INTRODUCTORY REMARKS

ON THE LINGUISTIC SITUATION IN THE LAKE CHAD BASIN

AND THE STUDY OF LANGUAGE CONTACT

Ekkehard WOLFF

(University of Hamburg)

0. GENERAL BACKGROUND

The Lake Chad Basin, roughly coinciding with the vast area covered by the waters of the Mega-Chad thousands of years back in history, today constitutes one of the most complex regions of Africa in terms of linguistic and culture history. It has been and still is, a zone of "transition" in many respects. The northern parts of this particular geographic area are more and more being swallowed by the continuously expanding desert, while its savanna-type central parts still offer resources sufficient to maintain more or less permanent human settlements. The southern parts of the Lake Chad Basin as delimited for our purposes, contain the more spectacular geographic features such as mountains, rivers, swamps, touching on even more fertile stretches of land still further south almost within sight of the tropical forests. This geographic diversity is rivalled by a no less spectacular richness in linguistic and cultural diversity.

The shores of Lake Chad must have attracted human eco-
nomic and settlement activities ever since. It does not need
much fantasy to imagine a continuous influx of different
peoples into the area for centuries on end. Malcolm GUTHRIE,
the great British Bantuist, considered the Lake Chad Basin
attractive enough to postulate here the "Urheimat" of the
pre-Bantu population whose migrations south- and eastwards
from there were to change the face of the continent beyond
recognition. (Most Bantuists today will no longer subscribe
to this particular theory. The home of the proto-Bantu is ge-
nerally assumed to lie further south in the grasslands of
Cameroon.) However, archaeology has produced evidence of
highly developed cultural and economic activities as shown
in the terracottas and pottery found in the vicinity of the
Lake, and has added to the mythologies concerning the giant
"Sao" or "So" in the centre of the Basin. On the southwes-
tern periphery in central Nigeria, the Nok terracottas rank
among the finest and earliest testimonies of human genious
in the area, not to speak of the "cultural centre(s)" in the
Benue river valley which delimits the Lake Chad Basin to the
south. Later, remarkable empires have risen and fallen in
the area. One of their finest, the empire of Kanem-Borno,
is still going strong in our days and looks back on a thou-
sand years of uninterrupted tradition. Splendour and wealth
of these empires derived to no little extent from the fact
that the shores of the Lake, now divided between Niger, Ni-
geria, Cameroon, and Chad, lay at the continental cross-
road of the eastern trans-Sahara trade route from Tunis and
Tripolis, and the pilgrims' route between the population
centres of the Western Sudan and the holy places beyond the
Red Sea.

The impact of these more or less islamized empires on
the non-islamic ("pagan") peoples within their reach, most
of all the intrusion of the Kanuri speaking groups about
500 years ago from the north into the western parts of the
Lake Chad Basin, later the Fulfulde speaking groups from the
west and southwest, is primarily responsible for the ethnic

and linguistic pattern that we find today, and which is characterized by utter fragmentation. The autochtones were pushed or fled, as widely accepted hypotheses have it, into the less habitable "refuge areas" - such as the Mandara mountains in northern Cameroon and swamps of the Logone and Shari rivers in Cameroon and Chad, where the horses of the raiding parties would not follow. On the other hand, these socalled refuge areas seem to have been populated long before by different ethnic and linguistic groups, as more recent findings indicate. Again our fantasy will have no problems in imagining the extent to which autochtones and refugees in these areas must have contributed their linguistic, cultural and historical traditions to the present picture.

As a linguistic contact zone, the Lake Chad Basin is made up of a vast number of individual languages and dialect clusters, which belong to three of the four generally accepted macrofamilies of African languages : AFROASIATIC (ex "Hamitosemitic"), NIGER-CONGO (also "Congo-Kordofanian") and NILOSAHARAN. From a linguistic point of view alone, the area thus constitutes one of the most exciting fields of study, especially for those interested in the history of languages and language families, language contact, and cross-language and cross-language family typology.

