

Focused investigation of modality in African languages

While there has been (and continues to be) significant work in the phonetics, phonology, and syntax of African languages, there is a major lack of work in the formal semantics of these same languages, and especially in modality. Generally semantic work has focused on logophoric pronouns (Clements, 1975; Pearson, 2015; Newkirk, to appear) and determiners (Matthewson, 1999; Arkoh, 2011); these studies also focus mainly on languages of West Africa, leaving a large gap both for many other areas of semantic investigation, as well as other language families (though there have been some inroads made by Cable (2013) and Gluckman et al. (2017).

Expanding the empirical domain of semantic studies is essential both in order to gain a better understanding of the languages themselves and to advance natural language semantics as a whole. The area of modality has already shown itself to be a locus of significant and informative cross-linguistic variation (Rullmann et al., 2008; Peterson, 2010; a.o.). In the realm of African linguistics, Gluckman et al. (2017) have shown some important differences in the modal system of Luhya languages as compared to other previously-described modal systems. Further work in analyzing and describing these and related languages promises to be a rich avenue of investigation.

But while the modal questionnaire developed by Vander Klok (2014) and adapted for Luhya by Gluckman et al. (2017) is useful as a first step that should be extended in reach by Afranaph, Matthewson (2013) argues convincingly for a more focused and intensive fieldwork methodology, where description of a phenomenon is fundamentally developed alongside theory and analysis. By nature, semantic description and typology must be theoretically-informed throughout, necessitating a more focused approach.

Given these considerations, the project I propose is slightly different from the usual Afranaph project structure; rather than developing a single questionnaire that can be widely deployed to Afranaph consultants, investigation into modal systems should occur with the consultant(s) working directly with the linguist(s) to allow for more back-and-forth on subtle judgment tasks, and resulting in a more detailed, language-specific description of modality.

Kinande's modal system is a promising candidate for further semantic investigation, and serves as a good example for how this kind of proposal could be conducted. Based on available data from Mutaka & Kavutirwaki (2011) (glossed following Baker, 2003), Kinande appears to have a single modal prefix *-anga-* which, when combined with various other tense/aspect affixes, receives different modal interpretations, some relatively transparent (cp. 2&7), and some opaque (cp. 1&3). Kinande also does not appear to have any separate modal verbs or particles for these expressions, making *-anga-* possibly the only way to express these kinds of modal meanings.

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| (1) tu-anga-génda
1pS-MODAL-leave
'we should leave' (advisability) | (3) tu-anga-tâ-génda
1pS-MODAL-PST/NEG-leave
'we should leave' (necessity) |
| (2) tu-anga-na-génda
1pS-MODAL-FOC-leave
'we can leave' | (4) tu-anga-sya-génda
1pS-MODAL-come-leave
'We should leave' (future possibility) |

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| <p>(5) tu-anga-ná-sya-génda
1pS-MODAL-FOC-come-leave
‘We can still leave’</p> | <p>(7) tu-anga-génd-ir-e
1pS-MODAL-leave-REL PST-FV
‘We could leave’ (past probability)</p> |
| <p>(6) tu-anga-tá-sya-génda
1pS-MODAL-TA-come-leave
‘We should still leave’</p> | <p>(8) tu-anga-na-génd-ir-e
1pS-MODAL-FOC-leave-REL PST-FV
‘We could leave indeed’ (past possibility)</p> |

However, based on the sparse data, it is unclear precisely how or to what degree the other TAM affixes actually affect the meaning of *-anga-*. It is also unclear what the core semantics of *-anga-* is, or even what contexts license its use with any other given morpheme(s).

Therefore, we cannot investigate this system with mere sentence translation. We must instead work with contexts designed to tease apart the different possible modal uses for these affixes. While a questionnaire provides a useful starting place for understanding the available morphology for expressing modality, both translations and judgment tasks need to be involved, to potentially discover previously unknown Kinande modal forms (other modal verbs or particles, for example), and to test the limits of interpretation by finding negative evidence. We need to determine, for example, whether the combinations of *-anga-* and other morphemes affect the actual truth conditions of the proposition, or whether modal force and/or flavor are mostly (or entirely) determined by context. As we develop an analysis for Kinande modals, it is essential that we continue to follow up with their consultant(s) to fine-tune the description and orient the modal system within a broader typology.

Selected references:

- Arkoh**, R. 2011. Semantics of Akan *bi* and *nu*: UBC MA Thesis. **Baker**, Mark. 2003. The Tense-Aspect Structure of Kinande and Morphosyntactic Theory. In Proceedings of WOCAL 4, . **Cable**, Seth. 2013. Beyond the past, present, and future: Towards the semantics of ‘graded tense’ in Gĩkũyũ. *Natural Language Semantics* 21. 219–276. **Clements**, George N. 1975. The Logophoric Pronoun in Ewe: Its Role in Discourse. *Journal of West African Linguistics* 10(2). 141–177. **Gluckman**, John, Margit Bowler, Maurice Sifuna, Kelvin Alulu & Michael Diercks. 2017. A typological study of modality in Luhya languages . , Lisa. 1999. On the interpretation of wide-scope indefinites. *Natural Language Semantics* 7. 79–134. **Matthewson**, Lisa. 2013. On how (not) to uncover cross-linguistic variation. In Proceedings of the North East Linguistic Society, vol. 42, 323–342. **Mutaka**, Ngessimo M. & Kambale Kavutirwaki. 2011. Kinande/Konzo-English dictionary: With an English-Kinande index. Africa World Press. **Newkirk**, Lydia. to appear. Logophoricity in Ibibio. In ACAL 48 proceedings, Bloomington, Indiana: Language Science Press. **Pearson**, Hazel. 2015. The interpretation of the logophoric pronoun in Ewe. *Natural Language Semantics* 23(2). 77–118. doi:10.1007/s11050-015-9112-1. **Peterson**, Tyler. 2010. Epistemic modality and evidentiality in Gitksan at the semantics-pragmatics interface: UBC PhD Thesis. **Rullmann**, Hotze, Lisa Matthewson & H Davis. 2008. Modals as distributive indefinites. *Natural Language Semantics* 16. 317–357. **Vander Klok**, Jozina. 2014. Modal Questionnaire for Cross-Linguistic Use. Online version: https://www.eva.mpg.de/lingua/tools-at-lingboard/pdf/Modal_Questionnaire_-CrossLing_JVK.pdf