Existential predication in the languages of the Sudanic belt

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1   Introduction

1.1   Existential predication as inverse locational predication

From an author to another, the term 'existential' is not used with the same meaning, and many authors use it without any real definition, of even with no definition at all. It is important, therefore, to clearly define the topic of this presentation. Among the various types of constructions to which the term 'existential' has been applied, the constructions considered in this presentation can be unambiguously characterized as *inverse locational predication*, defined as follows.

   Plain/direct locational predication, illustrated by English **The book is on the table**, French **Le livre est sur la table**, or German **Das Buch ist/liegt auf dem Tisch**, is identified as such cross-linguistically by its ability to encode prototypical figure-ground relationships with the unmarked perspectivization 'figure>ground'. By 'prototypical figure-ground relationship', I mean an *episodic* spatial relationship between two concrete entities differing in their degree of *mobility*: the ground typically occupies a fixed position in space, whereas the figure is mobile or easy to move, which regardless of information structure gives it a higher degree of saliency, hence the unmarked nature of the 'figure>ground' perspectivization.

   Inverse locational predication is identified as such by its ability to encode the same prototypical figure-ground relationships (i.e. episodic spatial relationships between a mobile/movable figure and a ground occupying a fixed position in space), with however the marked perspectivization 'ground>figure' : English **There is a book (on the table)**, French **Il y un livre (sur la table)**, German **Da ist/liegt ein Buch (auf dem Tisch)**, etc. This corresponds to Koch's (2012) *rhematic location*.

   Inverse locational predication is a comparative concept in the sense of Haspelmath (2010), which means that the predicative constructions identified cross-linguistically as expressing inverse locational predication must not be expected to have the same range of possible uses. In particular, there is cross-linguistic variation in the codification of the distinction between *episodic presence* and *long-term presence* (Koch's *bounded existence*, as in **There are many lions in Africa**, paraphrasable as 'Africa is a place where many lions spend their lives').

   In this presentation, I use 'existential predication' as an abbreviation for 'inverse locational predication'. An obvious drawback of this choice is that inverse locational predication has little to do with 'existence' in the ordinary use of this word (and typical inverse locational clauses cannot be paraphrased by clauses headed by the verb 'exist'). However, misleading as it may be, this terminological choice is motivated by the fact that inverse locational predication is precisely the kind of construction most commonly included under the heading of existential construction.

The question addressed in this presentation is the distribution of the possible types of inverse locational predication in a particular area (the Sudanic belt) which in this respect exhibits interesting features. Other aspects of the typology of existential predication (such as the distinction between the expression of episodic presence and long-term presence, or the relationship between positive and negative existential predication) are not considered here.

For a more detailed and more general discussion of the typology of inverse locational predication, see Creissels (Forthcoming).

1.2 The Sudanic belt

The Sudanic belt (Clements & Rialland 2008), aka Macro-Sudan belt (Güldemann 2008), is a large belt of northern sub-Saharan Africa from the Atlantic Ocean to the Ethiopian plateau. Some important structural characteristics are particularly frequent among languages spoken in this area irrespective of their genetic affiliation (Westermann 1911, Greenberg 1959), and are not found with a comparable frequency in the genetically related languages outside of this region, which suggests an important role of language contact. Recent areality hypotheses dealing with the Sudanic belt have focused on features such as labial-velar stops, labial flaps, implosives and other "nonobstruent" stops, nasal vowels and lack of contrastive nasal consonants, ATR vowel harmony, tone, "lax" polar question markers, logophoricity markers, S-(Aux)-O-V-X and V-O-Neg order patterns.

This presentation deals with an areal feature of the Sudanic belt not mentioned so far in the literature: the particularly high frequency of a type of behavior of locational clauses which is relatively rare at world level.

2   Types of existential predication

In a typology of existential predication, the first distinction is between languages in which a predicative construction morphologically distinct from plain locational predication is available to encode an alternative perspectivization of prototypical figure-ground relationships, and languages in which no such predicative construction exists.

As regards dedicated existential constructions (i.e. existential constructions morphologically distinct from plain locational predication), a general typological approach cannot be based on criteria referring to grammatical functions in existential clauses, or to the morphological nature of existential predicators, since the cross-linguistic comparability of such notions cannot be taken for granted. The only possible criterion is the formal resemblance with predicative constructions expressing other functional types of predication. On this basis, I propose to distinguish seven types briefly presented in Sections 2.1 to 2.7.

