

Similarity, suitability, and non-epistemic modalities (volitionality, ability, and obligation)

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This article shows that verbs expressing similarity between two entities are not only found in constructions expressing the kind of epistemic modality expressed in English by means of the verb *seem*, but may also be involved in polysemy patterns including the expression of other types of modalities (volitionality, ability, or obligation). Three examples of African languages illustrating this type of polysemy pattern are first presented. Then, the article examines the historical developments that led from a Proto-Germanic root **lik* ‘(as a noun) form, (as a verb) be of the same form’ to Tok Pisin *laik* ‘want’. It is followed by a discussion of the possible etymological link between a Bantu verb reconstructed as **ngà* ‘be like’ and a Bantu modality marker reconstructable as **nga*. The conclusion proposes a scenario according to which verbs originally expressing similarity between two concrete entities may acquire uses in which they express non-epistemic modalities.

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1. Introduction

Cross-linguistically, constructions expressing the kind of epistemic modality expressed in English by means of the verb *seem* commonly involve verbs that, in the same way as English *seem*, are also used to express similarity between two entities, or have an etymological relationship to verbs expressing similarity. Example (1) illustrates this epistemic use of Spanish *parecer(se)* ‘look like’.

(1) Spanish

- a. *Juan se parece mucho a su padre.*
Juan REFL looks_like much to his father
‘Juan resembles his father very much.’

- b. *Parece que va a llover.*
 it_looks_like that it_goes to rain
 'It seems like going to rain.'

The obvious explanation is that sentences such as (1b) can be viewed as expressing similarity too, the only difference being that, in (1a), *parecer(se)* expresses similarity between two concrete entities (in this case, two persons), whereas in (1b), the same verb expresses similarity between the situation referred to (not explicitly encoded, but implied by the 'impersonal' construction of *parecer*) and the propositional content of the embedded clause *va a llover*.

What I would like to show in this article is that similitive verbs (i.e., verbs that can combine with two NPs A and B referring to concrete entities with the meaning 'A looks like B'), or verbs with related meanings such as 'equal', may also be involved in polysemy patterns including the expression of other types of modalities (volitionality, ability, or obligation). The polysemy patterns in question typically include the expression of suitability too, and diachronically, it seems reasonable to think that the expression of suitability constitutes the direct source of the non-epistemic uses of similitive verbs used as modal verbs, but some languages provide clear evidence that the expression of similarity may be the original function of verbs that, synchronically, combine the expression of suitability with that of volitionality, ability, or obligation.

The paper is organized as follows. In Section 2, I present three examples of African languages illustrating this type of polysemy pattern. In Section 3, I examine the historical developments that led from a Proto-Germanic root **lik* '(as a noun) form, (as a verb) be of the same form' to Tok Pisin *laik* 'want'. In Section 4, I propose an etymological link between a Bantu verb reconstructed as **ngà* 'be like' and a Bantu modality marker reconstructable as **nga*. In Section 5, I propose a scenario according to which verbs originally expressing similarity between two concrete entities may acquire uses in which they express non-epistemic modalities.

2. Non-epistemic modalities expressed by verbs also used to express similarity: Three African examples

2.1 Bambara *kán* 'be equal, must'

In Bambara, *kán* combined with a subject referring to a plurality of individuals expresses 'be equal, be equivalent' – Example (2a), but the same verb expresses obligation in a construction with an infinitival complement – Example (2b).

- (2) *Bambara* (Bailleul 2007)
- a. *Û ká kán.*
3PL POS KAN
'They are equal.'
- b. *Nê ká kán kà mùn ké?*
1SG POS KAN INF what do
'What must I do?'

Interestingly, depending on the lexical meaning of the nouns involved in the construction, obligative readings are still possible in uses of *kán* in which the second term of the construction is not an infinitival phrase, but an associative extension of the subject,¹ as in (3a), or a comitative adjunct in postverbal position, as in (3b).

- (3) *Bambara* (Dumestre 2011)
- a. *Án béé ní bólóci ká kán.*
1PL all with vaccination POS KAN
'Everybody must be vaccinated.'
lit. 'We all with vaccination are equal.'
- b. *À ká kán ní nyàngilí yé.*
3SG POS kan with punishment with
'He deserves to be punished.'
lit. 'He is equal with punishment.'

This is hardly compatible with an analysis of (2a) and (2b) as involving two homonymous verbs *kán*₁ 'be equal' and *kán*₂ (+ Inf) 'must', and rather suggests analyzing *kán* as a single polysemous verb whose abstract meaning may concretize as 'be equal' or 'must', depending on the semantic nature of the phrases it combines with. 'Have an affinity' is a possible gloss of the abstract meaning in question. According to this hypothesis, the sentences in Example (2) and (3) have an abstract meaning that can be made explicit as follows:

- (2a) 'They have an affinity.'
(2b) 'I have an affinity with doing what?'

