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A PROBLEM OF INTERNAL RECONSTRUCTION:  
 IS THERE A MORPHOLOGICAL CHANGE *sa, ši* → *ya* IN HAUSA?

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For more than 140 years it has been maintained that the verbal subject pronoun of the 3rd m.sg. in Hausa, *ya*, is related to the verbal *ya*-prefix in Semitic, Berber, and Cushitic. It was only recently that P. Newman and R.G. Schuh looked for an internal explanation by assuming that the "aberrant" Hausa element of unknown origin has replaced an older pronoun to be reconstructed for the proto-language. In this study, some arguments are presented which invalidate the new hypothesis. One of these refers to the methodological principle that says in effect that the anomaly and exceptionality of the element *ya* in Hausa, as compared with the transparency of other pronouns, represents a strong hint to its Proto-Chadic reconstruction. It is argued that an internal reconstruction needs an external elucidation in order to come to well-founded results.

Depuis 140 ans on a affirmé que le pronom verbal de la 3<sup>ème</sup> pers. masc. de haoussa, c.à.d. *ya*, est apparenté au préfixe verbal *ya-* de sémitique, berbère et couchitique. Récemment P. Newman et R.G. Schuh ont proposé de considérer l'élément "aberrant" de haoussa comme une innovation qui a remplacé le pronom ancien indépendant *sa, ši* à reconstruire pour le proto-langage. Dans cette étude, quelques arguments sont présentés pour refuter la nouvelle hypothèse. En acceptant le principe méthodologique que les éléments anomaux et exceptionnels sont hérités du proto-langage plutôt que les éléments réguliers et transparents, on arrive à la reconstruction proto-chadique de l'élément *ya*. La reconstruction interne doit être corroborée par évidence externe pour atteindre des résultats bien fondés.

1. THE EXTERNAL RECONSTRUCTION OF F. W. NEWMAN

It belongs to the morphological peculiarities of Hausa that the personal element of the 3rd m. sg. used in verbal constructions has the form *ya* (or *y*) - a feature that has reminded generations of linguists of the identical verbal prefix of the same person in Semitic.<sup>1</sup> Even the first scholar who observed the relationship between Hausa and other Semito-hamitic (alias Afroasiatic) languages did not fail to point out this striking coincidence.

It was Francis William Newmann (Newman)<sup>2</sup> who, shortly after the publication of James Frederick Schön's "Vocabulary of the Hausa Language" (London, 1843), made an important contribution to the 3rd ed. of James Cowles Prichard's "Researches into the Physical History of Mankind" (London, 1844), available to me only in a German translation ("Naturgeschichte des Menschengeschlechts"). In the 2nd part of the 3rd volume published in Leipzig in 1845,

which corresponds to the 4th volume of the English edition, he published his "Bermerkungen über die Hausa-Sprache" ("Remarks on the Hausa language") in an appendix (pp. 647-652). There he made the following remarkable comparison between Hausa, Semitic, and Berber, which has ever since been standard:

- (1) 'Das Pronomen der dritten Person muß mit den Formativen des hebräischen und arabischen Verbum verglichen werden ...

	Er rief	sie rief
Hausa	Yakira	Takira
Arabisch		
Hebräisch	Yaqra	Taqra
		und
Berberisch	Yaqqar	θoqqar' (p. 649).

In addition to the three Semitoamitic branches represented in this synopsis, only one should be regarded further, i.e., the Cushitic branch that exhibits a prefix conjugation of this kind as well. It should, however, be observed that F. W. Newman, too, was well acquainted with Cushitic languages, as we may see from his article entitled "Notes on the Galla verb and pronouns" (1848).

Among those descriptions that have since contained a comparison of the prefixed personal elements between Hausa, Semitic, Cushitic, and Berber, we will refer only to the works of Fr. Müller (1887:276 f.), L. Reinisch (1909), C. Meinhof (1912), A. Klingenberg (1928-29), and I.M. Diakonoff (1965), cf. R.G. Schuh (1976).

