

[Text version of database, created 31/01/2018].

Annotated Swadesh wordlists for the West Nilotic group (East Sudanic family).

Languages included: Nuer [wnl-nue]; Dinka [wnl-dnk]; Thok Reel [wnl-rel]; Mabaan [wnl-mab]; Jumjum [wnl-jum]; Kurmuk [wnl-krm]; Mayak [wnl-may]; Shilluk [wnl-shl].

DATA SOURCES

I. General

Bender 1971 = Bender, Lionel M. 1971. The Languages of Ethiopia: A New Lexicostatistic Classification and Some Problems of Diffusion. **In:** *Anthropological Linguistics* 13(5): 165-288. // *A lexicostatistical study of most of the languages of Ethiopia. Includes slightly modified Swadesh wordlists for a large number of Cushitic, Omotic, Ethiosemitic, and Nilo-Saharan (Nilotic, Surmic, Koman, etc.) languages. Unfortunately, the survey suffers from numerous inaccuracies of phonetic transcription and semantic glossing, making it practically unusable as a primary source for any of the languages concerned.*

Storch 2005 = Storch, Anne. 2005. *The Noun Morphology of Western Nilotic*. Köln: Rüdiger Köppe Verlag. // *A monograph on the synchronic and diachronic mechanisms of nominal paradigm formation in West Nilotic languages. Includes a lot of illustrative data, much of it collected by the author in person.*

II. Nuer

Kiggen 1948 = Kiggen, J. 1948. *Nuer-English Dictionary*. Nederland: Drukkerij van het Missiehuis, Steyl bij Tegelen. // *As of now, this source remains the single largest officially published document on Nuer lexicography. Precise dialect is not indicated, although the dictionary occasionally indicates dialectal variants. Accuracy of transcription is debatable, since the author clearly did not have a full comprehension of the extremely complicated vowel system of Nuer.*

Frank 1999 = Frank, Wright Jay. 1999. Nuer Noun Morphology. M. A. Thesis, State University of New York at Buffalo. // *Detailed description of Nuer nominal morphology with plenty of well-transcribed illustrative data. Unfortunately, the paradigmatic data are (predictably) limited to large numbers of Nuer nouns.*

III. Dinka

Nebel 1979 = Nebel, Arthur. 1979. *Dinka-English / English-Dinka Dictionary*. Bologna: Editrice Missionaria Italiana. // *A large dictionary of Dinka, concentrating on the Rek dialect of the language, but also containing a large number of specially marked dialectal forms. Phonetic transcription (particularly in the area of Dinka's complicated vowel system) is not highly accurate, and tones are not marked at all.*

Duerksen 2005 = Duerksen, John et al. 2005. *Dinka-English Dictionary*. Ms.: SIL. // *A large compilation of various sources on Dinka lexicon, including Nebel's dictionary as well as multiple addenda from fieldwork seemingly conducted by SIL personnel. Since the individual sources of data are not indicated, can only be used as an occasional control source for lexicostatistical purposes.*

Roettger 1989 = Roettger, Larry; Roettger, Lisa. A Dinka Dialect Survey. **In:** *Occasional Papers in the Study of Sudanese Languages* 6: 1-65. // *A sociolinguistic and lexicostatistical study of the complex network of Dinka dialects. Includes 150-item wordlists collected for 20 subdialects of the 4 major Dinka dialects, as well as for the separate language of Atuot (Thok Reel). However, phonetic and semantic accuracy of the data are questionable.*

Andersen 1987 = Andersen, Torben. 1987. The Phonemic System of Agar Dinka. **In:** *Journal of African Languages and Linguistics* 9: 1-27. // *A detailed description of the complex phonology of Agar Dinka, based on the author's own fieldwork; well illustrated by accurately transcribed lexical material.*

Andersen 2002 = Andersen, Torben. 2002. Case inflection and nominal head marking in Dinka. **In:** *Journal of African Languages and Linguistics* 23: 1-30. // *This paper on the nominal*

morphology of Agar Dinka has a lot of information on the paradigmatic behavior of many basic nouns of this dialect.

Andersen 2007 = Andersen, Torben. 2007. Auxiliary verbs in Dinka. **In:** *Studies in Language* 31: 89-116. // *This paper contains some useful information on Agar Dinka verbs and verbal morphology.*

IV. Thok Reel

Reid 2010 = Reid, Tatiana. 2010. *Aspects of phonetics, phonology and morphophonology of Thok Reel*. Ph.D. thesis, University of Edinburgh. // *A detailed description of the phonetic and phonological aspects of Thok Reel, illustrated by a large number of lexical examples, but without an accompanying glossary.*

Roettger 1989 = Roettger, Larry; Roettger, Lisa. A Dinka Dialect Survey. **In:** *Occasional Papers in the Study of Sudanese Languages* 6: 1-65. // *A sociolinguistic and lexicostatistical study of the complex network of Dinka dialects. Includes 150-item wordlists collected for 20 subdialects of the 4 major Dinka dialects, as well as for the separate language of Atuat (Thok Reel). However, phonetic and semantic accuracy of the data are questionable.*

V. Mabaan

Miller 2006 = Miller, Betty. 2006. *Mabaan Dictionary*. Draft version. Ms., available at: <http://www.rogerblench.info>. // *A large dictionary of the Mabaan language, although with some transcriptional inconsistencies and no prosodic notation.*

Andersen 1992 = Andersen, Torben. 1992. Aspects of Mabaan Tonology. **In:** *Journal of African Languages and Linguistics* 13: 183-204. // *Detailed description of the prosodic system of Mabaan, well illustrated by examples and containing notes on the general phonology of the language as well.*

Andersen 1999 = Andersen, Torben. 1999. Vowel quality alternation in Mabaan and its Western Nilotic history. **In:** *Journal of African Languages and Linguistics* 20: 97-120. //

Detailed description of the vowel system and vocalic morphophonology of Mabaan.

Andersen 1999b = Andersen, Torben. Anti-Logophoricity and Indirect Mode in Mabaan. **In:** *Studies in Language* 23(3): 499-530. // *This paper contains some important information on the general verbal system of Mabaan, among other things.*

Andersen 2006 = Andersen, Torben. 2006. Layers of number inflection in Mabaan (Western Nilotic). **In:** *Journal of African Languages and Linguistics* 27: 1-27. // *Detailed description of the nominal morphology of Mabaan, well illustrated by paradigmatic examples.*

VI. Jumjum

Andersen 2004 = Andersen, Torben. 2004. Jumjum phonology. **In:** *Studies in African Linguistics* 33(2): 133-162. // *A detailed description of the phonological system of Jumjum, well illustrated by lexical examples.*

Andersen 2006b = Andersen, Torben. 2006. [ATR] reversal in Jumjum. **In:** *Diachronica* 23(1): 3-28. // *A diachronic study of Jumjum vocalism with comparative data from other West Nilotic languages.*

VII. Kurmuk

Andersen 2007b = Andersen, Torben. 2007. Kurmuk phonology. **In:** *Studies in African Linguistics* 36(1): 29-90. // *A detailed description of the phonological system of Kurmuk, well illustrated by lexical examples.*

Andersen 2015 = Andersen, Torben. 2015. Syntacticized topics in Kurmuk: a ternary voice-like system in Nilotic. **In:** *Studies in Language* 39(3): 508-554. // *A study of some syntactic properties of Kurmuk (topicalization), illustrated by numerous textual examples.*

VIII. Mayak

Andersen 1999c = Andersen, Torben. 1999. Consonant Alternation and Verbal

Morphology in Mayak (Northern Burun). **In:** *Afrika und Übersee* 82: 65-97. // *A study of some aspects of verbal morphology and morphophonology of the Mayak dialect of Buruun.*

Andersen 1999d = Andersen, Torben. 1999. Vowel harmony and vowel alternation in Mayak (Western Nilotic). **In:** *Studies in African Linguistics* 28(1): 1-29. // *A study of Mayak morphophonology, illustrated with comparative lexical data on Mayak and Mabaan.*

Andersen 2000 = Andersen, Torben. 2000. Number Inflection in Mayak (Northern Burun). **In:** R. Vossen, A. Mietzner, A. Meissner (eds.). *"Mehr als nur Worte...": Afrikanistische Beiträge zum 65. Geburtstag von Franz Rottland.* Köln: Rüdiger Köppe Verlag, 29-43. // *A study of the basic nominal paradigm of Mayak, well illustrated by examples of nouns in the singular and plural numbers.*

IX. Shilluk

Gilley 1992 = Gilley, Leoma. 1992. *An autosegmental approach to Shilluk phonology.* (Summer Institute of Linguistics and University of Texas at Arlington. Publications in Linguistics, 103.) Dallas: Summer Institute of Linguistics. // *Detailed analysis of the phonology and phonetics of Shilluk, with large amounts of illustrative lexical data.*

Gilley 2000 = Gilley, Leoma. 2000. Singulars and plurals in Shilluk: a search for order. **In:** *Occasional papers in the study of Sudanese languages* 8: 1-21. // *Analysis of the number category in Shilluk, well illustrated by examples of nominal paradigms.*

Heasty 1937 = Heasty, J. A. 1937. *English-Shilluk / Shilluk-English Dictionary.* Dolieb Hill, The Anglo-Egyptian Sudan: The American Mission. // *One of the two most comprehensive Shilluk dictionaries to date; phonetic transcription, however, is somewhat inadequate (especially in reference to vowels; prosody remains completely unmarked).*

Kohnen 1994 = Kohnen, B. 1994. *Dizionario Shilluk. A cura di Manuela Brovarone.* Roma: Missionari Comboniani. // *Another large dictionary of Shilluk, published long after the compiler's death. Transcription is poor, but the dictionary is exceptionally well illustrated by contexts and detailed semantic notations.*

NOTES

I. Nuer.

I.1. *General.*

Our default source on the Nuer language remains [Kiggen 1948], as the single most comprehensive collection of lexical data, well illustrated by examples / contexts and ideally suited to the extraction of the Swadesh wordlist. For additional control, we have also checked the (not very reliable in itself) 100-item list in [Bender 1971], and also included transcriptions for noun stems from [Frank 1999] (important for the purpose of comparison and reconstruction, since Frank's description of Nuer's vowel system is much more detailed than Kiggen's).

Nuer, like its close relative Dinka, is well-known for its complicated system of vocalic and consonantal gradations in nominal and verbal paradigms; for this reason, we consistently adduce paradigmatic information (noun singulars and plurals; verbs in the infinitive and in the 3rd p. sg.) where it is available in Kiggen's dictionary and/or in Frank's thesis, since this information is critical for external comparison and reconstruction.

I.2. *Transcription.*

The system of transcription in [Kiggen 1948] is relatively simple, since the author simplifies the complex network of vocalic oppositions. The only amendments introduced are as follows:

(a) long vowels (*aa, ee, etc.*) have been converted to UTS standards (*a, e, etc.*);

(b) palatal affricates *c, j* are transcribed as *ç, ʒ*;

(c) the opposition between two series of coronal consonants that Kiggen transcribes as *t / th, d / dh, n / nh*, is converted to UTS *t / t̥, d / d̥, n / n̥* respectively. Kiggen indicates that

th, dh are pronounced as interdental (θ, δ), but existing descriptions of Nuer phonetics are in conflict and indicate that the pronunciation of the second series actually varies between interdental and dental (stop) articulation. For reasons of consistency with data in related languages, we prefer to re-transcribe the phonemes as dental stops (it also makes the data more consistent with the marking of the nasal dental consonant, since η cannot be properly realised as "interdental").

In the thesis [Frank 1999], consonantal transcription largely agrees with Kiggen, but the vocalic system is analyzed in a completely different way, with many more oppositions in timbre and a major additional feature (breathiness) added as distinctive. The correlations between Frank's system and the UTS, based on Frank's own explanation, is as follows:

[Frank 1999]	UTS
a	a
ä	a ^h
ä	æ ^h
i	i
i	i ^h
ε	ε
ε	ε ^h
e	e
ë	e ^h
o	o
ö	o ^h
o	u ^h
o	o
o	o ^h
u	u ^h

II. Dinka.

II.1. *General.*

The Dinka language, spoken by close to a million and a half native speakers, is usually regarded as a "macrolanguage", with at least four or five major dialect clusters that could formally qualify as separate languages: (a) Northeastern Dinka (Padang-Ageer), (b) Northwestern Dinka (Pan Aru-Ruweng), (c) South-Central Dinka (Agar), (d) Southeastern Dinka (Bor), (e) Southwestern Dinka (Rek). Ideally, one should have at least one representative wordlist from each of these dialects (languages?). However, the situation is difficult: despite a lot of fieldwork conducted with speakers of all these varieties, the only coherent dictionary to focus on one particular dialect, produced so far, is [Nebel 1979], systematically describing the most widely spoken Rek dialect.

The single most useful comparative source on Dinka dialects is [Roettger 1989], with 150-item wordlists provided for no less than 20 different subdialects of the language: (a) Padang dialect: Abiliang, Paloc/Ageer, Dongjol, Ngok-Sobat, Thoi, Rut, Luac, Ruweng, Alor, Ngok; (b) Rek dialect: Rek, Luac, Twic, Malual; (c) Agar dialect: Agar, Aliab, Gok, Ciec; (d) Bor dialect: Bor, Twic, Nyarweng, Ghɔl. Theoretically, although including all of this data in our wordlists would be overkill (most of the individual subdialects within one dialect have completely or almost completely coinciding Swadesh lists), at least one representative wordlist from each dialect would be useful. However, careful analysis of the data in Roettger's wordlists and its comparison with other sources on Dinka raises certain doubts as to complete semantic accuracy of his entries - a very important detail when dealing with dialects the number of discrepancies between which on the Swadesh wordlist rarely exceeds 10%.

In the light of this, we currently prefer not to rely on Roettger's data as primary sources. All of it is, however, included in the Notes section on Dinka, and therefore, open to manual comparison. Addition of extra control sources, such as, e. g., data from a series of papers by T. Andersen on the phonology and grammar of the Agar dialect, shows that there are, indeed, some significant divergences between dialects (for Agar, cf. at least the following entries: 'cloud', 'give', 'leaf', 'mountain', 'new', 'road', 'sun', 'snake'), but the construction of a detailed and accurate set of wordlists on the most divergent

dialects of the language remains a task for the future.

II.2. *Transcription.*

The main discrepancies between the Dinka alphabet used in [Nebel 1979] and UTS are summarized in the following table.

[Nebel 1979]	UTS	Notes
c, j	ɕ, ʝ	Palatal affricates.
th, dh, nh	ɬ, ɗ, ñ	Dental consonants.
ny	ɲ	Palatal nasal.
q	ʕ	Laryngeal articulation acc. to Nebel.
è, ò	ɛ, ɔ	"Open" <i>e</i> and <i>o</i> .
ŵ	V ^h	Breathy articulation of vowel.
VV	V:	Long vowels.
ä, ï, ö, ë	ɐ, ɨ, ø, ɘ	Centralized vowels.

It should be noted that Nebel's notation of the complex vowel system in Dinka is notoriously inaccurate; a much better source to ascertain the base quality and various secondary features of the vocalism is T. Andersen's description of the phonology of Agar (e.g. Andersen 1987), but it does not include a full coverage of the basic lexicon, and it is not entirely clear how precisely it correlates with the phonological systems of other dialects. Fortunately, this is not highly significant for basic lexicostatistical purposes, where Nebel's lexicon remains perfectly usable.

The main differences between Andersen's and Nebel's notation and description are as follows:

(a) In the consonantal system, Andersen marks the palatal nasal as *ɲ*; Nebel's laryngeal *q* (= UTS ʕ) corresponds to Andersen's velar voiced fricative *ɣ*.

(b) The base vowel system is described by Andersen as *i, u, e, o, ɛ, ɔ, a*, i. e. is practically the same as Nebel's. No special "centralized" phonemes or allophones are postulated in

his description. Breathy vowels (V_{\cdot}) in Andersen's description are opposed to creaky vowels (V). We do not specially mark creakiness in Andersen's entries, since it seems to be the default (unmarked) quality (Andersen himself marks it inconsistently in his records, since it is phonologically superfluous).

(c) Andersen postulates three degrees of length for Dinka: short (V), medium (VV), and long (VVV), as opposed to only two in Nebel's description. We transliterate Andersen's "medium" vowels as long ($V:$) and his "long" vowels as "ultra-long" ($VV:$).

(d) Andersen postulates two level tones (low \hat{V} and high \acute{V}), as well as one contour tone (high-low \hat{V}) for Dinka. His are the only sources so far that consistently note prosodic information for Dinka.

III. Thok Reel.

III.1. General.

Thok Reel, or Atuot (the name of the small ethnicity speaking the language in the Yirol West county of Lakes State of Southern Sudan), is a small and relatively recently discovered variety of Nuer-Dinka that is sufficiently distant from both the Nuer and the Dinka dialectal clusters to be considered a separate language, although in many respects (including lexicostatistics) it is genetically closer to Nuer than to Dinka (although the speakers have migrated into a Dinka-occupied area).

Data on the language are very scarce; however, a large wordlist may be found in [Roettger 1989], appended to the large collection of wordlists for various Dinka dialects. Like all of the survey materials in this source, certain inclusions are semantically problematic, and the accuracy of phonetic representation is also questionable (not to mention lack of any prosodic information), but some of the data may be double-checked by means of [Reid 2010], a detailed phonetic and grammatical description of the idiom - unfortunately, this source cannot be used as primary for the lexicostatistical wordlist due to huge gaps. In between the two sources, however, a more or less accurate picture of the language still emerges, although it is certainly liable to future amendments as (if) more and better data become available.

III.2. *Transcription.*

Transcription in [Roettger 1989] is the same as for the Dinka dialects in that source. It almost completely coincides with the orthography of the [Nebel 1979] Dinka dictionary, except that -ATR vowels ϵ , ɔ are transcribed as such.

IV. Mabaan.

IV.1. *General.*

Mabaan, spoken by about 50,000 speakers in Mabaan county (Upper Nile state), remains a somewhat poorly described language. As our main source, we have chosen the formally unpublished dictionary [Miller 2006], kindly made available for the general public by Roger Blench; it is a comprehensive source, well illustrated by textual examples, but one that suffers from various inaccuracies (e.g. the same word may be transcribed in different ways throughout the dictionary) and incomplete understanding of the language's phonology (particularly vocalism and prosody, with tonal information completely missing from transcriptions).

Of a far higher quality are the numerous works by Torben Andersen [1992, 1999, 1999b, 2006] that deal with various aspects of Mabaan phonetics, morphophonology, and morphology: Andersen's field data are accurately transcribed, and he always illustrates his observations with a plethora of examples. Unfortunately, all of these are still short papers, and it is impossible to put together a comprehensive Swadesh wordlist on the basis of Andersen's data alone. In a few cases where Miller's data are unavailable or most likely erroneous, we still include Andersen's elicitations in the primary slot (e.g. 'fat', 'louse'); but for the most part, we list his data in the notes section, since it is extremely important for historical reconstruction, but not so important for straightforward lexicostatistics.

A defective 100-item wordlist for Mabaan is also available in [Bender 1971: 269]; it has been made almost completely obsolete by the availability of Miller's and Andersen's results, but we still include the data in the notes section for the sake of completeness.

IV.2. *Transcription.*

The transcription used in [Miller 2006] is slightly simplified compared to T. Andersen's (largely for typographic reasons). For the most part, we do not introduce any amendments, except for the following:

(a) Mabaan distinguishes between two series of coronal stops: interdental and post-alveolar / retroflex, which Miller distinguishes as *t, d* vs. *ʈ, ɖ*; Andersen usually transcribes them as *ṭ, ḍ* vs. *t, d*. To avoid ambiguity, we use diacritic marks everywhere, transcribing the first series as *ṭ, ḍ* and the second as *ʈ, ɖ*.

(b) Mabaan palatal affricates are transcribed as *c, j* by Miller and as *c, ɟ* by Andersen; they are transliterated as UTS *ç, ʒ*. Palatal nasal is transcribed as *ɲ* and transliterated as *ɲ*.

(c) Long vowels are transcribed as doubled *aa, oo*, etc. by Miller and by Andersen; they are transliterated as UTS *a:, o:*, etc.

V. **Jumjum.**

V.1. *General.*

The Jumjum language, spoken in the Blue Nile Province to the north of Mabaan by about 25,000 speakers (Ethnologue), remains poorly described. No systematic grammatical description or vocabulary has been published so far, and the majority of information on select grammatical aspects and lexicon of the language is to be gained from several publications of Torben Andersen [Andersen 2004; Andersen 2006b], containing high quality, but, unfortunately, limited field data collected by the author.

Alternate sources of data on Jumjum are scarce and far less reliable. Where available, we always quote the equivalents from M. L. Bender's Swadesh wordlist on Jumjum [Bender 1971: 268], and sometimes, when Andersen has no equivalent, Bender's data provide the only possibility to fill in the primary slot. These entries, however, are

always marked with #, since Bender's data typically suffer from phonetic and semantic inaccuracies.

V.2. *Transcription.*

T. Andersen's transcription is IPA-based and requires only minimal cosmetic amendments to UTS. We transcribe long vowels (*aa, oo*, etc.) as *a:, o:*, etc.; palatal plosives/affricates *c, j* as *ç, ʒ*.

VI. **Burun (Kurmuk, Mayak).**

VI.1. *General.*

The Burun language, spoken by several thousand people to the north of the Jumjum area, consists of several closely related dialects that Torben Andersen considers to be separate languages (belonging to the Northern Burun subgroup as opposed to Southern Burun, consisting of Mabaan and Jumjum); their names vary depending on the source, but according to Andersen, the main dialects include Mayak, Kurmuk, and Surkum.

Unfortunately, not a single exhaustive grammatical description or vocabulary exists for any of these dialects; like Jumjum, most of the phonetically and semantically accurate information on them has to be extracted from T. Andersen's papers (see the complete list of references in the Data sources section). Seriously gapped, but workable Swadesh lists may be extracted for Mayak and Kurmuk (but not for Surkum, data on which are quite minimal). Additionally, some gaps in the Mayak list may be tentatively filled in by data from M. L. Bender's [Bender 1971: 272] wordlist on Burun, with the same caveats as for Jumjum (see above). We also rely on [Storch 2005] for supportive information, since Storch's data on Mayak nouns is partially original and can be used to fill in a few gaps and resolve some controversial situations.

VI.2. *Transcription.*

More or less the same cosmetic amendments to UTS are relevant for T. Andersen's transcription of Mayak and Kurmuk data as for his transcription of Jumjum data (see

above).

VII. Shilluk.

VII.1. *General.*

Despite the large number of Shilluk speakers and the overall importance of the Shilluk ethnicity in South Sudan, there is as of now no modern-level dictionary *or* grammar for Shilluk. Lexicostatistical and etymological studies, therefore, have to take place at the intersection of older lexicographic sources (not highly reliable in terms of phonology) and partial new studies that provide better insights into the grammar and phonetics of Shilluk, but do not have enough data to properly fill up the entire Swadesh wordlist.

Our main source is [Heasty 1937], with [Kohnen 1994] (the actual data was collected in the first decades of the 20th century) selected as a supporting source. Where possible, we also provide the corresponding equivalents from more recent works by Leoma Gilley [Gilley 1992, 2000] that give a better idea of the words' phonetic shape; unfortunately, there are no wordlists in Gilley's works, and, moreover, some of the author's own data vary in shape from one work to another.

VII.2. *Transcription.*

The transcription (alphabet) system of Heasty is generally simple and does not require a lot of transliteration efforts. The following systematic recodings have been performed:

(a) Palatals: Heasty's *c, j, ny* = UTS *ɕ, ʒ, ɲ*;

(b) Dentals (interdentals): Heasty's *th, dh, nh* = UTS *ʈ, ɖ, ɳ*;

(c) Heasty consistently distinguishes between "unmarked" vowels (*a, e, ε, i, o, ɔ, u*) and their "centralized" variants (which he transcribes as *ä, ë, ε̣, ï, ö, õ*). This is *not* the same as the well-known +/-ATR opposition and rather seems to correspond to the rare feature that Gilley [1992: 28] calls "expanded pharynx". Since in the other Luo languages the same feature is often analyzed as an opposition between breathy and non-breathy vowels, we tentatively mark Heasty's "centralized" vowels (= Gilley's [+EX] vowels) as breathy, i.e. *a^h, e^h, ε^h, i^h, o^h, ɔ^h*. It should, however, be noted that Heasty's and Gilley's

transcriptions are frequently uncorrelated, hinting at possible mistakes that could have been made by either of them.

The system of transcription in [Kohnen 1994] is almost exactly the same as Heasty's, except that Kohnen omits any indications of the centralized / uncentralized opposition. L. Gilley [1992, 2000] uses standard IPA to transcribe all the forms.

Database compiled and annotated by: G. Starostin (last update: January 2018).

1. ALL

Nuer *dial* (1), Dinka *eben* (2), Reel *kan=dial* (1), Mabaan *wa:k-ida* ~ *wa:k-enda* (3), Jumjum *mɔre:n* # (4), Mayak *ku:d* (5), Shilluk *bɛn* (6).

References and notes:

Nuer: Kiggen 1948: 75. Quoted as *ken=dial* in [Bender 1971: 271], where *ken* = 'they' (so the form is actually 'they all').

Dinka: Nebel 1979: 29. Meaning glossed as 'all, every'. The Rueng variant is reduplicated: *eban-eban* 'all' [ibid.] or *eben-ebɛ:n* [Nebel 1979: 104]. Distinct from the bound morpheme =*die*, used in conjunction with pronominal stems: *o=die* 'we all', *we=die* 'you all', *ke=die* 'they all' etc. [Nebel 1979: 104]. In [Roettger 1989: 30], the forms *eben* and *ke=die* ~ *ke=die* ~ *ke=dia* are sometimes listed as alternate synonyms and sometimes are found in complementary distribution across dialects; however, it is not clear how accurate these records really are.

Reel: Roettger 1989: 30.

Mabaan: Miller 2006: 105. Derived from the noun *wak* 'things', cf. also *wak-ɔ* 'bodies' [ibid.]. According to the source, the variant *wak-ida* is applied to 1st and 2nd persons ('we all', 'you all'); the variant *wak-enda* is applicable to 3rd person ('they all'). Quoted as *wak-anda* in [Bender 1971: 269].

Jumjum: Bender 1971: 268. Not attested in any of T. Andersen's papers.

Kurmuk: Not attested.

Mayak: Bender 1971: 272. Not attested in any of T. Andersen's papers.

Shilluk: Heasty 1937: 14. Quoted as *ben* ~ *bene* 'all, every, entire, whole, complete, total' in [Kohnen 1994: 17].

2. ASHES

Nuer *ɲɛat* ~ *ɲɛt* (1), Dinka *ɲɛt* (1), Reel *a=ɲɛt* (1), Mabaan *toll-o* (2), Jumjum *tà:t-án* (3), Mayak *ta:ð-ɪn* (3), Shilluk *bur* (4).

References and notes:

Nuer: Kiggen 1948: 221, 223. Plural: *ɲɛd*. Quoted as sg. *ɲɛ:^ht*, pl. *ɲɛt* 'ash (wood)' in [Frank 1999: 84]. Distinct from the more specialized term *pou*, pl. *puk* 'burnt cowdung ashes' [Kiggen 1948: 259]. It is this latter term that is listed as *p^hok^h* 'ashes' in [Bender 1971: 271] and sg. *pud^hk*, pl. *puk* 'ash (dung)' in [Frank 1999: 84].

Dinka: Nebel 1979: 63. Meaning glossed as 'wood-ashes'. Quoted as *ɲɛ:^ht* 'ash' in [Andersen 1987: 4]. Distinct from *arop* 'dung-ashes' [Nebel 1979: 12]. Cf. also NE, SEb *ɔol*, pl. *ɔol* 'ash, charcoal' in [Duerksen 2005: 36]; this word is clearly derived from 'black' q.v. and corresponds to the compound form *ɔol maɕ* 'charcoal, soot' (lit. 'black of fire') in [Nebel 1979: 20], so the submeaning 'ash', listed in Duerksen's dictionary, seems suspicious. On the other hand, clearly the same word is also listed as *ɔó:^hl* 'ash from grass' in [Andersen 1987: 12]. In [Roettger 1989: 84], the word is listed as *ɲɛt* (very rarely *ɲɛt*) for all dialects and subdialects of Dinka.

Reel: Roettger 1989: 36.

Mabaan: Miller 2006: 99. Plural form; the singulative is *tɔ:l-din*. Quoted as *tɔ:llə* in [Bender 1971: 269]. Distinct from *ɕu:llo* 'black ashes from burnt grass, soot' [Miller 2006: 27].

Jumjum: Andersen 2004: 135. Quoted as *tat-anj* in [Bender 1971: 268].

Kurmuk: Not attested.

Mayak: Andersen 1999c: 32. Quoted as *ta:d-ɪn* in [Bender 1971: 272]; as sg. *tá:d-in*, pl. *tód-ùn* in [Storch 2005: 112].

Shilluk: Heasty 1937: 16. Quoted as *burr* in [Kohnen 1994: 23].

3. BARK

Nuer *kom* (1), Dinka *pa^ht* (2), Reel *kom* (1), Mabaan *ʒaŋ=po:t-ɛn* (2), Jumjum *pát-àkáy* (2), Kurmuk *kú:báŋ* (3), Mayak *pət-ɛka* # (2), Shilluk *pad-o* (2).

