Shared features between Hausa and Zarma: A quest for areal features in Niger languages

1. Introduction
Why study areal features in Niger?
- The languages share similar structural metaphors, proverbs, idioms, expressions, lexical items, lexical organization as well as phonological, morphological and grammatical items and patterns. This is expected since the speakers of these languages share the same environment and culture and their ancestors have been in contact for many centuries.
- Research and knowledge of these shared features can allow a move from a (still partially implemented) French-centered bilingual education system to a multilingual education system in Niger.
- The knowledge will also be relevant to the practice of translation.
- Focus first on Hausa and Zarma: The level of commonality between the two languages is substantial.
- Previous studies: Claude Gouffé, Bernard Caron, Petr Zima, Sergio Baldi
- Wider issues to connect to later on: What are people saying about the areal features in African languages. What are people saying about language contact phenomenon in general.

This talk presents three features: Two are general process that languages anywhere may have. But we will see that there are reasons to think that they were influenced by the language contact factor.

2. The languages in Niger

- Niger has about twelve indigenous languages, five major ones, which are: Hausa, Songhay-Zarma, Fulfulde, Tamajaq, and Kanuri; and seven minor ones, which are: (local dialectal) Arabic, Buduma, Gulmancema, Tadaksahak, Tagdal, Tasawaq, and Tubu.
- The twelve indigenous languages represent three of the four Greenbergian African families: Afroasiatic (Arabic, Buduma, Hausa, Tamajaq), Niger Congo (Fulfulde, Gulmancema), and Nilo-Saharan (Kanuri, Songhay -with its many varieties-, Tubu).
- Hausa is the majority language, spoken by more than 80% of the country's population, Zarma is the second major language, spoken by 30% of the population.
- Hausa and Zarma share some grammatical features (example: split negation, comparative constructions based on the verb for ‘surpass’, comitative-based causative construction, particles with the same functions in the two languages. The particles *dà* in Hausa and *dà/ndà* in Zarma fulfill nearly the same functions in the two languages, as seen in the following table (see Yansambou 2014):

<table>
<thead>
<tr>
<th>Functions</th>
<th>Hausa</th>
<th>Zarma</th>
</tr>
</thead>
<tbody>
<tr>
<td>coordination ‘with, and’ and</td>
<td>Abdù dà Muusaa ‘Abdu and</td>
<td>Abdù ndà Muusà ‘Abdu and</td>
</tr>
<tr>
<td>related functions</td>
<td>Musa’</td>
<td>Musa’</td>
</tr>
<tr>
<td>Possessive predication</td>
<td>Abdù yanàa dà goonaa ‘Abdu</td>
<td>Abdù goo-ndà fari ‘Abdu</td>
</tr>
<tr>
<td></td>
<td>has a farm’</td>
<td>has a farm’</td>
</tr>
<tr>
<td>Temporal conjunction</td>
<td>dà yàara sukà zoo ‘when the</td>
<td>daa zànkey kàa ‘whenever</td>
</tr>
<tr>
<td></td>
<td>children came’</td>
<td>the children come’</td>
</tr>
<tr>
<td>Conditional</td>
<td>dàa yàara sun zoo... ‘had the</td>
<td>daa zànkey kàa ‘if the</td>
</tr>
<tr>
<td></td>
<td>children come...’</td>
<td>children come’</td>
</tr>
<tr>
<td>Causative marker</td>
<td>fitar dà ‘take out’</td>
<td>fatta ndà ‘take out’</td>
</tr>
</tbody>
</table>

3. Comitative-based causatives constructions
Zarma has a pervasive morphological causative but is also developing a comitative-based causative.

3.1 Morphological causative with –*andi* in Zarma (and Songhay)
Sate verbs:

(5) a. Ni jindà ga bàinù. 
   2s voice ipf be.so.f
   ‘Your voice is soft.’

   b. Ni jindà baan-ndì!
   2s voice soft-caus
   ‘Soften your voice!’

Activity verbs:

(6) a. Gàadinyêe gà fuw-òò bátu.
   watchman ipf house-df watch
   ‘A watchman looks after the house.’

   b. Ay gà zànk-ey bat-ndì moòtà do.
   1s ipf child-df.p watch-caus car place
   ‘I (usually) make the children attend to the car.’