1. Bambara and other Manding varieties have a construction I designate as associative extension, by which noun phrases in subject (as in Example (3b)) or object function may include a preposition phrase headed by the comitative preposition *ní*. In the constituent structure of the clause, this preposition phrase forms part of the noun phrase in subject or object function, as shown by constituency tests, but semantically, it refers to a distinct participant to which the role of companion is assigned.

(3a) ‘All of us have an affinity with vaccination.’

(3b) ‘He has an affinity with punishment.’

The necessity of such an analysis is confirmed by the observation that similar polysemy patterns are found in African languages that have at most a very remote genetic relationship with Bambara, and are spoken in areas very distant from one another.²

2.2 Tswana tshwana ‘be similar’ and tshwanela ‘be suitable, must’

In Tswana, the verb *tshwana* [ts^hwáná] followed by a noun phrase introduced by the comitative preposition *le* [lí] expresses similarity between two concrete entities – Example (4a). The applicative form of this verb, *tshwanela* [ts^hwánélá], has two constructions. Combined with an objet NP, it expresses ‘suit, fit’ – Example (4b). In the perfect, it may also take an infinitival complement with the meaning ‘must’ – Example (4c).

(4) Tswana (author’s field notes)

- a. *Nare e tshwana le kgomo.*
 nárí í-ts^hwáná lí-q^hòmó
 CL9.buffalo CL9-TSHWANA with- CL9.cow
 ‘The buffalo looks like a cow.’
- b. *Ditlhako tse di tshwanela ngwana.*
 di-t^hákú ts-é dí-ts^hwánélá njw-áná
 CL8-shoe CL8-DEM CL8-TSHWANELA CL1-child
 ‘These shoes fit the child well.’
- c. *Ke tshwanetse go bereka.*
 kì-ts^hwánétsí χù-bérékà
 ISG-TSHWANELA.PRF INF-work
 ‘I must work.’

2. Bambara (Section 2.1) is spoken in Mali. Tswana (Section 2.2) is spoken in Botswana and South Africa. Ngbandi (Section 2.3) is spoken in the Central African Republic. Bambara, Tswana and Ngbandi belong to three language families (Mande, Benue-Congo, and Ubangian, respectively) that were included by Greenberg in the Niger-Congo phylum, but some specialists take the view that the evidence for the Niger-Congo affiliation of Mande and Ubangian is not conclusive, and Mande and Ubangian are best treated as independent language families whose relationship to Niger-Congo remains to be established – see Dimmendaal 2011.

Tshwanela is a lexicalized applicative, since the general properties of applicative derivation do not predict that the applicative form of a verb expressing ‘look like’ can be used with the meaning ‘fit’.³ The etymological relationship is however more than plausible, and this is confirmed by Bantu reconstructions.⁴ *Tswana* is the regular reflex of **púan*, reciprocal form of a verb root **pú*. Reflexes of **pú(an)* are found all over the Bantu area with the meaning ‘be like’, and are also found with a slightly more restricted distribution with the meaning ‘be fitting’. What is particular to Tswana is that, in this language, the two meanings have been differentiated by the addition of the applicative marker in the meaning ‘fit’, and the applicative form specialized in this meaning has further acquired the modal meaning ‘must’.

2.3 Ngbandi *léngbi* ‘be equal, suffice, deserve, be able’

In Ngbandi, the verb *léngbi* has two possible constructions. Followed by a noun phrase introduced by the comitative preposition *nà* ‘with’, this verb expresses ‘be equal’, ‘suffice’, ‘fit’, ‘deserve’ – Example (5a–e). Followed by the nominalized form of a verb introduced by the preposition *tí* ‘for’, it expresses ‘deserve’, ‘be able’ – Example (5f–h). In the negative form, the *tí* construction also expresses prohibition – Example (5i).

(5) Ngbandi (Lekens (1952:257) and Pascal Boyeldieu, pers. comm.)⁵

- a. *Lò léngbi nà f̂̀ lò.*
he *LENGBI* with companion his
‘He is as good as his companion.’
- b. *À-léngbi nà é.*
it-*LENGBI* with us
‘It is enough for us.’
- c. *B̀ng̃̀ ólō à-léngbi nà lò.*
dress this it-*LENGBI* with him
‘This dress fits him.’
- d. *Lò léngbi nà yàkà.*
he *LENGBI* with jail
‘He deserves jail.’

3. On the general properties of Tswana applicatives, see Creissels (2002).

4. Bantu reconstructions are quoted according to the database Bantu Lexical Reconstructions 3, edited by Yvonne Bastin and Thilo C. Schadeberg (<http://www.metafro.be/blr>).

5. The Ngbandi examples quoted here are from Lekens (1952), but their transcription has been revised by Pascal Boyeldieu.