2.1 There.be-existentials

There.be-existentials are existential constructions that differ from plain locational predication by the presence of a locative element (typically, a word used in other constructions with a meaning such as 'there' or 'in it') whose only function in existential predication is to mark the distinction between plain locational and existential predication. Crucially, this locative element acting as an existential marker occupies a fixed position distinct from that of the ground phrase. English *there is N (Loc)*, Italian *c'è N (Loc)* (Ex. (1)), and Arabic *hunāka N (Loc)* (Ex. (2)) are typical examples of there.be-existentials.

(1)   Italian (Indo-European, pers.knowl.)

    a. **La chiave è sul tavolo.**
       the key   is on.the table
       'The key is on the table.'

    b. **C'è una chiave sul tavolo.**
       there$_{expl}$-is a   key   on.the table
       'There is a key on the table.'

(2)   Standard Arabic (Aziz (1995) and Darine Saïdi, pers.com.)

    a. **Ar-rajulu fī-l-maktabi.**
       DEF-man   in-DEF-office.GEN
       'The man is in the office.'

    b. **Hunāka rajulu-n fī-l-maktabi.**
       there$_{expl}$ man-INDEF in-DEF-office.GEN
       'There is a man in the office.'

2.2 Have-existentials

Have-existentials are existential constructions involving a predicator not used in locational predication but also used in a transitive possessive construction, i.e. in a possessive predicative construction in which the possessor and the possessee show coding characteristics identical to those of the agent and the patient of typical transitive verbs. The existential use of this predicator can be described in terms of impersonalization. In its existential use, it may occur either alone, as in Brazilian Portuguese *tem N (Loc)* lit. 'has N (Loc)' (Ex. (3)), or combined with an expletive pronoun, as in Alemannic *es hot N (Loc)* lit. 'it has N (Loc)' (Ex. (4)). In languages in which this predicator as a transitive verb of possession agrees with the possessor NP, its existential use implies default agreement.

(3)   Brasilian Portuguese (Callou & Avelar 2013)

    a. **Ele tem dois computadores no escritòrio**
       he has two computers   in.the office
       'He has two computers in the office.'

    b. **Tem dois computadores no escritòrio**
       has two computers   in.the office
       'There are two computers in the office.'[1]

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[1] Note that Brasilian Portuguese, in contrast to European Portuguese, does not allow null subjects with an anaphoric reading. Consequently, in BP, contrary to EP, this sentence cannot be interpreted as 'He/she has two computers in the office'.

(4)   Alemannic (Czinglar 2002)

    Es   hot   Rössr   voram   Hus.
    it   has   horses   in_front_of_the   house
    'There are horses in front of the house.'

2.3   There.have-existentials

There.have-existentials are existential constructions involving a predicator also used in a transitive possessive construction, plus an additional element generally used with a meaning such as 'there', but whose only function in existential predication is to reinforce the distinction between existential predication and possessive predication (as in Occitan *i a N (Loc)* lit. 'there has N (Loc)' (Ex. (5)). French *il y a N (Loc)* lit. 'it there has N (Loc)' is a well-known illustration of this type.

(5)   Occitan (pers.knowl.)

    I   a   un   can   dins   l'ort.
    there$_{expl}$ has   one   dog   in   the-garden
    'There is a dog in the garden.'
    lit. 'There has a dog in the garden.'

2.4   Incorp.have-existentials

Incorp.have-existentials are existential constructions in which the figure is treated like the possessee in an incorporating possessive construction. By 'incorporating possessive construction', I mean a possessive predicative construction in which the noun referring to the possessee cannot be analyzed as the head of an NP in a construction including two slots for NPs (as in the other types or predicative possession), and must be analyzed as converted into a one-place predicate meaning 'be an N-owner' by a 'proprietive' operator.

    For example, Kalaallisut (aka West Greenlandic) has a suffix **-qar** converting nouns into intransitive verbs 'be an N-owner' or 'be endowed with N' (proprietive verbs) that assign the role of possessor to their argument, encoded as a noun phrase in the zero case (alias absolutive case) and cross-referenced on the verb, as in (6a). In the existential construction, a proprietive verb derived from the noun referring to the figure is invariably in the third person singular, and no noun phrase in the zero case is present – Ex. (6b).