References and notes:

- Nuer:** Kiggen 1948: 150. Polysemy: 'bark / pod / shell of egg, etc.'. Singular and plural forms are the same. Quoted as sg. *ku^hm*, pl. *ku^hm* in [Frank 1999: 84]; as *k^hvm* in [Bender 1971: 271].
- Dinka:** Nebel 1979: 68, 108. Plural: *pat*. Quoted as sg. *paá^ht*, pl. *pá^ht* 'bark, shell' in [Andersen 2002: 20]. Phonetic variants of this root in [Roettger 1989: 32] include *pa^ht* ~ *pa^ht* ~ *pat*.
- Reel:** Roettger 1989: 32.
- Mabaan:** Miller 2006: 49. Literally = 'the trees' wrapping', cf. *po:t-i* 'to wrap' [Miller 2006: 92]. Cf., however, also *pottin* 'bark (of tree)' in [Miller 2006: 92]; it is not clear if this is an incorrectly spelled variant of the same root or a completely different entry (it is also not confirmed in any of the text examples). In [Bender 1971: 269], the word for 'bark' is listed as *ʒe-na*, i.e. simply 'tree' q.v.; this is probably the result of incorrect glossing.
- Jumjum:** Andersen 2004: 135. Plural: *pát- àgá*. Quoted as *pət-əkai* in [Bender 1971: 268].
- Kurmuk:** Andersen 2007b: 66. Plural: *kú:báŋ-ák*.
- Mayak:** Bender 1971: 272. Not attested in any of T. Andersen's papers. Cf. sg. *pid-at*, pl. *piŋ* 'shell' in [Andersen 2000: 34] (a different root).
- Shilluk:** Heasty 1937: 80. Polysemy: 'bark / skin / shell / a kind of grass'. Quoted as sg. *p á- ɔ*, pl. *p á* in [Gilley 2000: 15]; as sg. *pad-o*, pl. *paŋ* 'bark, shell, peel, husk' in [Kohnen 1994: 155].

4. BELLY

Nuer *ʒiɕ* (1), Dinka *yaɕ* (1), Reel *zieɕ* (1), Mabaan *kon-ɛ* (2), Jumjum *ʒíŋ* (1) / *kàŋ* (2), Mayak *bul* (3), Shilluk *yiɕ* (1).

References and notes:

- Nuer:** Kiggen 1948: 126. Plural: *ʒiɕ*. Quoted as sg. *ʒiɕ*, pl. *ʒi^hɕ* in [Frank 1999: 84]; as *ʒiɕ* in [Bender 1971: 271].
- Dinka:** Nebel 1979: 95. Locative: *yiɕ*. Plural: *yeɕ*. Polysemy: 'belly / stomach / uterus / rumen'. Phonetic variants for this word in [Roettger 1989: 34] include *yaɕ* ~ *ya^hɕ* ~ *yeɕ* ~ *yeɕ* (the latter only in the Aliab subdialect of Agar). Cf. also *ʒuŋ* 'lower belly' [Nebel 1979: 37].
- Reel:** Roettger 1989: 34. Quoted as sg. *ʒiɕ*, pl. *ʒiŋ* in [Reid 2010: 29].
- Mabaan:** Miller 2006: 57. Quoted as *kín-á* 'stomach' in [Andersen 1999: 100]; as *kvn-ə* in [Bender 1971: 269].
- Jumjum:** Andersen 2004: 137. Meaning glossed as 'stomach'. Quoted as *ʒíŋ-ɛ* in [Bender 1971: 268]. Andersen 2004: 138. Meaning glossed as 'stomach'. Semantic difference between *ʒíŋ* and *k n* remains unclear (perhaps one of the two words is really 'abdomen', but there are no indications of that in Andersen's papers).
- Kurmuk:** Not attested.
- Mayak:** Andersen 2000: 37. Plural: *bul-uk*. Meaning glossed as 'stomach', but quoted as *buli* 'belly' in [Bender 1971: 272].
- Shilluk:** Heasty 1937: 107. Plural: *yeŋ* ~ *yeŋ-i*. The meaning 'belly' is found only in the English-Shilluk index; the Shilluk-English part of the dictionary glosses the word as 'intestines'. Quoted as *yiɕ* ~ *yiɕ*, pl. *yeŋ* 'belly, womb, interior (feeling); inside of anything; the contents of volume; extent, curve, winding; kind, species; in, into, therein, wherein, inside' in [Kohnen 1994: 219].

5. BIG

Nuer *di:d* (1), Dinka *dit* (1), Reel *diɛt* (1), Mabaan *qwan-* (2) / *tol-* (3), Jumjum *taləŋ* # (3),

Kurmuk *d̥ɔːŋ* (2), Mayak *d̥aːŋ-ke* # (2), Shilluk *d̥wɔŋ* (2).

References and notes:

Nuer: Kiggen 1948: 75. Quoted as *m̥iːd̥iːtʰ* in [Bender 1971: 75] (with the relativizer attached).

Dinka: Nebel 1979: 25. Polysemy: 'big / tall / old'. Quoted as *d̥iːtʰ* 'big' (modified to *d̥iːtʰ* in the construction *k̥ɔːtʰ d̥iːtʰ-k̥iːtʰ* 'your elders') in [Andersen 2002: 17]. Morphological variants in [Roettger 1989: 31] include *dit* ~ *a=dit* ~ *k̥=dit*.

Reel: Roettger 1989: 31. Differently in [Reid 2010: 34]: *ʔé=ʔáːtʰy* 'big' (reduplicated stem).

Mabaan: Miller 2006: 40. Miller 2006: 99. The dictionary entries consist of complex (reduplicated) forms: *t̥ol-t̥olo* 'big' ~ *t̥olla-t̥ollo* 'great, very'; however, textual examples frequently show the adjective in the non-reduplicated form, cf. *bwam eke t̥ol t̥olo* "his throwing stick is big", but *eke ɔːɔɔin t̥erin jin i ona t̥olan* "he sat down opposite the big building". In [Bender 1971: 269], quoted as *t̥al-zin* 'big'. Textual examples in [Miller 2006] do not allow to determine whether *d̥wanŋ-* or *t̥ol-* is the most suitable equivalent - they are encountered with approximately the same statistical frequency and in interchangeable contexts. We include both forms as technical synonyms.

Jumjum: Bender 1971: 268. Not attested in any of T. Andersen's papers.

Kurmuk: Andersen 2007b: 76. Attested as part of the predicative form: *d̥ɔːŋ-ki* 'it is big'. Cf. also the plural form *d̥ɔŋ-ək* 'big' (applied to young men, in the sense of 'strong') in [Andersen 2015: 545].

Mayak: Bender 1971: 272. Not attested in any of T. Andersen's papers.

Shilluk: Heasty 1937: 29. Plural: *d̥wɔŋ*. Polysemy: 'big / old / great / important'. Quoted as n. *d̥wɔŋ* ~ *d̥wɔŋ-o* 'greatness, largeness, height, size; old age; reputation, authority', v. *d̥wɔŋ-o* 'to become great, large; to grow, to get big, old' in [Kohnen 1994: 45].

6. BIRD

Nuer *dit* (1), Dinka *dit* (1), Reel *dit* (1), Mabaan *d̥iː-no* (1), Jumjum *d̥iː-n* (1), Kurmuk *d̥iː-n-áːt̥* (1), Mayak *d̥iː-n-ɛt̥* ~ *d̥iː-n-ɛt* (1), Shilluk *wiŋ-o* (2).

References and notes:

Nuer: Kiggen 1948: 78. Plural: *d̥iːd*. Quoted as sg. *dit*, pl. *d̥iːt* in [Frank 1999: 84]; as *d̥iːtʰ* in [Bender 1971: 271].

Dinka: Nebel 1979: 25. Plural: *d̥iːt*. Quoted as absolutive *d̥iːt*, oblique *d̥iːt* in [Andersen 2002: 9]; as *dit* ~ *d̥iːt* in [Roettger 1989: 31] (same root in all subdialects of Dinka).

Reel: Roettger 1989: 31. Quoted as plural *d̥iːt* 'birds' in [Reid 2010: 129].

Mabaan: Miller 2006: 36. Plural: *d̥iːr-go*. Quoted as sg. *d̥iː-n-á*, pl. *d̥iːr-gá* in [Andersen 1999: 100; Andersen 1992: 185]; as sg. *d̥iː-n-u* in [Bender 1971: 269].

Jumjum: Andersen 2004: 137, 145. Plural: *d̥iːr-gá*. Quoted as *d̥iː-n* in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 39. Plural: *d̥iːd-áːn*.

Mayak: Andersen 1999c: 74. Quoted as *d̥e-n-ɛt̥* in [Bender 1971: 272].

Shilluk: Heasty 1937: 103; Kohnen 1994: 211. Plural: *wiŋ*.

7. BITE

Nuer *kaɕ* (1) / *ɕaːm* (2), Dinka *kaɕ* (1), Reel *kaɕ* (1), Mabaan *koːy* ~ *koː-d̥i* (1), Jumjum *kaɕ*- (1), Kurmuk *nàn* (2), Mayak *kaɕ* (1) / *nan-* (2), Shilluk *kaɕ* (1).

References and notes:

Nuer: Kiggen 1948: 135. 3rd p. sg.: *kai-ε*. Polysemy: 'to bite / to sting'. Examples in the dictionary show that the word is applicable at least to insects and dogs. Quoted as *k^hεε* in [Bender 1971: 271]. Kiggen 1948: 51. Same word as 'to eat'. Examples in the dictionary show that the word, just like *kaε*, is applicable to insects and dogs. Since it is currently impossible to establish the semantic difference, we treat them as synonyms.

Dinka: Nebel 1979: 37. Polysemy: 'to bite / to snap / to catch'. Variants recorded as *keε*, *keε* in [Duerksen 2005: 85]. Quoted as *â=kê:^hε* 'he is biting' in [Andersen 1987: 10]; as *kaε* for all dialects and subdialects of Dinka in [Roettger 1989: 34]. The word *εam* 'to eat' q.v. is listed with the meaning 'to bite' for the Southwestern dialect in [Duerksen 2005: 33], but not in Nebel's dictionary, which is why we do not include it on the list as a synonym.

Reel: Roettger 1989: 34. Quoted as *kâε* in [Reid 2010: 53].

Mabaan: Miller 2006: 58, 59. Quoted as *kây-ε* 'they bite' in [Andersen 1999: 101]; as *kâ-tân* 'they will bite him' in [Andersen 1992: 192]; as *ka-γo* 'bite' in [Bender 1971: 269].

Jumjum: Andersen 2004: 139. Verbal noun: *kâγ-γú*. Quoted as *kaγ-o* in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 83; Andersen 2015: 519.

Mayak: Andersen 1999c: 67. Quoted as *a=kaε-ar* in [Bender 1971: 272]. Cf., however, also the form *nan-tir* 'it is being bitten' in [Andersen 1999c: 75]. It is unclear which of the two roots is a better semantic match for the Swadesh being, so we include both in the list for the time being (*kaε* is etymologically more archaic, but *nan-* has a direct parallel in the Kurmuk dialect of Buruun). Andersen 1999c: 75.

Shilluk: Heasty 1937: 40. Imperative form; the participial form is *kaε-o*. Polysemy: 'bite / sting / harvest'. Quoted as *kaε* 'to bite; to ache; to pluck off, to gather (the durrah ears); to squeeze in, to stick fast, to hold fast, to pinch' in [Kohnen 1994: 75].

8. BLACK

Nuer *εa:r* (1), Dinka *εol* (2), Reel *εar* (1), Mabaan *ul-ulo* (2), Jumjum *?úl-* (2), Kurmuk *?úl-* (2), Mayak *?vl-* (2), Shilluk *loε ~ loε* (3).

References and notes:

Nuer: Kiggen 1948: 53. Polysemy: 'black / clear (of water)'. Quoted as *=εarr* in [Bender 1971: 271].

Dinka: Nebel 1979: 20. Polysemy: 'black / dark / dark blue'. Quoted as *â=εò:^hl* 'it is black' in [Andersen 1987: 13]. Quoted as *εol ~ εuol ~ εuol ~ a=εol ~ a=εuol ~ ke=εol ~ kv=εol* for the majority of Dinka dialects and subdialects in [Roettger 1989: 37]. The only alternate synonym is *ma=εar* in some subdialects of Rek and Agar = *εar* 'black, dirty', *ma=εa^hr* 'black; black male animal' [Nebel 1979: 19, 55].

Reel: Roettger 1989: 37. Quoted as *εá:^hr* in [Reid 2010: 55].

Mabaan: Miller 2006: 105. Cf. also *ulla-ullo* 'dark (very)' [ibid.]. Quoted as *vl-?vl* in [Bender 1971: 269].

Jumjum: Andersen 2004: 153. Attested as part of the form *?úl-âγ* 'it is black'. Quoted as *ul-εγ* in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 41. Attested as part of the form *?úl-âki* 'it is black'.

Mayak: Andersen 1999c: 24. Quoted as *εl-ε?εl* (reduplicated stem) in [Bender 1971: 272].

Shilluk: Heasty 1937: 53. Polysemy: 'black / dirty, filthy'. Quoted as *loε ~ loε* 'black, dirty, dark; impure, indecent, obscene; dangerous' in [Kohnen 1994: 104].

9. BLOOD

Nuer *riem* (1), Dinka *riem* (1), Reel *riem* (1), Mabaan *yim-go* (1), Jumjum *yim-gà* (1), Mayak *rim* (1), Shilluk *rem-o* (1).

References and notes:

Nuer: Kiggen 1948: 273. Plural: *rim*. Quoted as sg. *riem*, pl. *rim* in [Frank 1999: 84]; as *rriyem* in [Bender 1971: 271].

Dinka: Nebel 1979: 77. Plural: *rim* (glossed as 'much blood') [ibid.]. Quoted as *riɛ:m* in [Andersen 1987: 4]. Quoted as *riɛm* for all dialects and subdialects of Dinka in [Roettger 1989: 32].

Reel: Roettger 1989: 32.

Mabaan: Miller 2006: 115. Without the suffix, cf. *yim* 'dura (red)' [ibid.]. Quoted as *yim-m* in [Andersen 1999: 100]; as *yim-gv* in [Bender 1971: 269].

Jumjum: Andersen 2004: 139. Plural form; the singulative is *yim-máɲ*. Quoted as *yim-gɔ* in [Bender 1971: 268].

Kurmuk: Not attested.

Mayak: Andersen 1999c: 13. Plural form; the singulative is *rim*. Quoted as *rem-aɫ* in [Bender 1971: 272]; as sg. *ré-m-àɫ*, pl. *ré-m* in [Storch 2005: 109].

Shilluk: Heasty 1937: 87. Quoted as *rem-o* in [Kohnen 1994: 169].

10. BONE

Nuer *ɕoay* (1), Dinka *yuom* (2), Reel *a=ɕa* (1), Mabaan *o:-no* (1), Jumjum *ʔáw-nà* (1), Kurmuk *ʔá:w-àɫ* (1), Mayak *ʔá:w-aɫ* (1), Shilluk *ɕog-o* (1).

References and notes:

Nuer: Kiggen 1948: 59. Plural: *ɕou*. Quoted as sg. *ɕɔɣ*, pl. *ɕɔ^hɣ* in [Frank 1999: 84]; as *ɕva*: in [Bender 1971: 271].

Dinka: Nebel 1979: 99. Plural: *yom*. Quoted as *yum* in [Duerksen 2005: 195]; as sg. *yud^hm*, pl. *yòm* in [Andersen 1987: 16, 18]. Quoted as *yum* for all dialects and subdialects of Dinka in [Roettger 1989: 32] (the Ageer subdialect also has the additional variant *yuom*).

Reel: Roettger 1989: 32.

Mabaan: Miller 2006: 86. Plural: *ow-wo*. Quoted as sg. *ʔá:-nà*, pl. *ʔáw-w* in [Andersen 1999: 100; Andersen 2006: 12]; as *v-nə* in [Bender 1971: 269].

Jumjum: Andersen 2004: 145. Plural: *ʔáw-g*. Quoted as *ou-nə* in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 51. Plural: *ʔáv*.

Mayak: Andersen 1999c: 13. Plural: *ʔá:p* [An.13]. Quoted as sg. *ʔáw-it*, pl. *ʔá:b* in [Storch 2005: 107]. Cf. *zwaɗ* 'bone' in [Bender 1971: 272] (perhaps a misprint for **awəɗ?*).

Shilluk: Heasty 1937: 21; Kohnen 1994: 31. Plural: *ɕu*. Quoted as sg. *ɕ^hg-ʒ*, pl. *ɕú^hw* in [Gilley 1992: 88].

11. BREAST

Nuer *kau* (1), Dinka *pɛm* (2), Mabaan *zua-no* (3), Kurmuk *zɔ* (3), Mayak *zɔk* (3), Shilluk *ko* (1).

References and notes:

Nuer: Kiggen 1948: 138. Plural: *ka-t*. Quoted as sg. *kaw*, pl. *kæ^h-t* in [Frank 1999: 84]; as *kaw* in [Bender 1971: 271]. Distinct from *tin*, pl. *tin* 'female breast' [Kiggen 1948: 313].

Dinka: Nebel 1979: 69. Quoted as sg. *pɛ:m*, pl. *pem* in [Duerksen 2005: 142]; as *pɛɛ:m* in [Andersen 1987: 16]. According to Duerksen's dictionary, there is also a Southwestern variant of this word glossed as *pɛ:k*. There are also several other words, scattered across the dictionary and glossed as 'chest': *egɛu* 'chest (of body)' [Duerksen 2005: 9], *zou* 'chest' [Duerksen 2005: 77], *teɲ* 'chest (of body)' [Duerksen 2005: 161]; the word 'heart' q.v. can also be used in the same meaning. However, out of all these, only *pem* is found in the meaning 'chest' in Nebel's dictionary, so we tentatively leave it to occupy the primary slot. Distinct from *tin*, pl. *tin* '(female) breast, udder' [Nebel 1979: 87].

Reel: Not attested. Cf. *tin* 'breasts (female)' in [Roettger 1989: 34].

Mabaan: Miller 2006: 51. Plural: $\text{ḡ}t\text{-}ko$. Meaning glossed as 'chests (part of body)'. Distinct from sg. *tyin-ne*, pl. *tyin-ge* '(female) breast, teat' [Miller 2006: 101], quoted as sg. *tien-ná*, pl. *tien-g* in [Andersen 1999: 101; Andersen 2006: 4].

Jumjum: Not attested. Cf. *tín-n* 'female breast' [Andersen 2004: 145], quoted as *ten-gə* in [Bender 1971: 269].

Kurmuk: Andersen 2007b: 39. Meaning glossed as 'chest'.

Mayak: Andersen 1999c: 72. Polysemy: 'chest / heart'. Distinct from sg. *tín-it*, pl. *tín* 'female breast' [Andersen 1999d: 8].

Shilluk: Heasty 1937: 45. Also *ko-ḡ* ~ *ko-r* id. Plural: *ko-t*. Quoted as sg. *k av*, pl. *kōd-d* in [Gilley 2000: 6]. Although glossed as 'chest, breast' in Heasty's dictionary, the word is only glossed as 'chest' by Gilley, and there is a distinct word for 'female breast': sg. *tí^hη-o*, pl. *tí^hη* [Heasty 1937: 98].

12. BURN TR.

Nuer *wan* (1), Dinka *ḡuan* ~ *ḡuon* (2), Reel *wan* # (1), Mabaan *toŋ-ga* (3), Kurmuk *wà:η* (1), Mayak *t^hvn* (3), Shilluk *ra^hp* (4).

References and notes:

Nuer: Kiggen 1948: 323. 3rd p. sg.: *wa:η-ε*. Quoted as *wa^hη* in [Bender 1971: 271]. Transitive and intransitive usage.

Dinka: Nebel 1979: 21, 22. Cf.: *ḡuà:η* 'am I to burn it?' vs. *à=ḡuè:η* 'he is burning' in [Andersen 1987: 15]. The verb has both transitive and intransitive usage. Cf. also *ḡop* 'to burn, roast (on an open fire)' [Nebel 1979: 67] (this seems to have the semantics 'burn to a crisp, roast' rather than the required 'burn smth. down'). In [Roettger 1989: 36], the most commonly listed equivalent for 'to burn' is *ḡop* (with occasional phonetic variants *ḡop* and *ḡuop*), although several subdialects have *dep* as an alternative or additional synonym; this latter word is glossed as *dep* 'to burn (intr.)' in [Nebel 1979: 24].

Reel: Roettger 1989: 36. Differently in [Reid 2010: 48]: *ḡwè:ḡη* 'burn'. Roettger's entry is identical to the Nuer equivalent, while Reid's is the same as in Dinka. Reid specifies that the verb is "antipassive", but not "transitive".

Mabaan: Miller 2006: 99. The dictionary lists the following forms: *toŋ-ga* (trans.) 'ignite a fire, burn something'; *toŋ-gan* id.; *toŋ-ḡo* (intrans.) 'ignite a fire'; *toŋ* (intrans.) 'ignite many fires'; *toŋ-ga* (trans.) 'ignite many fires'; *toŋ-gan* id. Quoted as *t ḡ* 'light, burn' in [Andersen 1999: 112]. Differently in [Bender 1971: 269]: *illa* 'burn'. This may be a misglossing, cf. *illa* 'soot' in [Miller 2006: 48].

Jumjum: Not properly attested. Cf. *il* 'burn' in [Bender 1971: 268]; however, considering that the same root in Bender's entry for 'to burn' for Mabaan seems to be wrong for the required Swadesh meaning, it is better not to trust his entry for Jumjum, either.

Kurmuk: Andersen 2007b: 62. Attested in the phrase "I am burning the dry leaves".

Mayak: Andersen 1999c: 77. Attested in the phrase "The person is burning the grass". Differently in [Bender 1971: 272]: *el-de* 'burn' (cf. Bender's entries for Mabaan and Jumjum).

Shilluk: Heasty 1937: 86; Gilley 1992: 88. Imperative form; the participial form is *rab-o*. Quoted as *rap ~ rab* 'to set on fire' in [Kohnen 1994: 167] (the alternate meanings 'to turn up, down, away' probably represent homonyms); cf. *wot rab en* 'the house has been burned down by him'. The older root *wan*, also listed by Heasty as a potential synonym, is glossed by Kohnen as 'to be partly burnt; to scorch, to scald oneself' [Kohnen 1994: 206], implying a slight semantic shift (examples are: "my dress was partly burnt by the fire", "I scorched my hand", "take care, you will burn yourself", etc.).

13. CLAW(NAIL)

Nuer *riob* (1), Dinka *riop* (1), Reel *riop* (1), Mabaan *ke:-ne* (2), Jumjum *kúrk-ḡn* (3), Kurmuk *kúrk-ḡn* (3), Mayak *kərk-ḡn* # (3), Shilluk *kwo^hη* (4).

References and notes:

Nuer: Kiggen 1948: 275. Plural: *riop*. Quoted as sg. *rió^hp*, pl. *ro^hp* in [Frank 1999: 86]; as *rrivp* in [Bender 1971: 271].

Dinka: Nebel 1979: 78. Meaning glossed as 'claw', but also as 'fingernail' in the English-Dinka index on p. 139. Quoted as sg. *rió^hp*,

pl. *riòp* 'nail' in [Andersen 1987: 12]. Attested phonetic variants in [Roettger 1989: 34] involve *riop* ~ *riò^hp* ~ *riep*.

Reel: Roettger 1989: 34. Meaning glossed as 'claw'.

Mabaan: Miller 2006: 49. Plural: *key-ye*. (The complete form is *in-te ke:-ne* 'fingernail', where the first part = 'hand' q.v.). Quoted as *ké:n-n / in* in [Andersen 1999: 104]; as *key-yen* in [Bender 1971: 269].

Jumjum: Andersen 2004: 145. Cf. also *kórk-ògénéén* 'their nails' [Andersen 2004: 136]. Quoted as *kórk-vygv* in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 64.

Mayak: Bender 1971: 272. Not attested in any of T. Andersen's papers.

Shilluk: Heasty 1937: 49. The complete form is *kwò^hη lwed-o*, pl. *kwonη lwet-i*, where *lwed-o* = 'finger'. Quoted as sg. *kwonη-o*, pl. *kwonη* in [Kohnen 1994: 94], with polysemy: 'nail / claw', and both *kwonη lwed-o* 'finger-nail' and *kwonη tyel-o* 'toe-nail' listed as possible combinations.

14. CLOUD

Nuer *pua:r* (1), Dinka *piol* (1), Reel *piar* (1), Mabaan *pɔl-lo* (1), Jumjum *pól-çàn* (1), Kurmuk *àgú:rú* (-1), Mayak *kɔl* (2), Shilluk *po^hl-o* (1).

References and notes:

Nuer: Kiggen 1948: 259. Plural: *pua:r-i*. Meaning glossed as 'firmament, cloud'. Quoted as *p^wa^rrr* in [Bender 1971: 259]. Differently in [Frank 1999: 85]: *ti^hk*, pl. *tiæ^hk* 'cloud, fog'. In [Kiggen 1948: 296], this word is listed as *tik*, pl. *tiy* 'rainbow', cf. also the compound *tik pua:r* 'shade of clouds, haze, mirage' [ibid.].

Dinka: Nebel 1979: 71. Meaning glossed as 'white clouds'. The word apparently has a large number of phonetic variants: *pial* (Northeast, Southwest), *pi:ɔl* (Southeast), *pi:v:r* (general) [Duerksen 2005: 142]. In [Andersen 1987: 16], the variant *piaá:^hr* is attested for the Agar Dinka dialect. In [Roettger 1989: 36], this word is attested as *pio^hl* in the Bor dialect and in the Malual subdialect of Rek; as *po^hl* in the Agar dialect; as *puɔl* in the Rek proper subdialect of Rek. All the subdialects of Padang-Ageer show a completely different root: *lua^ht* ~ *luat* ~ *lua:^ht* (also attested as *luet* in the Twic subdialect of Rek). In [Nebel 1979: 52], this word is attested as *luet* 'cloudy sky; clouds'.

Reel: Roettger 1989: 36.

Mabaan: Miller 2006: 93. Plural: *pɔl-ɬan* ~ *pɔl-ɬin*. Polysemy: 'sky / cloud / heaven'. Quoted as *pɔl-o* in [Bender 1971: 269].

Jumjum: Andersen 2004: 145. Totally different in [Bender 1971: 268]: *yoyo* 'cloud'.

Kurmuk: Andersen 2007b: 41. According to Andersen, borrowed from Berta.

Mayak: Andersen 1999d: 83; Andersen 2000: 33. According to the second source, the plural form *kɔl* means 'clouds' the singular form *kol-i^h* means 'sky'. Quoted as *kɔl* 'cloud' in [Bender 1971: 272].

Shilluk: Heasty 1937: 83. Plural: *pɔl*. Quoted as sg. *pɔl-o*, pl. *pɔl* in [Kohnen 1994: 162] (cf. also the morphological variant *pɔ:l* 'firmament' in the same source).

15. COLD

Nuer *kɔç* (1), Dinka *liɛr* (2), Reel *kɔç* (1), Mabaan *luy-luy* (3), Jumjum *luy-an* # (3), Shilluk *li^hp* (4).

References and notes:

Nuer: Kiggen 1948: 147. Adjective and noun. Quoted as *k^hɔç-k^hɔç* in [Bender 1971: 271].

Dinka: Nebel 1979: 49. Verbal/adjectival stem: 'to become cold'. Quoted as *lir* ~ *lir* ~ *liɛr* ~ *a=lir* ~ *a=lir* ~ *ke=lir* ~ *ke=lir* ~ *kv=lir* for all the dialects and subdialects of Dinka in [Roettger 1989: 37] (all forms represent phonetic and morphological variants of the same root). Cf. also *wir* 'cold' (noun) [Nebel 1979: 95].

Reel: Roettger 1989: 37.

Mabaan: Miller 2006: 70. Quoted as *lv-lui* in [Bender 1971: 269].

Jumjum: Bender 1971: 268. Not attested in any of T. Andersen's papers.

Kurmuk: Not attested.

Mayak: Probably not attested. The word is not found in any of T. Andersen's papers, and in [Bender 1971: 272] the equivalent for 'cold' is *yémit*, which (a) looks like a noun and (b) is identical with the Kurmuk word for 'wind' q.v., so this could easily be an accidental misglossing. Moreover, in [Storch 2005: 104], 'coldness' is glossed as *déy-n*, implying that *déy-* might be the basic equivalent for 'cold'.

Shilluk: Heasty 193: 53. Meaning glossed as 'cool, cold'. Quoted as *lib* 'cool, fresh' in [Kohnen 1994: 102]. This seems to be the default equivalent for 'cold' as applied to objects such as 'water'. But cf. also *ko^hɔ-o* 'cold, coldness' (marked as a noun) [Heasty 1937: 45], a standard term applied to cold weather (e.g. *pji da koɔ-o* 'it is cold', where *pji* = 'earth, world').

16. COME

Nuer *be-n* (1), Dinka *be-n* (1), Reel *be-r* (1), Mabaan *be:-d-o* (1), Jumjum *?á:t-* (2), Kurmuk *?ód-* (2), Mayak *ɔd-ir* # (2), Shilluk *bi* (1).

References and notes:

Nuer: Kiggen 1948: 26, 32. Irregular paradigm: 1st p. sg. *ba*: ~ *ba-ya*, 3rd p. sg. *be-ye*. Quoted as *bi-rr* in [Bender 1971: 271].

Dinka: Nebel 1979: 14, 15. Paradigmatic information: main form *be-n*, indicative form *a=bo* ~ *a=ba*, imperative sg. *ba-r*, pl. *ba-k*. Cf. forms in Agar Dinka: *à=b^h* 'he is coming' [Andersen 2002: 12], *bâ^h-r* 'come!' [Andersen 1987: 2]. Morphological variants of this root in various dialects and subdialects of Dinka, as attested in [Roettger 1989: 35], include *be-n* ~ *be^h-n* ~ *bo^h* ~ *ba-r* ~ *ba^h-r*.