## 2. THE INTERNAL RECONSTRUCTION OF P. NEWMAN AND R.G. SCHUH

The rising interest in internal reconstruction<sup>3</sup> and the reluctance towards a straightforward affiliation with other Semitoamitic languages led P. Newman and R.G. Schuh (1974) to deny the genetic identity between *ya-* in Hausa and *ya-/yi-* in Semitic, Cushitic, and Berber. In order to explain this coincidence, they argue that the Hausa element *ya-* of unknown origin has replaced the older pronoun *ši*. Since it is to be expected that this view will find wider acceptance, I should like to take up this matter again by showing that the reasoning of Newman/Schuh does not bear a closer examination.

If we compare the personal elements of the eight aspect forms in Standard Hausa, we can extract the following elements that are contained in all verbal paradigms.

(2)

	sg		pl
	m		f
1	n(a)		mu
2	ka	ki	ku
3	y(a)	ta	su

By comparing these forms with the independent (or object) pronouns, we detect an identity or close relationship of all elements except that of the 3rd m.sg. The independent (and object) pronouns as well as the possessive pronouns of this person contain a sibilant (*ši(i)* resp. *-sà*), whereas the verbal paradigms show a semi-vowel (*y(a)*) instead. This striking difference between both types of personal elements deserves an explanation. The traditional one, mostly not explained in a clear way, has been given above. The new explanation expounded by Newman/Schuh (1974:12) works with morphological replacements:

(3)	Stage I	Stage II
	(Early Hausa)	(Standard Hausa)
	<i>sáa</i> --> <i>yáa</i>	<i>shì</i> --> <i>yà</i>

It is assumed that *ši*, derived from *si*, formed part of the original paradigm and was later on replaced by *ya*. According to this, the occurrence of *ši* in Western dialects of Hausa in those contexts where the Standard dialect exhibits *ya*, is interpreted as a preservation of this element. A Western phrase as *zaa-ši cí naamàa* 'he will eat meat' then would have preserved the old personal element, whereas in the Standard equivalent *zay cí naamàa* a new element *y* (<-- *ya*) would have been introduced. It is not explained where this element can be derived from.

### 3. COUNTER-EVIDENCE

Against this kind of reconstruction I should like to present two arguments, that of deficiency and that of lacking operability.

(I.) The new theory remains incomplete as long as nothing is known about the origin of the proposed new element. The only way I see to account for this odd element is to assume a sound change *sa* --> *ya*. Evidently Newman/Schuh can be supposed to have gone searching for instances that could establish such a sound change in Hausa<sup>4</sup>, just as P. Newman (1970) did successfully for Kanakuru. It is only through failing, I think that they came to assume morphological replacements instead. Since nothing is said about the origin of the replacing element, the theory lacks an important cornerstone.

I do not know if R.Schuh still maintains the opinion given in the Newman/Schuh article, since he recently (1983) expressed the view that a definite marker *i* found in various Chadic languages, has its Semitic and Berber equivalents in the 3rd m.sg. verbal prefix. He does not mention the Hausa element *ya*, but it seems that he would now not be reluctant to conjoin this element here. In that manner, the existence of an *i*-demonstrative in some Chadic languages (R.G. Schuh 1983:160) may be used as an argument for an original *ši* having been replaced by *i*. If this element, however, is to be compared with the Semito-Hamitic verbal prefix, it appears to be more reasonable to assume a direct relationship between the

Hausa *ya* and the Semito-Hamitic *ya*-element, since I see no reason why an old *ši*, which exists with similar functions within the language, should have been replaced by another demonstrative, which shows no synchronic affiliation within the language.

(II.) The new theory is not only incomplete but also linguistically unconvincing. The status of the *ya*-element in an overall morphological description of the pronominal elements has been neatly described synchronically by E. Gregersen (1967:48):

- (4) 'The main difference between conjunctive subject pronouns and other pronouns in the Kano dialect (but not usually elsewhere) is the use of a *ya*-form rather than *shi*.'

The synchronic rule given by E. Gregersen,

- (5) ' *shì* 'he' --> *yà*/\_\_\_ Predicate Phrase',

is a useful expression of the position of the *ya*-element within the whole system but must not be taken as a diachronic rule. Synchronically, without this "aberrant" element (Newman/Schuh 1974:6), the pronominal system could be described more easily.