1. THE LINGUISTIC SETTING

This section presents some background information on the distribution and classification of languages in the Lake Chad Basin for non-linguist readers who might not be familiar with what is common knowledge among the specialists. No new hypotheses shall be discussed here which could arouse the interest of the initiated ; as far as more or less widely accepted classifications exist, only these shall be presented. For more exact reference to geographical distribution, the reader is referred to CNRS's speldid collection of maps accompanying the volume *Afrique subsaharienne - Pidgins*

et créoles of "Les langues dans le monde ancien et moderne" (Paris, 1981), or to a fairly recent handbook of the languages of Africa, edited by B. HEINE, Th.C. SHADEBERG, and E. WOLFF (1981)

Fifty years ago (October 10, 1934), a scholar named Johannes LUKAS from the University of Hamburg, published a research report ("Die Gliederung der Sprachenwelt des Tschadsee-Gebietes in Zentralafrika") in the Hamburg periodical *Forschungen und Fortschritte*. The contents of this report were more widely propagated two years later when they appeared in the International Africa Institute's journal *Africa* (n°9, 1936), under the title "The linguistic situation in the Lake Chad area in Central Africa". It was in this report and subsequent publications, that Johannes LUKAS established significant subdivisions of the vast and heterogeneous language conglomeration known in his time as "Sudansprachen", and found evidence for the existence of what were then known as "Hamitic" languages :

"Sudanic"

1. the Kanuri group
   ("Kanuri", "Toda"/"Todaga", "Dazza"/"Dazzaga")

2. the Maba group
   ("Maba", "Mararet", "Runga")

3. the Bagirmi group
   ("Bagirmi", "Bulala", "Mudogo", "Kuka", etc.)

4. the Mandara (Wandala) group
   ("Mandara", "Bura", "Margi", "Kilba", "Chilbak", "Gamargu")

"Hamitic"

5. the Chado-Hamitic group
   ("Bade", "Karekare", "Buduma", "Kotoko", "Muzgu", "Mubi", "Masmadsche", "Kadschagise", etc.)

More recent insights into the genetic affiliations of the languages of the Lake Chad Basin, based on the epochal classification of J.H. GREENBERG (1963), would group these languages and their relatives in the following way. The "Sudanic" languages as conceived of by LUKAS and other scholars until the times of World War II has ceased to

exist as such. LUKAS' groups 1-3 are now to be found among
the languages said to belong to the genetic unit called
NILOSAHARAN, which GREENBERG (1963) had suggested as com-
prising the following :

A. Songhai
B. Saharan (= LUKAS' "Kanuri group")
C. Maban (= LUKAS' "Maba group", but without "Mararet")
D. Fur
E. Chari-Nile :
    1. Eastern Sudanic (including LUKAS' "Mararet")
    2. Central Sudanic (including LUKAS' "Bagirmi group")
    3. Berta
    4. Kunama
F. Koman.

For those linguists of the older generation who used to
base their judgement of genetic affiliation heavily on typo-
logical criteria, like LUKAS and many other famous Africa-
nists, this regrouping of the languages in question was far
from being something unexpected : it had already occured to
LUKAS that at least his groups 1 and 2 were highly particu-
lar in terms of their morphology, rather "un-Sudanic" as he
put it (1934 : 356).

Quite different from what was taken to be the "Sudanic
type" were the languages of groups 4 and 5. For LUKAS, group
5 had definitely to be removed from "Sudanic", but not so
group 4 despite a fair number of common features. In any
case, even group 5 had to be viewed as "interbred with
Sudanic" (1934 : 357). GREENBERG's hypotheses on the gene-
tic relationship of these languages were straightforward :
they formed but one language family within that larger ge-
netic unit which replaced previous concepts concerning a
"Hamitosemitic" macrofamily, i.e. the "Chad family" within
AFROASIATIC :

A. Semitic
B. Egyptian

C. Berber

D. Cushitic

E. Chad (= LUKAS' "Mandara group" + "Chado-Hamitic group")

However, LUKAS' five groups did not exhaust the inventory of genetic linguistic units in the Lake Chad Basin. True enough, all the NILOSAHARAN languages in the region belong to either the Saharan family (Kanuri-Kanembu, Teda-Daza, Zaghawa, Berti) or the Chari-Nile family, and here to the branches :