Reel: Roettger 1989: 35.

Mabaan: Miller 2006: 6. Quoted as *be-d-i* in [Bender 1971: 269].

Jumjum: Andersen 2004: 135. Attested in the form *?á:t-án-* 'I came'. Quoted as *ət-ə* in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 37. Attested in the form *?ód-ú-ud-í* 'I came'.

Mayak: Bender 1971: 272. Not attested in any of T. Andersen's papers.

Shilluk: Heasty 1937: 14; Gilley 2002: 23; Kohnen 1994: 18.

17. DIE

Nuer *liu* (1), Dinka *tou* (2), Reel *liu* (1), Mabaan *tu:-d-o* (2), Jumjum *túw-* (2), Kurmuk *tùw-* (2), Mayak *tɔb-be* # (2), Shilluk *tɔ* ~ *tɔwo* (2).

References and notes:

Nuer: Kiggen 1948: 178. 3rd p. sg.: *liu-ε*. Quoted as *liyah* in [Bender 1971: 271].

Dinka: Nebel 1979: 89. Polysemy: 'to die / to break (a pot) / to finish, cease'. Attested as *tou* in all dialects and subdialects of Dinka (only the Ruweng subdialect has the phonetic variant *touu*) in [Roettger 1989: 35]. Cf. also *riar* 'to die, perish' [Nebel 1979: 77] (same root as in the noun *riar* 'twilight in the evening' [ibid.], with a metaphoric development?); *riap* 'to die (men, cattle, plants)' [Nebel 1979: 77] (a plural action stem).

Reel: Roettger 1989: 35.

Mabaan: Miller 2006: 100. Quoted as *tu-ni-* in [Bender 1971: 269].

Jumjum: Andersen 2004: 137. Quoted as *tú-nyu* in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 33.

Mayak: Bender 1971: 272. Not attested in any of T. Andersen's papers.

Shilluk: Heasty 1937: 98. The English-Shilluk section of the dictionary states that *tɔ* is "used mostly of animals" and adds two euphemistic constructions: (a) *lay yino* "a polite way of saying a person is dead. It is a combination of two words: *lay* meaning 'lost' and *yino* meaning 'some far away unknown place'; (b) *lay* "literally means 'lost'; *lay* "is perhaps from the same word and is used by the Anuaks". In [Kohnen 1994: 199], *tɔ* is glossed as 'to die; to suffer, to be exhausted; to be most excellent in'; the expression *lai yino* 'to disappear, to vanish' has the submeaning 'to die' in "distinguished language" [Kohnen 1994: 97]. Based on the comparison of these sources, we suppose that *tɔ* is still the "neutral" rather than the "markedly vulgar" term, and include it in regular comparison.

18. DOG

Nuer *ʒiok* (1), Dinka *ʒoŋ* (1), Reel *ʒok* (1), Mabaan *gɔ:ŋ-o* (1), Jumjum *gô:ŋ* (1), Mayak *gv:k* (1), Shilluk *gwoʰk* (1).

References and notes:

Nuer: Kiggen 1948: 127. Plural: *ʒioɣ*. Quoted as sg. *ʒioʰk*, pl. *ʒioʰ:k* in [Frank 1999: 85]; as *ʒiukʰ* in [Bender 1971: 271].

Dinka: Nebel 1979: 36. Plural: *ʒok*. The Rueng variant is sg. *ʒo*, pl. *ʒok* [Nebel 1979: 35]. Quoted as sg. *ʒok*, pl. *ʒoʰ:k* in [Andersen 1987: 4]. Phonetic and morphological variants in various Dinka subdialects, listed in [Roettger 1989: 31], include *ʒo* ~ *ʒoʰ* ~ *ʒoŋ* ~ *ʒoʰŋ*, but the root is always the same.

Reel: Roettger 1989: 31.

Mabaan: Miller 2006: 46. Plural: *gɔ:k-o*. Quoted as sg. *gô:ŋ-ɔ*, pl. *gô:k-kɔ* in [Andersen 1999: 100; Andersen 1992: 202]; as *gɔŋ* in [Bender 1971: 269].

Jumjum: Andersen 2004: 137. Quoted as *goŋ* in [Bender 1971: 268].

Kurmuk: Not attested.

Mayak: Andersen 1999c: 66; Andersen 1999d: 18. Plural: *guɣ-ijɪ*. Quoted as *gok* in [Bender 1971: 272].

Shilluk: Heasty 1937: 37. Plural: *gwoʰ:g*. Polysemy: 'dog / spinning top'. Quoted as sg. *gwoʰ:k*, pl. *gwoʰ:k* in [Gilley 1992: 82]; as sg. *gwoʰg*, pl. *gwoʰg* in [Gilley 2000: 6]; as sg. *gwoʰk*, pl. *guok* in [Kohnen 1994: 67].

19. DRINK

Nuer *ma:t̚* (1), Dinka *deʰk* (2), Reel *ma:t̚* (1), Mabaan *ma:d̚-d̚-o* ~ *mo:d̚-d̚-a* (1), Jumjum *mà:ŋ-ŋá* (1), Kurmuk *má:d̚-* (1), Mayak *ma:d̚-* / *ma:t̚-* (1), Shilluk *mat̚* (1).

References and notes:

Nuer: Kiggen 1948: 195. 3rd p. sg.: *ma:d̚-ɛ*. Quoted as *mat̚* in [Bender 1971: 271]. Polysemy: 'to drink / to smoke'.

Dinka: Nebel 1979: 23. Quoted as *dèk* in [Andersen 1993: 8]; as *dek* for the majority of Dinka dialects and subdialects in [Roettger 1989: 34], with *dek* and *deʰk* as additional phonetic variants in a few of the subdialects. The old Nilotic word for 'to drink' is still found in [Duerksen 2005: 113] as *mat̚* 'drink all', *ma:t̚* 'drink all (milk or merissa)'. However, *mat̚* in [Nebel 1979: 56] and *mà:t̚* in [Andersen 1993: 12] are only glossed in the meaning 'to smoke'.

Reel: Roettger 1989: 34.

Mabaan: Miller 2006: 71, 75. Past stem: *ma:n-n-o* [ibid.]. Quoted as *mɔɕ-a* in [Bender 1971: 269].

Jumjum: Andersen 2004: 148. The quoted form is nominalized ('drinking'). The same form is probably quoted as *man-ə* in [Bender 1971: 268].

Kurmuk: Andersen 2015: 514. Topicalized form: *má:t̚-ì* [Andersen 2015: 519].

Mayak: Andersen 1999c: 73. The two forms are morphophonological variants. Cf. *mat-ar* 'drink' in [Bender 1971: 272].

Shilluk: Heasty 1937: 58. Imperative form; the participial form is *maɖ-o*. Quoted as *mat̚* in [Gilley 1992: 178] and in [Kohnen 1994: 115].

20. DRY

Nuer *ko:t* (1), Dinka *koṭ* (1), Reel *çi=kot* (1), Mabaan *iw-iw* (2), Jumjum *?a=?iw-on* # (2), Kurmuk *?iṭw-* (2), Mayak *a=?iw-an* # (2), Shilluk *twa* (3).

References and notes:

Nuer: Kiggen 1948: 153. Quoted as *k^hv:t^h* in [Bender 1971: 271].

Dinka: Nebel 1979: 132. Verbal stem: 'to become dry'; the adjectival form is *çi koṭ* 'dry (when wet before)'. For some reason, only found in the English-Dinka index rather than in the main body of the dictionary. Some partial synonyms: *buoŋ* 'to wither, to dry' [Nebel 1979: 17]; *dou* 'to dry up (of river)' [Nebel 1979: 26]; *riel* 'to be strong, hard, dry, difficult' [Nebel 1979: 77] (applied, e. g., to grass). In [Roettger 1989: 38], the most common equivalent for 'dry' is *riel ~ rial ~ ril*; the form *koṭ* is only listed as an alternate synonym for the Alor and Ngok subdialects. Additional synonyms also include (a) *tiaŋ ~ tia:ŋ* (main equivalent for the Rek proper subdialect of Rek; secondary equivalent for the Malual subdialect of Rek and most of the Agar subdialects) = *tiaŋ* 'to dry, to bask' (as in "the crocodile basks in the sun") in [Nebel 1979: 87]; (b) *dɔŋ* (Twic subdialect of Rek) = *dɔŋ* 'to fade; to be tiring' in [Nebel 1979: 25]. As usual, it is unclear how accurately the semantics is represented in Roettger's materials.

Reel: Roettger 1989: 38. Cf. also *kâa:^hr* (1 sg.), *kɔ:^hr* (3 sg.) 'to dry' in [Reid 2010: 36, 55].

Mabaan: Miller 2006: 49. Reduplicated adjectival derivative from the verb *iw-a* 'to dry'. Quoted as *i:yu* in [Bender 1971: 269].

Jumjum: Bender 1971: 268. Not attested in any of T. Andersen's papers. Initial *?a=* is a copula.

Kurmuk: Andersen 2007b: 62. Attested in the plural form *?iṭw-i:n* (said of dry leaves).

Mayak: Bender 1971: 272. Not attested in any of T. Andersen's papers. Initial *a=* is a copula. Cf. also *?éw-n* 'drought, dryness' in [Storch 2005: 103] (a productive nominal derivative).

Shilluk: Heasty 1937: 98. Adjective; the corresponding verbal stem is *twow* [Heasty 1937: 99]. Quoted as *twa* (adjective), *tɔwo* (verb) in [Kohnen 1994: 200, 201].

21. EAR

Nuer *zit* (1), Dinka *yiç* (1), Reel *ziç* (1), Mabaan *zye-ŋɛ* (1), Jumjum *git-kə* # (1), Mayak *?iç* (1), Shilluk *yi^ht* (1).

References and notes:

Nuer: Kiggen 1948: 127. Plural: *zi:t*. Quoted as sg. *zi^ht*, pl. *zi^ht-ni* in [Frank 1999: 85]; as *zi^ht* in [Bender 1971: 271].

Dinka: Nebel 1979: 97. Plural: *yi:t*. Quoted as sg. *yi^hç*, pl. *yi^h:t* in [Anderson 1987: 14, 15]. Quoted as *yiç* for all the dialects and subdialects of Dinka in [Roettger 1989: 33].

Reel: Roettger 1989: 33.

Mabaan: Miller 2006: 52. Plural: *zye-t-ke ~ zye-t-ku*. Quoted as *zi-t-kə* in [Bender 1971: 269].

Jumjum: Bender 1971: 268. Plural form. Not attested in any of T. Andersen's papers.

Kurmuk: Not attested.

Mayak: Andersen 1999c: 72. Quoted as *idi* in [Bender 1971: 272]; as sg. *?i:ç*, pl. *?i:y-in ~ ?i:y-ək* in [Storch 2005: 100].

Shilluk: Heasty 1937: 108. Polysemy: 'ear / leaf'. Quoted as sg. *yi-d*, pl. *yiḍ* in [Gilley 2000: 7]; as sg. *yiṭ*, pl. *yiḍ-i* 'ear / leaf' in [Kohnen 1994: 222].

22. EARTH

Nuer *mu:n* (1), Dinka *piŋ* (2), Reel *mun* (1), Mabaan *tɛ:r-o* (3), Mayak *tu:t* # (4), Shilluk

lab-o (5).

References and notes:

Nuer: Kiggen 1948: 207. Plural: *muɔn*. Polysemy: 'earth / ground / mud'.

Dinka: Nebel 1979: 71. Polysemy: 'earth / bottom'. It is not quite clear if 'earth (ground)' and 'earth (soil)' are lexically distinguished, but cf. also, as a possible candidate for inclusion, *tiop* 'clay, mud, soil; grave' [Nebel 1979: 83]. Cf. also for the South Central (Agar) dialect: sg. *kwɛ́*, pl. *kwɛ́* 'earth' [Duerksen 2005: 90], not found in Nebel's dictionary. In [Roettger 1989: 36], the lexemes *pijn* ~ *pijn* and *tiop* ~ *tiop* 'earth' are found scattered chaotically across various dialects and subdialects, sometimes as synonyms and sometimes individually; the situation with their real usage remains unclear.

Reel: Roettger 1989: 36.

Mabaan: Miller 2006: 97. Plural: *tɛr-ko*. Polysemy: 'earth / land / ground / soil / dirt / dust / country'. The same word is listed as *tɛr* 'earth, ground, dirt, dust' for several dialects [Miller 2006: 102].

Jumjum: Not attested.

Kurmuk: Not attested.

Mayak: Andersen 1999d: 3. Meaning glossed as 'soil'.

Shilluk: Heasty 1937: 50. Plural: *la^hp*. Meaning glossed as 'mud, clay, soil, earth, world, people'. A close synonym is *pijn* 'earth, ground, world' [Heasty 1937: 83]; however, in the English-Shilluk index Heasty specifies that *lab-o* "carries with it more the idea of soil", which suits the Swadesh meaning better. Cf. the semantic glossing "piece of land" for sg. *pijn*, pl. *pijn* in [Gilley 2000: 7]. Cf. also *lab-o* 'earth, soil, clay, mortar, cement, mud; world, climate' in [Kohnen 1994: 97]; *pijn* 'earth, world, soil, country; weather, climate; situation, circumstances; down, downwards, below, under, beneath, on the ground' in [Kohnen 1994: 160].

23. EAT

Nuer *ɕa:m* (1), Dinka *ɕam* (1), Reel *mit* # (2), Mabaan *am-d-o* (1), Jumjum *?am-* (1), Kurmuk *?ám-* / *?ám-* (1), Mayak *?am-* ~ *?am-* (1), Shilluk *ɕa^hm* (1).

References and notes:

Nuer: Kiggen 1948: 1951. 3rd p. sg.: *ɕa:m-ε*. Polysemy: 'to eat / to cheat / to bite'. Quoted as *ɕam* [in Bender 1971: 271]. Cf. also intransitive *miɖ-ε* 'to eat, to live on', causative *mit-ε* 'to feed' [Kiggen 1948: 201, 203].

Dinka: Nebel 1979: 18. Polysemy: 'to eat / to attack (of wild animals) / to cheat / to win, bewitch'. Quoted as *ɕám* in [Andersen 1993: 8]. Quoted as *ɕam* for the majority of dialects and subdialects in [Roettger 1989: 34]; the only exception is the Luac subdialect of Rek, where 'eat' is listed as *mit*, and the same word is also listed as an alternate synonym for Rek proper (*mit*) and Agar proper (*miɖ*). In [Nebel 1979: 58], the word *mit* is explained as the intransitive verb 'to take food, eat'; it is perfectly possible that in one subdialect the transitive and intransitive meanings may have merged in a single lexical root.

Reel: Roettger 1989: 34. Somewhat dubious: in [Reid 2010: 36], the meaning 'eat' is correlated with the same verb *ɕá:m* as in Nuer and Dinka. The verb *mit* goes back to the common Nuer-Dinka verb with the intransitive meaning 'to eat (food), to feed'; it is possible that in the dialect described by Roettger, it may have replaced the original transitive verb **ɕam* as well, but this would need to be confirmed; for now, one should keep in mind that this might be a false lexicostatistical distinction between Reel and Nuer-Dinka.

Mabaan: Miller 2006: 2. Transitive form; the intransitive equivalent is *am-mo*. Quoted as *?am-* in [Andersen 1992: 198]; as *am-za* in [Bender 1971: 269].

Jumjum: Andersen 2004: 147. Precise quoted forms are *?ám-é* (3 sg. p.), *?ám-mí* (verbal noun). The latter is probably quoted as *am-mə* 'eat' in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 32, 34. The two forms are morphophonological variants.

Mayak: Andersen 1999c: 68. The two forms are morphophonological variants. Cf. *am-ed* 'eat' in [Bender 1971: 272].

Shilluk: Heasty 1937: 18; Kohnen 1994: 27. Stylistic synonyms: *kat* 'eat, dine (a polite word for important people)' [Heasty 1937: 42]; *da^hp* 'eat (this word is not in common use; when used it is to conceal the fact that one is eating)' [Heasty 1937: 24]

24. EGG

Nuer *tuɔŋ* (1), Dinka *tuɔŋ* (1), Reel *tuɔŋ* (1), Mabaan *kum-mo* (2), Jumjum *kùm-mú* (2), Kurmuk *kúm-át* (2), Mayak *kvm-at* (2), Shilluk *tɔŋ-o* (1).

References and notes:

Nuer: Kiggen 1948: 305. Attested as part of the compound expression *tuɔŋ diet*, pl. *tuɔŋ di:n*, where the second part is the genitive form of 'bird' q.v. Quoted as *t^huɔŋ* in [Bender 1971: 271].

Dinka: Nebel 1979: 85. Plural: *tuɔŋ*. Polysemy: 'egg / bastard'. Quoted as sg. *tu ɔŋ*, pl. *tɔ^hŋ* in [Andersen 1987: 14, 15]. Quoted as *tuɔŋ* for all dialects and subdialects of Dinka in [Roettger 1989: 33].

Reel: Roettger 1989: 33.

Mabaan: Miller 2006: 62. Plural: *kum-go*. Quoted as sg. *kùm-m* , pl. *kùm-g* / in [Andersen 2006: 16]; as *kvm* in [Bender 1971: 269].

Jumjum: Andersen 2004: 139. Plural: *kúm-gù*. Quoted as *kvm-mv* in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 51. Plural: *kúm*.

Mayak: Andersen 1999d: 13. Plural: *kvm*. Quoted as *kɔm-at* in [Bender 1971: 272]; as sg. *kum-at*, pl. *kum* in [Storch 2005: 109].

Shilluk: Heasty 1937: 94. Cf. *tɔŋ gyen-o* 'chicken egg' [ibid.]. Quoted as sg. *tuɔŋ-o*, pl. *tuɔŋ* in [Kohnen 1994: 189].

25. EYE

Nuer *wan* (1), Dinka *ɲin* (2), Reel *wan* (1), Mabaan *wan-ε* (1), Jumjum *wán* (1), Kurmuk *wàŋ-* (1), Mayak *wɔŋ* ~ *wan* (1), Shilluk *wan* (1).

References and notes:

Nuer: Kiggen 1948: 322. Polysemy: 'eye / single grain of any thing'. Suppletive plural: *ɲin*. Quoted as sg. *wan*, pl. *wa^hŋ* in [Frank 1999: 85] (without any suppletive forms!); as *wεŋ* in [Bender 1971: 271].

Dinka: Nebel 1979: 66, 137. Plural: *ɲin*. Polysemy: 'eye / face / place'. Quoted as pl. *ɲii:^hn* 'eyes' in [Andersen 1987: 19]. Quoted as *ɲin* for all the dialects and subdialects of Dinka in [Roettger 1989: 33].

Reel: Roettger 1989: 33.

Mabaan: Miller 2006: 106. Plural: *wan-gu* ~ *ɲin-gε* (suppletive). Quoted as sg. *wán-í*, pl. *ɲín-g* / in [Andersen 2006: 19]; as *wan-v* in [Bender 1971: 269].

Jumjum: Andersen 2004: 138. Cf. *wàn-ì* 'my eye'. Quoted as *wan-i* in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 43. Attested as a possessive form: *wàn-gú*: 'my eye'. Suppletive plural: *ɲìn* 'eyes' [Andersen 2015: 534].

Mayak: Andersen 1999d: 10; Andersen 2006: 19. Suppletive plural: *ɲin*. Quoted as *wɔŋ* in [Bender 1971: 272]; as sg. *w ɔŋ*, pl. *ɲén* in [Storch 2005: 121].

Shilluk: Heasty 1937: 101. Suppletive plural: *ɲi^hŋ*. Polysemy: 'eye / grain / particle'. Quoted as sg. *wāŋ*, pl. *ɲīŋ* in [Gilley 2000: 9]; as sg. *wan*, pl. *ɲin* 'eye; opening; hole; grain; drop; small pieces of; direction; size' in [Kohnen 1994: 205].

26. FAT N.

Nuer *tɪɔl* (1), Dinka *miok* (2), Reel *tɪɔl* (1), Mabaan *kúalg-ɔn* # (3), Jumjum *kòlg-ɔn* (3), Kurmuk *kòlg-ɔn* (3), Shilluk *mɔw* (4).

References and notes:

Nuer: Kiggen 1948: 313. Meaning glossed as 'uncooked fat'. Quoted as *tiol* in [Bender 1971: 271]. Cf. *lied*, pl. *liṭ* 'oil, butter, fat, grease' [Kiggen 1948: 175], clearly referring to liquid rather than solid fat.

Dinka: Nebel 1979: 58. Polysemy: 'fat / oil / grease'. In [Duerksen 2005: 142], this word is listed as belonging to the Southwestern dialect (cf. also a specialized Southwestern term *diap* 'fat of belly' [Duerksen 2005: 51]), opposed to South Central (Agar) *piat* 'fat'. This latter term is also confirmed as *piā:t* in [Andersen 1987: 16]. The equivalents in [Roettger 1989: 33] are, for the most part, irrelevant, since they refer to 'grease' rather than 'solid fat'.

Reel: Roettger 1989: 33. Meaning glossed as 'grease'.

Mabaan: Andersen 1992: 192. Not attested in [Miller 2006], where only the word *ɲɔ:n* 'oil' is present instead [Miller 2006: 84]. The equivalent *ɕa:ŋ* 'fat' in [Bender 1971: 269] actually refers to the adjective 'fat', cf. *ɕa:ŋ-o* 'fat; become fat' in [Miller 2006: 18].

Jumjum: Andersen 2004: 145. Differently in [Bender 1971: 268]: *aɕaɕɔŋ* 'fat' (this is probably an adjective).

Kurmuk: Andersen 2007b: 64.

Mayak: Not attested. Cf. *aɕaβɔn* 'fat' in [Bender 1971: 272], but this is probably the adjective 'fat'. Cf. also sg. *ɣawàṭ*, pl. *ɣáwòṭ* 'oil' in [Storch 2005: 119].

Shilluk: Heasty 1937: 61. Plural: *ma-t*. Meaning glossed as 'oil, grease of any kind, any liquid that is thick'. Quoted as *mow ~ mɔw*, pl. *ma-d* 'butter, oil, fat, grease' in [Kohnen 1994: 121]. Apparently, there is no lexical distinction between 'solid fat' and 'liquid fat' in Shilluk.

27. FEATHER

Nuer *zuaṭ* (1), Dinka *nɔk* (2), Reel *nɔk* (2), Mabaan *wyey-ŋo* (3), Jumjum *líyáŋ* (4), Shilluk *okwɔ^hn* (5).

References and notes:

Nuer: Kiggen 1948: 131. Plural: *zua:t*.

Dinka: Nebel 1979: 61. Plural: *nak*. Quoted as *nɔ:^hk* in [Andersen 1987: 4]. Quoted as *nɔk* for all dialects and subdialects of Dinka in [Roettger 1989: 33].

Reel: Roettger 1989: 33.

Mabaan: Miller 2006: 112. Plural: *wyeg-go*.

Jumjum: Andersen 2004: 142, 161. Plural: *líyáŋ-gá*.

Kurmuk: Not attested.

Mayak: Not attested in any of T. Andersen's papers. According to [Storch 2005: 111], 'feather' is sg. *riy-mít*, pl. *ri:g*, i.e. might be the same word as 'hair' q.v.; however, she transcribes the forms for 'feather' and 'hair' differently, and it is unclear if we really deal with two different words or the same one inaccurately transcribed in one instance.

Shilluk: Heasty 1937: 76. Plural: *okɔ:n*. Quoted as *okwon ~ ukwon*, pl. *okon* 'feather, ostrich-feather' in [Kohnen 1994: 149].

28. FIRE

Nuer *ma-ɕ* (1), Dinka *ma-ɕ* (1), Reel *ma-ɕ* (1), Mabaan *ma:-ŋo* (1), Jumjum *mâ:-ŋ* (1), Kurmuk *má:-š* (1), Mayak *ma:-ɕ* (1), Shilluk *ma-ɕ* (1).

References and notes:

Nuer: Kiggen 1948: 194. Plural: *mai*. Quoted as sg. *maɕ*, pl. *ma^hɕ* in [Frank 1999: 86]; as *maɕ* in [Bender 1971: 271].

Dinka: Nebel 1979: 55. Plural: *meɕ*. Quoted as sg. *mâ:ɕ*, pl. *mê:^hɕ* in [Andersen 2002: 6]. Quoted as *maɕ* for all dialects and subdialects of Dinka in [Roettger 1989: 36].

Reel: Roettger 1989: 36. Quoted as *máç*, pl. *mê:^hy* in [Reid 2010: 36, 53].
Mabaan: Miller 2006: 71. Plural: *me:-ko*. Quoted as sg. *mâ:-ŋ-ç*, pl. *mê:-k /* in [Andersen 1999: 103]; as *ma:-nɔ̃v* in [Bender 1971: 269].
Jumjum: Andersen 2004: 141, 144. Plural: *mí-ç-k* *ç*. Quoted as *ma-ŋ* in [Bender 1971: 268].
Kurmuk: Andersen 2007b: 40.
Mayak: Andersen 2000: 39; Storch 2005: 108. Plural: *may-it* (*may-it* according to Storch). Quoted as *ma-ç* in [Bender 1971: 272].
Shilluk: Heasty 1937: 57; Gilley 1992: 43; Kohnen 1994: 112 ('fire, lamp').

29. FISH

Nuer *rei* (1), Dinka *reç* (1), Reel *rei* (1), Mabaan *yɛŋ-ŋo* (1), Jumjum *yák-çàn* (1), Mayak *rey-amiŋ* (1), Shilluk *reɜ-o* (1).

References and notes:

Nuer: Kiggen 1948: 267. Plural: *reç*. Quoted as sg. *reç*, pl. *re:ç* [Frank 1999: 86]; as *rreç* in [Bender 1971: 271].
Dinka: Nebel 1979: 75. Plural: *rɔç*. Quoted as sg. *rɛ:^hç*, pl. *rèç* in [Andersen 2002: 4]. Phonetic and morphological variants in [Roettger 1989: 31] include *reç* ~ *rɛ:ç* ~ *rɛ:^hç* ~ *rei*, but the root is always the same.
Reel: Roettger 1989: 31. Quoted as plural *rɛç*, genitive plural *rɛ:çy* in [Reid 2010: 53].
Mabaan: Miller 2006: 114. Plural: *ya-ko*. Quoted as sg. *yiêŋ-ŋ-ç*, pl. *yá-ki* in [Andersen 2006: 16]; as *ya-ku* (pl.) in [Bender 1971: 269].
Jumjum: Andersen 2004: 141, 144. Plural: *yâk*. Quoted as *yák-çan* in [Bender 1971: 268].
Kurmuk: Not attested.
Mayak: Andersen 2000: 35. Plural: *reç*. Quoted as sg. *rêy-amiŋ*, pl. *rèç* in [Storch 2005: 111]. Also quoted as *reç* in [Bender 1971: 272].
Shilluk: Heasty 1937: 86. Plural: *reç*. Quoted as sg. *rè:^hç-ŋ*, pl. *riç* in [Gilley 1992: 88]; as sg. *rɛɜ-ç*, pl. *rɪɜ* in [Gilley 2000: 15]; as sg. *reɜ-o*, pl. *riɜ* ~ *riç* in [Kohnen 1994: 168].

30. FLY V.

Nuer *pa:r* (1), Dinka *par* (1), Reel *pɛ:^hr* (1), Mabaan *pey-i* (1), Shilluk *pa^hr* (1).

References and notes:

Nuer: Kiggen 1948: 250. 3rd p. sg.: *pa:r-ɛ*.
Dinka: Nebel 1979: 69. Quoted as *pa^hr* in [Andersen 1987: 21]. Quoted as *pa:^hr* ~ *pa^hr* ~ *par* ~ *pɛ:^hr* for the majority of Dinka dialects and subdialects in [Roettger 1989: 35]. The only exception is the Dongjol subdialect of Padang, where 'fly' is glossed as *gɔ:^hr* (no equivalent in Nebel's dictionary).
Reel: Roettger 1989: 35.
Mabaan: Miller 2006: 90. Quoted as *péy-* in [Andersen 1999: 104].
Jumjum: Not attested.
Kurmuk: Not attested.
Mayak: Not attested.
Shilluk: Heasty 1937: 81. Quoted as *par-o* 'to run away, to fly away; to jump' in [Kohnen 1994: 157].

31. FOOT

Nuer *çoy* (1), Dinka *ço:k* (1), Reel *çio* (1), Mabaan *çiu* (1), Jumjum *kìy-* (2), Kurmuk *kì:r-* (2), Mayak *kɪ:r* (2), Shilluk *tyɛl-o* (3).

References and notes:

Nuer: Kiggen 1948: 60. Singular and plural forms are the same. Meaning glossed specifically as 'foot'; but cf. also the compound expression *pat ɸoɣ* 'sole of foot', where *pat* = 'palm of hand or sole of foot' [Kiggen 1948: 251]. It is this latter expression that is listed as the default equivalent for 'foot' both in [Frank 1999: 86] (sg. *pa^ht-ɸio^hk*, pl. *pa^ht-ɸio^hk-ni^h*) and in [Bender 1971: 271] (*p^hεt^h-ɸiouk^hε* 'foot'); at the same time, the simple stem *ɸio^hk* is listed as 'leg' in [Frank 1999: 87]. Numerous textual examples in Kiggen's dictionary show that Nuer does not properly distinguish 'leg' from 'foot', and that *pat ɸoɣ* is a specially marked expression ('sole of foot'), so we unambiguously select *ɸoɣ* as the primary entry.

Dinka: Nebel 1979: 20. Plural: *ɸok*. Polysemy: 'foot / track / pole'. Quoted as sg. *ɸó:^hk*, pl. *ɸò^hk* 'foot' in [Andersen 1987: 4, 19]. Attested phonetic variants in [Roettger 1989: 34] include *ɸok* ~ *ɸo^hk* ~ *ɸio^hk* (the latter only in the Twic subdialect of Rek).