It does not seem to be in line with linguistic principles to introduce into a regular system an element that would destroy the regularity we could have without it. If there are morphological doublets in a language, we can say that the unproductive and aberrant construction is destined to be restricted and eventually to be replaced by the productive and transparent construction.<sup>5</sup> So it is unimaginable that in Proto-Hausa the constructions containing the transparent *ši*-form have been remodeled by using the opaque *ya*-element.<sup>6</sup> The only reasonable way is to assume the reverse development.

As to the Western dialects, the *ši*-element nearly identical with the independent pronoun is used to reinforce the notion of the 3rd m.sg., e.g., *ši-nàa* ... instead of the standard *ya-nàa* ...<sup>7</sup> The odd element generally used in Standard Hausa can only be regarded as a remnant of an older system. The morphological opacity of a construction represents a strong hint that it should be taken not as innovation but as retention.

#### 4. THE PITFALL OF INTERNAL RECONSTRUCTION

I hope that these observations have shown that the method of internal reconstruction, useful as it may be under ideal circumstances, has its specific limitation in restraining the range of information that may contribute to an appropriate understanding of a given form. Let me give an example: if we like to reconstruct internally the plural inflexion in English, we could say that the vast majority of all nouns form their plural by adding a morpheme *-z*, which is realized as *-z*, *-iz*, and *-s*. Only some nouns show *-n* as plural marker (see *oks-n*, *festšrift-n*, and *čild-rn*, *breð-rn*) - seemingly an innovation not reconstructable for the proto-language? Now if we happened not to know anything<sup>8</sup> about other Germanic languages at all, we should infer from the

facts presented that the plural formation by suffixing an  $-(r)n$  and applying ablaut which is unusual elsewhere can represent only an old plural formation now obsolete.

This example might be trivial, but it stresses one of the principles of internal reconstruction. The 'reconstruction of prehistorical stages is to be based on exceptions and anomalies rather than on the grammatical rules of a language' (J. Kuryłowicz 1964:10). 'Whenever we are confronted by two synonymous forms, a regular one corresponding to the normal, general morphological type of the language, and a second form which is anomalous and exceptional, then the latter of these must be considered a residual form and hence the older of the two' (H. Birnbaum n.d.:27).

#### 5. THE SEMITOHAMITIC EVIDENCE

In our case, if we consider the evidence provided by Semitic, Berber, and Cushitic, we could say that the *ya*-element represents a Semitohamitic heritage which has been lost in most Chadic languages but was preserved in Hausa. As we know from Semitic, Berber, and Cushitic, *ya*- belongs to the so-called prefix conjugation that is characterized by the following prefixed elements:<sup>9</sup>

(6)

bound series of personal pronouns			
	sg	pl	
1	ʔa-	na-	
2	ta-	ta-	ta-
3	ya-	ta-	ya-

Bearing this well-known pattern in mind, we should like to pretend that the old prefix conjugation has not only survived in the 3rd. m. sg. but also in the f. For the time being, however, it cannot be excluded that the *ta*-element in Hausa may represent a shortened form of the independent pronoun *ita* 'she', the origin of which is not quite clear. Besides this series, there is another totally different series of personal elements which may be conveniently called free series since it contains those personal elements that are primarily used to build up independent pronouns and object as well as possessive pronouns.

(7)

free series of personal pronouns			
	sg	pl	
	m	f	
1	(n)i		mu
2	ka	ki	ku
3	ši (/ni)	(ta)	su

As to further details see Charles H. Kraft (1974), which contains rich documentation. In this context, I should like to draw our attention only to the elements of the 3rd persons.

(m.sg.) Apart from the old form containing a sibilant, there is another form with a nasal that occurs in many Chadic languages. In Hausa it is found only in the indefinite pronoun **wani**, f. **wata** (i.e., **wa-ni**, resp. **wa-ta**).