(6)   Kalaallisut (Van Geenhoven 1998: 25, 27)

  a. **Angut   taana   illu-qar-puq.**
       man   that   house-PROPR-IND.3SG
       'That man has a house.'

  b. **Nillataartarfim-mi   tallima-nik   manne-qar-puq.**
       fridge-LOC   five-INSTR.PL   egg-PROPR-IND.3SG
       'There are five eggs in the fridge.'

2.5 Be.with-existentials

Be.with-existentials are existential constructions in which the figure is encoded like the phrase representing the companion in comitative predication, as in Swahili *ku na N (Loc)* lit. 'there with N (Loc)' (Ex. (7)).[2]

(7)   Swahili (Niger-Congo, pers.doc.)

Kisima-ni   m   na   maji.
CL7.well-LOC   CL18   with   CL6.water
'There is water in the well.'
lit. 'at-the-well there (is) with water.'

2.6 It.be-existentials

It.be-existentials are existential constructions formally similar to identificational predication. They are characterized by the presence of either a dedicated identificational predicator, or an identificational/locational predicator accompanied by a non-locative expletive element also used in identificational clauses equivalent to English *This/that is an N.*

(8)   Icelandic (Indo-European, Neijmann 2001, Freeze 2001)

  a.   **Það   er   kirkja.**
       that   is   chuch
       'That is a church.'

  b.   **Það   eru   mys   í   baðkerinu.**
       that   are   mice   in   bathtub
       'There are mice in the bathtub.' lit. 'That are mice in the bathtub.'

2.7 Existential predications involving a dedicated existential predicator

Dedicated existential predicator is the term I propose for predicators found in existential clauses that, synchronically,[3] do not cumulate the function of existential predicator and that of equative predicator, locational predicator, comitative predicator, or transitive verb of possession. Ex. (9) illustrates the distinction between locational predication and existential predication involving a dedicated existential predicator in Turkish.

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[2] Note that, in this construction, the locative can be analyzed as the syntactic subject, since it is resumed by the subject index of one of the locative classes (here class 18) in the same way as non-locative NPs in subject function.

[3] This precision is crucial, since diachronically, any of the types listed in the previous sections can be converted into a construction involving a dedicated existential predicator, as the result of evolutions that blur the relationship between the existential construction and the locational or possessive construction to which it was related originally. For example, Spanish **haber** 'there be' was originally a transitive verb of possession also used impersonally as an existential predicator, but its replacement by **tener** in the function of verb of possession resulted in that, synchronically, **haber** can only be analyzed as a dedicated existential predicator.

(9)   Turkish (pers.doc.)

    a. **Kitap   masa-da(-dır).**
        book   table-LOC(-be)
        'The book is on the table.'

    b. **Kitap   masa-da   değil(-dir)**
        book   table-LOC   NEG(-be)
        'The book is not on the table.'

    c. **Masa-da   bir   kitap   var.**
        table-LOC   one   book   EXIST
        'There is a book on the table.'

    d. **Masa-da   kitap   yok.**
        table-LOC   book   EXIST.NEG
        'There is no book on the table.'

3   Dedicated existential constructions in the languages of the Sudanic belt

Among the types of dedicated existential constructions listed in Section 2, only two are well represented among the languages of the Sudanic belt included in my sample:[4]

- existential predications involving a dedicated existential predicator (12 languages out of 79)
- have-existentials, i.e. existential predications involving a predicator also used as a transitive verb of possession (11 languages out of 79).

3.1   Dedicated existential predicators in the languages of the Sudanic belt

Dedicated existential predicators, illustrated in (10) by Hausa (Chadic), are common among Chadic languages. They are also attested in the other language families found in the Sudanic belt, but only sporadically.

(10)   Hausa (Kraft & Kraft 1973)

    a. **Yaàraa   su   nàa   gidaa.**
        children   3PL   be_at   home
        'The children are at home.'

    b. **Àkwai   yaàraa   naàn.**
        EXIST   children   here
        'There are children here.'

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[4] The language sample I used for this study is a convenience sample including all the languages spoken in the Sudanic belt for which I have been able to find relevant data, with however an important reservation: whenever two or more languages with a very close genetic relationhip show the same configuration as regards locational and existential predication, I have arbitrarily selected one of them. For example, Mandinka is the only Manding language included in the sample, but the same configuration is found in all the other Manding varieties (Bambara, Maninka, etc.).