Reel: Roettger 1989: 34. Plural: *ɸok* [Roettger 1989: 40].

Mabaan: Miller 2006: 22. Plural: *ɸie-gu*. Quoted as sg. *ɸiy-á*, pl. *ɸi:e-g* / in [Andersen 2006: 14]; as *kie* in [Bender 1971: 269]. Distinct from *ɸiél-á* 'leg' [Andersen 1999: 101] = *tyel-u* 'shin; lower leg' [Miller 2006: 101].

Jumjum: Andersen 2004: 158. Attested only in the plural: *kìy-gá*. Cf., however, *kie* 'foot' (sg.) in [Bender 1971: 268]. Distinct from *ɸír-* 'leg' [Andersen 2004: 154].

Kurmuk: Andersen 2007b: 43. Attested as part of the possessive form *kìr-í*: "my foot". Distinct from *tèl* 'lower leg' [Andersen 2007b: 46].

Mayak: Andersen 2006b: 12. Meaning glossed as 'leg', but no separate form for 'foot' is attested. Also quoted as *ker-ε* 'foot' in [Bender 1971: 272].

Shilluk: Heasty 1937: 96. Plural: *tyel*. Polysemy: 'foot / foundation / root'. Quoted as sg. *tyel-o*, pl. *tyel* 'foot, leg, root, foundation; prop, stem, trunk, stalk (of plants); kind, species, manner; sense, contents (of a speech); earnestness, seriousness; time, main, principal' in [Kohnen 1994: 194]. No separate form for 'leg'.

32. FULL

Nuer *ɸian* (1), Dinka *ɸian* (1), Mabaan *ku:mm* (2), Shilluk *pa^hɲ* (3).

References and notes:

Nuer: Kiggen 1948: 311. Verbal stem: 'to fill, be full, add'.

Dinka: Nebel 1979: 87. Verbal stem: 'to be full'. Cf. *â=ɸiá^hɲ* "it is full" in [Andersen 1987: 14].

Reel: Not attested.

Mabaan: Miller 2006: 62.

Jumjum: Not attested.

Kurmuk: Not attested.

Mayak: Not attested.

Shilluk: Heasty 1937: 81. Quoted as *pan-o* 'to be, to become full, filled; deep' in [Kohnen 1994: 156].

33. GIVE

Nuer *mo:ɸ* (1), Dinka *yek* / *yiek* (2), Reel *kεn-ε* (3), Mabaan *ɸwoɲ-ga* ~ *ɸyijɲ-ga* (4), Jumjum *ɸɲ-* (4), Kurmuk *ɸɲ-* (4), Mayak *ɲ-ir* # (4), Shilluk *tot* (5) / *wek* (2).

References and notes:

Nuer: Kiggen 1948: 203. 3rd p. sg.: *mo:ɸ-ε*. Differently in [Bender 1971: 271]: *top^h* 'give'. This verb is given in [Kiggen 1948: 314] as *tob*

'to cause, infect, hand over' and is not seen in text examples in the default meaning 'give'.

Dinka: Nebel 1979: 96. The two variants of the stem are glossed as 'to give smth.' and 'to give smbd.' respectively. For the Rueng dialect, the equivalent is listed as *gam* 'to answer, believe; assent, confess; give' (it also seems to serve as the default verb 'to give' in the Agar dialect: cf. $\hat{a}=g\acute{e}^hm$ 'he is giving' in [Andersen 1987: 24]). Cf. also *muɔɔ* 'to present smbd. with smth.' [Nebel 1979: 60]. This is one of the most serious points of disagreement between [Nebel 1979] and [Roettger 1989: 35], where the phonetic/morphological variants *gam* ~ *ga:m* ~ *gem* ~ *gɛ:m* ~ *gɛ^hm* are listed as the default equivalent for the meaning 'give' for all the dialects and subdialects of Dinka, while the root *yek* is not even mentioned. It is not clear if this data should be fully trusted, considering that in Nebel's materials there are many textual examples of *yek* 'to give'.

Reel: Roettger 1989: 35.

Mabaan: Miller 2006: 110, 116. Quoted as *wwen-gɔ* in [Bender 1971: 269].

Jumjum: Andersen 2004: 145. Quoted as *ɛŋ-ɔ* in [Bender 1971: 268].

Kurmuk: Andersen 2015: 529.

Mayak: Bender 1971: 272. Probably a verbal noun. Not attested in any of T. Andersen's papers.

Shilluk: Heasty 1937: 98; Kohnen 1994: 200. Heasty 1937: 102; Kohnen 1994: 207. The difference between *toɫ* and *wek* is impossible to establish based on dictionary evidence - cf. *toɫ-i yan* 'give me!', *wek-i yan* 'give me!' in [Kohnen 1994: 200, 207]. A third equivalent is *muɔ* 'give, present, give free, give away' [Heasty 1937: 61; Kohnen 1994: 121], whose meaning seems to be slightly more specialized.

34. GOOD

Nuer *gɔɔɣ* (1), Dinka *pat* (2), Reel *leŋ* (3), Mabaan *pwad-do* ~ *pwani-no* (2), Jumjum *ŋɛraŋ* # (4), Kurmuk *pɔɫ* # (2), Mayak *pɔɫ*- (2), Shilluk *doɔ* (5).

References and notes:

Nuer: Kiggen 1948: 104. Adjectival stem; the corresponding verbal stem is *gɔɔ*, 3rd p. sg. *gɔɔɣ-ɛ* 'to be good'. Quoted as $g^w a^? \epsilon$ in [Bender 1971: 271].

Dinka: Nebel 1979: 69. Polysemy: 'nice / good / handsome / kind'. An additional dialectal form (or morphological variant?) of the same root is *puɔɫ* [Nebel 1979: 72]. Cf. $\hat{a}=p\acute{a}t$ 'it is good' in [Andersen 1987: 3]. In [Roettger 1989: 38], the following variants of this stem are attested across dialects: *pat* ~ *piat* ~ *a=pat* ~ *a=pieɫ* ~ *a=piat* ~ *a=pɔɫ* ~ *a=puɔɫ*. Additionally, the synonymous etymon *dik* ~ *dik* ~ *a=dik* is also listed in the meaning 'good' in the Ruweng-Pan-Aru area (for Pan, it is listed as the only equivalent) = *dik* 'be handsome, nice, kind' in [Nebel 1979: 25].

Reel: Roettger 1989: 38. Quoted as *lɛ^hŋ* in [Reid 2010: 69].

Mabaan: Miller 2006: 94. Quoted as *pwɛɕi* in [Bender 1971: 269].

Jumjum: Bender 1971: 268. Not attested in any of T. Andersen's papers.

Kurmuk: Andersen 2015: 537. Adverbial form.

Mayak: Andersen 1999d: 22. Verbal stem: 'to be good'. Quoted as *pat-u-pat* (reduplicated adjectival stem) in [Bender 1971: 272].

Shilluk: Heasty 1937: 27. Meaning glossed as 'good, beautiful, pretty, grand, great, fine, wonderful, dandy, excellent, and like adjectives; in the small number of adjectives in the language this word is much overworked'. Quoted as *doɔ* 'good, nice, beautiful, honest; a very long time' in [Kohnen 1994: 44]. Cf. also *met* 'sweet, good, happy, fertile' [Heasty 1937: 59] = *met* 'sweet, nice, delightful' [Kohnen 1994: 117].

35. GREEN

Nuer *toɔ* (1), Dinka *toɔ* (1), Mabaan *tijŋa-tijŋo* (2), Shilluk *mar* (3).

References and notes:

Nuer: Kiggen 1948: 298.

Dinka: Nebel 1979: 83. Polysemy: 'green / raw'. Cf. a different equivalent in [Duerksen 2005: 134]: *ɲək* 'green (plants)', probably related to the Southeastern form *ɲək* 'wet' [ibid.]. This stem, however, is not found at all in [Nebel 1979].

Reel: Not attested.

Mabaan: Miller 2006: 102. Polysemy: 'green / wet'.

Jumjum: Not attested.

Kurmuk: Not attested.

Mayak: Not attested.

Shilluk: Heasty 1937: 58; Kohnen 1994: 114. According to Kohnen, with polysemy: 'green / blue / yellow / unripe / impure (of women after child-birth)'.

36. HAIR

Nuer *miem* (1), Dinka *ɲie:m* (1), Reel *ɲiem* (1), Mabaan *ʒie-ɲan* (2), Jumjum *ʒi:k* (2), Kurmuk *rí:* (2), Mayak *rɪɣ-aniɿ* (2), Shilluk *yiey* (2).

References and notes:

Nuer: Kiggen 1948: 201. Plural: *nie:m-ni* (sic!). Quoted as sg. *ɲim*, pl. *ɲia^hm* in [Frank 1999: 86]; as *niye^fm* in [Bender 1971: 271]. No difference between 'head hair' and 'body hair'. From an etymological point of view, Kiggen's variant with *m-* seems to be secondary (assimilated).

Dinka: Nebel 1979: 65. Plural: *ɲim*. In [Roettger 1989: 33], the most common variant is *ɲiem*; more rare phonetic variants include *niem* ~ *ɲim* ~ *ɲie^hm* ~ *miem* (initial *m-* is only attested in the Twic subdialect of Bor), but all the forms clearly represent the same root.

Reel: Roettger 1989: 33.

Mabaan: Miller 2006: 50. Plural: *ʒye-yo*. Quoted as *ʒei* in [Bender 1971: 269].

Jumjum: Andersen 2004: 158. Plural form. Quoted as *ʒe-k* in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 77. Attested forms: *rí:gík* 'his hair', *rí:gík* 'my hair'.

Mayak: Andersen 2000: 35. Plural: *rɪ:k*. Quoted as *re* in [Bender 1971: 272]; as sg. *rèy-ènɿ*, pl. *rèy-ák* in [Storch 2005: 112] (but see also 'feather' for more comments on Storch's transcription).

Shilluk: Heasty 1937: 61. Plural form. Singulative: *yey-o*. Quoted as *yɛ:y-ɔ* in [Gilley 2002: 23]; as *yey* in [Kohnen 1994: 218].

37. HAND

Nuer *teɿ* (1), Dinka *ɕin* (2), Reel *tet* (1), Mabaan *bieŋ-o* ~ *byeŋ* (3), Jumjum *ʔiŋ-tá* (2), Kurmuk *gá:l-át* (4), Mayak *ʔin-at* (2), Shilluk *ɕi^hn-o* (2).

References and notes:

Nuer: Kiggen 1948: 292. Plural: *teɿ*. Polysemy: 'hand / arm'. Quoted as sg. *te^ht*, pl. *tet* 'arm from shoulder' in [Frank 1999: 84]; as *t^hit^h* 'hand' in [Bender 1971: 271]. The meaning 'hand' is glossed as sg. *pa^h-tet*, pl. *pa^h-tet-ni^h* in [Frank 1999: 86] = *paɿ teɿa* 'palm of hand' in [Kiggen 1948: 292]; see notes on 'foot' for the semantics of the first component.

Dinka: Nebel 1979: 19. Plural: *ɕin*. Polysemy: 'hand / finger'. Quoted as sg. *ɕin*, pl. *ɕin* in [Andersen 1987: 14, 15]. Distinct from *kok*, pl. *kok* 'arm' [Nebel 1979: 42]. Quoted as *ɕin* in the majority of Dinka dialects and subdialects in [Roettger 1989: 34], but also as *ɕin* (Ngɔk subdialect of Padang and Twic subdialect of Bor) and as *ɕ:n* (Nyarweng subdialect of Bor).

Reel: Roettger 1989: 34. Quoted as sg. *tèc:t*, pl. *tée^ht* in [Reid 2010: 119].

Mabaan: Miller 2006: 8, 16. Plural: *byeŋ-ko*. Quoted as *bi:èŋ- /* in [Andersen 1999: 101]; as *biyəŋ-v* in [Bender 1971: 269]. The old West Nilotic equivalent for 'hand' is still listed in sources: sg. *ʔin-tu*, pl. *ʔin-ku* [Miller 2006: 49], quoted as sg. *ʔin-t* / pl. *ʔin-k* 'hand' in [Andersen 2006: 5]. However, the absolute majority of contexts for 'hand' in Miller's dictionary lists *bieŋ-o* as the main equivalent.

Obviously, the old word is still preserved in the language, but it seems to have become completely marginalized.

Jumjum: Andersen 2004: 138, 145. Plural: *ʔin-kí*. Quoted as *in-t̥e* in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 50. Meaning glossed as 'hand' (not 'arm').

Mayak: Andersen 1999d: 18. Plural: *ʔin*. Quoted as *en-aŋ* in [Bender 1971: 272]. Different from sg. *gal* ~ *gal-aŋ*, pl. *gal-uk* ~ *gol-uk* 'arm, hand' [Andersen 1999d: 9; Andersen 2000: 34; Storch 2005: 99].

Shilluk: Heasty 1937: 20. Plural: *ʔi^hη*. Quoted as sg. *ʔiη-ɔ̄*, pl. *ʔiη* in [Gilley 1992: 83]; as sg. *ʔin-o*, pl. *ʔiη* 'hand; power' in [Kohnen 1994: 30]. Distinct from *ba^ht*, pl. *ba:t* 'arm' [Heasty 1937: 13].

38. HEAD

Nuer *wi-ϕ* (1), Dinka *nom* (2), Reel *yui-ϕ* (1), Mabaan *wye-ηε* (1), Jumjum *wí-η* (1), Kurmuk *wá-* (1), Mayak *we-ϕ* # (1), Shilluk *wi-ϕ* ~ *wi-ɔ̄* (1).

References and notes:

Nuer: Kiggen 1948: 326. Plural: *wo-t̥*. Polysemy: 'head / top / big load of anything'. Quoted as sg. *wi^h-ϕ*, pl. *wi^h-ϕ* in [Frank 1999: 86]; as *wi-ϕ* in [Bender 1971: 271].

Dinka: Nebel 1979: 65. Plural: *ni:m*. Polysemy: 'head / top'. Quoted as sg. *nom*, pl. *ni^h:m* in [Andersen 1987: 4, 19]. Quoted as *nom* ~ *nom* ~ *nom* ~ *nom* ~ *muom* for various subdialects of Dinka in [Roettger 1989: 33].

Reel: Roettger 1989: 33. Quoted as *ywi^h-ϕ*, pl. *ʔ:ɛ-t̥* in [Reid 2010: 30, 38].

Mabaan: Miller 2006: 112. Plural: *wye-t̥-ku*. Quoted as *wiéη-á* in [Andersen 1999: 101]; as *ieηu* in [Bender 1971: 269].

Jumjum: Andersen 2004: 137. Quoted as *wi-ηε* in [Bender 1971: 268].

Kurmuk: Andersen 2015: 551. The exact quoted form is *wá-dí* 'its head' (of a gazelle).

Mayak: Bender 1971: 272. Not attested in any of T. Andersen's papers.

Shilluk: Heasty 1937: 103. Plural: *wa^ht̥*. Polysemy: 'head / top'. Quoted as sg. *wi-ϕ*, pl. *wa^ht̥* in [Gilley 1992: 86]; as sg. *wi-ɔ̄*, pl. *wāɔ̄* in [Gilley 2000: 1]; as sg. *wi-ϕ* ~ *wi-ɔ̄* ~ *wi*, pl. *wa-t̥* 'head, top, summit, surface; worth, value, estimation; bundle, bunch; on, upon, on the surface, on the top of' in [Kohnen 1994: 210].

39. HEAR

Nuer *liη* (1), Dinka *piη* (2), Reel *liη* (1), Mabaan *tyeη* (3), Jumjum *teη-ə* # (3), Mayak *tiη* (3), Shilluk *liη* (1).

References and notes:

Nuer: Kiggen 1948: 177. 3rd p. sg.: *liη-e*. Polysemy: 'to hear / to listen / to feel / to obey'. Quoted as *li:ngε* in [Bender 1971: 271].

Dinka: Nebel 1979: 71. Quoted as *piη* in [Andersen 1993: 8]. Attested as *piη* ~ *piη* in all dialects and subdialects of Dinka in [Roettger 1989: 35].

Reel: Roettger 1989: 35.

Mabaan: Miller 2006: 101. Quoted as *t̥i:éη-* in [Andersen 1999: 102]; as *tieη-gya* in [Bender 1971: 269].

Jumjum: Bender 1971: 268. Not attested in any of T. Andersen's papers.

Kurmuk: Not attested.

Mayak: Andersen 1999c: 6. Quoted as *teη-gε* in [Bender 1971: 272].

Shilluk: Heasty 1937: 53; Kohnen 1994: 103. Polysemy: 'hear / understand'.

40. HEART

Nuer *lɔɕ* (1), Dinka *puou* (2), Reel *lɔɕ* (1), Mabaan *ki:m-mo* (3), Jumjum *ki:m-* (3), Mayak *ʒɔk* (4), Shilluk *min-o* (5).

References and notes:

Nuer: Kiggen 1948: 180. Plural: *loi*. Quoted as sg. *lɔɕ*, pl. *lo^hɕ* in [Frank 1999: 86]; as *lɔɕ* in [Bender 1971: 271].

Dinka: Nebel 1979: 72. Plural: *puo-t̄*. Polysemy: 'heart / chest / mind / intention, will'. Quoted as sg. *puó:^hw*, pl. *puóð:^h-t̄* in [Andersen 2002: 20]. Phonetic variants attested in [Roettger 1989: 34] include *piou ~ piɔu ~ puou ~ piou^h* (the latter only in the Bor proper subdialect of Bor).

Reel: Roettger 1989: 34.

Mabaan: Miller 2006: 57. Plural: *kim-tan*. Quoted as *ki:m-a* in [Bender 1971: 269]. 'Physical' heart, distinct from *yom-u* 'heart (seat of the emotions, not literal heart)' [Miller 2006: 118].

Jumjum: Andersen 1999: 144. The listed form is plural: *ki:m-dàŋŋí*. Quoted as *kim-e* in [Bender 1971: 268].

Kurmuk: Not attested.

Mayak: Andersen 1999c: 72. Polysemy: 'chest / heart'. Cf. *ɕɔde* 'heart' in [Bender 1971: 272] (clearly a different word).

Shilluk: Heasty 1937: 59. Plural: *min*. Quoted as sg. *min-o*, pl. *min-i* in [Kohnen 1994: 118]. According to Heasty, distinct from *pye^hw*, pl. *pye^h-t̄* 'heart' as 'seat of the affections' (i.e. figurative). This latter form is quoted as *p^hɛ^hw* 'heart' in [Gilley 1992: 25]; as sg. *pyow ~ pyɔw*, pl. *pye-t̄ ~ pe-t̄* 'heart, mind, life, sense' in [Kohnen 1994: 165].

41. HORN

Nuer *tɯŋ* (1), Dinka *tɯŋ* (1), Reel *tɯŋ* (1), Mabaan *ʃuɔŋ-o* (1), Jumjum *tvŋ #* (1), Kurmuk *tú:ŋ #* (1), Mayak *tɯŋ* (1), Shilluk *tɯŋ-o* (1).

References and notes:

Nuer: Kiggen 1948: 304. Plural: *tuɔŋ-ni*. Polysemy: 'horn / tusk / stump of branch left on tree'. Quoted as *tvŋ* in [Bender 1971: 271].

Dinka: Nebel 1979: 85. Plural: *tuɔŋ*. Quoted as sg. *tù:^hŋ*, pl. *tù^hŋ* in [Andersen 1987: 15, 19]. Quoted as *tu^hŋ* for most subdialects of Dinka, sometimes simplified to *tɯŋ*, in [Roettger 1989: 33].

Reel: Roettger 1989: 33.

Mabaan: Miller 2006: 103. Plural: *ʃuɔŋ-ko*. Quoted as sg. *tù:ŋ-ɔ*, pl. *tù:ŋ-k* in [Andersen 2006: 8]; as *tuɔŋ* in [Bender 1971: 269].

Jumjum: Bender 1971: 268. Not attested in any of T. Andersen's papers.

Kurmuk: Andersen 2007b: 51. Plural: *tú:ŋ-it̄*. Somewhat dubious, since the meaning is glossed as 'horn (as musical instrument)'. However, this is the common West Nilotic equivalent for 'horn' in general, and no other word with this meaning is attested for Kurmuk in available publications.

Mayak: Andersen 2000: 36. Plural: *tɯŋ-ak*. Quoted as *tɯŋ-e* in [Bender 1971: 272].

Shilluk: Heasty 1937: 94. Plural: *tɯŋ-i*. Quoted as sg. *tù:ŋ*, pl. *tù:ŋ* in [Gilley 2000: 8]; sg. *tɯŋ*, pl. *tɯŋ-i* 'horn, side, direction' in [Kohnen 1994: 190].

42. I

Nuer *ɣa-n* (1), Dinka *ŋɛ-n* (1), Reel *ɣɛ-n* (1), Mabaan *ʒya* (1), Jumjum *ʔik=à* (1), Kurmuk *à* (1), Mayak *a:-neɕ* (1), Shilluk *ya* (1).

References and notes:

Nuer: Kiggen 1948: 18. Object form: *ya*; verbal suffix *a*. Quoted as *hɛ-n* in [Bender 1971: 271].
Dinka: Nebel 1979: 74. The short (unstressed?) form is *ʔan* [Nebel 1979: 9]. Object/possessive form: *ʔa* [Nebel 1979: 1]. Various dialectal realizations of the word include: *yɛ-n ~ ɛ-n ~ yɛ-n ~ yɛ:-n* [Roettger 1989: 30].
Reel: Roettger 1989: 30. Quoted as *ʔé^hn* (with a "reduced" variant *ʔé^h*) in [Reid 2010: 41].
Mabaan: Miller 2006: 113. Quoted as *ʔiyà* in [Andersen 1999b: 504]; as *ʔi* in [Bender 1971: 269].
Jumjum: Andersen 1999: 155. Quoted as *ék=à* in [Bender 1971: 155].
Kurmuk: Andersen 2007b: 31. Short form; the full stem is *ʔá-níš* [Andersen 2007b: 59].
Mayak: Bender 1971: 272. Full stem, cf. Kurmuk *ʔá-níš*.
Shilluk: Heasty 1937: 105. Quoted as *ya ~ ya-n* in [Kohnen 1994: 216].

43. KILL

Nuer *nay* (1), Dinka *nɔk* (1), Reel *nak* (1), Mabaan *nok-o ~ nog-ɔ* (1), Jumjum *nak-* (1), Kurmuk *nák* (1), Mayak *nag-* (1), Shilluk *na^hk* (1).

References and notes:

Nuer: Kiggen 1948: 210. 3rd p. sg.: *nay-ɛ*. Polysemy: 'to kill / to suffer from cold, hunger, etc.'. Quoted as *nek^h* in [Bender 1971: 271].
Dinka: Nebel 1979: 59. Polysemy: 'to hurt / to kill / to beat (in game)'. Cf. the alternate morphological variant *nak*, glossed as 'to slaughter' [Nebel 1979: 60]. Quoted as *ná^hk* 'to kill' in [Andersen 1993: 8]. In [Roettger 1989: 35], phonetic and morphological variants *nɔ^hk ~ nɔk ~ nɔ:k ~ nak ~ ná^hk ~ nek* are rather chaotically scattered across dialects, but all of them seem to represent the same lexical root.
Reel: Roettger 1989: 35. Quoted as 1st p. sg. *ná^hw* in [Reid 2010: 36].
Mabaan: Miller 2006: 79. Quoted as *nay-* (past stem) in [Andersen 1992: 197]; as *ɲəŋə* in [Bender 1971: 269].
Jumjum: Andersen 2004: 139. Verbal noun: *n ɲ-ɲá*. Quoted as *nəŋ-ə* in [Bender 1971: 268].
Kurmuk: Andersen 2007b: 45; Andersen 2015: 519. Polysemy: 'to hit / to kill'.
Mayak: Bender 1971: 272. The exact quote form is *nag-adɔk*. Not attested in any of T. Andersen's papers, but well supported by etymological data.
Shilluk: Heasty 1937: 63. Participial form: *nag-o*. Quoted as *nak* (participial form *nag-o ~ nak-o ~ nek-o*) in [Kohnen 1994: 126].

44. KNEE

Nuer *mɔl* (1), Dinka *ɲial* (1), Reel *mɔl* (1), Mabaan *ʔwoŋ-u* (2), Kurmuk *ʔù:ŋ* (2), Mayak *ʔuŋ* (2), Shilluk *ɕuŋ* (2).

References and notes:

Nuer: Kiggen 1948: 204. Plural: *moa:l*. Quoted as sg. *muɔ^hl*, pl. *mua^hl* in [Frank 1999: 87]; as *mɔ:l^y* in [Bender 1971: 271].
Dinka: Nebel 1979: 65. Plural: *ɲiɔl*. Quoted as *ɲiaâ:l* in [Andersen 1987: 16]. The Northeastern dialectal form is glossed as *mia:l* in [Duerksen 2005: 115]. In [Roettger 1989: 34], the most common phonetic variant is *ɲial*, but the Abiliang subdialect of Padang has *nial*; the Dongjol and Ngok-Sobat subdialects have *mial*; and the Ageer subdialect has *miɔl*.
Reel: Roettger 1989: 34.
Mabaan: Miller 2006: 110. Plural: *ʔwoŋ-gu*.
Jumjum: Not attested.
Kurmuk: Andersen 2007b: 50.
Mayak: Andersen 1999c: 10.
Shilluk: Heasty 1937: 22. Plural: *ɕuŋ*. Quoted as sg. *ɕú^hŋ*, pl. *ɕəŋ* in [Gilley 1992: 88]; sg. *ɕuŋ*, pl. *ɕəŋ* in [Kohnen 1994: 33].

45. KNOW

Nuer *ɲaɕ* (1), Dinka *ɲiɕ ~ ɲiɕ* (1), Reel *ɲaɕ* (1), Mabaan *ɲe:ʒ* (1), Jumjum *ɲáʒ-* (1), Kurmuk *ɲé:ɗ- / ɲé:t-* (1), Mayak *ɲεɗ-ar* # (1), Shilluk *ɲaʒ* (1).

References and notes:

Nuer: Kiggen 1948: 218. 3rd p. sg.: *ɲaɕ-ε*. Polysemy: 'to know / to think'. Quoted as *neɕ* in [Bender 1971: 271].

Dinka: Nebel 1979: 63. Cf. also, from the same root, *ɲieɕ* 'to know to, be learned, have experience' [ibid.]. Dialectal variation: *ɲiɕ ~ ɲiɕ* [Duerksen 2005: 125]. Attested as *ɲiɕ* for the majority of Dinka dialects and subdialects in [Roettger 1989: 35]; the Bor proper subdialect of Bor and most of the Agar subdialects, with the exception of Aliab, feature the palatalized variant *ɲiɕ*.

Reel: Roettger 1989: 35. Quoted as *ɲáʒ* in [Reid 2010: 56].

Mabaan: Miller 2006: 81. In [Bender 1971: 269], the equivalent of 'know' is listed as *urkendε*, which is probably a variant of the same stem as *urkati* 'able' in [Miller 2006: 105].

Jumjum: Andersen 2004: 144. Attested as part of the form *ɲáʒ-ʒ-* 'I know him'. Quoted as *ɲaʒ-in* in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 38; Andersen 2015: 546. The two forms represent different morphophonological variants.

Mayak: Bender 1971: 272. Probably a verbal noun. Not attested in any of T. Andersen's papers.

Shilluk: Heasty 1937: 69. Participial form: *ɲaʒ-o*. Cf. also *ɲaɕ* 'make known, inform, tell' [ibid.]. Quoted as *ɲaɕ ~ ɲa:ɕ* 'to know, to be able, to feel' in [Kohnen 1994: 130].

46. LEAF

Nuer *ʒit* (1), Dinka *yar* (2), Reel *ʒiɕ* (1), Mabaan *ʒye-ɲε* # (1), Jumjum *gít-ɕán* (1), Kurmuk *kízú-k* (3), Mayak *kɔɗa-k* # (4), Shilluk *yiʰt* (1).

References and notes:

Nuer: Kiggen 1948: 127. Plural: *ʒi:t*. Same word as 'ear' q.v. Quoted as sg. *ʒiʰt-ʒiat*, pl. *ʒiʰt-ʒiεn* in [Frank 1999: 85] (a compound formation with 'tree' q.v.); as *ʒit* in [Bender 1971: 271].

Dinka: Nebel 1979: 96. Plural: *yar*. Dialectal variety: *ler* (sg. and pl.) ~ *yer* (pl.: *yor ~ yer*) [Duerksen 2005: 98, 191]. In [Roettger 1989: 32], this root is listed as *ya:r ~ yaʰ:r ~ yaʰ:r ~ a=yaʰ:r ~ yar* for several subdialects of Dinka (mostly in the Rek and Agar clusters); however, it frequently alternates with various simple and extended variants of the word 'ear' (*yiɕ ~ yiʰt ~ yi:s*, etc.), and sometimes also (in the Ageer subdialect of Padang and in two subdialects of Agar) with the form *a=pam*, which probably corresponds to Nebel's *a=pam* 'rubberplant' [Nebel 1979: 10]. We do not formally include the form *yiɕ* 'leaf' as a synonym, since our main source [Nebel 1979] does not mention its usage in this meaning.

Reel: Roettger 1989: 32. Same word as 'wear' q.v. Alternate synonym: *yar* [ibid.].

Mabaan: Miller 2006: 52. Somewhat dubious, since only the meaning 'ear' is listed. However, there is little reason to doubt that the usual African polysemy 'ear / leaf' is typical of Mabaan as well, because there is one textual example in Miller's dictionary confirming that (*ʒa:n ʒyit-ke yo:ɕi doki* "the leaves of the tree have sprouted" [Miller 2006: 56]); also, cf. *=ʒi-t-kə* 'leaf' (actually a plural form) in [Bender 1971: 269].