Central Sudanic (internal sub-classification far from being universally accepted) : Barma ("Bagirmi"), Sara, Kenga, Kaba, Kara, Yulu ;

Eastern Sudanic (internal sub-classification far from being universally accepted) : Mararit, Tama, Daju, et al. ;

Maban : Maba, Karanga, Masalit, Runga, Mimi (of NACHTI-GAL), Mimi (of GAUDEFROY-DEMOMBYNES) ;

although one could argue that the members of the last two sub-branches in the eastern parts of Chad and the western parts of Sudan are really already outside the scope of our delimitation of the Lake Chad Basin.

As regards members of the AFROASIATIC macrofamily, however, not all languages in the Lake Chad area belong to the Chad (or to use a term of wider acceptance : "Chadic") family. Actually, three of the 5 families of AFROASIATIC recognized by GREENBERG are represented in the area : although of fairly recent immigration, members of the Berber family (Tuareg, in Nigeria also referred to as "Buzu") keep moving south into the western portions of the Lake Chad Basin, not the least due to deteriorating ecological factors in their home territories which lie further north and north-east of the Basin. From the east, a steady immigration of members of the Semitic family has been observed for quite a span of time : Arabic speaking nomadic people, at times commonly referred to as "Shuwa" (at least in Borno). All other members of AFROASIATIC in the area belong to the Chadic family.

With about 130 languages, Chadic constitutes the largest
family by far within the macrofamily.

However, in addition to AFROASIATIC and NILOSAHARAN, a
third linguistic macro-unit, out of four recognized by
GREENBERG, is represented in the southern part of the Lake
Chad Basin, i.e. NIGER-CONGO, in particular the Adamawa-
Eastern ("Adamawa-Ubangi" in more recent terminology) lan-
guage family, and here again particularly its "Adamawa"
branch which forms the southern fringe of the Lake Chad
Basin, so to speak. Languages of this branch with immediate
neighbours from either the Chadic family of AFROASIATIC or
the Central Sudanic family of NILOSAHARAN are, among others
(from west to east), Waja, Longuda, Yungur, Chamba in Nige-
ria, Fali, Mbum, Mundang, Tupuri in Cameroon, Bua et al. in
Chad. A dynamic newcomer in the area, and also linguisti-
cally belonging to NIGER-CONGO, is Fulfulde (Fulani, Peulh)
of the West-Atlantic family - only distantly related ti its
linguistic cousins of the Adamawa branch of the Adamawa-
Ubangi family.

This concludes the enumeration of the major linguistic
units in the Lake Chad Basin. Any study of linguistic con-
tacts in the area will, therefore, first of all distinguish
between incidents of contact of genetically related langua-
ges as opposed to contacts between languages that are gene-
tically non-related.

2. LANGUAGE CONTACT AND LINGUISTIC METHODOLOGY

Readers who are not linguists by profession might wish
to know what is meant by "language contact". Can languages,
and cultures alike, really be in contact in the way we might
say that people are in contact ? How does one recognize and
prove linguistic contact ? And what would be the result of
such contact ? Sociolinguistics has attempted to give ans-
wers to such questions. Certainly, language contact, and
culture contact likewise, presupposes "ethnic" contact.

Whereas one of the results of ethnic contact, for instance
through intermarriage, may be biological hybridization, i.e.
"mixed ancestry" of a particular individual, linguistic con-
tact, quite distinctly, either results in "language change"
or, in the extreme case, in "language shift", i.e. it may
blurr the genetic affiliation of a language (language chan-
ge) or replace one language by another (language shift) ;
it does not, however, result in a situation that a language
can be said to belong to two different genetic units at the
same time (i.e. there is no linguistic hybridization in the
sense of mixed ancestry for particular languages). Applying
this axiom of historical linguistics to the Lake Chad Basin :
no language in the area can, for instance, be at the same
time genetically affiliated with both Chadic and Saharan.
There may, however, exist a Chadic language which displays
certain typological traits which are usually found not in
Chadic but in neighbouring Saharan languages, for example,
particular instances of word order, or which has a fair
amount of common vocabulary with neighbouring Saharan lan-
guages - or the other way round. Whatever the particular
case may be, the first rule of sound historical linguis-
tics says : once a member of a particular genetic linguis-
tic unit, always a member of that genetic unit !