Punctual achievement verbs:

(8) a. Cim-oo ø bangay
    truth-df pf appear
    ‘The truth came out.’

   b. May ka sanno bang-ndì?
    who foc.pf matter appear-caus
    ‘Who revealed this matter?’

Semelfactive (iterative) verbs:
a. Muusà gà tissò.
   Musa ipf sneeze
   ‘Musa is sneezing.’

b. Taabà nòo gà bòro tiss-andi.
   tobacco cop ipf people sneeze-caus
   ‘It is tobacco that makes people sneeze.’

Durative accomplishment verbs:

(22) a. Zànk-ey ø dòndon cawyaŋ
   child-df.p pf learn reading
   ‘the children studied/ read/ learned reading.’
   (= zànkey nà cawyaŋ dòndon)

b. Ay nà zànk-ey dondon-andì cawyaŋ.
   1s pf child-df.p learn-caus reading
   ‘I taught the children/ I taught the children how to read.’
   (cf. *Ay nà cawyaŋ dondon-andi zànkey)

- Intransitive dabu ‘connect, tie’ > transitive dabu and causative dabandi ‘connect, tie’
- Intransitive bâkâ ‘soak’ > transitive baka and causative bakandi ‘soak’.
- It can apply to nouns: bûrcin ‘free man’, bûrcinandi ‘set free, ennoble’
- It can apply to borrowings: daahir (<Arabic) ‘tell the truth’ and daahirandi ‘confirm, believe (in God)’
- It also shows features characteristic of derivational processes: causative forms without basic verbs, unpredictable meaning, etc.

There is also a productive periphrastic causative using the verb danj ‘put’ (ay na Musa danj a na moota hanse ‘I made Musa repair the car’).

3.2 Comitative-based causatives in Southern Songhay

The pan-Songhay comitative-based causative: Only three verbs: koy ‘go’, kàa ‘come’ and yêe ‘return’

(11) a. ø koy ndà ni beer-ôô!
   imp go with 2s elder-df
   ‘Go with your elder brother!’ (Translated from French original ‘Va avec ton aîné!’)
   ‘Take your elder brother’

b. ø ko-ndà ni beer-ôô!
   imp go-caus 2s elder-df
   ‘Take your elder brother!’

Kaa ‘come’ > kanda/ kande ‘bring’; Yee ‘return’ > yenda ‘return (sth.)

The three verbs have a causative use in all (Southern) Songhay languages (cf. Heath 1998, 1999 for Koyra Chiini and Koyraboro Senni, respectively). It is a typical case of a grammaticalization process (with loss of flexibility and morphological fusion; see Abdoulaye and Buba 2014).

It is a real causative, and the construction sometimes has no motion semantics:

(13) a. Adamu Ide kànde tirà wôô.
   Adamu Ide bring book this
   ‘Adamu Ide published this book’.

b. Zàmaa haaray nòo ga kànde bòro mà tun zaa susûbay.
   because hunger cop ipf bring person sbj rise since morning
   ‘Because it is hunger that makes [brings] a person rise early in the morning.’

However, only in Zarma do we have an expansion to other motion and stance verbs: (data (xxa) from
Bernard and Kaba, 1994: 12 and (xxb-c) from Sibomana 2001: 234 #105, 226 #96, data (xxd-e) from field notes:

(14) a. Azal-ŏo day nòo kàŋ dirà nd-a.
   fate-df indeed cop that walk caus-3s
   ‘It is just destiny that took him away.’
   (Original French translation: ‘C’est juste le destin qui l’a emporté’.)

b. Yoo nà bûukwâa sambu gâ dirà nd-a.
   camel pf corpse take inf walk caus-3s
   ‘A camel took the body and carried it away’
   (Original French translation: ‘[Un] chameau prit le cadavre et l’emporta.’)

c. Irkòy bangand àa se bàngù da! waa zèenà...
   Irkòy bangay ndà a sè bàngù ndà wàa zèenà-a.
   God appear caus 3s for pond with milk old-df
   ‘God materialized a pond for her with the same milk [as previously].’
   (Original French translation: ‘Dieu lui fit apparaître un lac avec le même lait.’)