Jumjum: Andersen 2004: 144. Plural: *gít-ká*. Quoted as *-gít-ke* in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 62. Plural form.

Mayak: Bender 1971: 272. Not attested in any of T. Andersen's papers.

Shilluk: Heasty 1937: 108; Kohnen 1994: 222. Same word as 'ear' q.v.

47. LIE

Nuer *tɔi* (1), Dinka *toɕ* (1), Mabaan *nin-dɔ* (2), Jumjum *ní:n-* (2), Kurmuk *ní:n-* (2), Mayak *nɪ:n-* (2).

References and notes:

Nuer: Kiggen 1948: 299. Meaning glossed as 'to lie down, to sleep'. 3rd p. sg.: *tɔi-ɛ*.

Dinka: Nebel 1979: 83. Meaning glossed as 'lie down, go to sleep'.

Reel: Not attested.

Mabaan: Miller 2006: 79. Meaning glossed as 'lie down, sleep, stay (e.g. overnight)'.

Jumjum: Andersen 2004: 137. Meaning glossed as 'to lie down'.

Kurmuk: Andersen 2015: 516. Polysemy: 'to lie / to sleep'. Attested, among other things, in the phrase "The dik-dik is lying near the stone".

Mayak: Andersen 2000: 31. Polysemy: 'to lie / to sleep'.

Shilluk: The precise equivalent is hard to establish based on existing sources. Cf. the following candidates: (a) *but* 'to lie down; recline; be confined to one's bed' [Heasty 1937: 16] = *but-o* 'to go to bed, to be bed-ridden' [Kohnen 1994: 24] (this seems to be a dynamic rather than static verb, with very narrow bed-related semantics as per Kohnen); (b) *ryep piŋ* 'lie on the stomach' (where *piŋ* = 'earth' q.v.) [Heasty 1937: 90] = *ryep piŋ* 'to put, to lay something with the face or the upside downwards on the ground' [Kohnen 1994: 179]; (c) *reŋ* 'to lay down (so that it may dilate), *reŋ yiŋi piŋ* 'lay down your belly on the ground, i.e. lie, face downwards!' [Kohnen 1994: 169]. Neither of these three candidates fully conforms to the required Swadesh meaning, so we refrain from filling the slot at the moment.

48. LIVER

Nuer *ɕoɛŋ* (1), Dinka *ɕua:ŋ* (1), Reel *ɕueŋ* (1), Mabaan *ɕyeŋ-no* (1), Jumjum *keŋ-ŋə* # (1), Mayak *kin-aɕ* (1), Shilluk *o=ɕwiŋ ~ o=ɕuŋ* (1).

References and notes:

Nuer: Kiggen 1948: 60. Plural: *ɕoa:ŋ*. Quoted as *ɕ^wɛn* in [Bender 1971: 271].

Dinka: Nebel 1979: 21. Quoted as *ɕuá^hŋ* in [Andersen 1987: 14]. Dialectal variation: *ɕueŋ ~ ɕuɜŋ* [Duerksen 2005: 38]. Listed as *ɕueŋ ~ ɕue^hŋ* for various subdialects of Dinka in [Roettger 1989: 34].

Reel: Roettger 1989: 34.

Mabaan: Miller 2006: 30. Polysemy: 'liver / inside of seed'. Plural: *ɕyeŋ-go*. Quoted as sg. *ɕiɛn-n* / pl. *ɕiɛd-g* / in [Andersen 2006: 16]; as *ɕenə* in [Bender 1971: 269].

Jumjum: Bender 1971: 268. Not attested in any of T. Andersen's papers.

Kurmuk: Not attested.

Mayak: Andersen 2000: 34. Plural: *kin*. Quoted as *ken-at* in [Bender 1971: 272]; as sg. *kén-ɬ*, pl. *kén* in [Storch 2005: 109].

Shilluk: Heasty 1937: 74. Quoted as sg. *o=ɕuŋ*, pl. *o=ɕuŋ-i* in [Kohnen 1994: 147]. Initial *o=* is a fossilized nominal prefix.

49. LONG

Nuer *bar* (1), Dinka *ba:r* (1), Reel *bar* (1), Mabaan *bey-bey* (1), Jumjum *bá:y-* (1), Kurmuk *bà:r* (1), Mayak *ba:r-* (1), Shilluk *ba:r* (1).

References and notes:

Nuer: Kiggen 1948: 30. Quoted as *berr-berr* in [Bender 1971: 271]. Cf. also the "emphatic" synonym *ɕuar-ε* 'to be very long or tall', *ɕuar me* 'very long, tall' [Kiggen 1948: 64-65].

Dinka: Nebel 1979: 14. Plural: *bar*. Polysemy: 'long / high / tall'. Dialectal variants of the word (phonetic and morphological) in [Roettger 1989: 31] include $ba^h:r \sim a=ba^h:r \sim kɔ=ba^h:r \sim bε^h:r \sim a=bε^h:r \sim kɔ=bε^h:r \sim a=bε:r \sim a=ba^hr$, but all dialects share the exact same root.

Reel: Roettger 1989: 31. Cf. $bε=bε^hr$ (reduplicated stem) 'tall' in [Reid 2010: 34]; also the nominal derivative $bεε^hr$ (with ultra-long vowel) 'tallness, length' in [Reid 2010: 54]. Alternate synonym: *ɕuar* 'long' [Roettger 1989: 31].

Mabaan: Miller 2006: 6. Reduplicated adjectival stem; cf. the simple verbal stem *be:y* '(to be) long, tall' [Miller 2006: 5]. Quoted as *bε-be:i* in [Bender 1971: 269].

Jumjum: Andersen 2004: 146. The root is attested as part of the form *bá:y-ɕòndé* 'which is long'. Quoted as *bá:y-əŋ* 'long' in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 76.

Mayak: Andersen 1999c: 22. Verbal stem: 'be long, be tall'. Cf. *bər-bər* ~ *bər-ə-bər* 'long' (reduplicated adjectival stem) in [Bender 1971: 272]. Cf. also *bár-ən* 'height' (productive nominalized derivative from the same root) in [Storch 2005: 103].

Shilluk: Heasty 1937: 13. Polysemy: 'long / tall / high'. Quoted as sg. *bá:hr*, pl. *bār-i* in [Gilley 1992: 90]; as *bar* 'long, high, deep' in [Kohnen 1994: 15].

50. LOUSE

Nuer *noa:y* (1), Dinka *niɔk* (1), Reel *a=niɔk* (1), Mabaan *ni:k-ɕán* # (1), Jumjum *ni:k-ɕàn* (1), Mayak *ya:k-an-it* (1), Shilluk *niwɔ^hk* (1).

References and notes:

Nuer: Kiggen 1948: 240. Quoted as *ni:k^h* in [Bender 1971: 271].

Dinka: Nebel 1979: 66. Quoted as *ni:ɔk* in [Andersen 1987: 4]; as *niɔk* ~ *niɔ^hk* in [Roettger 1989: 32].

Reel: Roettger 1989: 32.

Mabaan: Andersen 2006: 4. Plural: *ni:k-ɕ*. Quoted as *niɔg-ɕan* in [Bender 1971: 269]. Curiously, in [Miller 2006: 84] this word (sg. *niɔk-ɕan*, pl. *niɔk*) is only listed in the meaning 'bedbug'. In the collective meaning 'lice', Miller quotes the form *ti:yɛn* [Miller 2006: 98] that has no parallels in other sources. Considering the evidence from Andersen and Bender as well as external data, we assume that there may be a semantic mistake in Miller's dictionary, pending further research on the issue.

Jumjum: Andersen 2004: 142. Quoted as *niɔk-ɕəŋ* in [Bender 1971: 268].

Kurmuk: Not attested.

Mayak: Andersen 1999c: 95; Andersen 1999d: 22. Plural: *ya:k*. Quoted as *yaɔk* in [Bender 1971: 272]; as sg. *ya:k-an-it*, pl. *ya:k* in [Storch 2005: 111].

Shilluk: Heasty 1937: 69. Quoted as sg. *niwag-o*, pl. *niuok* in [Kohnen 1994: 145].

51. MAN

Nuer *wu:-t* (1), Dinka *moɕ* (2), Reel *ɕou* (3), Mabaan *ɔua-no* (3), Jumjum *ɔɔ:-n* (3), Mayak *ɔɔ:-k* # (3), Shilluk *ɔal* (4).

References and notes:

Nuer: Kiggen 1948: 331. Quoted as sg. *wu-t*, pl. *wu-ni^h* in [Frank 1999: 87].

Dinka: Nebel 1979: 58. Suppletive plural: *ror*. Polysemy: 'man / husband / to be brave'. The bound form of this stem is glossed as

moŋ in [Duerksen 2005: 117], cf. *moŋ dit* 'old man', etc. Quoted as *mòç* in [Andersen 1987: 4]; as *moç* for all Dinka dialects except for the Nyarweng subdialect of Bor (where the form is *mvç*) in [Roettger 1989: 31].

Reel: Roettger 1989: 31. Quoted as sg. *çəw*, pl. *çəw* 'husband' in [Reid 2010: 53].

Mabaan: Miller 2006: 105. Plural: *ʔú:a-n*. Quoted as *ʔú:a-n ~ ʔú:a-n /* in [Andersen 1992: 186].

Jumjum: Andersen 2004: 137. Meaning glossed as 'man'.

Kurmuk: Not attested.

Mayak: Andersen 1999c: 3. Dubious; meaning glossed as 'male' rather than 'man'. However, the root is the same as in the default equivalent for 'man' in other Mabaan-Burun dialects.

Shilluk: Heasty 1937: 38. Suppletive plurals: (a) *çəç*; (b) *çəwəw*. Quoted as sg. *çəl-ç*, pl. *çəwəw* in [Gilley 2000: 1]; as sg. *çal-o ~ çal*, pl. *çəwəw* or *çək* 'man, male, husband' in [Kohnen 1994: 70].

52. MANY

Nuer *ŋuan* (1), Dinka *çueç* (2), Reel *dual* (3), Mabaan *çəŋç* (4), Jumjum *dirək* # (5), Mayak *a:kəçəç* # (6), Shilluk *ŋe^hŋo* (7).

References and notes:

Nuer: Kiggen 1948: 228. Cf. *t^hi-ŋwan* in [Bender 1971: 271] (incorrectly segmented there as *t^hiŋ-wan*) = Kiggen's *te ŋua:n*, where *te* is a relativizer.

Dinka: Nebel 1979: 37. Said of people. Cf. also *ki:ç* 'many, numerous' (of substances?) [Nebel 1979: 41]. Dialectal variation: *çueç ~ çuaç* [Duerksen 2005: 77]. In [Roettger 1989: 30], the most common equivalent for 'many' is *çueç ~ a=çueç ~ ka=çueç ~ ka=çuiç*. The form *ki:ç ~ a=ki:ç* is found as an alternate synonym in several subdialects, but is listed as the main and only equivalent only in the Luac subdialect of Rek. Another, very rare, equivalent is *gak* (Twic subdialect of Bor) ~ *a=gak* (Dongjol subdialect of Padang) = *gak* 'to stay about; go on doing the same thing' [Nebel 1979: 30], cf. such examples as *yi a=gak dəl* 'you laugh much', indicating an adverbial usage in the derived meaning 'a lot of time'.

Reel: Roettger 1989: 30.

Mabaan: Miller 2006: 23. Quoted as *çəŋ-çəŋ* in [Bender 1971: 269].

Jumjum: Bender 1971: 268. Not attested in any of T. Andersen's papers.

Kurmuk: Not attested.

Mayak: Bender 1971: 272. Not attested in any of T. Andersen's papers. Initial *a=* is most likely a copula.

Shilluk: Heasty 1937: 70. Meaning glossed as 'many, much'. Quoted as *ŋeŋo* 'much, many, a great number of' in [Kohnen 1994: 132]; cf. also the corresponding verb *ŋeŋo* 'to become many (more); to augment, to increase (numerically)' [ibid.]. 'Cf. also *gir* 'much, many, plentiful, abundant' [Heasty 1937: 34] = *gir* 'much, many; great multitude, quantity of...; lot' [Kohnen 1994: 61].

53. MEAT

Nuer *ri:ŋ* (1), Dinka *riŋ* (1), Reel *riŋ* (1), Mabaan *yoŋ-o* (1), Jumjum *yàŋ-ŋá* (1), Kurmuk *kə:kək* (2), Mayak *riŋ* (1), Shilluk *riŋ-o ~ yíŋ-o* (1).

References and notes:

Nuer: Kiggen 1948: 275. Plural: *riŋ*. Quoted as sg. *ri^hŋ*, pl. *ri:ŋ* in [Frank 1999: 87]; as *rrŋ* in [Bender 1971: 271].

Dinka: Nebel 1979: 78. Quoted as *ri:ŋ* in [Andersen 1987: 4]. Quoted as *riŋ* for all dialects and subdialects of Dinka in [Roettger 1989: 32].

Reel: Roettger 1989: 32. Quoted as *ri^hŋ*, pl. *ri:ŋ* in [Reid 2010: 56].

Mabaan: Miller 2006: 118. Plural: *yoŋ-go*. Quoted as sg. *yàŋ-ŋ á* pl. *yàŋ-g* in [Andersen 2006: 10]; as *yəŋə* in [Bender 1971: 269].

Jumjum: Andersen 2004: 145. Plural: *y ñ-g ɿ*. Quoted as *yəŋ-ə* in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 30; Andersen 2015: 512. Plural: *kúkúk-ùŋi* 'meats' [Andersen 2015: 523]. The original West Nilotic word for 'meat' is also attested by Andersen: *riŋ-ít* 'meat' [Andersen 2007b: 82]. However, it is not found in even a single textual example in either of the two articles surveyed for this wordlist. We have to assume that *riŋ-ít*, at best, serves as an archaic or narrowly specialized term in the language, and that the lexical innovation *kɔk ʒk* functions as the neutral equivalent for 'meat'.

Mayak: Andersen 1999c: 83; Storch 2005: 107. Plural form; the singulative is *riŋ-ít*. Differently in [Bender 1971: 272]: *kɔgɔk* 'meat' (cf. notes on Kurmuk).

Shilluk: Heasty 1937: 87; Kohnen 1994: 171 (only the variant with *r-* in Kohnen's materials).

54. MOON

Nuer *pai* (1), Dinka *pɛ:i* (1), Reel *pai* (1), Mabaan *pa:-n-o* (1), Jumjum *pâ:-n* (1), Mayak *pa:ɕ* (1), Shilluk *dwa^hy* (2).

References and notes:

Nuer: Kiggen 1948: 248. Plural: *pa-t*. Quoted as sg. *pay*, pl. *pa^h-t* in [Frank 1999: 87]; as *p^hay* in [Bender 1971: 271].

Dinka: Nebel 1979: 69. Plural: *pɛi*. Polysemy: 'moon / month / tympanum (of ear)'. Quoted as *pɛ:y*, pl. *pɛ^hi* in [Andersen 1987: 4]. Phonetic variants in various dialects and subdialects in [Roettger 1989: 35] include *pɛi ~ pɛ:i ~ pɛi^h ~ pɛ:i^h ~ pɛi ~ pɛi^h*.

Reel: Roettger 1989: 35.

Mabaan: Miller 2006: 89. Plural: *pon-ko*. Quoted as *pâ:n-n ɿ* in [Andersen 1999: 100]; as *pa:n* in [Bender 1971: 269].

Jumjum: Andersen 2004: 137. Quoted as *pə-n* in [Bender 1971: 268].

Kurmuk: Not attested.

Mayak: Bender 1971: 272. Quoted as pl. *pà:ɕ*, sg. *pà:y-ít* in [Storch 2005: 108]. Not attested in any of T. Andersen's papers.

Shilluk: Heasty 1937: 28. Plural: *dwa-d*. Polysemy: 'moon / month / egg-yolk'. Quoted as sg. *dway*, pl. *dwa-t* in [Gilley 1992: 86]; as sg. *dway ~ dwey*, pl. *dwa-t* in [Kohnen 1994: 48].

55. MOUNTAIN

Nuer *pam* (1), Dinka *gɔt* (2), Reel *pɛm* (1), Mabaan *po:m-o* (1), Jumjum *pâ:m* (1), Kurmuk *pâ:m* (1), Mayak *pa:m* (1), Shilluk *ki^ht* (3).

References and notes:

Nuer: Kiggen 1948: 249. Plural: *pam*. Same word as 'stone' q.v. Quoted as sg. *pa^hm*, pl. *pa^hm* in [Frank 1999: 87]; as *p^hem* in [Bender 1971: 271].

Dinka: Nebel 1979: 33. Plural: *gat*. Quoted as *gɔt* in [Roettger 1989: 37], but only for the Rek dialect. The majority of other Dinka dialects and subdialects (including even the Malual subdialect of Rek) have *kur ~ ku:r* as 'mountain', i. e. the same word as 'stone' q.v.

Reel: Roettger 1989: 37.

Mabaan: Miller 2006: 92. Polysemy: 'stone / mountain'. Plural: *pom-ko*. Quoted as sg. *pâ:m-ɿ*, pl. *pâ:m-k ɿ* [Andersen 2006: 16]; as *pvm-v* in [Bender 1971: 269].

Jumjum: Andersen 2004: 137, 144. Plural: *pâ:m-k ɿ*. Quoted as *pam* in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 51. Plural: *pâ:m-ít*.

Mayak: Andersen 2000: 39. Plural: *pam-ít*. Also quoted as *pam* in [Bender 1971: 272].

Shilluk: Heasty 1937: 45. Same word as 'stone' q.v. Plural: *ki^ht-i*. Quoted as sg. *kid-i*, pl. *kit-i* 'stone, mountain, hill' in [Kohnen 1994: 83].

56. MOUTH

Nuer *tok* (1), Dinka *tok* (1), Reel *tok* (1), Mabaan *tuk-u* ~ *tuk-ε* (1), Jumjum *ɸɔɲe* # (139), Kurmuk *túk* (1), Mayak *tvk* (1), Shilluk *dɔk* (1).

References and notes:

Nuer: Kiggen 1948: 315. Plural: *tuy*. Polysemy: 'mouth / opening / edge / lip / language / gate'. Quoted as sg. *tok*, pl. *tuk* in [Frank 1999: 87]; as *tɔk^h* in [Bender 1971: 271].

Dinka: Nebel 1979: 88. Plural: *tok*. Polysemy: 'mouth / opening / border / language / news'. Quoted as *tɔ^hk* in [Andersen 1987: 4]. Quoted as *tok* for all the dialects and subdialects of Dinka in [Roettger 1989: 33].

Reel: Roettger 1989: 33. Quoted as *tók* in [Reid 2010: 37].

Mabaan: Miller 2006: 100. Plural: *tuggu* ~ *tugge*. Quoted as *túk-i* in [Andersen 1999: 101]; as *tukv* in [Bender 1971: 269].

Jumjum: Bender 1971: 268. The common West Nilotic equivalent for 'mouth' is glossed as *túk* 'lip' in [Andersen 2004: 137].

Kurmuk: Andersen 2007b: 50.

Mayak: Andersen 1999c: 72. Quoted as *tvk* in [Bender 1971: 272]. Cf. also *ɸok* 'mouth' in [Andersen 1999c: 3]; semantic difference is unclear.

Shilluk: Heasty 1937: 31. Plural: *dɔk-i*. Polysemy: 'mouth / language / entrance / door'. Quoted as sg. *d̥ ɔ̥*, pl. *d̥ɔ̥g* in [Gilley 2000: 1]; as *d̥ k̥* in [Gilley 1992:23]; as sg. *dok* ~ *do*, pl. *dog* ~ *do* 'mouth, muzzle, beak; language, advice, counsel, opinion, order, pronunciation, declaration, statement; beginning, end, border, edge, brim, margin, opening, hole' in [Kohnen 1994: 53].

57. NAME

Nuer *ɸo:t* (1), Dinka *rin* (2), Reel *rim* (2), Mabaan *yen-t-o* (2), Jumjum *yλñ-táñ* (2), Kurmuk *m̀v̄η-g̀ɔ̀n* (3), Mayak *m̄v̄η-ɔ̄n* (3), Shilluk *ji^hη* (4).

References and notes:

Nuer: Kiggen 1948: 63. Plural: *ɸo:d*. Quoted as sg. *ɸiv^ht*, pl. *ɸiv^ht* in [Frank 1999: 87]; as *ɸu t^h* in [Bender 1971: 271].

Dinka: Nebel 1979: 77. Plural: *rien* (only attested in [Duerksen 2005: 151]; according to Nebel, in some dialects the basic form *rin* already behaves as a formal plural). Quoted as *rim* ~ *rin* for all dialects and subdialects of Dinka in [Roettger 1989: 38].

Reel: Roettger 1989: 38.

Mabaan: Miller 2006: 114. Plural: *yen-g-o*. Quoted as *yɸen-tv* in [Bender 1971: 269].

Jumjum: Andersen 2004: 135, 148. Plural: *y n̄t̄áñ-ḡá*. Quoted as *yɔn-təñ* in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 63.

Mayak: Andersen 2000: 35. Plural: *m̄v̄η-m*. Quoted as *m̄v̄η-ɔ̄n* in [Bender 1971: 272]; as *m̄v̄η-ɔ̄n* in [Storch 2005: 104].

Shilluk: Heasty 1937: 67. Quoted as *jiñ* in [Kohnen 1994: 142]. The word is homonymous with the suppletive plural form of the word 'eye', q.v., but we have no reason to suppose that this is a case of polysemy. Cf. also *ɸya^hk*, pl. *ɸya^hk-i^h* 'name' in [Gilley 1992: 82] - clearly a nominal derivative from the verbal root *ɸa^hk* 'to name' [Heasty 1937: 18] = *ɸak* 'to compose songs, to make poetry, to sing of' [Kohnen 1994: 26], but no such nominal derivatives are actually attested in Heasty's or Kohnen's dictionary.

58. NECK

Nuer *ɲuak* (1), Dinka *yeɬ* (2), Reel *ɲuek* (1), Mabaan *d̄wan-u* (3), Jumjum *d̄ɔñ* (3), Kurmuk *d̄ɔk* (3), Mayak *d̄ɔk* (3), Shilluk *mut-o* ~ *mun-o* (4).

References and notes:

Nuer: Kiggen 1948: 228. Quoted as sg. *ɲua^hk*, pl. *ɲua^hk* in [Frank 1999: 87]; as *ɲ^wɔk* in [Bender 1971: 271].

Dinka: Nebel 1979: 97. Quoted as *yeɛ* for all dialects and subdialects of Dinka in [Roettger 1989: 34]. Additionally, cf. *ɲo:k* 'nape (of neck)' [Nebel 1979: 64; Duerksen 2005: 134], possibly related to *ɲuk* 'neck (of fish)' [Duerksen 2005: 136]; and *ɲguik* 'vertebra (backbone) near the head' [Nebel 1979: 64].

Reel: Roettger 1989: 34.

Mabaan: Miller 2006: 40. Plural: *ɖɔ:g-gɔ*. Quoted as sg. *dúan-á*, pl. *dó:g-g* / in [Andersen 1999: 101, Andersen 2006: 11]; as *dwan-ɔ* in [Bender 1971: 269].

Jumjum: Andersen 2004: 137. Cf. the possessive: *dóɲ-ú* 'your neck' [ibid.]. Differently in [Bender 1971: 268]: *balɔl-e* 'neck'.

Kurmuk: Andersen 2015: 537.

Mayak: Andersen 1999c: 22; Bender 1971: 272. Quoted as sg. *dɔk*, pl. *dó:g-én* in [Storch 2005: 118].

Shilluk: Heasty 1937: 61. Plural: *mut-i*. Quoted as sg. *múd-ɔ*, pl. *múd* in [Gilley 2000: 16]; as *mut-o ~ mun* 'neck' in [Kohnen 1994: 122]. The alternation between *-t-* and *-n-* is irregular and unexplained, but the two forms are still clearly variants rather than different roots.

59. NEW

Dinka *ɲal* (1), Mabaan *wɔ:n-ɛ* (2), Jumjum *a=kik-ɕan-de* # (3), Mayak *a=keɕ* (3), Shilluk *ɲa^hn* (1).

References and notes:

Nuer: Not attested in Kiggen's dictionary (most of the English textual examples with the word 'new' correspond to various idiomatic constructions in Nuer). In [Bender 1971: 271], the meaning 'new' is glossed as *mi:=pa:yɜk^h*, where the first morpheme is a relativizer and *=pa:y-*, most likely, is 'moon' q.v., i. e. probably something that has to do with the new moon, cf. Kiggen's *pai-ɛ bi teɖi* 'at next new moon, next month' [Kiggen 1948: 249], etc., although the last component in Bender's equivalent remains unclear.

Dinka: Nebel 1979: 65. Cf. also the verbal stem *yam* 'begin, start, found, invent', also functioning as the adjective 'new, modern' [Nebel 1979: 96]. Dialectal equivalents: *ɔot* 'new' in Jieng [Nebel 1979: 36], possibly related to *ɔot* 'young man' [ibid.]. In [Roettger 1989: 38], the word *ɲal* is not attested at all. Instead, the situation is as follows: (a) all of the Alor and Rek subdialects feature the form *yam*; (b) all of the Agar and Bor subdialects feature the form *ɔot ~ ɔut*; (c) for many of the Padang and Ageer subdialects, the word is not attested at all, but cf. Dongjol and Pan *gɔl* 'new' = *gɔl ɕok* 'to begin' in [Nebel 1979: 32]; Ngok-Sobat *a=peloi ~ a=peyik* (no parallels in [Nebel 1979]). On the whole, this is clearly an unstable item, but only Nebel's *ɲal* does not have a clearly secondary verbal origin, so we preserve it as the default equivalent.

Reel: Not attested.

Mabaan: Miller 2006: 111. Cf. the simple adverbial stem *wɔ:n* 'recently; newly' [ibid.]. Quoted as *wwan-ɔ* in [Bender 1971: 269].

Jumjum: Bender 1971: 268. Not attested in any of T. Andersen's papers. Initial *a=* is probably a copula.

Kurmuk: Not attested.

Mayak: Bender 1971: 272. Not attested in any of T. Andersen's papers.

Shilluk: Heasty 1937: 65.

60. NIGHT

Nuer *wa:r* (1), Dinka *wɛr* (1), Reel *wɛr* (1), Mabaan *nin* (2), Jumjum *wir-in* # (1), Mayak *wa:r-in* (1), Shilluk *wa^hr ~ wa^h* (1).

References and notes:

Nuer: Kiggen 1948: 323. Quoted as sg. *wæ:^hr*, pl. *wæ:^hr-i^h* in [Frank 1999: 87]; as *wæ:^r* in [Bender 1971: 271].

Dinka: Nebel 1979: 93. In [Roettger 1989: 37], this item is only listed as *wɛ:^hr ~ wɛ:^h* for the Ruweng subdialect, and as an alternate synonym *wɛ:^hr ~ wɛ:^h* for the Rek proper and Twic subdialects of Rek. For all the subdialects except for Ruweng, a different form is attested: *wakou ~ wɔkɔu ~ wakɔu ~ mɔkɔu*, corresponding to *wakɔu* 'at night' [Nebel 1979: 91], i.e. a special adverbial form. Roettger's wordlists make it impossible to understand if the noted form is a former adverb that has replaced the original noun in all these dialects, or if it is still an adverb, glossed instead of the required noun.

Reel: Roettger 1989: 37. Quoted as *wɛ:^hr* in [Reid 2010: 55].

Mabaan: Miller 2006: 79. Plural: *nin-ko*. Differently in [Bender 1971: 269]: *aqa* 'night' (not confirmed in Miller's dictionary). Cf. also the adverbial form *wɛ:nzi* 'in the night' [Miller 2006: 107].

Jumjum: Bender 1971: 268. Not attested in any of T. Andersen's papers.

Kurmuk: Not attested.

Mayak: Andersen 1999c: 22. Quoted as sg. *wár-in*, pl. *wàr-dín* in [Storch 2005: 111]. Differently in [Bender 1971: 272]: *aban* 'night'.

Shilluk: Heasty 1937: 99, 101. Quoted as *war* in [Kohnen 1994: 206].

61. NOSE

Nuer *wum* (1), Dinka *wum* (1), Reel *wum* (1), Mabaan *?wum-gu* (1), Jumjum *om-don-de* # (1), Kurmuk *?úm-bón* (1), Mayak *?um-an* (1), Shilluk *rum* (1).

References and notes:

Nuer: Kiggen 1948: 330. Plural: *wum-ni*. Quoted as sg. *wum*, pl. *wum* in [Frank 1999: 88]; as *wvm* in [Bender 1971: 271].

Dinka: Nebel 1979: 94. The plural form is listed as *wum* in [Duerksen 2005: 187]. Quoted as *wum* for all the dialects and subdialects of Dinka in [Roettger 1989: 33].

Reel: Roettger 1989: 33.

Mabaan: Miller 2006: 112. Plural form, glossed in the dictionary as 'noses'; however, a more correct glossing would be 'nostrils (pl.) = nose (sg.)', cf. the notation *?úam-m* 'nostril' in [Andersen 1999: 101]. Quoted as *wvm-gv* in [Bender 1971: 269]. The form *li:éŋ-ɔ* glossed as 'nose' in [Andersen 2006: 8] = *li:ɛŋ-u* 'bridge of nose' in [Miller 2006: 66].

Jumjum: Bender 1971: 268. Not attested in any of T. Andersen's papers.

Kurmuk: Andersen 2007b: 59.

