The encoding of experiencers in clauses denoting physiological states in Sub-Saharan languages

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Abstract. In the world's languages, it is relatively common that clauses describing physiological states or events affecting animate beings, such as hunger or cold, have special constructions, sometimes described as 'impersonal', or as involving 'non-canonical subjects'. In the languages of Sub-Saharan Africa, the prevailing tendency is rather to express physiological states or processes by means of canonical predicative constructions, including transitive constructions with the experiencer in P role, and a noun encoding the physiological state in A role. This particularity of Sub-Saharan languages is consistent with other typological characteristics particularly widespread in Sub-Saharan Africa: a relatively high degree of transitivity prominence, a preference for secundative alignment in ditransitive constructions, and the coding of beneficiaries as first objects in multiple-object constructions.

Keywords: African languages, experiencers, transitivity prominence, ditransitive alignment.

1. Introduction

In the world's languages, it is relatively common that clauses describing physiological of psychological states or events affecting animate beings have special constructions departing from canonical verbal predication, sometimes described as 'impersonal' constructions, or constructions with experiencers encoded as 'non-canonical subjects'. Creissels (2008) presents illustrations from Russian (Europe), Quechua (South America), Tamil (India), and Tobelo (New Guinea). In this respect, the situation is different in Sub-Saharan Africa.

In Creissels & al. (2015), after surveying various types of impersonal constructions in a sample of Atlantic and Mande languages, my co-authors and I conclude that all major functional types of impersonal constructions commonly recognized in the languages of the world are present in the languages of the sample, with however a notable exception: we came across no case of deviations from canonical verbal predication that could be related to the presence of an experiencer in argument structure.

In this presentation, I discuss evidence that this situation is widespread in other areas or language families of Sub-Saharan Africa. In particular, physiological states affecting individuals are commonly expressed through formally regular transitive constructions with the experiencer in P role. In the conclusion, I propose typological correlations with other particularities commonly found in the languages of Sub-Saharan Africa.

2. The encoding of physiological states in the languages of Sub-Saharan Africa: introductory remarks

In the languages of Sub-Saharan Africa, three types of constructions are commonly used for the expression of physiological states such as hunger, cold, or illness:

- the physiological state may be lexicalized as a verb occurring in canonical intransitive predication with the experiencer in S role, as in (1);

(1) Wolof (Atlantic; pers.doc.)

Dama liw.

VFOC.1SG be.cold

'I am cold.'

- the physiological state may be lexicalized as a noun in a construction which is formally a
 canonical locational predication with the noun encoding the physiological state in the role
 of figure, and the experiencer NP in the role of ground, as in (2);
- (2) Mandinka (Mande; pers.doc.)

Nénòo lè bé ý nà.

cold.D FOC LCOP

'I am cold.' lit. 'Cold is in me.'

the physiological state may be lexicalized as a noun in a construction which is formally a canonical transitive predication with the noun encoding the physiological state in the role of A, and the experiencer NP in the role of P.

In the latter case, the transitive verb used to express physiological states with the experiencer in P role may be specialized in this meaning, such as the Wolaytta verb glossed 'sicken' in (3).

(3) Wolaytta (Omotic; Adams 183: 79)

?oššinc-ai tana sakke:si.

cold-SBJ me it.sickens

'The cold sickens me.'

However, in most cases of transitive constructions expressing physiological states with a noun encoding the physiological state in A role and the experiencer in P role, the verb is not a verb specialized in the expression of physiological states, but a transitive verb also used with animate NPs in A role to express meanings such as 'kill', 'catch', or 'eat', as in (4).

(4) Newole (Kru; Grah 1983: 255)

Wītlō blá mó.

cold kill 1SG

'I am cold.', lit. 'Cold is killing me.'

This presentation focuses on constructions of the type illustrated in (4). Importantly, in the languages in question, contrary to their literal equivalents in European languages, they do not suggest an exceptional intensity of the physiological state they denote. On the contrary, they constitute a semantically unmarked way of referring to physiological states as normally experienced by humans in situations of every day's life, without any particular emphasis.