The comitative causative is not extended to other verbs, and not to transitive verbs:

(17) a. Fàati ø goy ndà beeròo.
   Fatì pf work nda elder-df
   ‘Fati works with her elder sister.’
   ‘Fati works more than her elder sister.’

3.3 Comitative-based causative in Hausa

All causative forms in Hausa ultimately rose from a comitative-based causative construction involving the preposition dà.


(25) a. wà-n-dà a-kà koomoo dà shii mulkìi
   one-df-that 4-rp return caus 3m.s power
   ‘he who was returned to power’

b. Mìi yat tahoo dà kee?
   what 3m.s.pf come caus 2f.s
   ‘What brought you here?’ (i.e., ‘Why are you here?’)

c. Allàh yà daɗèe dà râ-n-ka!
   God 3m.s.sbj last caus life-of-2m.s
   ‘May God prolong your life!’

Some causatives, the “Grade 5” forms, though they involve the preposition dà, were not considered to be based on the comitative structure. But in fact they are:

b. Taa zaun-âr dà bàaƙii cikin dàaƙìi.
   3f.s.pf sit-ar caus guest.p in room
   ‘She seated the guests inside the room.’

The two forms can have the same efferential (action away) and causative meaning, as seen next:

() a. Maariyaa taa fitàr dà yaaròo. 'Maria took the boy out' (causative sense)
b. Maarìyaa taa sayar dà mootàa. 'Maria sold the car (away)' (efferential action away sense)
c. Maarìyaa taa zoo dà yaaròo. 'Maria brought (came-with) the boy' (causative sense)
d. Maarìyaa taa aikàa dà wàsiiƙàa. 'Maria send (away) the letter' (efferential sense)

However, with certain motion verbs, when the two sub-forms exist, the simple Verb+ dà has a co-action meaning, while the linked form has no implication.

(23) a. Sun gusàa dà buhuuhuwàn cikin zaurèe. 3p.pf move caus sack.p in hall
   ‘They moved up/took further the sacks into the entrance hall’

   b. Sun gus-ar dà buhuuhuwàn. 3p.pf move-AR caus sack.p
   ‘They moved/pushed off the sacks

Conclusion: Hausa influenced Zarma, which, as a result (and contrary to its sister languages in Mali), extended its comitative-based causative construction to many more verbs.

However, there is a caveat: According to Heath (1999: 286), Koyraboro Senni does have the comitative-based causative construction; only it is not nda that is used but rather the infinitive ka/ha.

4. Ditransitive constructions

- Same development as with the causative: A restricted Songhay construction is expanded in Zarma under the probable influence of Hausa, where the construction is ubiquitous.
- According to Heath (cf. Heath 1998: 246-249 for Koyra Chiini) the ditransitive alternation exists in Mali Songhay, but it is limited to three verbs only: noo ‘give’, cerbu ‘show’ and samba ‘send’. However, the ditransitive construction is possible only when the recipient NP is a pronoun, particularly a 1st or 2nd person singular. Zarma has extended the construction to more verbs and to object nouns.

(1) a. Ay ga ni noo kwàayi.
   1s IPF 2s donner chemise
   ‘I will give you a shirt.’

   b. Koyǒo nà Abdù noo bári gùu hànno fo.
   chef PF Abdou donner cheval étalon beau.df un
   ‘The chief has given Abdu an admirable stallion.’

(5) a. Sorkàa Ø noo nòoru taalibôo sè.
   pêcheur.df PF donner argent étudiant.df à
   ‘The fisherman gave money to the student.’

   b. Sorkàa nà nòoru noo taalibôo sè.
   pêcheur.df PF argent donner étudiant.df à
   ‘The fisherman gave money to the student.’

(6) Sorkàa nà taalibôo noo nòoru.
   pêcheur.df PF étudiant.df donner argent
   ‘The fisherman gave the student some money.’

(7) Sorkàa Ø noo taalibôo *(se) nòoru.
   pêcheur.df PF donner étudiant.df à argent
   ‘The fisherman gave money to the student.’