(f.sg.) The **ta**-form is predominant in Chadic and should therefore be reconstructed for the proto-language, as was done by Kraft (1974). It can be assumed that **ta** did replace an older form **sa**, which has been posited for Semito-amic (Newman 1980:15) and which might have survived in a Chadic language (if it then should not be regarded as analogical formation on the basis of the m. form). This **ta**-element seems to be so persistent that it intruded into the pronouns of the 3rd m.sg., as in many Chadic languages (Kraft 1974, cf. Mukarovsky 1983:55). For this reason, one should add the **ti**-form to the reconstructions of this person.

(pl.) A dental element is also distinctive of the 3rd plural pronouns in some Chadic languages (cf. the reconstruction \*tVn given in Kraft 1974:69).

#### 6. TWO SERIES OF PERSONAL PRONOUNS IN HAUSA

As presented above, we distinguish between two series of personal pronouns. The first, called the bound series, is primarily used to denote the subject in the Semito-amic prefix conjugation. The second, called the free series, covers all other uses of personal elements. In addition to both series, some forms with **n** should be added that do not, however, permit the reconstruction of a whole paradigm. Now the distinction of two different types of personal pronouns allows the situation in Hausa to be stated in a more conspicuous way.

The personal pronouns that occur in the Hausa aspect forms are composed of personal elements of both types: **ya** (and **ta**) belong to the bound series, all others to the free series. The distribution of the elements of both types is not incidental. The elements of the free series, which appear in the independent pronouns, are destined to replace those of the bound series. The fact that in Standard Hausa the personal elements of the 3rd sg. persons are not replaced by the stronger elements could possibly be seen as a clue to an understanding of the historical development. Although we do not know much about the historical development of the current Hausa forms, we can say that the loss of the bound pronouns (or personal prefixes) and the increased occurrence of free pronouns have parallels in many language groups. I should like to mention only the case of Old French and its evolution into

Modern French. The paradigm of the indicative present in Old French as compared to modern colloquial French (français parlé) runs as follows (see L. Wolf and W. Hupka 1981:138, B. Müller 1975:83):

	Old French	Modern Colloquial French	
sg.	1. chant(e)	/ʒ(ə)-šāt/	-ø
	2. chantes	/t(y)-šāt/	-ø
	3. chante(t)	/i(l)-šāt/	-ø
pl.	1. chantons	/õ -šāt/	-ø
	2. chantez	/v(u)-šāte/	-e
	3. chantent	/i(l)-šāt/	-ø

In Old French, the personal pronouns could be used in order to express emphasis. In modern French, however, the pronouns have become obligatory to the same degree as the personal affixes of the verb have been reduced. The elision of final segments led to a regularization of the paradigm which was endorsed by a morphological replacement. In colloquial French, the 1st person pl. form, i.e., *nous chantons* /nu-šātõ/, still used in cultivated French, has been replaced by a construction with the indefinite pronoun: *on chante* /õ-šāt/ 'we sing'. As a result of these processes, the paradigm has become regular with the exception of 2nd person pl. The form *vous chantez* /v(u)-šāte/ could resist regularization because of its relation to the imperative, i.e., sg. /šāt/ and pl. /šāte/ (the final -e being necessary in order to express plurality).

Now a similar development must have taken place in the historical evolution of the Chadic language group. To the same extent that the personal elements of the Semito-Hamitic prefix-conjugation (e.g., sg. 1. ?-, 2. t-, 3. m. y-, etc.) have been given up, the independent personal pronoun has become obligatory. In Hausa (and some other languages), only the prefixed morphemes of the 3rd person sg. could resist this levelling process (for more details and parallels, see R.M. Voigt forth.).

#### 7. OTHER CASES OF YV- (AND TV-) IN CHADIC

The *ya*-form does not appear to be restricted to Hausa (as Newman/Schuh 1974:6 pretend). In Mokulu, an East Chadic language, we find the following verb subject pronouns (Lukas 1977:28 ff.), which correspond in the sg. very well to the Hausa forms:

