Writing auxiliary verbs in unified Dinka Peter Malek, Ministry of Education, South Sudan John Myhill, University of Haifa

Several different traditions for writing Dinka have been developed for representing different dialects. Today there are basically three, one for the Rek dialect, one for the Padang dialect, and one for a combination of the Bor dialect and the Agar dialect. Differences between these writing traditions are in some cases the result of differences between the spoken dialects, but for some aspects of the language, different writing conventions have been adopted even though the different dialects are in these respects essentially identical. In addition, none of the writing traditions have been standardized. As a result, speakers of one dialect have a great deal of trouble reading things written by speakers of other dialects, even though there is no problem of mutual intelligibility in the spoken dialects. One of the goals of the Dinka Language Development Association (DILDA) has been to develop a unified way to write Dinka for speakers of all dialects. Our paper will describe one aspect of this, involving auxiliary verbs (see Andersen 2007), which has presented many problems for writing.

For example, there is often homography for the past tense auxiliary between the form used when the word order is actor-auxiliary-undergoer and the rom used when the position of actor and undergoer is reversed (what Torben Andersen has called the 'Non-Topical Subject' construction (Andersen 1993), with both generally being written ci. Thus a sentence written $K\ddot{o}\ddot{o}r$ $ac\ddot{i}$ $G\ddot{a}r\ddot{a}\eta$ $n\ddot{o}k$ can mean either 'The lion killed Garang' or 'Garang killed the lion'. This obviously causes considerable confusion.

A second problem is that for the past auxiliary verbs, the form for 1st person singular subject and the form for the 2nd person singular subject are both written *ca*. So for example a clause from the Agar-Bor translation of Genesis 39:17 *Muɔny Eberu yɔn ca bɛɛi kaye aluaak etɛn* could mean either 'the Hebrew man who I brought here as a slave' or 'the Hebrew man who you (singular) brought here as a slave'; there is a parallel problem with the future 1st/2nd person singular future auxiliary *ba*.

A third problem is that the same forms can be used to write both the past tense auxiliary and the negative auxiliary for the present or future. So in the Rek dialect the past auxiliary is generally written $c\ddot{\imath}$ while the negative auxiliary is usually written $c\ddot{\imath}$, but Bor and Agar speakers will often write $c\ddot{\imath}$ for the past auxiliary, while Padang speakers will often write $c\ddot{\imath}$ for the negative auxiliary. This too makes it hard for speakers of one dialect to read things written in another dialect.

DILDA has agreed on a number of conventions for writing auxiliary verbs so as to eliminate these very common problems. In some cases this involves a limited use of tone marking with diacritics; general marking of tone is impractical because of both general interdialectal variation (see e.g. Remijsen and Ladd 2008, Remijsen 2010, Lin 2017) and variation of specific lexical items based on grammatical role (Anderson 1993, 1994, 2016), but there are a few common cases where morphophonological tone is consistent across dialects, and this is exploited in the unified system which DILDA has developed (see e.g. Bird 1998, Roberts and Walker 2016 for discussion of morphophonological tone marking). We will describe how this system works.

References
Anderson, Torben. 1993. Vowel quality alternation in Dinka verb inflection. Phonology 10.1.
—. 1994. Morphological stratification in Dinka. Studies in African Linguistics 23.1.

—. 2007. Auxiliary verbs in Dinka. Studies in Language 31.1.

Bird, Steven. 1998. Strategies for representing tone in African Writing Systems. Written Language and Literacy 2.1.

Lin, Yu-Leng. 2017. Revising tones in Twic East Dinka. Proceedings of the 31st Pacific Asia Conference on Language, Information, and Computation.

Remijsen, Bert, and D. Robert Ladd. 2008. The tone system of the Luanyjang dialect of Dinka. Journal of African Languages and Linguistics 29.2.

Remijsen, Bert. 2010. Tone systems of Dinka dialects. Paper presented at the Fourth European Conference on Tone and Intonation.

Roberts, David, and Stephen L. Walker. 2016. Writing morphophonology, reading lexical tone: Linguistic and experimental evidence in favor of morphographic spelling in Kabiye (Togo). Writing Systems Research 8.2.