With other verbs, the new pre-verbal object nominal can have the following roles: dative (marked with sè ‘to’), benefactive (marked with (sàmbày) sè ‘for (the sake of)’, possessor and source (marked with ga ‘from, on’): hi or garaw 'lend', yàafa 'pardon', càbe ‘show’, bàna ‘pay'. Bàna ‘pay’ with a dative NP:
(8) a. Hiimù Ø bàna zambar fo Kàilu sè.
Himou PF payer 5.000 Kailou à
'Himu paid 5,000 CFA to Kailu.'

b. Hiimù nà zambar fo bàna Kàilu sè.
Himou PF 5.000 payer Kailou à
'Himu paid 5,000 CFA to Kailu.'

c. Hiimù nà Kàilu bàna zambar fo.
Himou PF Kailou payer 5.000
'Himu paid Kailu 5,000 CFA.'

The verb cattu 'throw':

(9) a. Faati Ø cattu goorò Hiimù sè.
Fati PF lancer kola Himou à
'Fati threw a kolanut to Himu.' (dative sense only)

b. Faati Ø cattu Hiimù ndà goorò.
Fati PF percuté Himou avec kola
'Fati threw a kolanut on Himu.' (locative sense only)

c. Faati nà Hiimù cattu ndà goorò.
Fati PF Himou lancer/jetter avec kola
'Fati threw a kolanut on Himu.' (dative sense)
'Fati threw a kolanut on Himu.' (locative sense)

Many dative verbs without ditransitive construction: sàmba 'send', ciil har/nee 'say', hàntum 'write (a letter)', yenda 'return sth.', yèeti 'return here', etc.

Benefactive NP: wàsa 'ne enough' and hàsàraw 'cause damage' "malefactive":

(14) a. Dòonu Ø wàsa ay sè.
bouillie PF suffire 1s pour
'The porridge is enough for me.'

b. Dòonu nà ay wàsa.
bouillie PF 1s suffire
'The porridge is enough for me.'

The following verbs do not allow the alternation: day 'buy', du 'obtain', hìna 'prepare', te 'do', wii 'kill'.

- Possessor NPs: haamay 'wrest' and zay 'steal':

(15) a. Abdù Ø zay [Màari saakòo].
Abdou PF voler Marie sac.df
'Abdou a volé le sac à Marie.'

Abdou PF Marie sac.df voler
'Abdou a volé le sac à Marie.'

c. Abdù nà Màari zay saakòo.
Abdou PF Marie voler sac.df
'Abdou a volé le sac à Marie.'

- Some verbs allow the alternation with source NPs: hà 'interrogate', ñwaaray 'beg, claim', tubu 'inherit', ñwàa 'win, get':


(16) a. Ziimāa Ø ŋwāa nòoru wàybòrà ga.
    charlatan.df PF gagner argent femme de
    ‘The charlatan won some money with the woman.’

b. Ziimāa nà nòoru ŋwāa wàybòrà ga.
    charlatan.df PF argent gagner femme de
    ‘The charlatan won some money with the woman.’

c. Ziimāa nà wàybo rà ŋwāa nòoru.
    charlatan.df PF argent gagner femme
    ‘The charlatan won some money with the woman.’

- Zarma indeed has a limited ditransitive alternation.
- Hausa, by contrast, has an applicative-like construction, overtly marked by a particle mà following the verb. The construction is essentially unrestricted, affecting almost all lexical verbs and a large array of semantic roles, including datives, benefactives, locatives, sources, malefactive and other residual roles (cf. Abdoulaye 1992 : 289-298):

(5)  a. Abdù yaa fasàa mà Bàlki kwalbaa (3 senses: benefactive, locative, possessor)
    b. Sun yankàa mà Liimân naamân àladèe då wuƙaa (3 senses: benefactive, possessor, possessor)
    c. Yaa yii mani karyaa (2 senses: object, hearer)
    f. Kàakaa taa macèe manà/ jaakii yaa macèe manà cikin gidàa (“die on us” meaning)
    g. Yaa zoo mani da wasu matsaloolii. (“come to me” for solutions to his problems)
    h. Yaa zoo yaa ganèe wà idàanunsà. (He saw “for his eyes”)
    i. Sai kùreegee ya ruugoo maki gidàa… (a kind of narrative use, no semantic role for addressee)

**Innovation in Songhay dialects:**

Zarma (along with Dendi) overall shows signs of being towards the conservative end compared with the Malian main varieies (Timbuktu, Gao).
- f/h alternation
- SAuxOVX syntax
- NP+VP vs. NP+Pro+VP
- Comitative nda (not in two major Mali varieties, but OK in the two minor ones)
- Purposive function of ka/ga (not in two major Mali varieties, but OK in the two minor ones)
- Tones
- Etc.