2. The expression of hunger by means of transitive constructions with the experiencer in P role

The verbs most commonly found in transitive constructions expressing hunger with the experiencer in P role are 'kill' (2.1), 'catch' (2.2), and 'eat' (2.3), but 'hit' (2.4), 'have' (2.5), and 'tie' (2.6), are also attested.

¹ The indications about the genetic affiliation of the languagues follow Güldemann (2018). The languages quoted in this presentation represent 14 of the 50 'basic classificatory units' he recognizes.

2.1. Hunger kills people

In many Sub-Saharan languages, as illustrated in (5) to (10), the most usual and semantically unmarked way of expressing 'be hungry' (without any implication of a vital risk) is a plain transitive construction with a noun meaning 'hunger' encoded as the A term in the construction of a verb whose basic meaning is 'kill'.

(5) Baule (Benue-Kwa, Potou-Akanic; pers.doc.)

Àwê kùn mín. hunger kill 1SG 'I am hungry.'

(6) Gbaya (Ubangi; Roulon-Doko 2008: 165)

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Wò gbèè wí.
hunger kill.ICPL people
'People are hungry.'
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(7) Nalu (Atlantic; Seidel 2013: 171)

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Mayεθ rama mlafon.
hunger kill child
'The child is hungry.'
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(8) Mwan (Mande, Perekhvalskaya & Yegbé 2018: 54)

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Gbon ὸ ἡ dε-zí.
hunger be 1SG kill-PROG
'I am hungry.'
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(9) Newole (Kru; Grah 1983: 255)

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Klē blá mó.
hunger kill 1SG
'I am hungry.'
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(10) Emai (Benue-Kwa, Edoid; Schaefer (2007: 301)

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Òhànmìòógbémè.hunger3ICPLkill1SG'I am hungry.'
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Such formulations are also found as the usual and semantically neutral way of expressing hunger in Anywa (Nilotic; Reh 1996: 443), Yoruba (Benue-Kwa, Yoruboid; Sachnine 2009), etc.

In some languages, for example Tswana (see (11)), or Laalaa (Atlantic; Dieye 2011), the passive variant of such a formulation is usual.

(11) Tswana (Benue-Kwa, Bantoid, Bantu; pers.doc.)

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Kì-bóláwà kí 'thâ:là.

1SG-be.killed by hunger
'I am hungry.' lit. 'I am killed by hunger.'
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2.2. Hunger catches people

In some languages, the common way of expressing hunger involves a similar construction with a verb whose basic meaning is 'catch': Chakali (see (12)), Kanuri (see (13)), Jamsay (Dogon; Heath, unpublished Jamsay dictionary), Guñaamolo (Atlantic; pers.doc.), etc.

(12) Chakali (Gur; Brindle 2017: 105)

Lòsá kpágán nà. hunger catch 1SG 'I am hungry.'

(13) Kanuri (Saharan; Cyffer 1991: 98)

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Wú-ga kənâ-ye cíta.
1SG-OBJ hunger-SBJ seized
'I am hungry.'
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2.3. Hunger eats people

A similar construction involving a verb whose basic meaning is 'eat' is found among others in Jóola Fóoñi (Atlantic, see (14)), Zar (Chadic, see (15)) and Mungbam (Benue-Kwa, Bantoid; Lovegren 2013: 286).

(14) Jóola Fóoñi (Atlantic; pers.doc.)

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Ba-caar-a-b bυ-rι-ε-rι a-ñul-a-w.

NPFba-hunger-D-CLb sI:CLb-eat-ICPL-RDPL NPFa-child-D-CLa

'The child is hungry.'
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(15) Zar (Chadic; Caron n.d.: 49)

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Kusuŋ cá: ci Áwdu.
hunger ICPL.3SG eat Audu
'Audu is hungry.'
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2.4. Hunger hits people

'hunger hits x' (or its passive variant 'x is hit by hunger') is signaled as a common and neutral way of expressing 'x is hungry' in Mursi (Surmic; Turton & al. 2008: 52) and Uduk (Koman; Killian 2015: 83).