- e. *À-léngbì nà kwá.*
it-LENGBI with death
'This deserves death.'
- f. *Lò léngbì tí kpwī-ngō kwá.*
he LENGBI for die-NMLZ death
'He deserves to die.'
- g. *À-léngbì tí hō-ngō lò.*
it-LENGBI for tuer-NMLZ him
'Because of this he deserves being killed.' (lit. 'This fits killing him.')
- h. *Zò ólō à-léngbì tí lī-ngō kwá.*
man this he-LENGBI for do-NMLZ work
'This man can work.'
- i. *Tá gbīā à-léngbì tí zī-ngō nzi mā.*
NEG chief it-LENGBI for steal-NMLZ theft NEG
'A chief must not steal.'

2.4 Conclusion of Section 2

Heine and Kuteva (2002) mention the possibility of a grammaticalization path SUITABLE ('to be sufficient, enough', 'to be fitting', 'to be suitable' > (1) ABILITY, (2) OBLIGATION, but they do not say anything about the possible involvement of SIMILAR in this grammaticalization path.

It would be particularly easy to add examples of languages in which verbs expressing suitability also have more or less productive uses in which they express volitionality, ability, or obligation, but the point here is that the polysemy patterns presented in this section suggest to reformulate this grammaticalization path as SIMILAR, SUITABLE > (1) ABILITY, (2) OBLIGATION.

Section 3 discusses the development of another non-epistemic modality (volitionality) from the same source in languages (the Germanic languages and Tok Pisin) whose history is better known than that of the African languages dealt with in this section.

3. From Proto-Germanic *lik ‘body, form; like, same’ to Tok Pisin laik ‘want, like, desire’

In Tok Pisin (Melanesian Pidgin), *laik* ‘want, like, desire’ (from English *like*) constitutes the usual way of expressing volitionality – Example (6). As discussed by Romaine (1999) and illustrated by Example (7), *laik* is also grammaticalizing as a possible expression of the proximative (‘be about to’), which constitutes a common development for verbs expressing volitionality.

(6) *Tok Pisin* (Romaine 1999)

- a. *Mangki laik go baim samting lo sto.*
 boy want go buy something at store
 ‘The boy wants to go buy something at the store.’
- b. *Mipela laik wokim nupela haus lotu.*
 we want build new house worship
 ‘We want to build a new church.’

(7) *Tok Pisin* (Romaine 1999)

- a. *Win i laik dai.*
 wind PR want die
 ‘The wind is about to die down.’
- b. *Bikpela paia laik kukim ol haus.*
 big fire want cook PL house
 ‘A big fire was about to burn down the houses.’

There is of course nothing surprising in the fact that English *like* ‘find pleasant’ became in Tok Pisin the common way to express volitionality and subsequently grammaticalized as a proximative marker. If the evolution FIND PLEASANT > WANT > BE ABOUT TO attested in Tok Pisin deserves to be mentioned here, it is because it constitutes the final outcome of an evolution whose starting point was a Proto-Germanic root reconstructable as *lik ‘body, form; like, same’.

The English verb *like* is cognate with the preposition *like*, the adjective *like-ly*, the adjective/adverb *alike*, and the suffixes *like* (as in *childlike*) and *ly* (as in *friendly*). Reflexes of the same Proto-Germanic root are found in other Germanic languages as nouns with the meaning ‘body’ or ‘corpse’ (Gothic *leik*, German *Leiche*), as adjectives with the meaning ‘equal’, ‘same’, ‘similar’ (German *gleich*), or as verbs expressing similarity and/or suitability. This latter development, particularly interesting in the perspective of this article, can be illustrated by Dutch *lijken* – Example (8).

- (8) *Dutch* (Lolke van der Veen, p.c.)
- a. *Hij lijkt op z'n vader.*
 he looks_like on his father
 'He resembles his father.'
- b. *Dat zou me lijken.*
 that would me suit
 'That would suit me.'

The Old English ancestor of *like* is *lician* 'please', which assigned dative case to its experiencer and nominative to its theme – Example (9).

- (9) *Old English* (Fischer et al. 2000: 45)
- ưæt we ưurh ưæt ealle Gode lician*
 that we.NOM through that all God.DAT please
 'that we all please God with that'

The transitive construction with the experiencer in subject role and the theme in object role developed later. In Middle English, the meaning expressed in present-day English as *I like it* was still expressed as *It liketh me*.

It is therefore possible to assume that English *like* and Tok Pisin *laik* 'want' come from a root **lik* common to three lexical items reconstructable at Proto-Germanic level (Orel 2003):⁶

- a noun with the meaning 'body, form',
- an adjective with the meaning 'similar',
- a verb with the meaning 'be similar'.