As suggested suggested in Nicolai (1982), innovative features in Zarma are mostly due to language contact.

**5. Formation of the Abstract Nouns of Sensory Quality (ANSQ)**

Parsons (1955) described in Hausa what he calls the “Abstract Nouns of Sensory Quality”, which are semantically and formally characterizable in Hausa. Semantically, as the label indicates, the nouns refer to “…quality or attributes of people, animals or things that are perceptible by one or more of the senses”. Formally, the nouns are (a) disyllabic, (b) have a heavy initial syllable, (c) end with the long high vowel –ii, (d) have an all high tone pattern, and (e) are all masculine nouns. The phenomenon was considered so deeply characteristic of Hausa that when it was discovered in other Chadic languages it was taken as a West Chadic feature reflecting a genetic relationship (Haruna 1996). Some representative nouns in Hausa and Guruntum, a West Chadic language, are given in Table 3. Nonetheless, Zarma also exhibits a very similar pattern, as can be seen in the table.
Table 3: Abstract Nouns of Sensory Quality in Chadic and Zarma

<table>
<thead>
<tr>
<th></th>
<th>Hausa</th>
<th>Guruntum</th>
<th>Zarma</th>
</tr>
</thead>
<tbody>
<tr>
<td>coldness</td>
<td>sanyii</td>
<td>saanii</td>
<td>yeeni 'coldness'</td>
</tr>
<tr>
<td>toughness</td>
<td>taurii</td>
<td>---</td>
<td>sandi 'toughness'</td>
</tr>
<tr>
<td>bitterness</td>
<td>dwaacii</td>
<td>ngyooŋi</td>
<td>fotti 'bitterness'</td>
</tr>
<tr>
<td>bad smell</td>
<td>waarii</td>
<td>waabii</td>
<td>fumbi 'bad smell'</td>
</tr>
<tr>
<td>sourness</td>
<td>tsaamii</td>
<td>?aasii</td>
<td>moorii 'sourness'</td>
</tr>
<tr>
<td>heat</td>
<td>zaafii</td>
<td>?aanii</td>
<td>konni 'heat'</td>
</tr>
<tr>
<td>heaviness</td>
<td>nauyii</td>
<td>giisii</td>
<td>beeri 'bigness'</td>
</tr>
<tr>
<td>sharpness</td>
<td>kaifii</td>
<td>goobii</td>
<td>gitti 'acridness'</td>
</tr>
<tr>
<td>viscosity</td>
<td>kaurii</td>
<td>huulii</td>
<td>doori 'pain'</td>
</tr>
<tr>
<td>strength</td>
<td>karfii</td>
<td>kwaamii</td>
<td>jandi 'length'</td>
</tr>
<tr>
<td>width</td>
<td>faaadii</td>
<td>wulŋii</td>
<td>kaari 'glimmer'</td>
</tr>
</tbody>
</table>

The Zarma forms, just like the Chadic forms, are not derived in any obvious way beside their semantic and formal similarity (i.e., there are no simpler bases from which to derive the forms). The short vowel in the Zarma forms is probably due to the general tendency of Zarma words to end in a short vowel (and Hausa borrowings are subjected to this tendency). It is clear that the abstract nouns of sensory quality can no longer be taken as an exclusively (West) Chadic feature. As is clear from the table, it is not the individual words that may have been borrowed, but a lexical pattern, no matter how this may have happened.

6. Conclusion
- Look at Fula, Tamajaq, and Kanuri, but especially the first two since, like Songhay, these languages have deep extensions out of Niger and away from Hausa area and comparisons can be made.
- This research can inform the global debate on the mega-zones in Africa.
- It can also the debates on language contact in the area.
- Attend to practical issues in education and translation