(8)	i-series	a-series
sg. 1.	ní	na
2.m.	kí	ka
f.	mí	ma
3.m.	yí	ya
f.	tí	ta

It is hoped that Kraft, who already published (1974) the data and a reconstruction of the possessive, object, and independent pronouns in Chadic, will soon display his material about the verb

subject pronouns as well. Therefore, not having such an abundance of data at hand as he has, we could infer from the forms of the free series containing a yV element (as in Tangale, Fali of Kiria, Ga'anda, Dera, Seya, and Palci), which are expected to be identical with the verb subject pronouns, that the verbal paradigms of at least some other languages may exhibit yV as 3rd m.sg. marker.<sup>10</sup>

#### 8. INTERNAL AND EXTERNAL RECONSTRUCTION

This does not mean, however, that all occurrences of this element are to be seen as SemitoHamitic remnants. In these languages, all cases will be excluded in which the yV-element could reasonably be derived through a sound change from one of the pronouns of the free series:

(9)        si    -->  vi  
           ni    -->  ñi     -->     yi  
           ti    -->  yi

All these sound changes are plausible and may occur in Chadic languages. It depends on the reconstruction in a specific language. This reconstruction should, of course, be basically internal, but external evidence has to be taken into consideration as well. An internal reconstruction without external reflection would be too restricted since it would not save us from assuming the innovation of an element inherited from long ago. An external reconstruction without internal reflection would be too unrestricted since it would not save us from assuming the retention of a recent innovation. Only both methods, applied in parallel manner with special regard to the case under consideration, will yield results that are historically correct.

#### NOTES

<sup>1</sup>This paper represents a revised version of a lecture given at the 14th Colloquium on African Languages which was held at Leiden, Sept. 1984. For helpful comments I am indebted to C. Hoffmann, Th. Schadeberg, and W. Steuhl.

<sup>2</sup>The name of this eminent scholar, who devoted his attention to all five branches of the SemitoHamitic phylum, is not correctly rendered by M. Cohen (19947:8) and, relying on him, H. Meyer-Bahlburg (1975/76:2). The work of F.W. Newman is not generally known; it is not mentioned, for instance, in the historical surveys of J. Knappert (1975/76) and H. Mukarovsky (1981), see G. Burrini (1978:136).

<sup>3</sup>As to the method of internal reconstruction see H. M. Hoenigswald (1943/44, 1965, 1974), W.P. Lehmann (1973), J. Kuryłowicz (1973), and H. Birnbaum (n.d.).

<sup>4</sup>There are, in fact, some cases of *s* becoming *y*. According to F.W. Parsons (1962:263 f.), the bases of the three monosyllabic verbs *baa* (dā) 'give', *kaa* (dā) 'fell', and *taa* (dā) 'raise up' are "actually *baas-*, *kaas-* and *taas-* respectively, whereas their full causative forms are *baayar*, *kaayar* and *taayar*", going back to *\*baas-as*, etc.

Furthermore, the Sokoto dialect of Hausa has 'mai' instead of the standard forms *masā*, *mišī* (<-- *ma-sī*) 'to him', resp. 'nai, f.tai' instead of *naasā* and *taasā* 'his', see A. Klingenheben (1928:294), U. Ahmed and B. Daura (1970:85), and with more details A.B. Zaria (1982:140). As to the 3rd m.sg. pronoun possessive suffixes, I should like to derive *nai* (and *tai*) from the *š*i-pronoun not by a sound change *s* --> *y* (as Klingenheben did propose) but rather by assuming the weakening *s*<sup>(v)</sup> --> *h* with a subsequent loss of the *h*. A sound change *s*<sup>(v)</sup> --> *h* is reported for the dialect of Daura (Zaria 1982:95) where the standard form *gidansā* 'his house' appears as *gidaŋhi?*, i.e., *gida-n-hī* <-- *gidaa-na-s*<sup>(v)</sup>*i*. Evidently, if we delete the sibilant (via 'aspiration') in the last form, we obtain the current Sokoto form *gidaa-na-y* (Zaria 1982:140). Nevertheless, these cases do not suffice to establish a sound change that will be responsible for a prefixed element *š*i or *sa* becoming *ya*. The argument of a replacement of the *š*i-element, that could be raised here further, is treated below.

It should be noted that in other languages, however, as in Kanakuru (see Newman 1970), a sound change *s* --> *y* has become well established.