If we further assume that relatively abstract meanings tend to develop from more concrete ones, we can conclude that 'body, form' was probably the original meaning of this root, and that the evolution whose final outcome was Tok Pisin *laik* 'want, be about to' can be schematized as follows:

BODY, FORM > BE SIMILAR > BE SUITABLE, PLEASE > FIND PLEASANT > WANT >
 BE ABOUT TO

6. Similar forms with similar meanings are also found in Baltic and Slavic languages (Russian *lico* 'face', *sličnyj* 'similar', etc.), but the question of their relationship to the Germanic forms is not solved, and specialists are skeptical about the possibility of an Indo-European reconstruction (Daniel Petit, pers. comm.).

4. Bantu *ngà ‘be like; as, if’ and the modality marker *nga

A Bantu reconstruction *pú(an) ‘be like, be fitting’ has been mentioned in Section 2.2, but verbs, prepositions and subordination markers traceable back to another root *ngà ‘be like; as, if’ are also widely attested among Bantu languages.

For example, Zulu has a noun *i- nga* or *isi nga* (where *i* and *isi-* are noun class prefixes) that cannot be used without another noun as its complement, and expresses ‘something like ...’. This noun is analyzable as resulting from the nominalization of a verb *nga ‘be like’ that ceased to be used as such in Zulu but whose reflexes can be found in other Bantu languages. In Zulu, *i(si)-nga* ‘something like ...’ is used in compounds such as *i(si)-nga-siqhingi* ‘promontory’, lit. ‘something resembling an island’, which diachronically can be analyzed as resulting from the nominalization of a construction *verb+object*.

Similarly, Tswana, a language which has *k* as the regular reflex of Proto-Bantu *ng, expresses ‘something resembling a human being’ as *se-ka-motho* [CL7-like-human_being]. Although *ka* is not attested in Tswana as a verb stem expressing ‘be like’, comparison with other Bantu languages that still have such a verb show that this formation can be analyzed as originating from the same construction *CL+verb+noun* as for example *mo-ruta-bana* [CL1-teach-children] ‘schoolteacher’, lit. ‘person teaching children’.

Modality markers that could be reflexes of a root reconstructable as *nga*, variously labeled ‘potential’, ‘conditional’, or ‘concessive’, are also widely attested among Bantu languages (Nurse 2008). For example, Zulu has a potential marker *nga-*, as in *Ngi-nga-hamba* [1SG-POT-travel] ‘I can travel’, and a cognate of this potential marker is for example found in Tswana as *ka*, as in *Ke-ka-bina* [1SG-POT-dance] ‘I can dance’.

To the best of my knowledge, the possibility of a link between *ngà ‘be like’ and the modality marker *nga* has never been considered in discussions about the reconstruction of Proto-Bantu. However, since verbs expressing similarity may develop modal uses in which they express non-epistemic meanings, a plausible scenario is that *ngà ‘be like’ (or its reflexes at some stage between Proto-Bantu and the present-day Bantu languages) grammaticalized as a modal auxiliary expressing ability that was subsequently converted into a prefix.

5. Conclusion

The data presented in Sections 2 to 4 leads to the conclusion that the expression of non-epistemic modalities (volitionality, obligation, or ability) may develop as a particular use of verbs originally used to express similarity between two concrete entities, and that the polysemy SIMILAR/SUITABLE is essential in this development.

As already evoked in Section 2.1, a possible explanation of this polysemy is that *A looks like B* and *A suits B* can be viewed as two possible concretizations of a more abstract meaning *A has an affinity with B*, depending on the semantic nature of A and B.

The data presented in Section 3 suggests that, in the history of verbs that, synchronically, have the ability to express both ‘be similar’ and ‘be suitable’, *A looks like B* may be the original meaning from which a more abstract meaning including *A suits B* developed subsequently.

If A and B refer to two concrete entities conceived as belonging to the same category, similarity (or equality) and suitability (or compatibility, complementarity) are equally possible interpretations of an abstract predicate *A has an affinity with B*. But if A and B refer to entities whose nature makes it difficult to imagine a possibility of comparison, the relationship expressed by such an abstract predicate is more likely to be interpreted as suitability (or compatibility, complementarity). This is in particular the case when B refers to a person, and A to an object that can be used by a person, as in (4b) (‘These shoes fit the child well’), (5b) (‘It is enough for us’), and (5c) (‘The dress fits him’).

If the use of a verb expressing similarity and by extension affinity between two entities is extended so as to include constructions in which A refers to a person and B to states of affairs in which persons can be involved, the similarity reading is ruled out, and the only possible interpretation of *A (a person) has an affinity with B (a state of affairs)* is that A has the ability, desire or obligation to be involved in B.

Abbreviations

CL	noun class
DAT	dative
DEM	demonstrative
INF	infinitive
NEG	negation
NMLZ	nominalization
NOM	nominative
PL	plural
POS	positive
PR	predicate marker
PRF	perfect
REFL	reflexive
SG	singular

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