Mayak: Andersen 2000: 35. Plural: *?um-ak*. Quoted as *om-an* in [Bender 1971: 272]; as sg. *?úm*, pl. *?úm-ák* in [Storch 2005: 121].

Shilluk: Heasty 1937: 89. Cf. *o=rom-e dano* 'nose' in [Kohnen 1994: 152] = *o=rɔm* 'nostril' in [Heasty 1937: 78] (Kohnen's entry literally = 'man's nostrils').

62. NOT

Nuer =*V̄-* (1) / *ke* (2), Dinka *ɕi ~ a=ɕi* (1) / *keɕ* (2), Reel *t̪iɛl* (3), Mabaan *bɛ:* (4), Kurmuk *áná* (5), Shilluk *pa ~ ba* (6).

References and notes:

Nuer: Kiggen 1948: 48, 54, 55. The most standard way of expressing negation in a Nuer sentence is raising of intonation on the pronominal marker in the verbal construction. Cf. the examples in [Nyang 2013: 63]: *č-è m̪iɛ* 'he ate' vs. *č-è m̪iɛ* 'he cannot eat' (where *č-* is the perfective marker and *-ɛ* is the 3rd p. sg. marker). In Kiggen's dictionary, this is reflected in the form of dictionary entries *ɕ=à* "neg. part. 1st pers. sing.", *ɕ=è ~ ɕ=i* "particle used for negative past tense", as opposed to "unaccented" *ɕ=a*, *ɕ=e ~ ɕ=i* for the

corresponding affirmative forms. Kiggen 1948: 138. Glossed as "neg. past act. partic."; seems to correspond to the negative particle that is glossed in [Nyong 2013: 63, 64] as *kín-*. The semantic difference between simple tone lowering and this special particle is not well understood.

Dinka: Nebel 1979: 3, 19. This is the basic negative particle for present (non-perfect) tense forms (*a=çi bɔ* 'he does not come'). In [Andersen 2007: 95], it is glossed as $\text{çè}^h \sim \hat{a}=\text{çè}^h$. In [Roettger 1989: 30], this is the most common equivalent for basic negation, usually glossed as *a=çi* ~ *a=çie*, more rarely as *a=çi-n*, *a=çieye*, *a=çeyε-n*, *a=çi-n*. In a few dialects, most notably some subdialects of Agar and Bor, the form *a=liu* 'not' is listed as an additional synonym. This form is cognate with the negative verb *liu* 'be absent, missing; not to be' in [Nebel 1979: 50] and is probably not eligible for the position of basic negation. Nebel 1979: 39. This is the basic negative particle for perfective tense forms (*a=keç bε-n* 'he did not come'). In [Andersen 2007: 95], it is glossed as $\text{kê}^h\text{ç}$ and identified as an auxiliary verb.

Reel: Roettger 1989: 30. Quoted as *=tíl-* in [Reid 2010: 164], where the morpheme is described as a negation particle (morphologically, it seems to be incorporated within the verbal form).

Mabaan: Miller 2006: 6. Quoted as *bê:* in [Andersen 1992: 186].

Jumjum: Not attested.

Kurmuk: Andersen 2015: 514.

Mayak: Not attested.

Shilluk: Heasty 1937: 12, 80. Negative particle. Quoted as *pa ~ fa* in [Kohnen 1994: 155].

63. ONE

Nuer *kɛl* (1), Dinka *tok* (2), Reel *kɛl* (1), Mabaan *çyε:lɔ* (1), Jumjum *ké:lɔk* (1), Kurmuk *kè:l* (1), Mayak *a=kɛl #* (1), Shilluk *a=kyɛl ~ a=çyɛl* (1).

References and notes:

Nuer: Kiggen 1948: 141. Quoted as *k^hɛl* in [Bender 1971: 271].

Dinka: Nebel 1979: 84. Consistently listed as *tok* for all subdialects of Dinka in [Roettger 1989: 31].

Reel: Roettger 1989: 31.

Mabaan: Miller 2006: 29. Quoted as *çi:élɔ* in [Andersen 1999: 104]; as *çɛlɔ* in [Bender 1971: 269].

Jumjum: Andersen 2004: 142. Quoted as *kélɔk^h* in [Bender 1971: 268].

Kurmuk: Andersen 2015: 541.

Mayak: Bender 1971: 272. Not attested in any of T. Andersen's papers.

Shilluk: Heasty 1937: 7. Quoted as *a=kyɛl* in [Kohnen 1994: 6].

64. PERSON

Nuer *ra:n* (1), Dinka *ra:n* (1), Reel *nwêɛ:r #* (2), Mabaan *me-ni ~ me-na* (3), Jumjum *mèn* (3), Kurmuk *tá:rák* (4), Mayak *tá:rɔk* (4), Shilluk *dan-o* (5).

References and notes:

Nuer: Kiggen 1948: 265. Suppletive plural: *na:d*. Quoted as sg. *ra:n*, pl. *na:t* in [Frank 1999: 88]; as *rren* in [Bender 1971: 271].

Dinka: Nebel 1979: 75. Suppletive plural: *kɔç*. Quoted as sg. *raà:n*, pl. *k ç* in [Andersen 1987: 4]. Cf. also *zan*, pl. *zien* 'people, Jange tribe, tribesman' [Nebel 1979: 35].

Reel: Reid 2010: 18. Suppletive plural: *nê:y* [Reid 2010: 33]. Only the plural form is attested in Roettger's materials, quoted as *nei* 'people' in [Roettger 1989: 38].

Mabaan: Miller 2006: 73. Plural: *ma ~ ma-ka*. Quoted as sg. *mé-ná*, pl. *má-ká* in [Andersen 1999: 102]; as *mε-nyu* in [Bender 1971: 269].

Jumjum: Andersen 2004: 137. Quoted as *mɛn* in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 34; Andersen 2015: 510. Suppletive plural: *ʔul n* 'people' [Andersen 2007b: 38].

Mayak: Andersen 1999c: 66. Quoted as *ʔarok* in [Bender 1971: 272]; as *ʔar k* in [Storch 2005: 114], with suppletive plural *ʔɔl l*.

Shilluk: Heasty 1937: 30. Polysemy: 'person / child, baby'. Suppletive plurals: (a) *tɛdo* 'people' [Heasty 1937: 91]; (b) *ʔi*, with the accompanying note: "*tɛdo* is a more general term than *ʔi*; *ʔi* are generally known to the people discussing them" [Heasty 1937: 39]. Quoted as sg. *dānɔ*, pl. *ʔi* in [Gilley 2000: 19]; as *dān-o*, pl. *ʔi* 'human creature, person, man, woman, child; one, somebody, anyone, someone' in [Kohnen 1994: 51]. Cf. also *nan* 'person (the person is someone not known)' [Heasty 1937: 70] = *nān* 'person' [Gilley 1992: 23] = *nan* 'anyone who, the one that, who' [Kohnen 1994: 131].

65. RAIN

Nuer *nial* (1), Dinka *de^hɲ* (2), Reel *koɫ* (3), Mabaan *na:l-o* (1), Jumjum *na:l-* (1), Kurmuk *kɔɫ* (4), Mayak *koɫ* # (4), Shilluk *koɫ* (4).

References and notes:

Nuer: Kiggen 1948: 234. Plural: *nɪl-i*. Polysemy: 'rain / weather'. Quoted as *nɪa:l* in [Bender 1971: 271].

Dinka: Nebel 1979: 23. Polysemy: 'rain / thunderstorm / rainy season'. Cf. also *Deɲ* 'ancestor of the Jang and Jieng tribes and worshipped; believed to have been taken to heaven during a storm' [Nebel 1979: 24]. Quoted as *dɛ:^hɲ* in [Andersen 1987: 4]. Quoted as *deɲ* for all dialects and subdialects of Dinka in [Roettger 1989: 36]. In [Duerksen 2005: 43], the paradigm for several dialects is quoted as sg. *deɲ*, pl. *dəɲ*, with polysemy: 'rain / sky' (although the usual word for 'sky' is *nɪa^hl* [Nebel 1979: 65] = *nial* [Duerksen 2005: 129]).

Reel: Roettger 1989: 36. Quoted as *kwɔɫ* in [Reid 2010: 56].

Mabaan: Miller 2006: 82. Plural: *na:l-din*. Quoted as *na:l-u* in [Bender 1971: 269]. Cf. also *ko:riya* 'rain; west' in [Miller 2006: 59].

Jumjum: Andersen 2004: 145. The exact quoted form is plural: *na:l-k* 'rains'. Quoted as *na:l* in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 41; Andersen 2015: 518.

Mayak: Bender 1971: 272. Not attested in any of T. Andersen's papers.

Shilluk: Heasty 1937: 46; Kohnen 1994: 88 ('rain, thunderstorm, lightning').

66. RED

Nuer *loal* (1), Dinka *lual* (1), Reel *lual* (1), Mabaan *tiɫ-tiɫ* (2), Jumjum *tiɫ-aɲ* # (2), Kurmuk *mɪɲ-* (3), Mayak *mɛɲ-mɛɲ* # (3), Shilluk *kwar* (4).

References and notes:

Nuer: Kiggen 1948: 179. Quoted as *=lwal* in [Bender 1971: 271].

Dinka: Nebel 1979: 52. Nominal form; the complete adjectival form is *ma=lual*. The dialectal equivalent in Bor is glossed as *ɕir* [Nebel 1979: 20]. Cf. also *tiɫ* 'reddish, rose colour' [Nebel 1979: 88]. In [Roettger 1989: 37], the situation is as follows: (a) *lual* ~ *ma=lual* 'red' is only listed as an alternate synonym for the Gɔk subdialect of Agar, the Ngɔk subdialect of Ageer, the Twic subdialect of Bor, and the Malual ('Red') subdialect of Rek; (b) the most frequent equivalent for 'red' is *tiɫ* ~ *tiɪ* ~ *ti:ɪ* ~ *tiɛɪ* ~ *tiɛɪ* ~ *tiɛɪ* ~ *a=tiɫ* ~ *kw=tiɫ* ~ *kɔ=tiɫ* ~ *kɔ=tiɫ*, attested in one of these variants everywhere except for Gɔk; (c) another rare equivalent is *a=luat* ~ *kɔ=luat* (Gɔk and Agar proper subdialects of Agar) = *luat* 'become reddish, yellow' [Nebel 1979: 52]. Judging by external comparanda (Nuer), *lual* is clearly the most archaic equivalent for 'red', and it remains unclear if Roettger's semantic glossing is perfectly accurate and whether (b) does not really denote some specific shade of 'red'.

Reel: Roettger 1989: 37.

Mabaan: Miller 2006: 98. Reduplicated stem. Cf. also *ti-nna* 'very red' [ibid.]. Quoted as *tiɫ-án* in [Andersen 1992: 203]; as *tiɪɪv* in

[Bender 1971: 269].

Jumjum: Bender 1971: 268. Not attested in any of T. Andersen's papers.

Kurmuk: Andersen 2007b: 73.

Mayak: Bender 1971: 272. Reduplicated stem. Not attested in any of T. Andersen's papers, but cf. *mīŋ-ən* 'redness', *mīŋ-mīŋ* 'red' (*ŋ* may be a typo for *ŋ*) in [Storch 2005: 103].

Shilluk: Heasty 1937: 48; Kohnen 1994: 90.

67. ROAD

Nuer *duɔb* (1), Dinka *d̥əl* (2), Reel *kuɛr* (3), Mabaan *pɔy* (4), Jumjum *pály* (4), Mayak *pvr* (4), Shilluk *yo* (5).

References and notes:

Nuer: Kiggen 1948: 87. Plural: *dup*. Meaning glossed as 'path, road'. Quoted as *duɔp^h* in [Bender 1971: 271].

Dinka: Nebel 1979: 28. Plural: *d̥ol*. Meaning glossed as 'path, road; way'. Cf. the dialectal form *puor* 'cleaned road' in the Agar dialect = 'cultivation, farming' in the other dialects [Nebel 1979: 72]; this word is quoted as sg. *puô:^hr*, pl. *piâ:^hr* 'road' in [Andersen 1987: 15]. Cf. also Agar and Rueng *kuɛr* 'road, path, river' < *kuɛr* 'to flow, run (water), leak' [Nebel 1979: 44]; this word is quoted as *kuê:^hr* 'path' in [Andersen 1987: 15]. In [Roettger 1989: 36], the situation is as follows: all the subdialects of Padang-Ageer, as well as the Luac subdialect of Rek, the Twic and Nyarweng subdialects of Bor, and most of the subdialects of Agar, have *kuɛr* ~ *kuɛr* ~ *kuê:^hr* 'path'; the variant *d̥əl* ~ *d̥el* ~ *d̥əl* is essentially confined to most of the subdialects of Rek, the Bor proper subdialect of Bor, and (as an additional synonym) some of the subdialects of Agar. It is unclear, as usual, just how accurate this representation is, but at least the information on Rek seems to be consistent with the information in Nebel's dictionary (where the main focus is also on the Rek dialect).

Reel: Roettger 1989: 36.

Mabaan: Miller 2006: 93. Plural: *pɔ:-ko*. Meaning glossed as 'path'. Quoted as sg. *pály-á*, pl. *pɔ:k /* in [Andersen 2006: 14]; as *pɔy-v* in [Bender 1971: 269].

Jumjum: Andersen 2004: 141. Meaning glossed as 'path'. Quoted as *pai* in [Bender 1971: 268].

Kurmuk: Not attested.

Mayak: Andersen 1999d: 3. Plural: *pvr-in* [Andersen 2006: 16]. Quoted as *pɔr* in [Bender 1971: 272].

Shilluk: Heasty 1937: 108. Plural: *yie^ht̥*. Quoted as sg. *yo*, pl. *ye^h:t̥* in [Gilley 1992: 86]; as sg. *yōó*, pl. *yēēd̥* in [Gilley 2000: 6]; as sg. *yo*, pl. *yie^ht̥* in [Kohnen 1994: 222].

68. ROOT

Nuer *mie-t̥* (1), Dinka *mei* (1), Reel *miɛ-t̥* (1), Mabaan *bɛ:ŋ-ŋan* ~ *bɛ:ŋ-nɛ* (2), Jumjum *bì:ɕ-ɕàn* (2), Mayak *bi:r-it̥* (2), Shilluk *byɛr-o* (2).

References and notes:

Nuer: Kiggen 1948: 201. Plural: *mit̥*. Polysemy: 'roots of plant / feelers of fish'. Quoted as *mei-* in [Bender 1971: 271].

Dinka: Nebel 1979: 57. Polysemy: 'root / tendril of climbing plants'. Quoted as sg. *mè:y*, pl. *mê:y* in [Andersen 2002: 21]. Phonetic variants of this root in [Roettger 1989: 32] include *mei* ~ *me^hi* ~ *mei* ~ *mei^h*.

Reel: Roettger 1989: 32.

Mabaan: Miller 2006: 7. Plural: *bɛ:-kɛ*. Miller notes the presence of the more rare equivalent *bɛ:k-ɕan* in the speech of younger people; this is probably an analogical innovation based on the re-analyzed plural form *bɛ:-kɛ*. Quoted as *bè:ŋ-ŋán* in [Andersen 1992: 192]. Cf. also *kerke* 'root' in [Bender 1971: 269], corresponding to *kerke* 'branches of tree' in [Miller 2006: 56].

Jumjum: Andersen 2004: 156. Quoted as *bī-an* in [Bender 1971: 268].

Kurmuk: Not attested.

Mayak: Andersen 1999c: 83. Plural: *bir*. Quoted as *ber-īt* in [Bender 1971: 83]. Clearly the same word (sg. *bir-īt*, pl. *bir*) is listed in [Storch 2005: 107] in different meanings, allowing to postulate polysemy: 'root / vein / sinew / muscle'. (She does list a separate pl. *bir*, sg. *bir-īt* 'root' on p. 108, but considering the frequency of such a polysemy, it is reasonable to suggest that this is really the same word).

Shilluk: Heasty 1937: 18. Plural: *byer-i*. Polysemy: 'root / source (of smth.)'. Cf. also *tyel-o* 'foot', with polysemy: 'foot / foundation / root' [Heasty 1937: 96], although the English-Shilluk part of the dictionary explicitly states that *byer-o* is 'root of plants'. Quoted as sg. *byè-r-ò*, pl. *byēr* in [Gilley 1992: 82]; sg. *byer-o*, pl. *byer-i* 'root; womb, afterbirth' in [Kohnen 1994: 25].

69. ROUND

Nuer *roŋ-roŋ* (1), Dinka *roŋ-roŋ* (1), Mabaan *kuor-kwor* # (2), Shilluk *a=du:lo* (3).

References and notes:

Nuer: Kiggen 1948: 280. Cf. another reduplicated stem with the same meaning: *gul-gul* ~ *gɔl-gɔl* 'round, rolled up' [Kiggen 1948: 116].

Dinka: Nebel 1979: 79. Cf. *roŋ* 'stone of a fruit; nut' [ibid.].

Reel: Not attested.

Mabaan: Miller 2006: 62. Reduplicated adjectival stem. Meaning glossed as "rounded" (as in "the back of the kola shell is rounded"), so the inclusion is somewhat dubious.

Jumjum: Not attested.

Kurmuk: Not attested.

Mayak: Not attested.

Shilluk: Heasty 1937: 4. Noun and adjective ('round, circular; a ring or circle'). Quoted as *a=dulo* 'round, circular; cipher, zero' in [Kohnen 1994: 4].

70. SAND

Nuer *lied* (1), Dinka *liet* (1), Reel *liet* (1), Mabaan *ɲom-mɛ* (2), Jumjum *tín-àl* (3), Mayak *teŋ-ɔl* (3), Shilluk *kwòḡ-ò* (4).

References and notes:

Nuer: Kiggen 1948: 175. Plural: *lid*. Quoted as sg. *liet*, pl. *lit* in [Frank 1999: 88]; as *lʷetʰ* in [Bender 1971: 271].

Dinka: Nebel 1979: 49. Polysemy: 'dust / sand'. Quoted as *lié:t* 'sand' in [Andersen 1987: 16]; as sg. *li:t*, pl. *lit* in [Duerksen 2005: 101]. Quoted as *liet* ~ *liéʰt* ~ *li:t* ~ *li:ʰt* for all the dialects and subdialects of Dinka in [Roettger 1989: 36].

Reel: Roettger 1989: 36.

Mabaan: Miller 2006: 81. Plural: *ɲom-gɔ* ~ *ɲɔp*. Quoted as *ɲom-v* in [Bender 1971: 269].

Jumjum: Andersen 2004: 155. Quoted as *teŋal* in [Bender 1971: 268].

Kurmuk: Not attested.

Mayak: Bender 1971: 272. Quoted as *teŋ-ɔl* (collective), *teŋ-ɔl-é̄t* (singulative) in [Storch 2005: 108]; cf. also the plural form *teŋ-īt* 'heaps of sand' [ibid.], allowing to segment out *-ɔl* as a suffix. Not attested in any of T. Andersen's papers.

Shilluk: Heasty 1937: 49. Meaning glossed as 'sand' or 'sandy soil'. Quoted as sg. *kwòḡ-ò*, pl. *kwòḡḡ* in [Gilley 2000: 11]; as *kwiz-o* ~ *kuoz-o* in [Kohnen 1994: 93].

71. SAY

Nuer *we:y* (1), Dinka *luel* (2), Reel *lad-ε* (3), Mabaan *gɔk-* (4), Jumjum *ʒaʒ-ə* # (5), Mayak *ʒay-ar* # (5), Shilluk *kop ~ ko* (6).

References and notes:

Nuer: Kiggen 1948: 320. 3rd p. sg.: *wa:y-a*. This is the main verb that introduces direct speech, distinct from several other verbs with meanings closer to 'tell', 'inform', etc., e. g. *lar* 'to say, to recommend' [Kiggen 1948: 168]. The latter is listed in [Bender 1971: 271] as *larre* 'to say', but Kiggen's data show that it is hardly eligible for inclusion.

Dinka: Nebel 1979: 53. Polysemy: 'to say / to think'. Distinct from *lek* 'to tell, order (a person)', *lek* 'to say (tell)' [Nebel 1979: 48], cf. also in [Duerksen 2005: 99]: *lek* 'to confess, order, tell (a person)', *lek* 'informing; information' (noun). Phonetic variants *luel ~ luel* (also *luul* in the Nyarweng subdialect of Bor) are attested in the majority of dialects and subdialects in [Roettger 1989: 35]. For the Luac subdialect of Rek and the Aliab subdialect of Agar, the same source lists *ʒam* as the default equivalent; in [Nebel 1979: 35], this verb is glossed with the meaning 'talk, speak', and it is uncertain how accurate the semantic glossing in [Roettger 1989: 35] actually is.

Reel: Roettger 1989: 35.

Mabaan: Miller 2006: 45. Morphophonological variants of the root include *gwag-*, *gwan-*, *gɔ-*, *gɔ:g-*. Cf. *g k-* 'I say', *gú:ag-é* 'they said' in [Andersen 1999: 111]. Quoted as *gɔk-ti* in [Bender 1971: 269].

Jumjum: Bender 1971: 268. Not attested in any of T. Andersen's papers.

Kurmuk: Not attested.

Mayak: Bender 1971: 272. Probably a nominalized form. Not attested in any of T. Andersen's papers.

Shilluk: Heasty 1937: 45. Participial form: *kob-o*. Quoted as *ko ~ kop ~ kob-o* 'to say, to speak, to tell; to think, to imagine' in [Kohnen 1994: 85]. Cf. *yi kob adi* 'what did you say?', etc. Another equivalent is *ɕa ~ ɕama* 'to say' [Kohnen 1994: 26], often used to introduce direct speech; but it seems to be limited to specific bound contexts, and is not at all found in this meaning in [Heasty 1937].

72. SEE

Nuer *nen* (1), Dinka *tiŋ* (2), Reel *ʒuiɕ* (3), Mabaan *yuar-* (4), Jumjum *yɔ:r-rú* (4), Kurmuk *dá:m-* (5), Shilluk *nen ~ nen* (1).

References and notes:

Nuer: Kiggen 1948: 212. 3rd p. sg.: *nen-ε*. Intransitive verb; the transitive correlate 'to examine, inspect, witness' is listed as *nen*, 3rd p. sg. *nen-ε* [ibid.]. Quoted as *nen-i* in [Bender 1971: 271].

Dinka: Nebel 1979: 83. Polysemy: 'to see / to look'. Quoted as *tí:hŋ* in the phrase "the woman saw the girls" in [Andersen 1987: 22]. Quoted as *tiŋ ~ tŋ* for the majority of dialects and subdialects of Dinka in [Roettger 1989: 34], but a couple alternate synonyms are attested as well: (a) the Ruweng subdialect has *dá^{hi}* 'see' instead of *tiŋ*, and the form *dai* is also listed as an alternate synonym for *tiŋ* in Agar; in [Nebel 1979: 22], the word *dá^{hi}* is glossed as 'look at, observe'; (b) in the Aliab subdialect of Agar, the equivalent is *ŋem*, and the form *ŋem* is also listed as an alternate synonym for *tiŋ* in the Bor proper subdialect of Bor; this form finds no equivalent in Nebel's dictionary.

Reel: Roettger 1989: 34.

Mabaan: Miller 2006: 121. Quoted as *yú:ar-* in [Andersen 1992: 197]. Differently in [Bender 1971: 269]: *gɔr-ɕa* 'see' = *gɔr-ɕa* 'look at, see' [Miller 2006: 46].

Jumjum: Andersen 2004: 145. Nominalized form. Quoted as *yɔr-ro* in [Bender 1971: 268].

Kurmuk: Andersen 2015: 519. Cf. also *ʔk-* 'to see', attested in one textual example in [Andersen 2015: 550]; difference between the two items remains unclear.

Mayak: Not properly attested. Cf. *ɕukuɖar* 'see' in [Bender 1971: 272], a form with unclear morphological segmentation.

Shilluk: Heasty 1937: 63. Meaning glossed as 'look at, see, expect, look for, wait for'. Quoted as *nen* 'to see, to look; to live, to feel; to

wait for' in [Kohnen 1994: 125].

73. SEED

Nuer *kuai* (1), Dinka *kau* (1), Reel *kuai* (1), Mabaan *ke:y* # (1), Jumjum *kàw-çán* (1), Mayak *kaw-it* (1), Shilluk *kɔ^h-t̥* (1).

References and notes:

Nuer: Kiggen 1948: 154. Polysemy: 'seed / remnants (of cloth)'. Quoted as *k^wai* in [Bender 1971: 271].

Dinka: Nebel 1979: 39. Plural: *kɔ-t̥*. Quoted as sg. *ká^hw*, pl. *kɔ^h-t̥* in [Andersen 1987: 15]. Cf. also *t̥el*, pl. *t̥el* 'seed' in [Duerksen 2005: 171] (not confirmed in Nebel's dictionary). In [Roettger 1989: 32], singular and plural variants are listed rather chaotically across dialects; singulative variants include *kau* ~ *kau^h*, and plural variants include *kɔt̥* ~ *kɔ^ht̥* ~ *kɔ^h:t̥*. Only in the Ruweng subdialect, instead of this common root, we find *ɲm* 'eye' in the meaning 'seed'.

Reel: Roettger 1989: 32. Listed as *kɔ-t̥* / *kuai*, where the first form is probably plural (see external parallels in Dinka).

Mabaan: Miller 2006: 56. Meaning glossed as 'seed (e.g. pumpkin)'. Singulative: *ke-ɲan*. Differently in [Bender 1971: 269]: *p^heçə* 'seed' (cf. *pyeçə bora* 'to spread out' in [Miller 2006: 95]).

Jumjum: Andersen 2004: 145. Plural: *k xw-ká*. Differently in [Bender 1971: 268]: *piɲə* 'seed'; cf. *pi:t̥* 'to sow', *pi:ɲ-ɲá* 'sowing' in [Andersen 2006b: 12].

Kurmuk: Not attested.

Mayak: Andersen 2000: 33. Plural: *kap*. Quoted as *kab* in [Bender 1971: 272].

Shilluk: Heasty 1937: 95. Quoted as *kod* ~ *ko:d* in [Kohnen 1994: 85]. The form seems to be a *plurale tantum*.

74. SIT

Nuer *ɲu:r* (1), Dinka *ɲuç* (1), Reel *ɲuɲi* (1), Mabaan *çi-* (2), Jumjum *çá:y-* (2), Kurmuk *kí:* # (2), Mayak *ke-ker* # (2), Shilluk *pek* (3).

References and notes:

Nuer: Kiggen 1948: 244. 3rd p. sg.: *ɲu:r-ε*. Quoted as *ɲu:r-i* in [Bender 1971: 271].

Dinka: Nebel 1979: 67. Meaning glossed as 'sit, sit down, establish'. Cf. also *t̥oç* 'to sit down; to be buried alive', listed in [Duerksen 2005: 174] for the Northwestern dialect; it corresponds to *t̥ç* 'to squat (on tiptoe)' in [Nebel 1979: 88]. Most of the dialects and subdialects of Dinka in [Roettger 1989: 35] have the variant *ɲuç*; only in the Agar proper subdialect of Agar the attested form is *ɲɔç-ε*.

Reel: Roettger 1989: 35.

Mabaan: Miller 2006: 20, 22. Quoted stems include *çi-en*, *çiy-o*, *ço:-n*. Quoted as *çəçə* in [Bender 1971: 269].

Jumjum: Andersen 2004: 147. Quoted as *çə-zim?ijni* in [Bender 1971: 268] (unclear morphological composition).

Kurmuk: Not attested properly, but cf. *t̥aræk kɪ kɪ d̥ɔ:l* "the man is sitting", literally "the man is staying on [his] anus" [Andersen 2015: 515]; this example shows that the general meaning of 'sitting' is rendered by the verb *kí:* 'to stay, be located' with certain nominal-adverbial modifiers.

Mayak: Bender 1971: 272. Probably a nominalized form. Not attested in any of T. Andersen's papers.

Shilluk: Heasty 1937: 82. Participial form: *pek-o*. Quoted as *pek-o*, also *pek-a piɲ* (where *piɲ* = 'earth' q.v.) 'to sit down' in [Kohnen 1994: 158].

75. SKIN

Nuer *guɔb* (1), Dinka *dɛl* (2), Reel *guop* (1), Mabaan *bɛːnan* (3), Jumjum *bɔŋ-n̄n̄* (3), Mayak *rɔdɛ #* (4), Shilluk *del* (2).

References and notes:

Nuer: Kiggen 1948: 116. Plural: *gʊp*. Meaning glossed as 'skin; leather'; cf. *guɔb wan* 'eye lid' (lit. = 'skin (of) eye'), showing that the word is applicable to humans. Quoted as sg. *guɔʰp*, pl. *gʊp* in [Frank 1999: 88]. Different equivalent listed in [Bender 1971: 271]: *kel* 'skin'. No such word is found in Kiggen's dictionary, but cf. perhaps *kol* 'skin of animal' [Kiggen 1948: 149], not applicable to humans.

Dinka: Nebel 1979: 23. Meaning glossed as 'skin (of men)'. Distinct from *biok* 'skin, hide' (animal) [Nebel 1979: 16]. Cf., however, *dɛːʰl* 'skin' in [Andersen 1987: 25], quoted in the sentence "the man is giving a skin" (this shows that in at least some dialects, such as Agar, the word is also applicable to animal skin). Phonetic variants of the root in [Roettger 1989: 32] include *dɛl* ~ *dɛʰl*, also *dɛn* in one subdialect of Padang. The form *biok* ~ *bioʰk* is listed as an alternate synonym for three additional subdialects, and the form *guop* is listed as an alternate synonym only for the Abiliang subdialect of Padang; it corresponds to *guop*, pl. *gʊp* 'body, oneself' in [Nebel 1979: 34], and, although clearly cognate with Nuer *guɔb* 'skin', cannot be judged as a lexicostatistical match with Nuer.