<sup>5</sup>See the following passage from T. Milewski cited by H. Birnbaum (n.d.:27): 'the method of exceptional forms is of particular importance. This method is founded on the assumption that whenever we are confronted by two synonymous forms, a regular one corresponding to the normal, general morphological type of the language, and a second form which is anomalous and exceptional, then the latter of these must be considered a residual form and hence the older of the two'. Cf. R. Hetzron (1976).

<sup>6</sup>Even if we accept the demonstrative origin of the *ya*-element, it remains much less transparent than the *š*i-form. In any case, the theory of a demonstrative origin of a given form does not appear to be of any remarkable explanatory content.

<sup>7</sup>According to H. Jungraithmayr (1936:226), the subject pronouns 3rd m. *yi* and *f. to* in Tangale have been replaced by the new personal elements *peemo* (or *mbeendam*) resp. *paaze* (or *mbaastam*).

<sup>8</sup>Cf. H. M. Hoenigswald (1943/44:79).

<sup>9</sup>In Proto-Semito-Hamitic, the vowels of the preformatives show a larger variety depending on the verbal class or stem. Later, this system has been regularized, as to the uniform vocalization with *a* in Hausa.

<sup>10</sup>See C. Gouffé 1979:272, H.G. Mukarovsky 1983:54.

## REFERENCES

- Ahmed, Umaru, and Bello Daura. 1970. *An Introduction to Classical Hausa and the Major Dialects*. Zaria: Northern Nigerian Publications.
- Birnbaum, Henrik. n.d. *Linguistic Reconstruction: Its Potential and Limitation in New Perspective*. Washington: Institute for the Study of Man.
- Burrini, Gabriele. 1978. Profilo storico degli studi sul camito-semítico. *Annali dell' Istituto Orientale di Napoli* 38:113-153.
- Cohen, Marcel. 1947. *Essai comparatif sur le vocabulaire et la phonétique du chamito-sémitique*. Paris: Champion.
- Daura, Bello. See U. Ahmed.
- Diakonoff (D'yankonov), Igor M. 1965. *Semito-Hamitic Languages*. Moscow: Nauka.
- Gouffé, Claude. 1979. Linguistic tchadique. *Annuaire d'École pratique des Hautes Études, IV<sup>e</sup> sect.*, 110 (1977-78):249-292, 1 T.
- Gregersen, Edgar A. 1967. Some competing analyses in Hausa. *Journal of African Languages* 6:42-57.
- Hetzron, Robert. 1976. Two principles of genetic reconstruction. *Lingua* 38:89-108.
- Hoenigswald, Henry M. 1943/44. Internal reconstruction. *Studies in Linguistics* 2:78-87.
- \_\_\_\_\_. 1965. *Language Change and Linguistic Reconstruction*. Chicago-London: University Press.
- \_\_\_\_\_. 1974. Internal reconstruction and context. *Historical Linguistics, II*, ed. by J.M. Anderson and C. Jones. Oxford: North-Holland Publ.; New York: American Elsevier Publ.
- Hupka, Werner. See L. Wolf.
- Jungraithmayr, Herrmann. 1983. Altes und neues Perfekt im Hausa und in anderen Tschadsprachen. *Afrika und Übersee* 66:221-230.
- Klingenheben, August. 1928. Die Silbenauslautgesetze des Hausa. *Zeitschrift für Eingeborenen-Sprachen* 18:272-297.
- \_\_\_\_\_. 1928/29. Die Tempora Westafrikas und die semitischen Tempora. *Zeitschrift für Eingeborenen-Sprachen* 19:241-268.
- Knappert, Jan. 1975/76. Origin and development of the concept of Hamitic: the first sixty years, 1851-1911. *Orientalia Lovanensia Periodica*. 6/7: 303-320.
- Kraft, Charles H. 1974. Reconstruction of Chadic pronouns I: Possessive, object, and independent sets - an interim report. *Third Annual Conference on Africa Linguistics*, ed. by E. Voeltz, pp. 69-74. Bloomington: Indiana University.