The first rule of sound sociolinguistics, then, says :
linguistic contact presupposes bilingualism. For languages
to be in "contact" it is not sufficient to observe them
cooccurring within a given geographical area, it is essen-
tial to observe bilingualism - i.e. two linguistic systems
must cooccur in the mind of at least one individual ; in
order to trigger off language change significant enough for
linguists to later detect it, a fairly stable pattern of
bilingualism must have prevailed for a minimum span of time
and must have involved a minimum number of speakers. Bilin-
gualism, of course, presupposes historical contact between
linguistically, possibly also ethnically and/or culturally
different groups of people. Therefore, if we can "prove"
linguistic contact, this will constitute good evidence for

the non-linguist who is interested in the history of people
and cultures in a given area - and this is what makes his-
torical linguistics so attractive for non-linguistic resear-
chers in Africa, even though many of them will have little
knowledge about how such "linguistic evidence" actually
comes about and on which theoretical and methodological
premises it is built.

Linguistic contact, i.e. bilingualism, occurs between
languages that may be related to each other genetically or
not. Unsually, in the case of genetically related languages,
the closer the relationship, the more difficult it is to
detect interference phenomena. Two such cases in the central
Lake Chad Basin and the particular problems of historical
interpretation have been described by WOLFF (1974/75 and,
from a more theoretical point of view, 1979). Linguistic
interference from unrelated languages is much easier to
detect - although it may be extremely difficult to locate the
source of the interference, cf. WOLFF and GERHARDT (1977)
for a description of heavy interferences across language
family boundaries in the southwestern corner of the Lake
Chad Basin (and section 3 below).

The discovery of linguistic interferences from other
languages in the history of a particular language or langua-
ge family is part of "historical linguistics". The most
common tools of historical linguistics are the comparative
method, the lexicostatistic (and other quantitative) me-
thod(s), the method of internal reconstruction, the study
of loan words, and the study of linguistic typology. All
methods aim at discovering two fundamental historical pro-
cesses in linguistic history : divergence and convergence.
Both divergence as well as convergence phenomena may result
from linguistic interference (language contact) or come
about by internal development. Sound historical linguistic
work should be able to tell one from the other.

Among professional linguists, the comparative method is
considered to be the most reliable to prove the genetic

relationship between languages. It is based on the compari-
son of languages in the two areas of study : phonology and
lexicon, i.e. based on this method we are able to make sta-
tements about the historical development of particular
"sounds" (phonemes) as well as about the historical changes
of both sound and meaning of particular lexical items (words,
morphemes) by establishing regular sound correspondences
between languages. This also enables us to trace back all
significant elements in the languages compared to common
historical elements. The "proto-language" established by
linguists on the basis of this particular historical method
constitutes the shorthand summary of actual knowledge about
sound correspondances ("sound laws") within the particular
language family. Linguistic interference from other langua-
ges through language contact could then be seen in parti-
cular distributions of sound changes and lexical innova-
tions.

Lexicostatistics and related quantitative methods when
applied before the comparative method, have no means to
identify "cognate" lexical items unless they are similar in
their phonological shape. (Who could, for instance, follow
P. NEWMAN, 1977, in counting Western Chadic Hausa giiwaa
"elephant" and Eastern Chadic Nancere june "elephant" as
similar, like the English and Russian words hundred and
sto, if one did not know the regular sound correspondences
behind such cognates ?). In order to judge the reliability
of hypotheses based on such quantitative methods, one would
have to know whether the author has counted true cognates or
mere similarities. When the percentages of "common vocabu-
lary" are added up, it turns out most of the time that the
languages sharing the highest percentages are also spoken
in the vicinity of each other, i.e. in adjacent territories.
Quantitative methods alone have no way of telling wether
such "nearness" in genealogical relationship, which is in-
dicated by higher percentages of common vocabulary ("reten-
tion rate"), is due to a long period of shared history, or
to linguistic contact due to heavy bilingualism of speakers

of genetically related languages.