Reel: Roettger 1989: 32. Quoted as *gʊɔʰp* in [Reid 2010: 30].

Mabaan: Miller 2006: 6. Plural: *bey-yo*. Quoted as sg. *bɛːn̄n̄*, pl. *bɛy-y* in [Andersen 2006: 5]. Differently in [Bender 1971: 269]: *minware* 'skin' (an unclear compound form).

Jumjum: Andersen 2004: 139. Plural: *b y-gv̄*. Quoted as *bɔŋ-n̄n̄-de* in [Bender 1971: 268].

Kurmuk: Not attested.

Mayak: Bender 1971: 272. Not attested in any of T. Andersen's papers.

Shilluk: Heasty 1937: 24; Kohnen 1994: 42. Polysemy: 'skin / hide / body / whip made of hippo hide'.

76. SLEEP

Nuer *nien* (1), Dinka *ni:n* (1), Reel *niɛn* (1), Mabaan *ni:n* (1), Jumjum *ʔɔːt- #* (2), Kurmuk *n̄i:n-* (1), Mayak *nu:n-* (1), Shilluk *nɛn* (1).

References and notes:

Nuer: Kiggen 1948: 214. 3rd p. sg.: *ni:n-ɛ*. Quoted as *niyɛn* in [Bender 1971: 271].

Dinka: Nebel 1979: 61. The nominal equivalent is *nin* 'sleep (n.)' [ibid.]. Attested as *ni:n* ~ *nin* in all dialects and subdialects of Dinka in [Roettger 1989: 35].

Reel: Roettger 1989: 35.

Mabaan: Miller 2006: 79. Cf. also *nin-ɔo* 'to lie down, sleep, stay (e.g. overnight)' [ibid.]. Quoted as *nin-kv* in [Bender 1971: 269].

Jumjum: Andersen 2004: 154. Attested in the phrase "but he is not sleeping". Differently in [Bender 1971: 268]: *nin-kə* 'sleep' (probably a verbal noun). The fact that Bender's alternative is etymologically supported with data from Mabaan and Buruun makes Andersen's entry somewhat dubious; however, pending the publication of more accurate data on Jumjum, we go along with Andersen's selection since this is our primary source.

Kurmuk: Andersen 2007b: 37; Andersen 2015: 543. Polysemy: 'to lie / to sleep'.

Mayak: Andersen 2000: 31. Polysemy: 'to lie / to sleep'. Quoted as *nen-e* in [Bender 1971: 272].

Shilluk: Heasty 1937: 63. Quoted as *nenn-o* 'to sleep, to fall asleep' in [Kohnen 1994: 126].

77. SMALL

Nuer *tɔ-t* (1), Dinka *ti* (1), Reel *i=ɕiut* (2), Mabaan *ɕier-ɕier* (3), Jumjum *dɛːd-* (3), Mayak

leke # (4), Shilluk *t̥iŋ* (1).

References and notes:

Nuer: Kiggen 1948: 301. Adverbial and adjectival stem (*ke=tɔ-t* 'a little, a while'; *me=tɔ-t*, pl. *te=toa-ni* 'small'). Quoted as =*t^hɔt^h* in [Bender 1971: 271].

Dinka: Nebel 1979: 86. Plural: *t̥i*. Cf. also *kor* 'be small, little, young' [Nebel 1979: 42] (applied not only to age, cf. the example "the cloth is too small"; however, the primary semantics of this stem seems to refer to more abstract qualities than physical size). It is only this second root, however, that is listed as the equivalent for 'small' in [Roettger 1989: 31]: *kor ~ kur ~ a=kor ~ a=kor ~ kə=kor*.

Reel: Roettger 1989: 31.

Mabaan: Miller 2006: 36. Reduplicated stem. Quoted as *d̥iɛr-ɕe* in [Bender 1971: 269].

Jumjum: Andersen 2004: 142. The listed form is *d̥é:d-àŋ* 'it is small'. Quoted as *d̥ɛd-aŋ* in [Bender 1971: 142].

Kurmuk: Not attested.

Mayak: Bender 1971: 272. Not attested in any of T. Andersen's papers. Cf. *t̥ól-ɔk* 'smallness' in [Storch 2005: 114].

Shilluk: Heasty 1937: 98. Plural: *t̥ɛŋ-i ~ t̥ɔŋ-o*. Quoted as *t̥i^hŋ* in [Gilley 1992: 23]; as *t̥in*, pl. *t̥onn-o ~ t̥onn-i ~ t̥enn-i* in [Kohnen 1994: 198]. Cf. also *na*, pl. *juwoli* 'small' (prepositional adjective, seemingly acting as a diminutive morpheme or having the meaning 'young') [Heasty 1937: 65].

78. SMOKE

Nuer *tol* (1), Dinka *tol* (1), Reel *tol* (1), Mabaan *zie-n* (2), Jumjum *ze-ŋə* # (2), Mayak *ri-t* (2), Shilluk *yi^hr-o* (2).

References and notes:

Nuer: Kiggen 1948: 299. Pl.: *tol*. Quoted as *t^hol* in [Bender 1971: 271].

Dinka: Nebel 1979: 84. Quoted as *t̥ò:l*, pl. *twò:l* in [Andersen 1987: 4; Andersen 2002: 6]. Quoted as *tol ~ to^h* for all the subdialects of Dinka in [Roettger 1989: 36].

Reel: Roettger 1989: 36.

Mabaan: Miller 2006: 50. Plural: *zie-t̥an*. Quoted as *ze-nu* in [Bender 1971: 269].

Jumjum: Bender 1971: 268. Not attested in any of T. Andersen's papers.

Kurmuk: Not attested.

Mayak: Andersen 1999c: 3. Quoted as *re-t̥* in [Bender 1971: 272].

Shilluk: Heasty 1937: 108. Quoted as *ir-o ~ yir-o* in [Kohnen 1994: 69].

79. STAND

Nuer *ɕuɛŋ* (1), Dinka *kɔɕ* (2), Reel *zero* (3), Mabaan *ya:d̥* (4), Jumjum *yùd̥-* (4), Mayak *ya:d-ɛ* # (4), Shilluk *ɕuŋ* (1).

References and notes:

Nuer: Kiggen 1948: 67. 3rd p. sg.: *ɕu:ŋ-ɛ*. Transitive and intransitive stem, with polysemy: 'to stand up / to stop / to correct'. Quoted as *ɕviŋ-ni* in [Bender 1971: 271].

Dinka: Nebel 1979: 41. Indicative form: *a=kaɕ*. Meaning glossed as 'stop, wait' in the main body of the dictionary, but also as 'stand' in the English-Dinka index [Nebel 1979: 190]. Morphological and phonetic variants of this stem in [Roettger 1989: 35] include *kɔɕ ~*

$ko^h:\phi \sim ko^h:\phi \sim ka:\phi \sim ka^h:\phi \sim ka^h:\phi - \varepsilon$, but the root is always the same.

Reel: Roettger 1989: 35.

Mabaan: Miller 2006: 20. Additional morphological variant: $yo:n-ni$ [ibid.]. Quoted as $yo:n-\eta\varepsilon$ in [Bender 1971: 269].

Jumjum: Andersen 2004: 141. The quoted form is $y\grave{o}d-\grave{i}t$ 'they are standing'. Quoted as $yud-\grave{d}in$ in [Bender 1971: 268].

Kurmuk: Not attested.

Mayak: Bender 1971: 272. Not attested in any of T. Andersen's papers.

Shilluk: Heasty 1937: 22. Polysemy: 'stop / wait / stand / stay'. Quoted as $\phi\eta\eta-o$ 'to stand (still), to stop, to remain standing; to wait' in [Kohnen 1994: 33].

80. STAR

Nuer ϕier (1), Dinka $ku\phi l$ (2), Reel $kwel$ (2), Mabaan $ke:l-o$ (2), Jumjum $k\grave{i}t-t\grave{\eta}$ (3), Mayak $ket-m-\varepsilon t$ (3), Shilluk $kyel-o$ (2).

References and notes:

Nuer: Kiggen 1948: 57. Plural: ϕer . Cf. a different equivalent in [Frank 1999: 89]: sg. $kuel$, pl. $kuel-i^h$, also quoted as $kwel$ in [Bender 1971: 271]. In Kiggen's dictionary, the meaning for this word is specialized: $kuel$ 'big star near the Southern Cross', cf. also $kue:l-\varepsilon$ 'Pleiades star' [Kiggen 1948: 157].

Dinka: Nebel 1979: 44. Plural: $ku\phi l$. Quoted as sg. $ku\phi l$, pl. $ku\phi l$ in [Andersen 1987: 14, 15]. Quoted as $kwel \sim kw\phi l \sim kuil \sim kwil$ for various dialects and subdialects of Dinka in [Roettger 1989: 36]. A completely different equivalent, however, is attested for the Ruweng-Pan-Aru subdialect: $\phiier \sim \phi i:\varepsilon r \sim \phi i\varepsilon^hr \sim \phi i\hat{\varepsilon}$, and the same root ($\phi i\varepsilon^hr$) is also attested for the Twic subdialect of Bor. This word, glossed as ϕier , is also attested in [Nebel 1979: 44] in the meaning 'Venus, evening star; big star'. Cf. similar competition between these two words in various dialects of Nuer.

Reel: Roettger 1989: 36.

Mabaan: Miller 2006: 55. Plural: $ke:l-tan$. Quoted as sg. $ke:l-l$, pl. $ke:l-tan$ in [Andersen 2006: 5]; as $ke:l-tan$ in [Bender 1971: 269].

Jumjum: Andersen 2004: 144. Quoted as $kit-\phi$ in [Bender 1971: 268].

Kurmuk: Not attested.

Mayak: Andersen 2000: 32. Plural: $ket-m$. Quoted as $ket-en-\varepsilon t$ in [Bender 1971: 272]; as pl. $ke:t-\eta\eta$, sg. $ke:t-\eta\eta-\varepsilon t$ in [Storch 2005: 109].

Shilluk: Heasty 1937: 50. Plural: $kyel$. Quoted as sg. $kyel-o \sim kiel-o$, pl. $kiel$ in [Kohnen 1994: 95].

81. STONE

Nuer pam (1), Dinka kur (2), Reel $a=\eta\eta ual$ (3), Mabaan $guo-nan$ (4), Jumjum $gu-\eta\eta\eta$ # (4), Kurmuk $g\acute{u}r-\acute{i}t$ (2), Mayak $gur-it$ # (2), Shilluk ki^ht (5).

References and notes:

Nuer: Kiggen 1948: 249. Plural: $pa:m$. Same word as 'mountain' q.v. Quoted as p^hem in [Bender 1971: 271]. Different equivalent in [Frank 1999: 89]: sg. do^hl , pl. dv^hl 'stone'. The closest equivalent to this in Kiggen's dictionary is dol , pl. $do:l$ 'heap of earth to support cooking pot' [Kiggen 1948: 81].

Dinka: Nebel 1979: 46. Plural: $kuor$. Polysemy: 'stone / hill'. Quoted as $ku\acute{u}r$ 'stone, rock' in [Andersen 1987: 16]. Judging by the data in [Roettger 1989: 36], this item is notoriously unstable between Dinka dialects. No less than four different equivalents are found in Roettger's lists: (1) Nebel's kur is typical of all three subdialects of the Bor dialect (as kur); of the Dongjol and Ngok subdialects of Padang (as $ku:r$); and is also encountered in the Gok subdialect of Agar (as kur). (2) The form koi is attested in the Abiliang subdialect of Padang and in the Alor subdialect of Ruweng (as $k\acute{o}i$). It corresponds to Nebel's koi 'gravel', attested only for the Agar dialect [Nebel 1979: 41]. (3) The form $do^ht \sim do^ht$ is scattered throughout six various subdialects of Padang, Ruweng, and Agar. It finds no

equivalent in Nebel's dictionary. (4) The form *alɛl* is the main equivalent for 'stone' in all the subdialects of the Rek dialect, as well as one of the main equivalents for 'stone' in most of the subdialects of Agar. In [Nebel 1979: 8], this word, quoted as *alɛl*, pl. *alɛ:l*, is glossed as 'haematite, red stone; ironstone country'. As usual, it remains unclear and unconfirmed whether all these additional forms really function as the base equivalents of the Swadesh meaning 'stone' in all the individual subdialects. In any case, distribution-wise, *kur* is clearly the optimal candidate for the original 'stone' on the Proto-Dinka level.

Reel: Roettger 1989: 36.

Mabaan: Miller 2006: 47. Plural: *gui-yo ~ guo-yo*. Quoted as *gwe-yu* in [Bender 1971: 269]. In T. Andersen's works, a different word is listed with the neutral meaning 'stone': sg. *kɛl-lá*, pl. *kɛl-k* / [Andersen 2006: 10]. The closest equivalent to it in Miller's dictionary is sg. *kɛl ~ kello*, pl. *kɛ:l-ko* 'dirt mound to hold pot in place on fire' [Miller 2006: 56].

Jumjum: Bender 1971: 268. Not attested in any of T. Andersen's papers.

Kurmuk: Andersen 2007b: 39. Plural: *gúr-ín*.

Mayak: Bender 1971: 272. Not attested in any of T. Andersen's papers. Cf. *wúr-it*, pl. *wúr-ín* 'rock, stone' in [Storch 2005: 108].

Shilluk: Heasty 1937: 45. Same word as 'mountain' q.v. Plural: *ki^ht-i*. Quoted as sg. *kid-i*, pl. *kit-i* 'stone, mountain, hill' in [Kohnen 1994: 83]. Distinct from *lɛ^hl-o* 'gravel' [Heasty 1937: 52], quoted as *lɛ:l-ɔ* 'stone' in [Gilley 1992: 47].

82. SUN

Nuer *ɕaŋ* (1), Dinka *a=kɔl* (2), Reel *ɕiaŋ* (1), Mabaan *oŋ* (1), Jumjum *ʔáŋ-* (1), Mayak *əŋ* # (1), Shilluk *ɕa^hŋ* (1).

References and notes:

Nuer: Kiggen 1948: 52. Plural: *ɕaŋ-ni*. Quoted as sg. *ɕa^hŋ*, pl. *ɕa^hŋ-ni^h* in [Frank 1999: 89]; as *ɕeŋ* in [Bender 1971: 271].

Dinka: Nebel 1979: 7. Glossed as *akɔl ~ akɔ^hl* in the majority of Dinka dialects in [Roettger 1989: 35]. However, most of the subdialects of Agar (with the exception of Aliab) feature a different lexeme: *ruɛl ~ a=ruɛl*. In [Nebel 1979: 7], the verb *ruɛl* is glossed as 'to shine, be hot (of sun)'; no nominal usage is attested there.

Reel: Roettger 1989: 35. Quoted as *ɕɛ^hŋ* in [Reid 2010: 30].

Mabaan: Miller 2006: 86. Polysemy: 'sun / day / time'. Plural: *oŋ-ko*. The meaning 'sun', contrastive with 'day', may also be expressed by the compound form *oŋ waŋɛ*, literally = 'sun's eye'; this is quoted as *ɔŋ-wa:ŋɛ* in [Bender 1971: 269].

Jumjum: Andersen 2004: 159. The listed form is plural: *ʔáŋ-k* / 'suns'. Quoted as *ʔəŋ* in [Bender 1971: 268].

Kurmuk: Not attested.

Mayak: Bender 1971: 272. Not attested in any of T. Andersen's papers.

Shilluk: Heasty 1937: 19. Polysemy: 'sun / day'. Quoted as *ɕa^hŋ* in [Gilley 1992: 25]; as *ɕaŋ*, pl. *ɕaŋ ~ ɕyaŋ* 'sun, day; time'.

83. SWIM

Nuer *ke:d* (1), Dinka *kuaŋ* (2), Reel *kɛt* (1), Mabaan *kaŋ-* # (2), Jumjum *ŋəi-pek* # (3), Mayak *kaŋ* # (2), Shilluk *kwaŋ* (2).

References and notes:

Nuer: Kiggen 1948: 139. 3rd p. sg.: *ke:d-ɛ*. Quoted as *k^hit^h* in [Bender 1971: 271].

Dinka: Nebel 1979: 43. Quoted as *kuá:ŋ* in [Andersen 1987: 21]. Quoted as *kuaŋ* for all dialects and subdialects of Dinka in [Roettger 1989: 35].

Reel: Roettger 1989: 35.

Mabaan: Miller 2006: 506. Attested only in [Andersen 1999a: 506] (*ŋiyà kâŋ-d ñl* will swim). In [Bender 1971: 269], the equivalent is *ŋei pyetin*, a compound form probably meaning 'to roll / play in the water', cf. *ŋiey* 'to play; to roll, push' [Miller 2006: 83] + 'water'

q.v.

Jumjum: Bender 1971: 268. Not attested in any of T. Andersen's papers. The second part is 'water' q.v.; the first part is clearly the same as *yiey* 'to play' in Mabaan.

Kurmuk: Not attested.

Mayak: Bender 1971: 272. Not attested in any of T. Andersen's papers.

Shilluk: Heasty 1937: 48; Kohnen 1994: 90. Noun ('swimming') and verb ('swim').

84. TAIL

Nuer *ʒua:l* (1), Dinka *yɔl* (1), Reel *ʒuel* (1), Mabaan *wi:l-ε* (1), Jumjum *wi:l* (1), Kurmuk *wi:l* (1), Mayak *wi:l* (1), Shilluk *yi^hp* (2).

References and notes:

Nuer: Kiggen 1948: 130. Plural: *ʒual*. Quoted as *ʒuel* in [Bender 1971: 271].

Dinka: Nebel 1979: 98. Quoted as *yɔ:^hl* in [Andersen 1987: 4]. Quoted as *yɔ:^hl* for most subdialects of Dinka in [Roettger 1989: 33], although a few of them lose the aspiration (*yɔl* in the Dongjol subdialect of Padang, the Lua subdialect of Rek, etc.; cf. also *yuo^hl* in Agar proper).

Reel: Roettger 1989: 33.

Mabaan: Miller 2006: 109. Plural: *wil-ke*. Quoted as *wi:l-* / in [Andersen 1999: 100]; as *y'il-e* in [Bender 1971: 269].

Jumjum: Andersen 2006b: 13. Cf. the possessive form: *wi:l-ə* 'its tail' [Andersen 2004: 135]. Quoted as *wil-e* in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 57. Plural: *wil-in*.

Mayak: Andersen 2000: 32. Plural: *wi:l-ak ~ wil-it ~ wil-dm*. Quoted as *βel-e* in [Bender 1971: 272].

Shilluk: Heasty 1937: 108. Plural: *yi^hp*. Quoted as sg. *yēb*, pl. *yḕ̀b* in [Gilley 2000: 5]; as *yé^hp*, pl. *yé̀̀^hp* in [Gilley 1992: 64]; as *yiep*, pl. *yieb* in [Kohnen 1994: 220].

85. THAT₁

Nuer =ɔ (1), Dinka =e^h (2), Reel *mi* (3), Mabaan *wa=n* (4), Jumjum *yâ:=nnà* (4), Shilluk =an=i # (2).

References and notes:

Nuer: Kiggen 1948: 19. Intermediate deictic stem, usually preceded by a number marker and postfixed to the determined noun: =m=ɔ ~ =em=ɔ 'that' (e. g. *ɔo:l-ɔ ~ ɔo:l-εmɔ ~ ɔo:l-ɔmɔ* 'that boy over there'; *mɔm=ɔ* 'that (subj.)', pl. *tεt=ɔ*).

Dinka: Not properly attested in [Nebel 1979], where only the complex nominalized form is specified: *kene* 'that' [Nebel 1979: 40]. Andersen defines it as a high tone breathy vowel: =e^h [Andersen 1987: 5].

Reel: Roettger 1989: 30.

Mabaan: Miller 2006: 106. Also *wan-na* id. Quoted as *wán* in [Andersen 1992: 186]; as *wánnà ~ wá:yè* in [Andersen 2006: 24].

Jumjum: Andersen 2006: 24. Plural: *yâ:=kk=à*.

Kurmuk: Not attested.

Mayak: Not attested.

Shilluk: Existing sources give either insufficient or confusing information on deictic systems in Shilluk. In the old grammar [Westermann 1911: 17-18], the system is given as follows: *à-n* 'this' (pl. *à-k ~ à-n ~ à-gàk*), *éni* 'that, those', *à-čà* 'that / those over there'. None of these forms, however, are found in the same meaning in Heasty's or Kohnen's dictionaries. Heasty gives *men*, pl. *mɔk* as the default form for both 'this' and 'that', also listing the complex forms *men-aça* 'that one there', *men-açine* 'that one yonder', *men-an* 'this one', *men-ani* 'that one'. However, *men* is a nominal rather than adjectival form - cf. *men*, pl. *mog* 'who, which, that; whoever,

whatever, whose, wherewith, whereby, whereupon; one who, anybody who, everyone who' [Kohnen 1994: 116]; *men-an* 'this one here', *men-ani* 'that one there' [ibid.]. We tentatively include *an* as the equivalent for near deixis and its extension *an=i* (= Westermann's *éni*) as the equivalent for distal deixis, but this would need to be confirmed by data from newer sources (unfortunately, as of now, no modern-level grammar of Shilluk is available).

85. THAT₂

Nuer =*i* (2).

References and notes:

Nuer: Kiggen 1948: 19. Distant deictic stem, usually preceded by a number marker and postfixed to the determined noun: =*m=i* ~ =*em=i* 'that' (e. g. *ḍo:l-i* ~ *ḍo:l-emi* 'that boy farthest away'; *mim=i* 'that (subj.)', pl. *tit=i*).

86. THIS

Nuer $\varepsilon \sim \varepsilon m \varepsilon$ (1), Dinka =*e* (1), Reel $y\varepsilon-n\varepsilon$ (1), Mabaan $ne:=n=i$ (1), Jumjum $yâ:=nn=i$ (1), Kurmuk $\text{ʔi}=n=\text{ì}$ (1), Mayak $\varepsilon n \#$ (1), Shilluk =*an* # (1).

References and notes:

Nuer: Kiggen 1948: 19. Proximal deictic stem, usually preceded by a number marker and postfixed to the determined noun: =*m=ε* ~ =*em=ε* 'that' (e. g. *ḍo:l-ε* ~ *ḍo:l-εmε* 'this boy'; *mem=ε* 'this (subj.)', pl. *tit=i*). Cf. *n=imh* 'this' in [Bender 1971: 271].

Dinka: Nebel 1979: 29. Grammatical marker, postfixed to the determined noun. Andersen defines it as a low tone breathy vowel: =*e^h* [Andersen 1987: 5]. The nominalized form ('this thing') is *kən* ~ *kənə* [Nebel 1979: 40], a contraction with *ka* ~ *ke* 'thing'.

Reel: Roettger 1989: 30.

Mabaan: Miller 2006: 79. Quoted as *né:nè* in [Andersen 1992: 204]. Cf. *genəw* 'this' in [Bender 1971: 269]; the first morpheme here is clearly *gen* 'thing' [Miller 2006: 43].

Jumjum: Andersen 2006: 24. Plural: $yâ:=kk=i$. Quoted as *ya=mi* in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 73. Plural: $\text{ʔi}=k=\text{ì}$.

Mayak: Bender 1971: 272. Not attested in any of T. Andersen's papers.

Shilluk: See notes on 'that'.

87. THOU

Nuer $\text{ʒi}-n$ (1), Dinka $y\text{i}-n$ (1), Reel $y\text{i}-n$ (1), Mabaan *i* (1), Jumjum $\text{ík}=i$ # (1), Kurmuk ì (1), Mayak $e-ne\phi$ # (1), Shilluk *yi* (1).

References and notes:

Nuer: Kiggen 1948: 18. Object form: ʒi ; verbal suffix *i*. Quoted as $\text{ʒi}-n$ in [Bender 1971: 271].

Dinka: Nebel 1979: 97. Possessive prefix: *yi-* [ibid.]. Phonetically realized as *yi-n* or *y\text{i}-n* in various dialects [Roettger 1989: 30].

Reel: Roettger 1989: 30.

Mabaan: Miller 2006: 48. Quoted as ʔi in [Andersen 1992: 186]; as *e-ke* in [Bender 1971: 269].

Jumjum: Bender 1971: 268. Not attested in any of T. Andersen's papers.

Kurmuk: Andersen 2007b: 42. Short form; the full stem is $\text{ʔi}-n\text{ì}$ [Andersen 2007b: 38].

Mayak: Bender 1971: 272. Full stem.

Shilluk: Heasty 1937: 106; Kohnen 1994: 219. Quoted as *yi^h* in [Gilley 1992: 99].

88. TONGUE

Nuer *lep* (1), Dinka *liép* (1), Reel *liép* (1), Mabaan *lém-mu* (1), Jumjum *lé^hm-mà* (1), Mayak *lep* (1), Shilluk *le^hp* (1).

References and notes:

Nuer: Kiggen 1948: 172. Plural: *leb*. Quoted as sg. *lep*, pl. *le^hp* in [Frank 1999: 89]; as *lep^h* in [Bender 1971: 271].

Dinka: Nebel 1979: 49. Quoted as sg. *liép*, pl. *lié^hp* in [Andersen 1987: 4, 14]. Quoted as *liép* ~ *liép* for all the dialects and subdialects of Dinka in [Roettger 1989: 33].

Reel: Roettger 1989: 33.

Mabaan: Miller 2006: 66. Plural: *lep-u*. Quoted as sg. *lé^hm-má*, pl. *lé^hp-á* in [Andersen 2006: 9]; as *lém-mv* in [Bender 1971: 269].

Jumjum: Andersen 2004: 149. Plural: *lèp*. Quoted as *lém-mə* in [Bender 1971: 268].

Kurmuk: Not attested.

Mayak: Andersen 1999c: 3. Quoted as *leb-ε* in [Bender 1971: 3]; as sg. *lép*, pl. *lèb-én* in [Storch 2005: 100]. According to Storch, with polysemy: 'tongue / lip'.

Shilluk: Heasty 1937: 52. Plural: *lep-i*. Quoted as sg. *léb*, pl. *lèèb* in [Gilley 2000: 1]; as *lep* in [Kohnen 1994: 101].

89. TOOTH

Nuer *lei* (1), Dinka *le:ç* (1), Reel *lei* (1), Mabaan *leŋ-ŋo* (1), Jumjum *léŋ-ŋà* (1), Kurmuk *lèg-ìt̚* (1), Mayak *ley-ìt̚* (1), Shilluk *le:z-o* (1).

References and notes:

Nuer: Kiggen 1948: 171. Plural: *le-ç*. Quoted as sg. *leç*, pl. *le:ç* in [Frank 1999: 89]; as *leⁱ* in [Bender 1971: 271].

Dinka: Nebel 1979: 48. Plural: *leç*. Quoted as sg. *lè^hç*, pl. *lèç* in [Andersen 1987: 2]. Quoted as *le^hç* ~ *leç* for most dialects of Dinka in [Roettger 1989: 33], but as *lei* for the Bor dialect.

Reel: Roettger 1989: 33.

Mabaan: Miller 2006: 66. Plural: *lek-ε*. Quoted as sg. *léŋ-ŋá*, pl. *lèk-á* in [Andersen 2006: 5]; as *lek-v* in [Bender 1971: 269].

Jumjum: Andersen 2004: 149. Plural: *lèk*. Quoted as *lek-ε* in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 43.

Mayak: Andersen 1999c: 68; Storch 2005: 99. Plural: *lek*. Quoted as *leg-it* in [Bender 1971: 272].

Shilluk: Heasty 1937: 52. Plural: *lek*. Quoted as sg. *lèz-ò*, pl. *lèk* in [Gilley 1992: 86]; as sg. *lèz-ò*, pl. *lèg* in [Gilley 2000: 15]; as sg. *le:z-o*, pl. *lek* in [Kohnen 1994: 100].

90. TREE

Nuer *zia-t* (1), Dinka *tim* (2), Reel *za-t̚* (1), Mabaan *za:-n-o* (1), Jumjum *zâ:-n* (1), Kurmuk *yá:-t̚* (1), Mayak *ya:-t̚* (1), Shilluk *ya-t̚* (1).

References and notes:

Nuer: Kiggen 1948: 125. Polysemy: 'tree / wood / timber'. Plural: *ʒe-n*. Quoted as sg. *ʒia-t*, pl. *ʒie-n* in [Frank 1999: 89]; as *ʒia-t* in [Bender 1971: 271].

Dinka: Nebel 1979: 83. Plural: *ti:m*. Polysemy: 'tree / wood'. Quoted as sg. *ti:m*, pl. *ti:m* in [Andersen 1987: 4]; as *tim* in [Roettger 1989: 32].

Reel: Roettger 1989: 32. Quoted as *ʒá^h-t* in [Reid 2010: 36].

Mabaan: Miller 2006: 49. Polysemy: 'tree / wood / log / pole / post'. The same source also lists the form sg. *ʒa:m-o*, pl. *ʒa:m-go* 'tree' [ibid.]; it is unclear whether this is a different root (not highly unlikely) or a dialectal variant (which would still require an explanation for the strange shift $n > m$). Quoted as sg. *ʒá-n-ɔ*, pl. *ʒá-n-g* in [Andersen 2006: 14]; as *ʒa:n-v* in [Bender 1971: 269].

Jumjum: Andersen 2004: 139. Plural: *ʒé-n-g*. Quoted as *ʒa:n* in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 33. Plural: *yá-n* [Andersen 2007b: 76].

Mayak: Andersen 1999c: 73; Andersen 1999d: 18. Plural: *yá-n*. Quoted as *ya-t* in [Bender 1971: 272]; as sg. *ya-t*, pl. *yá-n* in [Storch 2005: 113].