3.2   Have-existentials in the languages of the Sudanic belt

This type of existential predication, illustrated in (11) by Wolof (Atlantic), is very common among Atlantic languages. It is also attested in the other language families found in the Sudanic belt, but only sporadically.

(11)   Wolof (Creissels et al. 2015)

    a. **Musaa   am   na   woto.**
       Moussa   have   PRF.3SG   car
       'Moussa has a car.'

    b. **Am   na   woto.**
       have   PRF.3SG   car
       'He/she has a car.' or 'There is a car.'

3.3   Others

Among the languages included in the sample, be.with-existentials are found only in three languages, all belonging to the Chadic family, and in two of them, they are in competition with a dedicated existential predicator. The other four types are not represented at all.

3.4   Conclusion of Section 3

In the following two respects, the distribution described in Sections 3.1 to 3.3 in inline with the trends observed in the worldwide sample analyzed in Creissels (Forthcoming):

- In the worldwide sample, slightly more than half of the languages are devoid of dedicated existential construction; in the Sudanic sample the proportion is even higher (about two thirds).
- The two types of dedicated existential constructions relatively well represented in the Sudanic sample (existential constructions involving dedicated existential predicators, and have-existentials) are precisely those that have a particularly wide distribution at world level.

It is however striking that, among the languages of the Sudanic belt, these two types of dedicated existential constructions are mainly found in two particular families:

- The Chadic family is the only one in which constructions with a dedicated existential predicator are well represented.
- The Atlantic family is the only one in which constructions involving a predicator also used as a transitive verb of possession are well represented.

This means that, with the exception of these two families, the overwhelming majority of the languages spoken in the Sudanic belt do not have a construction expressing inverse locational predication morphologically distinct from plain locational predication.

4   Languages of the Sudanic belt devoid of morphologically distinct construction encoding the existential perspectivization of ground-figure relationships

Outside the Sudanic belt, among the languages devoid of dedicated existential construction for which I have been able to find the relevant data, the commonest situation is that constituent order in locational predication is flexible, and variation in constituent order is semantically comparable to the choice between plain locational predication and inverse locational predication in the languages that have grammaticalized this distinction. Two variants of this situation are particularly well attested.

In languages with basic OV order in transitive predication, it is common that the basic constituent order in locational predication is FIG GR Pred, with the ground phrase immediately before the locational predicator, whereas the alternative order GR FIG Pred provides a rough equivalent of existential perspectivization – Ex. (12).

(12)   Basque (pers.doc.)

    a.   **Parke-a   ibai-ondo-an   dago.**
       park-SG   river-side-SG.LOC   be.PRS.3SG
       'The park is next to the river.'

    b.   **Ibai-ondo-an   parke   eder   bat   dago.**
       river-side-SG.LOC   park   lovely   one   be.PRS.3SG
       'There is a lovely park next to the river.'

In languages with basic VO order in transitive predication, it is common that the basic constituent order in locational predication is FIG Pred GR, with the ground phrase after the locational predicator, whereas the alternative order GR Pred FIG provides a rough equivalent of existential perspectivization – Ex. (13).

(13)   Finnish (Uralic, Huumo 2003: 464)

    a.   **Poika   on   piha-lla.**
       boy   be.PRS.3SG   yard-ADESS
       'The boy is in the yard.'

    b.   **Piha-lla   on   poika.**
       yard-ADESS   be.PRS.3SG   boy
       'There is a boy in the yard.'

There are however languages with rigid constituent order in locative clauses and in which the same locational clauses with the same constituent order can be used indiscriminately in contexts that would trigger a change in constituent order in languages such as Basque or Finnish. Interestingly, almost all of them have rigid VO constituent order in transitive predication, and rigid FIG Pred GR in locational predication. Ex. (14) illustrates this situation.

(14)   Mangarayi (Merlan 1982, quoted by Dryer 2007: 243)

Mawuj   ja-Ø-ṇi   biyaŋgin   ṇa-boŋgan.
food   3-3SG-be   inside   LOC-box
'There's food in the box.' or 'The food is in the box.'