The study of loan words, on the other hand, is exclusively concerned with contact phenomena. Based on the theoretical assumption that people "borrow" a word from an other language if they did not have the thing or concept in their own cultural inventory which this word designates, many historians and ethnographers take linguistic borrowing as evidence for "cultural borrowing". But, recent linguistic work on "code switching" and the emergence of pidgins and creoles tell us that bilingual speakers - apparently freely - fluctuate between two languages in dialogue with another person who is bilingual in the same languages. The "borrowed" word may just belong to a different "domain" of linguistic performance in a basically bilingual context. It does, therefore, not mean that the original language did not possess a word with the same or similar meaning ! However, "lexical" borrowing is hard evidence for linguistic contact. The first to have explored "Ancient Benue-Congo loans in Chadic" in great detail was Carl HOFFMANN (1970) who identified the roots *b-l- "two", * m-n(-) "know", * ni(i) / nyi(i) "elephant", something like *gab for "divide", and *kur "tortoise", possibly also *g-m- "ten" as likely loans of very early times. One of the finest recent studies on lexical borrowing in the Lake Chad Basin is the work by Henry TOURNEUX on "Les emprunts en musgu" (1983). TOURNEUX identifies not only lexical loans in Musgu by their deviant tone patterns but also the likely sources for most of these items, ranging over a vast number of languages with quite different genetic affiliations : Arabic, Kanuri, Fulfulde, Barma, Hausa, and various other Chadic and non-Chadic languages of the Lake Chad Basin.

The three methods of historical linguistics which I have shortly outlined above, i.e. the comparative method, lexicostatistics, and the study of lexical borrowing, all share a major deficiency, despite all their merits : they are basically preoccupied with but one section of the linguistic reality of what we call language - the lexicon. The

lexical inventory of a language is, of course, the most ea-
sily accessible section. Any non-professional fieldworker
can collect wordlists ! But the lexicon is, I would say, the
most instable section of human language. The notion of "re-
lexification" of languages which creolists have established,
shows the extent to which a language gives up large portions
of its lexical inventory in favour of a new inventory. (The
other two methods of historical linguistics which were men-
tioned above, namely internal reconstruction and linguistic
typology, can be applied to sections other than the lexicon.)

Unfortunately, most if not all recent classifications
of languages are based on precisely this most instable sec-
tion of the whole system, the lexicon. This is also true
for the Chadic languages, no doubt the best documented fa-
mily in terms of linguistic history in the Lake Chad Basin.
This methodological bias, as far as Chadic is concerned,
was first criticized, to the best of my knowledge, by
Herrmann JUNGRAITHMAYR (1974, published 1978 a), whose las-
ting contribution to Chadic linguistics will be to have ini-
tiated comparative grammatical research in the field of par-
ticular properties of the Chadic verbal system, and to have
opened our eyes to the prospects and problems of relating
the comparative study of the Chadic verbal aspect/tense sys-
tem to issues of comparative Afroasiatic grammar.

In addition to the lexical inventory, however, more
stable sections of language might be studied in terms of
divergence and convergence processes : the phonology (seg-
mental and suprasegmental, i.e. not only vowels and conso-
nants, but also the tonal and accentual properties), the
morphology, the syntax, the semantic fields of the lexicon.
Here, we have no simple inventories to be listed and compa-
red, here we deal with interlocking systems and subsystems.
In order to obtain a historical dimension and to trace lin-
guistic interferences which result from previous instances
of language contact, we have to reconstruct systems and
subsystems for various stages in the linguistic history of