2.5. Hunger has people

Among the languages that have a transitive 'have' verb, this formulation is found as the usual way of expressing hunger in Toro Tegu (Dogon) – example (16).

(16) Toro Tegu (Dogon; Heath 2015: 399)

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Ga: nîŋ, àrkírí kɔ́ sà-rá.

but now hunger NHUM.SG.OBJ have-NEG

'But now, it (the hyena) is not hungry.' lit. 'Hunger doesn't have it.'
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A historical relationship with formulation of the type 'Hunger catches people' is possible, since verbs expressing meanings such as 'catch', 'seize', or 'take', are a common source of transitive verbs of possession.

2.6. Hunger ties people

This is the usual way of expressing hunger in Fon (Benue-Kwa, Gbe) – example (17).

(17) Fon (Benue-Kwa, Gbe; Rassinoux 2000: 150)

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Xovέ sin mì.
hunger tie 1SG
'I am hungry.' lit. 'Hunger ties me.'
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3. 'Kill', 'catch' and 'eat' in the expression of other physiological states

Constructions involving verbs also used as typical action verbs (mainly 'kill', 'catch', and 'eat'), with an experiencer as the P term of a plain transitive construction, are commonly found in the languages of Sub-Saharan Africa as the most usual and semantically unmarked way of describing various physiological states.

3.1. 'Kill' in the expression of physiological states

For example, Newole (Kru) uses 'kill' not only for the expression of hunger (10) and cold (4), but also for the expression of sleepiness (18).

(18) Newole (Kru; Grah 1983: 255)

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Ylá blá mó.
sleep kill 1SG
'I feel sleepy.'
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3.2. 'Catch' in the expression of physiological states

Examples (19) to (22) illustrate a similar use of 'catch' to express physiological states such as fever, insomnia, or conjunctivitis.

(19) Mandinka (Mande; pers.doc.)

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Kíríkíròo yè ý mùtá. fever.D CPL.TR 1SG catch 'I have fever.'
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(20) Soninke (Mande; pers.doc.)

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Yáaxánkáawà-n dà ín lágà.
insomnia-D TR 1SG catch
'I have insomnia.'
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(21) Jóola Fóoñi (Atlantic; pers.doc.)

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Ápóló ε-sɔf-an-sɔf.
conjunctivitis sI:CLe-catch-1SG-RDPL
'I have conjunctivitis.'
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(22) !Xun (Kx'a; Heikkinen 1987: 31)

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Mí má g|x'òàn gù.
1SG TOP cold seize.SG
'As for me, a cold has caught me.'
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In this use of 'catch' verbs, there is an interesting contrast between Sub-Saharan and European languages. In European languages, idioms such as 'catch a cold' are common. In Sub-Saharan

languages, I never came across clauses expressing such meanings with the experiencer treated as the A argument of 'catch', whereas clauses whose construction is literally 'Illness catches person' are very common.

3.3. 'Eat' in the expression of physiological states

Joola Fooñi (Atlantic) uses 'eat', not only for the expression of hunger (14), but also for the expression of cold – example (23).

(23) Jóola Fóoñi (Atlantic; pers.doc.)

Ñ-ɔnk-a-ñ ñı-rı-ɛ-rı a-ñul-a-w.

NPFñ-cold-D-CLñ sI:CLñ-eat-ICPL-RDPL NPFa-child-D-CLa
'The child is cold.' lit. 'Cold is eating the child.'

3.4. Others

The use of a 'hit' verb in the usual and semantically unmarked expression of various physiological states is signaled in Mursi (Surmic). According to Turton & al. (2008: 52), in Mursi, 'I am hungry / thirsty / cold' is expressed lit. as 'I am hit by hunger / thirst / cold'.

In Fon (Benue-Kwa, Gbe), the verb **sìn** 'tie' is used to express not only hunger, as in (16), but also thirst, sleepiness, and cold (Segurola & Rassinoux 2000: 414).