- Kuryłowicz, Jerzy. 1964. On the methods of internal reconstruction. Proceedings of the Ninth International Congress of Linguists, pp. 9-36. The Hague: Mouton. (Repr. in J. Kuryłowicz: Esquisses linguistiques, II, pp. 93-120. München: W. Fink.
- \_\_\_\_\_. 1973. Internal reconstruction. Diachronic, Areal, and Typological Linguistics, ed. by Th. A. Sebeok, pp. 63-92. (Current Trends in Linguistics. 11.). The Hague-Paris: Mouton.
- Lehmann, Winfred. 1973. Historical Linguistics, 2nd ed. New York (etc.): Holt, Rinehart and Winston.
- Lukas, Johannes. 1977. Tschadische Studien I: Beiträge zur Kenntnis des Mukulu. Afrika und Übersee 60:1-58, 192-229.
- Meinhof, Carl. 1912. Die Sprachen der Hamiten. Hamburg: Friederichsen.
- Meyer-Bahlburg, Hilke. 1975/76. Zur Stellung des Hausa innerhalb der afrikanischen Sprachen. Afrika und Übersee 59:1-30.
- Mukarovsky, Hans G. 1981. Hamito-Semitisch, Afro-Asiatisch, Erythräisch: Zum Wandel von Begriffen und Verständnis. Zeitschrift für Phonetik, Sprachwissenschaft und Kommunikationsforschung 34:522-526.
- \_\_\_\_\_. 1983. Pronouns and prefix conjugation in Chadic and Hamito-Semitic. Studies in Chadic and Afroasiatic Linguistics, ed. by E. Wolff und H. Meyer-Bahlburg, pp. 51-63. Hamburg: Buske.
- Müller, Bodo. 1975. Das Französische der Gegenwart. Heidelberg: Carl Winter.
- Müller, Friedrich. 1887. Grundriß der Sprachwissenschaft III: Die Sprachen der lockenhaarigen Rassen 2: Die Sprachen der mittelländischen Rasse. Wien: Hölder.
- Newman, Francis W. 1845. Bemerkungen über Hausa-Sprache (Remarks on the Hausa language). James C. Prichard: Naturgeschichte des Menschengeschlechts (Researches into the Physical History of Mankind), vol. III, 2. pp. 647-652. Leipzig: Voß.
- \_\_\_\_\_. 1848. Notes on the Galla verb and pronouns. Proceedings of the Philological Society for 1846-47 and 1847-48, 3:125-128.
- Newman, Paul. 1970. Historical sound laws in Hausa and Dera (Kanakuru). Journal of West African Languages 7:39-51.
- \_\_\_\_\_. 1980. The Classification of Chadic within Afroasiatic. Leiden: Universitaire Pers.
- Newman, Paul, and Russell G. Schuh. 1974. The Hausa aspect system. Afroasiatic Linguistics 1:1-39.
- Parsons, F.W. 1962. Further observations on the 'causative' grade of the verb in Hausa. Journal of African Languages 1:253-272.

- Pil'shchikova (Pilszczikowa), Nina N. 1959. Mestoimeniya yazikov nigero-čadskoy gruppī. Afrikanskiy étnografičeskiy sbornik 3:213-218.
- Reinisch, Leo. 1909. Das persönliche Fürwort und die Verbalflexion in den chamito-semitischen Sprachen. Wien: Hölder in Komm.
- Schuh, Russell G. 1976. The Chadic verbal system and its Afroasiatic nature. Afroasiatic Linguistics 3:1-14.
- \_\_\_\_\_. 1983. The evolution of determiners in Chadic. Studies in Chadic and Afroasiatic Linguistics, ed. by E. Wolff and H. Meyer-Bahlburg, pp. 157-210. Hamburg: Buske.
- \_\_\_\_\_. See P. Newman.
- Voigt, Rainer M. Forthc. The two prefix-conjugations in East Semitic, and Chadic. Bulletin of the School of Oriental and African Studies.
- Wolf, Lothar, and Werner Hupka. 1981. Altfranzösisch: Entstehung und Charakteristik. Darmstadt: wissenschaftliche Buchgesellschaft.
- Zaria, Ahmadu B. 1982. Issues in Hausa Dialectology (Indiana Univ. diss.). Ann Arbor: UMI.