a given language or language group. The absolutely necessary prerequisite for the diachronic study of linguistic systems and subsystems, however, is the adequate analysis of the synchronic data. How could we think of "reconstructing" proto-systems if we did not understand the principles governing the equivalent systems in the languages as they are spoken today ? ! Under these considerations, many comparative attempts in the fields of phonology, morphology, and syntax must be qualified (or disqualified) as being premature. One of the first and very promising attempts towards grammatical reconstructions of Chadic verb morphology, i.e. H. JUNGRAITHMAYR's series of papers since 1966 on the "aspect stems" of the verb in Chadic languages (for references see WOLFF, 1984), can be seriously criticized, among other things, for the lack of adequate foundations in the synchronic analysis of present-day aspectual systems in Chadic (see below) ; yet it marks the beginning of Chadic comparative grammar and has initiated a stimulating controversy on the nature and history of the Chadic (and, by implication, the Afroasiatic) verbal system.

3. ON GRAMMATICAL RECONSTRUCTIONS

The study of linguistic systems and subsystems in "contact" is, of course, a highly complex endeavour, but a very rewarding one. Until quite recently, even among professional linguists the idea was widespread that languages borrow words, but not "grammar". So it is not surprising to find very limited published materials of "grammatical interference" in our area, i.e. the Lake Chad Basin.

In 1975 (published 1977), Ekkehard WOLFF and Ludwig GERHARDT (University of Hamburg) presented an account of grammatical interferences between Chadic and Benue-Congo languages at the southwestern periphery of the Lake Chad Basin, i.e. in the region between the Central Nigerian

Plateau and the Benue valley where it cuts across the bor-
der between Nigeria and Cameroon. To our knowledge, that
was the first attempt ever to systematically describe do-
mains of linguistic interference in grammatical systems con-
cerning Chadic languages. (H. JUNGRAITHMAYR, therefore, is
mistaken when he writes in his 1980 article on contacts bet-
ween Adamawa-Ubangi- and Chadic languages, that grammatical
interference had never before been studied in that area and
that all previous studies were limited to lexical borrowing.)
The grammatical issues discussed by WOLFF / GERHARDT were :

    1. the inventory of sounds and the restrictions in the
distribution of sounds within the word ;

    2. the morphology and semantics of verbal extensions ;

    3. the morphology and syntax of the "intransitive copy
pronouns" ;

    4. the syntax of object pronouns ;

    5. nominal plural marking.

This was then complemented by a list of 90 lexical items
which were suspected to have been borrowed from one family
to the other. (This list was expanded again in GERHARD 1983.)

    The grammatical interference phenomena discovered by
WOLFF / GERHARDT can be summarized as follows :

1. Chadic languages of the Angas-Goemai group, for instan-
ce, show the same types of restriction in the distribution
of consonants within the word as neighbouring non-Chadic
languages like Birom and Zarek.

2. Non-Chadic languages of several Plateau groups appear
to have borrowed the grammatical category of "verbal plura-
lity" from Chadic, yet maintaining the original grammatical
formatives. Less certain is whether Chadic languages have
borrowed certain verbal suffixes, together with highly idio-
syncratic morphophonemic alternations, from neighbouring
Benue-Congo languages, yet without borrowing the "meaning"
of those suffixes.

3. Languages of both families in the contact area display
the peculiar feature of "intransitive copy pronouns", i.e.

some or all intransitive verbs are obligatorily followed by
a pronoun which corresponds in person and number, but not
in phonological shape, to the subject pronoun. More recent
insights indicate that this feature has been borrowed into
Chadic from Benue-Congo.

4. The Benue-Congo languages in the area show no uniform
pattern of object pronoun placement. If the placement of
the object pronoun to the left of the verb is common Benue-
Congo heritage, those languages which place it to the right
of the verb might have borrowed this order from Chadic where
it is quite normal to place the object pronoun after the
verb.

5. Chadic Sura, Chip, and Angas form nominal plurals by
adding the 3rd person plural pronoun to the noun stem of the
singular. This is quite "un-Chadic", but very common in
Benue-Congo languages. It is less clear whether reduplica-
ted plurals in non-Chadic languages such as Koro, Kaje,
Kagoma, etc., constitute grammatical loans from neighbou-
ring Chadic in which reduplication is a common plural for-
mative.