In my worldwide sample, outside the Sudanic belt, the languages described as having a locational predicative construction that can be used without any change in constituent order in contexts that suggest the inversion of the ground>figure perspectivization are not very numerous:

   Beja (Afro-Asiatic, Cushitic)
   Gaelic (Indo-European, Celtic)
   ‡Höã (Kx'a)
   Irish (Indo-European, Celtic),
   Kamaiurá (Tupi-Guarani)
   Mangarayi (Gunwingguan)
   Nengee (English-based Creole)
   Retuarã (Tucanoan)
   Puyuma (Austronesian)
   Seri (Isolate, Mexico)
   Urim (Toricelli)
   Wa (Austro-Asiatic, Mon-Khmer)
   Wampis (Jivaroan)
   !Xun (Kx'a)

My worldwide sample also includes a language explicitly described as having flexible constituent order in locational clauses, but in which the variation in constituent order is not correlated to the distinction between two possible types of perspectivization:

   Mantauran (Austronesian, Rukai)

The situation is strikingly different in the Sudanic belt. As already mentioned, in my sample of languages spoken in this area (see Appendix), 55 languages out of 79 do not have a construction expressing inverse locational predication morphologically distinct from plain locational predication. In two of them (the two Dogon languages included in the sample), the constituent order in locational predication is flexible, and the examples suggest a situation of the type commonly found in consistent OV languages and illustrated above by Basque. Interestingly, these two languages are the only consistent OV languages in the sample.[5] The sample also includes three languages (Datooga, Turkana, and Ik) for which the descriptions I have at my disposal suggest that the constituent order in locational predication is rigid, without however providing conclusive examples. For the remaining 50 languages, either the descriptions explicitly mention rigid constituent order in locational predication and no morphologically distinct construction available to express the existential perspectivization of figure-ground relationships, or the examples they provide unambiguously suggest a situation of this type – Ex. (15) to (19).

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[5] Among the languages of the Sudanic belt, the only consistent OV languages are the Dogon and Ijo languages. Unfortunately, I have not been able to find precise data about locational and existential predication in Ijo languages.

(15)   Mandinka (Mande, Creissels & Sambou 2013)

       Wùlôo   bé   yíròo   kótò.
       dog.D   LOCCOP   tree.D   under
       'The dog is under the tree.' or 'There is a dog under the tree.'

(16)   Ganja (Atlantic, Creissels & Biaye 2016: 241, 244)

    a.   **Ànîn   mà   âg-gî   à   fθààmbɛ**
       woman   DEF   NEG-be   at   rice_field
       'The woman is not at the rice field.'

    b.   **Wèdé   âg-gî   hǎj.**
       water   NEG-be   place
       'There is no water.'

(17)   Supyire (Gur, Carlson 1994: 246-247)

    a.   **Pì   na   wá   aní.**
       they   PROG   be_there   there
       'They are there.'

    b.   **Wà   na   wá   mɛŋi   i.**
       INDEF   PROG   be_there   there.DEF   at
       'There is someone over there.'

(18)   Gbaya (Ubangian, Roulon-Doko 1998: 116)

    a.   **Mí   ʔá̰   dòŋmɛ́   ʔèá̰.**
       1SG   be_at   behind.2SG   only
       'I am just behind you.'

    b.   **Zóròó   ʔá̰   ɗɔ́ɔ́   yì.**
       fish   be_at   under   water
       'There are fish in the water.'

(19)   Dinka (Eastern Sudanic, Anderson 2016: 649, Forthcoming)

    a.   **Tooɲ   a=tɔ   mɛɛc.**
       pot   DECL.SG=be_present   fire.ESS/ABL
       'The pot is on the fire.'

    b.   **Ɲa̰aŋ   à̰=tɔ̀   ḛ̀   wa̰ar   ḭc.**
       crocodile   DECL.SG=be_present   PREP   river   stomach
       'There is a crocodile in the river.'

5 A problematic case: Akan (Kwa)

As regards the relationship between locational, existential, and possessive predication, Akan (Kwa) shows an atypical configuration that makes it difficult to classify according to the typology I propose.

As a rule, in the languages of the world, if a transitive verb of possession is also used as an existential predicator, this predicator is not found in plain locational predication, and if the same predicator is found in locational and existential predication, this predicator is not used as a transitive verb of possession. In other words, if the same predicator is found in locational, existential, and possessive predication, its possessive use cannot be analyzed as an instance of transitive coding with the possessor coded like transitive agents. In addition to Akan (Kwa), the only exceptions to this generalization I came across in my worldwide sample are Qiang (Tibeto-Burman) and Iatmul (a Papuan language of the Sepik family).