4. 'Kill', 'eat', and the expression of pain

In the languages of Sub-Saharan Africa, 'kill' and 'eat' are also commonly used in transitive constructions expressing a physical state of pain located in a particular body part. As in the constructions examined in sections 2 and 3, the experiencer is encoded as P, but the role of A is fulfilled by a noun referring to the body part in which the pain is located. (24) illustrates this type of construction with 'kill', and (25) and (26) with 'eat'.

(24) Newole (Kru; Grah 1983: 255)

Ná s55 blá m5. my arm kill 1SG 'My arm is sore.'

(25) Ganja (Atlantic; pers.doc.)

B-gś wôm-ní. NPFb-head eat-1SG 'I have a headache.'

(26) Jóola Fóoñi (Atlantic; pers.doc.)

Fu-ke-e-ffυ-rι-ε-rιa-ñul-a-w.NPFf-head-D-CLfsI:CLf-eat-ICPL-RDPLNPFa-child-D-CLa'The child has a headache.'

5. Discussion and conclusion

The extension of the transitive construction to the encoding of physiological states affecting individuals can be viewed as a manifestation of the fact that most of the language families of Sub-Saharan Africa show a marked tendency to extend the use of the transitive construction well beyond the verbs for which this extension is common cross-linguistically (transitivity

prominence). Haspelmath (2015) observed this tendency in the Sub-Saharan languages included in his sample, and this observation is confirmed by Creissels (2018: 742-744).

However, the high degree of transitivity prominence that characterizes many Sub-Saharan languages does not explain why, in transitive constructions involving a noun referring to a physiological state and an experiencer NP, it is the physiological state that is selected as A, and the experiencer as P, rather than the other way round.

What I would like to propose is that, given the semantic affinity between experiencers, beneficiaries, and recipients,² the tendency to encode the particular type of experiencers examined in this presentation in the same way as patients rather than agents can be viewed as correlated with tendencies in the coding of recipients and beneficiaries that can be observed in most of the language families of Sub-Saharan Africa.

In ditransitive constructions (in the sense of constructions involving an agent argument (A), a recipient-like argument (R), and a theme argument (T) – cf. Malchukov & al. 2010), most of the language families of Sub-Saharan Africa show a marked preference for secundative alignment, i.e. for constructions in which the recipient (rather than the theme) has all the properties that characterize monotransitive patients.

Moreover, as discussed in (Creissels 2014), it is common in Sub-Saharan languages that the addition of a beneficiary to the argument structure of a transitive verb results in double-object constructions with the beneficiary NP as the first object (i.e., the nominal term of the double-object construction that displays the most similarity with monotransitive patients). Most of the time, this requires the use of the applicative form of the verb, but it may also happen that no modification of the verb form signals that the syntactic role of first object is taken over by an extra-valency beneficiary, as in English **Mary baked John a cake**. This can be observed in Eton (27), or in Jóola languages (Atlantic; pers.doc).

(27) Eton (Eastern Benue-Congo, Bantu; Van de Velde 2008: 306)

Àté 'yám 'póm kpêm.
she prepares her.husband cassava.leaves
'She prepares cassava leaves for her husband.'

One may therefore conclude that, whatever the way these features spread across Sub-Saharan languages, the frequency of the type of coding of physiological states affecting individuals examined in this presentation is consistent with the tendencies observed in the coding of recipients and beneficiaries.

Abbreviations

CL: noun class, CPL: completive, D: definite, FOC: focus, ICPL: incompletive, LCOP: locational copula, NEG: negation, NHUM: non-human, NPF: noun prefix, OBJ: object, POSS: possessive, PROG: progressive, RDPL: reduplicative suffix, SBJ: subject, SG: singular, sI: subject index, TOP: topic, TR: transitive, VFOC: verb focus.

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² A cross-linguistically common manifestation of this affinity is the use of the same morphological case ('dative') for experiencers, recipients, and beneficiaries.

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