WOLFF / GERHARDT conclude that such extensive grammati-
cal borrowing, in addition to heavy lexical borrowing, and
in both directions, indicates long periods of instable bi-
lingualism on both sides in the past which have resulted in
the emergence of striking "areal features" of linguistic
structure.

The question of grammatical interference concerning the
verbal extensions was taken up again by WOLFF / MEYER-BAHLBURG
(1979) in a study on the morphology and semantics of exten-
ded verb stems in Zarek, a Benue-Congo language of the
Chadic / Benue-Congo borderline area in central Nigeria. In
more detail, the characteristic interrelation of expression
of verbal plurality and "imperfective aspect" that we find
in many Chadic languages, is discussed as a further instance
of grammatical borrowing from Chadic into Benue-Congo, in
the linguistic area of semantics. The interrelation of the

two categories is illustrated, for instance, by the Zarek extended verb stem taas which means both "tell many (stories)" (= verbal plural) and "tell (a story) for a long time" (= imperfective / durative aspect).

In a paper already mentioned, H. JUNGRAITHMAYR (1980) takes up the question whether suprasegmental aspect-marking devices ("apotony") in Chadic verbal systems constitute instances of grammatical borrowing from Adamawa-Ubangi languages of the Benue-Congo family. JUNGRAITHMAYR argues that, since southern Chadic languages and a number of Adamawa-Ubangi languages to the south "share the morphotonological feature of the binary verb aspect stem system" (p. 78), and since within the postulated model of Chadic linguistic history tonal marking devices must be "younger" (p. 80) than segmental marking devices, the tone marking of verb aspects in Chadic constitutes grammatical borrowing from Adamawa-Ubangi.

That paper, in particular, shows the dangers and weaknesses of premature comparative work :

1. If Chadic verbal aspect systems can be shown to operate a basic trichotomic rather than a dichotomic (or binary) aspect system - and there is strong published support for such a claim from various authors and descriptions (even from what one might wish to call the "JUNGRAITHMAYR school" itself, i.e. works by young scholars who have been guided to adopt certain ideas during their training in Marburg or under a cooperation agreement with CNRS's "Laboratoire des langues et civilisations à tradition orale" in Paris) -, the "borrowing hypothesis" loses much of its attractiveness.

2. It has not been established beyond reasonable doubt that those categories marked by particular tone patterns in one group of Chadic languages correspond historically to those categories marked by segmental changes ("reduplication", "infixation", "suffixation", etc.) in another group of Chadic languages, neither in terms of morphological structure nor in their synchronic syntactic and semantic

values, therefore one can hardly establish - other than by
becoming guilty of aprioristic reasoning - that tonal con-
trasts are "younger" marking devices for these categories
in Chadic than are the various segmental processes.

3. It is methodologically unsound to compare any type
of tonal contrast, for instance high *vs*. low tone, with ano-
ther type of tonal contrast, for instance low *vs*. high tone,
as long as it is not established beyond reasonable doubt
that the marking devices "correspond" to each other in a
systematic way, i.e. that a "regular sound correspondence"
can be established to "prove" that, for instance, the low
tone that marks category C-I in some languages represents
the same historical source as the high tone marking C-I in
other languages of the same family - if not by some unmoti-
vated and highly unlikely catch - all notion as "tone re-
versal" (JUNGRAITHMAYR 1978 b ; cf. also WOLFF 1985).

4. Generally, "borrowing hypotheses" should only be es-
caped *into* if internal reconstruction *cannot* account for the
particular features under review. If one can provide reaso-
nable evidence for an independant historical development of
"tonality" in Chadic, there is no need to postulate linguis-
tic contact as the source of this development. Such evidence
for the likelihood of independent tonogenesis in Chadic has
recently been provided (WOLFF 1983, and in this volume).