As illustrated by (20a), Akan **wɔ** can be used in plain locational predication. (20b) shows that the same construction with the same constituent order can be used in contexts suggesting existential perspectivization. Therefore, (20a-b) suggest that Akan behaves like most of the languages of the Sudanic belt. However, as shown by (20c), **wɔ** can also be used as a transitive verb of possession (in Akan, the constituent order in transitive predication is AVP, and there is no case marking of the patient). Finally, (20d) shows that Akan has the ability to express existential perspectivization by means of a construction analyzable either as a variant of the locational construction (in comparison with (a)), or a have-existential (in comparison with (c)).

(20)   Akan (Boadi 1971, Redden & Owusu 1995)

    a. **Me   wɔ   fíe   nó   mú.**
          1SG   be/have   house   DEF   in
          'I am in the house.'

    b. **Siká   wɔ̀   ɔdán   nó   mú.**
          1SG   be/have   room   DEF   in
          'There is money in the room.'

    c. **Me   wɔ   fíe   bí.**
          1SG   be/have   house   INDEF
          'I have a house.'

    d. **Ɔdán   no   mu   wɔ̀   siká.**
          room   DEF   in   be/have   money
          'There is money in the room.'

Diachronically, comparison with Baule (a close relative of Akan) suggests that this very atypical configuration probably emerged as the result of a process of *have-drift*, i.e. acquisition of transitive features by a possessive construction that, originally, did not belong to the transpossessive type.[6] The point is that Akan **wɔ** is probably cognate with Baule **wo**, exclusively used in a locational construction similar to that illustrated in (17a-b).

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[6] On the notion of have-drift, see Stassen (2009: 208-243).

6   Conclusion

The main conclusions of this typological study of inverse locational predication in the languages of the Sudanic belt are as follows:

– The proportion of languages that have not grammaticalized a construction specifically expressing inverse locational predication is higher among the languages of the Sudanic belt than at world level. Have-existentials are mainly found among Atlantic languages, dedicated existential predicators are mainly found among Chadic languages, and the other possible types of constructions expressing the existential perspectivization of locational predication are marginal or inexistent in this area.
– Contrary to the tendency that prevails in the other parts of the world, in the majority of the languages spoken in the Sudanic belt, the construction expressing plain locational predication is also used without any change in constituent order in contexts that suggest existential perspectivization.

The latter conclusion contradicts the common opinion that existential constructions in basic SVO languages (or their equivalents in languages that do not have a morphologically distinct construction for inverse locational predication) typically have the word order GR Pred FIG (Freeze 1992: 256), or that non-canonical word order is a typical characteristic of existential constructions (Veselinova 2013: 108).

Typologically, this particular rigidity of constituent order in locational predication is not unexpected, since generally speaking, rigidity of constituent order is unquestionably a characteristic feature of the languages of the Sudanic belt. What is however interesting theoretically is that, given the tendency observed elsewhere in the world, languages characterized by a particular rigidity in constituent order could be expected to favor the development of morphologically distinct constructions expressing the inversion of the figure>ground perspective in locational predication. This assumption is however clearly contradicted by the data discussed in this presentation.

Abbreviations

ABL = ablative, ADESS = adessive, CL = noun class, D = default determiner, DECL = declarative, DEF = definite, ESS = essive, EXIST = dedicated existential predicator, expl. = expletive, FIG = figure, GEN = genitive, GR = ground, IND = indicative, INDEF = indefinite, INSTR = instrumental, LOC = locative, LOCCOP = locational copula, NEG = negative, PL = plural, Pred = predicator, PREP = preposition, PRF = perfect, PROG = progressive, PROPR = proprietive, SG = singular.

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Appendix: The language sample

This appendix gives the list of languages spoken in the Sudanic belt on which this study is based. The languages are grouped according to their genetic affiliation. The second column indicates the availability of a construction expressing inverse locational predication morphologically distinct from plain locational predication. The third column indicates the source of the data.

