zur Stellung des Hausa innerhalb der afrikanischen Sprachen', *Afrika und Übersee* 59 : 1-30.

Migeod, F. W. H. 1911-13. *The Languages of West Africa,* 2 vols. London: Kegan Paul, Trench, Trubner & Co.

Miller, Joseph C. 1976. *Kings and Kinsmen.* London: Oxford University Press.

Müller, Friedrich. 1867. *Reise der österreichischen Fregatte Novara um die Erde in den Jahren 1857, 1858, 1859. Linguistischer Theil.* Vienna: Kaiserlich-Königlichen Hof- und Staatsdruckerei.

Müller, Friedrich. 1876-88. *Grundriss der Sprachwissenschaft,* 4 vols. Vienna: Hölder.

Müller, Max. 1855. *The Languages of the Seat of War in the East,* 2nd ed. London: Williams & Norgate.

Müller, Max. 1861. *Lectures on the Science of Language.* London: Longman, Green, Longman, & Roberts.

[Newman, F. W.] 1844. 'Remarks on the Haussa language, based upon "The Vocabulary" of the same, "with Grammatical Elements, by the Rev. J. F. Schön, 1843', Appendix III in *Researches into the Physical History of Mankind,* 3rd ed., by J. C. Prichard, vol. 4, pp. 627-31. London: Sherwood, Gilbert, & Piper.

Newman, Paul. 1971. 'Hausa and Chadic: a reply', *African Language Studies* 12 : 169-72.

Newman, Paul. 1977a. 'Chadic classification and reconstructions', *Afroasiatic Linguistics* 5 (1) : 1-42.

Newman, Paul. 1977b. 'The formation of the imperfective verb stem in Chadic', *Afrika und Übersee* 60 : 178-92.

Newman, Paul. 1978. 'Chado-Hamitic "adieu": new thoughts on Chadic language classification', in *Atti del Secondo Congresso Internazionale di Linguistica Camito-Semitica,* ed. P. Fronzaroli, pp. 389-97. Florence: Istituto di Linguistica e di Lingue Orientali.

Newman, Paul. 1979. 'Grammatical gender in Chadic', Paper presented at the 10th Conference on African Linguistics, University of Illinois.

Newman, Paul. 1980. 'An Afroasiatic conjugational pattern of gender and number agreement', Paper presented at the 11th Conference on African Linguistics, Boston University.

Newman, Paul, and Roxana Ma. 1966. 'Comparative Chadic: phonology and lexicon', *Journal of African Languages* 5 : 218-51.

Newman, Paul, and Russell G. Schuh. 1974. 'The Hausa aspect system', *Afroasiatic Linguistics* 1 (1) : 1-39.

Olderogge, D. A. 1960. 'The origin of the Hausa language', in *Men and Cultures,* ed. A. F. C. Wallace, pp. 795-802. Philadelphia: University of Pennsylvania Press.

O'Leary, De Lacy. 1915. *Characteristics of the Hamitic Languages.* Bristol: John Wright & Sons.

Parsons, F. W. 1970. 'Is Hausa really a Chadic language?', *African Language Studies* 11 : 272-88.

Pedersen, Holger. 1931. *The Discovery of Language. Linguistics Science in the 19th Century,* trans. J. W. Spargo. Bloomington: Indiana University Press.

Polotsky, H. J. 1971. 'Egyptian', in *Collected Papers,* pp. 320-38. Jerusalem: Magnes Press.

Prichard, James C. 1855. *The Natural History of Man,* 4th edition, ed. and enlarged by Edwin Norris. London: H. Ballière.

Reinisch, Leo. 1909. *Das persönliche Fürwort und die Verbalflexion in den chamito-semitischen Sprachen.* Vienna: Hölder.

Renan, Ernest. 1855. *Histoire générale et système comparé des langues sémitiques.* Paris: Imprimerie impériale.

Rodinson, Maxime. 1950. 'Le chamito-sémitique à la lumière d'un nouvel ouvrage', *Journal Asiatique* 238 : 151-60.

Rössler, Otto. 1971. 'Das Ägyptische als semitische Sprache', in *Christentum am Roten Meer,* eds. F. Altheim and R. Stiehl, pp. 263-326. Berlin: Walter de Gruyter.

Sanders, Edith R. 1969. 'The Hamitic hypothesis: its origin and functions in time perspective', *Journal of African History* 10 : 521-32.

Schön, J. F. 1843. *Vocabulary of the Hausa Language.* London: Church Missionary Society.

Seligman, C. G. 1966. *Races of Africa,* 4th ed. London: Oxford University Press.

Sölken, Heinz. 1967. *Seetzens Affadéh: Ein Beitrag zur Kotoko-Sprachdokumentation.* Berlin: Akademie-Verlag.

Trombetti, Alfredo. 1923. *Elimenti di Glottologia.* Bologne: Nicola Zanichelli.

Vycichl, W. 1934. 'Hausa und Ägyptisch', *Mitteilungen des Seminars für Orientalische Sprachen zu Berlin* 37 : 36-116.

Vycichl, W. 1953. 'Die ägyptischen Pronominalendungen', *Le Muséon* 66 : 381-89.

Vycichl, W. 1959. 'Is Egyptian a Semitic language?', *Kush* 7 : 27-44.

Westermann, D. 1934. 'Some notes on the Hausa people and their language', in *A Hausa-English Dictionary,* by G. P. Bargery, pp. ix-xix. London: Oxford University Press.

Westermann, D. 1952. 'African linguistic classification', *Africa* 22 : 250-56.

Wolff, Ekkehard. 1977. 'Patterns in Chadic (and Afroasiatic?) verb base formations', in *Papers in Chadic Linguistics,* eds. P. Newman and R. M. Newman, pp. 199-233. Leiden: Afrika-Studiecentrum.

Worrell, William H. 1927. *A Study of Races in the Ancient Near East.* Cambridge: W. Heffer & Sons.