Thus, to conclude this introductory paper with a summa-
rizing statement concerning problems and prospects of dra-
wing historical inferences from socalled linguistic eviden-
ce, a caveat is called for, addressed to the non-professio-
nal linguist who wishes to incorporate such evidence into
his own historical interpretations : linguistic contact is
indeed "proof" of social and cultural interaction of people
- but the evidence can only be as good as the linguistic
methodology behind it.

REFERENCES

GERHARDT L. - 1983 - "Lexical interference in the Chadic / Benue-Congo
    border area" - *Studies in Chadic and Afroasiatic Linguistics*
    (ed. by E. Wolff and H. Meyer-Bahlburg) - Hamburg - pp.301-310.

GREENBERG J.H. - 1963 - *The languages of Africa* - Bloomington.

HEINE B., Th.C. SHADEBERG, E. WOLFF - 1981 - *Die Sprachen Afrikas* -
    Hamburg.

HOFFMANN C. - 1970 - "Ancient Benue-Congo loans in Chadic ?" - *Africana
    Marburgensia* 3 (2) - pp.3-23.

JUNGRAITHMAYR H. - 1978 a - "A tentative four stage model for the deve-
    lopment of the Chadic languages" - *Atti del secondo Congresso In-
    ternazionale di Linguistica Camito-Semitica* (racc. da P. Fronzaroli)
    - Firenze - pp.381-388.

—   1978 b - "The Zime dialect cluster ("Kado", "Dari") in southern
    Chad : its verbal aspect system" - *Afrika und Übersee* 61 - pp.1-67.

—   1980 - "Kontakte zwischen Adamawa-Ubangi- und Tschad-Sprachen :
    Zur Übertragung grammatischer Systeme" - *Zeitschrift der Deutschen
    Morgenländischen Gesellschaft* 130 (1) - pp.70-85.

LUKAS J. - 1934 - "Die Gliederung der Sprachenwelt des Tschadsee-
    Gebiets in Zentralafrika" - *Forschungen und Fortschritte* 10 (29) -
    pp.356-357.

— 1936 - "The linguistic situation in the Lake Chad Area in Central
    Africa" - *Africa* 9 - pp.332-349.

NEWMAN P. - 1977 - "Chadic classification and reconstructions" -
    Afroasiatic Linguistics 5 (1) - Malibu.

PERROT J. (éd.) - 1981 - *Les langues dans le monde ancien et moderne.*
    1. Les langues de l'Afrique subsaharienne, 2. Pidgins et créoles -
    Paris : CNRS.

TOURNEUX H. - 1983 - "Les emprunts en musgu" - *Studies in Chadic and
    Afroasiatic Linguistics* (ed. by E. Wolff and H. Meyer-Bahlburg) -
    Hamburg - pp.441-477.

WOLFF E. - 1974/75 - "Sprachwandel und Sprachwechsel in Nordost-
    nigeria" - *Afrika und Übersee* 58 - pp.187-121.

—   1979 - "Sprachkontakt und Ethnizität : Sprachsoziologische
    Ammerkungen zum Problem der historischen Interpretation genetischer
    Sprachbeziehungen" - *Sprachen und Geschichte in Afrika* 1 - pp.143-
    173.

—   1983 - "Tonogenese in tschadischen Sprachen" - *Afrika und Übersee*
    66 - pp.203-220.

WOLFF E. - 1984 - "New proposals concerning the nature and development of the proto-Chadic tense/aspect system" - *Current Progress in Afro-Asiatic Linguistic Theory* 28 - Amsterdam.

— 1985 - "The verbal aspect system in Zime-Mesme" - *Afrika und Übersee* 68 (in press).

WOLFF E., L. GERHARDT - 1977 - "Interferenzen zwischen Benue-Kongo- und Tschadsprachen" - *Zeitschrift der Deutschen Morgenländischen Gesellschaft*, Supplement 3 (2) - pp.1518-1543.

WOLFF. E., H. MEYER-BAHLBURG - 1979 - "Morphologie und Semantik der erweiterten Verbalstämme in der Sprache der Afuzare (Zarek)" - *Afrika und Übersee* 62 - pp.1-38.