BENUE-CONGO   (NIGER-CONGO)

Eton	—	Van de Velde (2008)
Fang	—	Pither Medjo Mve (pers.com.)
Igbo	have-existential	Onumajuru (1985)
Kana	—	Ikoro (1996)
Mankon	—	Leroy (2007)
Mungbam	—	Lovegren (2013)
Nizaa	—	Kjelsvik (2002)
Obolo	have-existential	Rowland-Oke (2003)
Oko	—	Atoyebi (2008)
Samba-Daka	—	Koch (2012)
Tiv	—	Abraham (1940)
Urhobo	ded.pred.	Blanc (1985)
Yoruba	—	pers.doc.

KWA (NIGER-CONGO)

Akan	? (cf. Section 5)	Boadi (1971)
Baule	—	Creissels and Kouadio (1977)
Ewe	—	Felix Ameka, pers.com.
Fon	ded.pred.	Segurola and Rassinoux (2000)
Ikposo	—	Soubrier (2013)
Logba	—	Dorvlo (2008)
Tafi	—	Bobuafor (2013)

KRU (NIGER-CONGO)

Newole	—	Grah (1983)

MEL (NIGER-CONGO)

Gola[7]	—	Koroma (1994)
Mani	—	Childs (2011)

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[7] According to Segerer & Pozdniakov (Forthcoming), Gola should rather be classified as a Niger-Congo isolate.

Temne	—	Bai-Sheka (1981)

ATLANTIC (NIGER-CONGO)

Fula	have-existential	Creissels et al. (2015)
Ganja	—	Creissels and Biaye (2016)
Joola	have-existential	Creissels et al. (2015)
Lehar, aka Laalaa	have-existential	Creissels et al. (2015)
Nyun	have-existential	Creissels et al. (2015)
Pepel	have-existential	Creissels et al. (2015)
Sereer	have-existential	Creissels et al. (2015)
Wolof	have-existential	Creissels et al. (2015)

GUR (NIGER-CONGO)

Koromfe	—	Prost (1980)
Lobi	—	Becuwe (1982)
Pana	—	Beyer (2006)
Supyire	—	Carlson (1994)

ADAMAWA (NIGER-CONGO)

Samba-Leko	—	Fabre (2003)
Tupuri	ded.pred.	Ruelland (1992)

MANDE

Beng	—	Paperno (2014)
Bobo	—	Le Bris and Prost (1981)
Boko	—	Prost (1976)
Dzuungoo	—	Solomiac (2007)
Mandinka	—	Creissels and Sambou (2013)
Soninke	—	pers.doc.
Soso	—	pers.doc.
Vai	—	Welmers (1976)
Tigemaxo	—	Blecke (1996)

DOGON

Jamsay	—	Heath (2008)
Tommo So	—	McPherson (2013)

SONGHAY

Koyra Chiini	—	Heath (1998)
Koyraboro Senni	—	Heath (1999)
Tadaksahak	—	Christiansen-Bolli (2010)

CHADIC (AFRO-ASIATIC)

Baraïn	ded.pred.	Lovestrand (2012)
Bole	ded.pred. / be.with-existential	Schuh (online)
Goemai	—	Hellwig (2011)
Hausa	ded.pred. / be.with-existential	Newman (2000)
Hdi	ded.pred.	Frajzyngier (2002)
Lele	ded.pred.	Frajzyngier (2001)
Sakun	be.with-existential	
Zaar	ded.pred.	Bernard Caron (pers.com.)

UBANGIAN

Banda-Linda	—	Cloarec-Heiss (1998)
Gbaya	—	Roulon (1998)
Sango	—	Diki-Kidiri (1998)

CENTRAL SUDANIC (NILO-SAHARAN)

Bagiro, aka Furu	—	Boyeldieu (2000)
Deme	ded.pred.	Palayer (2006)
Ma'di	ded.pred.	Blackings and Fabb (2003)
Ngambay	—	Ndjerareou et al. (2010)
Sar	—	Palayer (1989)

EASTERN SUDANIC (NILO-SAHARAN)

Anywa, aka anuak	ded.pred.	Reh (1993)
Datooga	—	Kiessling (2007)
Dinka	—	Andersen (Forthcoming)
Gaahmg	—	Stirtz (2011)
Lango	—	Noonan (1992)
Maasai	have-existential	Payne (2007)
Murle	—	Arensen (1982)
Nandi	—	Creider & Creider (1989)
Tennet	have-existential	Randall (1998)
Turkana	—	Dimmendaal (1982)

KULIAK

Ik	—	Schrock (2014)