Shilluk: Heasty 1937: 106; Kohnen 1994: 217. Plural: *yɛ-ɪ*. Polysemy: 'tree / bush / medicine' (acc. to Kohnen).

91. TWO

Nuer *reu* (1), Dinka *rou* ~ *reu* (1), Reel *rou* (1), Mabaan *yyɛ:wo* (1), Jumjum *yéwwè* (1), Kurmuk *rɛ:* (1), Mayak *rɛ:* (1), Shilluk *a=ryo* (1).

References and notes:

Nuer: Kiggen 1948: 268. Quoted as *rreu* in [Bender 1971: 271].

Dinka: Nebel 1979: 76, 79. Also *ka=reu* id. Quoted as *ròw* in [Andersen 1987: 4]. Consistently listed as *rou* for all subdialects of Dinka in [Roettger 1989: 31], except for the Twic subdialect of Bor, where the same word has the (more archaic) phonetic shape *reu*.

Reel: Roettger 1989: 31.

Mabaan: Miller 2006: 123. Quoted as *yawə* in [Bender 1971: 269].

Jumjum: Andersen 2004: 145. Quoted as *yàúwè* in [Bender 1971: 268].

Kurmuk: Andersen 2007b: 83.

Mayak: Andersen 1999c: 95. Quoted as *a=rɛ* in [Bender 1971: 272].

Shilluk: Heasty 1937: 10 (the phonetic variant *a=yo* is also listed). Quoted as *a=ryow* in [Kohnen 1994: 10].

92. WALK (GO)

Nuer *w-a* (1), Dinka *lɔ* (2), Reel *wɛ-r* (1), Mabaan *at* (3), Jumjum *ət-ə* # (3), Kurmuk *?ad-* (3), Mayak *ad-ɛr* # (3), Shilluk *kɛt* (4).

References and notes:

Nuer: Kiggen 1948: 319. Alternate stems are listed as *w-i*, *w-ɛ*, etc.; cf. also imperative *wɛ-r*. Quoted as *wi-rr* (imperative form) in [Bender 1971: 271].

Dinka: Nebel 1979: 50. Indicative form: *a=la*. Quoted as *à=l*: "he is going" in [Andersen 2002: 12]. Quoted as *lɔ* for the majority of dialects and subdialects in [Roettger 1989: 35]; some subdialects also feature the morphological variants *la* and *lɔ-r* of the same stem. The only true exception is the Luac subdialect of Rek, where the equivalent is *ʒal* = *ʒal* 'go away, leave' in [Nebel 1979: 35].

Reel: Roettger 1989: 35.

Mabaan: Miller 2006: 3. Quoted as *ʒat-* in [Andersen 1999: 512]. Cf. *v:ti* 'go' in [Bender 1971: 269].

Jumjum: Bender 1971: 268. Probably a verbal noun. Not attested in any of T. Andersen's papers, but external data confirms that this is the likeliest neutral candidate for the meaning 'go' in the language.

Kurmuk: Andersen 2015: 516. Attested in the form: *á=ʔáǵ-í* "I will go".

Mayak: Bender 1971: 272. Probably a verbal noun. Not attested in any of T. Andersen's papers, but external data confirms that this is the likeliest neutral candidate for the meaning 'go' in the language.

Shilluk: Heasty 1937: 44. Imperative form; the participle is *keǵ-o*. Quoted as *keǵ*, part. *keǵ-ɔ* in [Gilley 1992: 110]; as *keǵ-o ~ keǵ-o* 'to go, to walk, to enter, to continue' in [Kohnen 1994: 80].

93. WARM

Nuer *tɔ:l-ε* (1), Dinka *tuǵ* (2), Reel *leǵ* (3), Mabaan *ǵar-ǵin* (4), Jumjum *miǵ-an* # (5), Mayak *miǵ-miǵ* # (5), Shilluk *leǵ* (3).

References and notes:

Nuer: Kiggen 1948: 316. Verbal stem; meaning glossed as 'to be hot (of liquids, sun etc.)'. Distinct from *mor-mɔr* 'lukewarm' [Kiggen 1948: 206], quoted as *mɔr-mɔr* 'warm' in [Bender 1971: 271]. Cf. also *bor-bor* 'warm' [Kiggen 1948: 41] (derived from the verb *bor-* 'to burn').

Dinka: Nebel 1979: 84. Meaning glossed as 'hot, warm' (also nominal: 'heat, sweat, perspiration'). Allegedly distinct from *mor* 'lukewarm, tepid' [Nebel 1979: 59]. Cf. *à=tù^hǵ* "it is hot" in [Andersen 1987: 12]. Quoted as *tuǵ ~ tuoǵ ~ tuiǵ ~ tuɔǵ ~ a=tuǵ ~ a=tuiǵ ~ ke=tuǵ ~ kv=tuiǵ ~ tuɔi* for all the dialects and subdialects of Dinka in [Roettger 1989: 37]; all forms represent phonetic and morphological variants of the same root.

Reel: Roettger 1989: 37. Meaning glossed as 'hot'.

Mabaan: Miller 2006: 19. Verbal stem (3rd p. sg. form). Meaning glossed as 'hot' (e. g. of 'water'). Cf. *meǵ-ǵen* 'warm' in [Bender 1971: 269] (no separate word for 'warm' is listed in Miller's dictionary, and Bender's form finds no confirmation in that source).

Jumjum: Bender 1971: 268. Not attested in any of T. Andersen's papers.

Kurmuk: Not attested.

Mayak: Bender 1971: 272. Reduplicated stem. Not attested in any of T. Andersen's papers. Cf. *miǵ-ǵn* 'warmth, fever' in [Storch 2005: 103].

Shilluk: Heasty 1937: 52. Meaning glossed as 'hot, sore'. Quoted as *leǵ ~ leǵ* 'warm, hot' in [Kohnen 1994: 102]. Distinct from *mɔr* 'warm' [Heasty 1937: 61], quoted as *mɔr* (verbal stem) 'to warm up, to make lukewarm, to make tepid' in [Kohnen 1994: 120].

94. WATER

Nuer *pi* (1), Dinka *piu* (1), Reel *pi* (1), Mabaan *pie-go* (1), Jumjum *pî-k* (1), Kurmuk *pî:* (1), Mayak *pi:* (1), Shilluk *pi* (1).

References and notes:

Nuer: Kiggen 1948: 254. Quoted as *pi^hw* in [Frank 1999: 89]; as *p^hi:* in [Bender 1971: 271].

Dinka: Nebel 1979: 71. Plurale tantum. Quoted as *pi^hw* [in Andersen 2002: 9]. Quoted as *piu* for all dialects and subdialects of Dinka in [Roettger 1989: 36].

Reel: Roettger 1989: 36. Quoted as *pî^h* in [Reid 2010: 30].

Mabaan: Miller 2006: 91. Formally a plural form. Quoted as *pî:e-g- /* in [Andersen 2006a: 15]; as *p^hiǵ-gv* in [Bender 1971: 269].

Jumjum: Andersen 2004: 141. Quoted as *pe-k* in [Bender 1971: 268].

Kurmuk: Andersen 2015: 516. Plurale tantum.

Mayak: Andersen 1999c: 66. Quoted as *pi* in [Bender 1971: 272].

Shilluk: Heasty 1937: 82. Quoted as *pi ~ pi-n ~ pi-g ~ pi-k* in [Kohnen 1994: 160].

95. WE₁

Nuer *kɔ-n* (1), Dinka *o-k ~ o-g* (2), Reel *kɔ* (1), Mabaan *ɔ-n* (2), Jumjum *ʔik=ɔ̂:-n* (2), Kurmuk *í* (3), Mayak *ɔ-nɔk #* (2), Shilluk *wɔ* (2).

References and notes:

Nuer: Kiggen 1948: 18. Exclusive form. Object form and verbal suffix: *kɔ*. Quoted as *k^hɔn* in [Bender 1971: 271].

Dinka: Nebel 1979: 68. Prefixal shortened form is simply *o* (*o-ŋi:m* 'in front of us', *o-ŋie* 'we all', etc.). No clusivity. Various dialectal realizations of the stem include *o-k ~ o-k ~ wo:-k ~ wɔ:-k ~ ɣo-k* [Roettger 1989: 30].

Reel: Roettger 1989: 30.

Mabaan: Miller 2006: 89. Exclusive form. Quoted as *ʔɔ:n* in [Andersen 1992: 186].

Jumjum: Andersen 2004: 156. Exclusive form.

Kurmuk: Andersen 2007b: 42. Inclusive form. The exclusive correlate is *í-n*.

Mayak: Bender 1971: 272. Not attested in any of T. Andersen's papers.

Shilluk: Heasty 1937: 104. Exclusive form. Quoted as *wɔ* in [Kohnen 1994: 211].

95. WE₂

Nuer *kɔ:-n* (1), Mabaan *ik=i-n* (3), Jumjum *ʔik=î:-n* (3), Shilluk *wa* (4).

References and notes:

Nuer: Kiggen 1948: 18. Inclusive and dual form. Object form: *kɔ:-n*. Verbal suffix: *ne*.

Mabaan: Miller 2006: 48. Inclusive form. Quoted as *ikin* 'we' in [Bender 1971: 269].

Jumjum: Andersen 2004: 135. Quoted as *ikí:n* in [Bender 1971: 268].

Shilluk: Heasty 1937: 99; Kohnen 1994: 204. Inclusive form.

96. WHAT

Nuer *ŋu* (1), Dinka *ŋo* (1), Reel *adia=ŋu* (1), Mabaan *=à* (2), Jumjum *a=ŋa:-ka #* (1), Kurmuk *ŋò:* (1), Mayak *ŋə #* (1), Shilluk *a=ŋo* (1).

References and notes:

Nuer: Kiggen 1948: 227. Quoted as *ε=ŋuh* in [Bender 1971: 271].

Dinka: Nebel 1979: 63. Quoted as *ŋo ~ ŋu ~ e=ŋo ~ e=ŋu ~ ye=ŋu* in different subdialects of Dinka in [Roettger 1989: 30]; also as *kε=no, ke=ŋŋo, e kan ŋɔ, ye ka=ŋɔ*, etc. All of these forms seem to contain the same root with minor phonetic variations, sometimes in conjunction with a preceding copula.

Reel: Roettger 1989: 30. The first component is probably a copula, cf. the external parallels in Nuer and Dinka.

Mabaan: Andersen 1999: 102. The inanimate interrogative pronouns in Mabaan are formed on the basis of the suppletive noun 'thing' (sg. *gɛ-n-á*, pl. *wá:-k-á*): sg. *gɛ=n=à*, pl. *wá=k=à*, where, apparently, the main carrier of the interrogative meaning is the final monovocalic morpheme with low tone. In [Miller 2006], special interrogative forms derived from 'thing' are not recorded explicitly, but are sometimes encountered in textual examples. Cf. also *genɔ* 'what' in [Bender 1971: 269].

Jumjum: Bender 1971: 268. Not attested in any of T. Andersen's papers.

Kurmuk: Andersen 2007b: 41.

Mayak: Bender 1971: 272. Not attested in any of T. Andersen's papers.

Shilluk: Heasty 1937: 115. Quoted as sg. *a=ηo*, pl. *o=ηo* in [Kohnen 1994: 9].

97. WHITE

Nuer *bo:r* (1), Dinka *ma=bior* (1), Reel *bor* (1), Mabaan *bɔw-an* (1), Jumjum *bɔw-an* # (1), Kurmuk *b̂* (1), Mayak *bɔ-* (1), Shilluk *tar* (2).

References and notes:

Nuer: Kiggen 1948: 41. Polysemy: 'white / clear and new'. Quoted as *=borr* in [Bender 1971: 271].

Dinka: Nebel 1979: 55. The Agar form is *ma=bor* [ibid.]. Cf. also *yar* 'white, pale' [Nebel 1979: 96]. As is typical of color terms, the data in [Roettger 1989] are significantly different: *ma=bior* ~ *ma=bor* is only listed as an alternate synonym for 'white' for the Rek proper and Malual subdialects of Rek, whereas the most common equivalent is *γer* ~ *γe:r* ~ *γe:^hr* ~ *γər* ~ *a=γer* ~ *γer* ~ *a=γir* ~ *ke=γer* ~ *kə=γer* ~ *kv=γe:r* = *ɛ:r* 'light', *ɛer* 'clean, white, pure' [Nebel 1979: 74]. As usual, it is unclear if the Rek dialect is really alone in preserving the archaic Nuer-Dinka equivalent for 'white', or if the rest of the dialects were inaccurately glossed in [Roettger 1989] (e. g. 'bright, pure' instead of proper 'white').

Reel: Roettger 1989: 37.

Mabaan: Miller 2006: 13. Cf. also the verbal stem: *bɔ-ɔ* 'to become white' [Miller 2006: 12]. Cf. also *bɔ-na-bɔ-no* 'white, very' [ibid.]. Quoted as *b̂w-án* in [Andersen 1992: 203]; as *bɔ-šin* in [Bender 1971: 269].

Jumjum: Bender 1971: 268. Not attested in any of T. Andersen's papers.

Kurmuk: Andersen 2007b: 78. Attested in the predicative form *b̂-ki* 'it is white'.

Mayak: Andersen 1999c: 95. The exact quoted form is *bɔ-ɔ-bɔ* 'is white'. Cf. *ba:bɔ* 'white' in [Bender 1971: 272]; *b̂w-ɔn* 'whiteness' in [Storch 2005: 103].

Shilluk: Heasty 1937: 91. Polysemy: 'white / pure / clean / holy'. Quoted as *tar* ~ *tarr* 'white, clean; clear, light' in [Kohnen 1994: 182].

98. WHO

Nuer *ηa* (1), Dinka *ηa* (1), Reel *ηa* (1), Mabaan *a=menε* (2), Jumjum *a=ηa:-ni* # (1), Kurmuk *ηá* (1), Mayak *ηa* # (1), Shilluk *a=men* (2).

References and notes:

Nuer: Kiggen 1948: 218. Quoted as *ε=ηah* in [Bender 1971: 271].

Dinka: Nebel 1979: 62, 204. Plural: *yi=ηa* ~ *yik=ηa*. In [Roettger 1989: 30], glossed as *ηa* ~ *e=ηa* ~ *ye=ηa* in various subdialects; *e=* is really a prefixed copula, as in Nuer.

Reel: Roettger 1989: 30.

Mabaan: Miller 2006: 75. The first morpheme is probably the same interrogative morpheme as in 'what?' q.v.; the second is clearly the word 'person' q.v. In [Bender 1971: 269], the equivalent is simply listed as *menε* 'who?'.

Jumjum: Bender 1971: 268. Not attested in any of T. Andersen's papers. Clearly a complex form, where **=ηa:-* is probably the archaic inherited root.

Kurmuk: Andersen 2015: 546. Also contracts with the nominative preposition *η* *l̂to* form the complex lexeme *ηá-η* [ibid.].

Mayak: Bender 1971: 272. Not attested in any of T. Andersen's papers.

Shilluk: Heasty 1937: 8. Quoted as *a=men* ~ *a=men-a*, pl. *a=mog* ~ *a=mog-a* in [Kohnen 1994: 8]. Essentially a combination of the general interrogative morpheme *a=* with the relative pronoun *men*, pl. *mog* [Kohnen 1994: 116] 'who, which'.

99. WOMAN

Nuer *ɕiek* (1), Dinka *tik* (1), Reel *ɕiek* (1), Mabaan *ɛ:ŋo* (2), Jumjum *ʔi:ŋ* (2), Kurmuk *mí-n* (3), Shilluk *ɖaɕ-o* (4).

References and notes:

Nuer: Kiggen 1948: 56. Polysemy: 'female / woman / wife'. Suppletive plural: *ma:n*. Quoted as sg. *ɕiek*, pl. *mān* in [Frank 1999: 90]; as *ɕek^h* in [Bender 1971: 271].

Dinka: Nebel 1979: 83. Suppletive plural: *diar* (also collective *dior*). Polysemy: 'woman / wife'. Quoted as *tik* in [Andersen 1987: 4]; as *tik* for all Dinka dialects in [Roettger 1989: 31].

Reel: Roettger 1989: 31. Quoted as *ɕe^hk*, genitive *ɕe^hɔw* in [Reid 2010: 53].

Mabaan: Miller 2006: 42. Quoted as *ʔɛ:ŋ- /* in [Andersen 1999: 100]; as *ɛŋ* in [Bender 1971: 269]. Suppletive plural: *mo:n-go* [Miller 2006: 75].

Jumjum: Andersen 2004: 137. Suppletive plural: *m ɖn-g /* [Andersen 2004: 145]. Quoted as *ɛŋ* in [Bender 1971: 268].

Kurmuk: Andersen 2015: 512. Plural: *mí-k* [Andersen 2007b: 32].

Mayak: The singular form is not properly attested; cf. the compound form *mɛn-marak* in [Bender 1971: 272]. Plural: *ma:n* 'females' [Andersen 1999c: 3].

Shilluk: Heasty 1937: 30. Suppletive plural: *ma^hn ~ woma^hn*. Quoted as sg. *ɖáɕɕ-ɔ*, pl. *m n* in [Gilley 2000: 19]; as sg. *ɖaɕ-o*, pl. *man* in [Kohnen 1994: 51].

100. YELLOW

Nuer *yan* (1), Dinka *ma=yɛn* (1), Reel *a=yan* (1), Mabaan *ɕway-ɕwayo* # (2), Shilluk *tibwɔ^hr* # (3).

References and notes:

Nuer: Kiggen 1948: 333. Cf. also *ɲiɲa:r* 'yellow' [Kiggen 1948: 240].

Dinka: Nebel 1979: 56, 206. Feminine: *a=yɛn*. Plural: *mi=yɛn*. In [Roettger 1989: 37], this stem is listed as the main equivalent for 'yellow' only for the Ngok-Sobat subdialect of Ageer (*ke=yɛn*) and the Alor and Ngok subdialects of the same (*kan=yɛn*), as well as one of two synonyms for the Ruweng subdialect (*yɛn*). Other than that, the most frequent equivalent listed is *keɛ ~ keɛ ~ kan=keɛ ~ ma=keɛ ~ ma=keɛ*, corresponding to *keɛ* 'be rusty (vb.), bile (n.)' in [Nebel 1979: 40], a word that probably may denote a special shade of 'yellow', cf. *la leɕ keɛ* 'have yellow teeth' [ibid.]. Additional variants include (a) *kan=lau* (Abiliang subdialect of Ageer; no parallels in [Nebel 1979]); (b) *a=tuol* (Ageer proper subdialect of Ageer; no parallels in [Nebel 1979]); (c) *keɕ ~ ma=keɕ* (several subdialects of Bor), probably = *keɕ* 'bitter' in [Nebel 1979: 39]. On the whole, this is clearly an unstable etymon, and the degree of semantic accuracy in Roettger's lists is unknown.

Reel: Roettger 1989: 37. Differently in [Reid 2010: 31]: *makéɕ* 'yellow' (cf. the same word in Dinka dialects).

Mabaan: Miller 2006: 28. Reduplicated stem. Meaning glossed as 'yellow, light colour, whitish'. Cf. also *ɕway-an* 'yellowish, muddy colour' [ibid.]. Cf. also *garan* 'yellow thing (e.g. bronze, brass)', *garŋa-a-garŋo* 'yellow, jaundiced' [Miller 2006: 43]; also *ti-ti*: 'yellow; wet' [Miller 2006: 102], *tui-tui* 'yellow, golden, green' [Miller 2006: 103]. It remains unclear which of these words is better applicable to quintessentially yellow objects (e.g. 'sun', etc.).

Jumjum: Not attested.

Kurmuk: Not attested.

Mayak: Not attested.

Shilluk: Heasty 1937: 118 (English-Shilluk section). Dubious inclusion; the word is only listed in the English-Shilluk, but not in the Shilluk-English section of Heasty's dictionary, and is not confirmed at all in [Kohnen 1994]. The latter source only lists the following items with close semantics: (a) *aŋaw* 'whitish grey, yellowish' [Kohnen 1994: 8] (not found in Heasty's data); (b) *mar* 'green, blue, yellow' [Kohnen 1994: 114] (only in the meaning 'green' in Heasty's data). For now, we leave Heasty's dubious entry as the default

inclusion, pending additional verification.

101. FAR

Nuer *nɔan* ~ *nan* (1), Dinka *meɕ* (2), Reel *nan* (1), Mabaan *lo:n-o* (3), Kurmuk *lɔw-ɔn* (3), Shilluk *la^h:w-i* (3).

References and notes:

Nuer: Kiggen 1948: 210, 214. Adjectival and verbal stem (cf. 3rd p. sg. *nɔan-ε* ~ *nan-ε* 'to be far, distant').

Dinka: Nebel 1979: 57. Polysemy: 'far / rare'. Quoted as *à=mèɕ* "(he is) far" in [Andersen 2002: 12]. Quoted as *meɕ* ~ *meɕ* ~ *a=meɕ* for all dialects and subdialects of Dinka in [Roettger 1989: 43].

Reel: Roettger 1989: 43.

Mabaan: Miller 2006: 67. Verbal stem. Cf. also the reduplicated form *lo:n-a-lo:n-o* 'far, distant, difficult' [ibid.].

Jumjum: Not attested.

Kurmuk: Andersen 2015: 550. Adverbial form.

Mayak: Not attested.

Shilluk: Heasty 1937: 51. Adverbial form. Quoted as *law-i* 'far, far away, distant, remote; deep' in [Kohnen 1994: 99].

102. HEAVY

Nuer *t̥iey* (1), Dinka *t̥iek* (1), Mabaan *ɕyεg-ɕyεg-o* (1), Shilluk *pεk* (2).

References and notes:

Nuer: Kiggen 1948: 311. Polysemy: 'heavy / generous / magnanimous'. Verbal stems: *t̥ieh-ε* 'to be heavy', *t̥iey-ε* 'to make, cause to be heavy' [ibid.].

Dinka: Nebel 1979: 87. Polysemy: 'heavy / difficult'. Quoted as *à=t̥iò:^hk* "it is heavy" in [Andersen 1987: 15].

Reel: Not attested.

Mabaan: Miller 2006: 29. Reduplicated adjectival stem; cf. also the verbal stem *ɕyεg-ɔ* '(to be) heavy' [ibid.]. Quoted as *ɕiεg-án* in [Andersen 1992: 203].

Jumjum: Not attested.

Kurmuk: Not attested.

Mayak: Not attested.

Shilluk: Heasty 1937: 82; Kohnen 1994: 158. In Kohnen's dictionary, with polysemy: 'heavy / difficult / important'.

103. NEAR

Nuer *t̥iay-ε* ~ *t̥iey-ε* (1), Dinka *t̥iok* (1), Mabaan *ɕwal-o* (2), Shilluk *ɕa^hk-i* (3).

References and notes:

Nuer: Kiggen 1948: 310, 311. Cf. also the adverbial form *t̥iak-a* 'near'.

Dinka: Nebel 1979: 87. Quoted as *à=t̥iò:^hk* "it is near" in [Andersen 1987: 13].

Reel: Not attested.

Mabaan: Miller 2006: 26. Meaning glossed as 'near (direction not indicated)'. Verbal stem; cf. also *ɕwal-ɕwal* 'near', adv. *ɕwal-ɲan* 'near'.

Jumjum: Not attested.

Kurmuk: Not attested.

Mayak: Not attested.

Shilluk: Heasty 1937: 18. Adverbial form. Quoted as *ɕyak-i* 'near, close (locally and temporally)' in [Kohnen 1994: 37].

104. SALT

Nuer *milɛ* (-1), Dinka *awai* (1), Reel *mɛɛ* (-1), Mabaan *e-ɲan* (2), Jumjum *?ɲy-yá* (2), Shilluk *ka:d-o* (3).

References and notes:

Nuer: Kiggen 1948: 202. Borrowed from Arabic. Cf. also *ka:de* 'salt, vegetable alkaline' [Kiggen 1948: 134]; on p. 202, it is stated that this form is characteristic of the Thiang dialect.

Dinka: Nebel 1979: 13. Meaning glossed as 'ash-salt' (but simply 'salt' in the English-Dinka index on p. 182). Also *awa-n kartum* id. (literally "the *awai* of Khartoum", referring to imported salt). For the Agar dialect, the same index yields the equivalent *mela ~ melh* 'salt', borrowed from Arabic. In [Roettger 1989: 42], the situation is as follows: (a) *awai* is listed as the only equivalent for all the subdialects of Bor and Rek Dinka, but is also encountered in at least several subdialects of Agar and Padang-Ageer as well; (b) *mili* is listed as the only equivalent for the Alor, Ngok, and Dongjol (quoted as *mɛɛ* for the latter) subdialects of Padang-Ageer, and is also sporadically encountered in other subdialects; (c) a third, most rare, equivalent is *kata ~ kada ~ ka^ht* (Abiliang, Ageer, Ruweng, Pan subdialects), corresponding to *kada ~ kadda* 'sauce, salt' in [Nebel 1979: 37] (probably a specialized term).

Reel: Roettger 1989: 42. Borrowed from Arabic.

Mabaan: Miller 2006: 41. Quoted as sg. *?ɛ-ɲán*, pl. *?ɛy-y* / in [Andersen 1999: 103].

Jumjum: Andersen 2004: 146.

Kurmuk: Not attested.

Mayak: Not attested.

Shilluk: Heasty 1937: 40. Heasty mentions that the Shilluk more commonly use the Arabic word for 'salt' (unlike the Anywa); however, the word is also confirmed in [Gilley 2000: 18] as *kàd-ò* and in [Kohnen 1994: 75] as sg. *kad-o*, pl. *kat-i* 'salt, alkaline salt (prepared from the ashes of some plants)'.

105. SHORT

Nuer *ɕiey* (1), Dinka *ɕiek* (1), Mabaan *ɖu:l-ɖul-o* (2), Shilluk *ɕɛk* (1).

References and notes:

Nuer: Kiggen 1948: 56. Meaning glossed as 'small, short'.

Dinka: Nebel 1979: 19. Polysemy: 'short / low'.

Reel: Not attested.

Mabaan: Miller 2006: 39. Reduplicated adjectival stem; cf. also the verbal stem *ɖu:l-o* 'to be short' [ibid.].

Jumjum: Not attested.

Kurmuk: Not attested.

Mayak: Not attested. Cf., however, *ɖóm-n* 'shortness' in [Storch 2005: 103].

Shilluk: Heasty 1937: 20. Quoted as *ɕik* 'short (pl.)' in [Gilley 2002: 24]; as *ɕyek*, pl. *ɕyekk-o ~ ɕyekk-i* 'short, low (not high)' in [Kohnen 1994: 38].

106. SNAKE

Nuer *tɔl* (1), Dinka *ke=raɕ* (2), Reel *tɔl* (1), Mabaan *ka:ŋ* (3), Jumjum *kà:ŋ* (3), Kurmuk *kák* (3), Mayak *ka:k* # (3), Shilluk *tʷɔʰl* (1).

References and notes:

Nuer: Kiggen 1948: 315. Plural: *tɔal*. Quoted as sg. *tɔʰl*, pl. *tɔ:ʰl* in [Frank 1999: 88].

Dinka: Nebel 1979: 40. Plural: *ka:raɕ*. The Agar equivalent is given as sg. *ko=rɔr*, pl. *ka=ruor* [Nebel 1979: 188]; quoted as *kéʰ=roó:ʰr* in [Andersen 1987: 2]. Roettger's comparative materials [Roettger 1989: 31] list as many as four possible equivalents: (a) *ke=raɕ* ~ *kə=raɕ* ~ *ka=raɕ* is typical of most of the subdialects of Padang and Rek dialects; (b) *kə=pijɪ* ~ *ke=pijɪ*, listed as a synonym for the Rek dialect; the form *ke=pijɪ* 'snake' is also listed in Nebel's English-Dinka section of the dictionary [Nebel 1979: 188], but not in the main body of the dictionary. It may be related to *pijɪ* 'earth' q.v.; (c) *gɔʰ:r*, only listed as a synonym for *ke=raɕ* for the Ruweng-Pan-Aru subdialect of Padang (no parallels in Nebel's dictionary); (d) *ke=rɔ:r* ~ *kə=rɔ:r* ~ *kɛ=rɔ:r* ~ *ke=rɔ:t* - this is the only equivalent for 'snake' in Agar Dinka, thus marking one of the few certain lexicostatistical discrepancies between Agar and the rest of Dinka.

Reel: Roettger 1989: 31.

Mabaan: Miller 2006: 53. Plural: *kog-go*. Quoted as sg. *kā:ŋ-ɔ*, pl. *káŋ-gá* in [Andersen 1999: 103].

Jumjum: Andersen 2004: 141.

Kurmuk: Andersen 2007b: 57; Andersen 2015: 517. Plural: *kák-g-ín*.

Mayak: Andersen 2006: 15. Plural: *kaŋ-iŋ*. Quoted as sg. *kák*, pl. *káŋ-iŋ* in [Storch 2005: 119]. The situation is not quite clear, since in two of T. Andersen's papers on Mayak proper, the meaning 'snake' is only associated with the word *nana:n* (sg.), *nɔmun* ~ *nonun* (pl.) [Andersen 1999c: 9; Andersen 2000: 39]. If this latter word is really a generic term for 'snake', it is a lexical innovation, since only *ka:k* has reliable external parallels in other Mabaan-Burun languages. It is, however, unclear from existing publications which of the two items is truly the most neutral and frequent equivalent for this Swadesh meaning. In this situation, we provisionally select the etymologically archaic equivalent for inclusion, pending further clarifications.

Shilluk: Heasty 1937: 99. Plural: *tɔʰl-i*. Quoted as sg. *tʷɔl*, pl. *tʷɔll-i* in [Gilley 2000: 7]; as *tʷɔʰl* in [Gilley 1992: 25]; as *tʷɔl*, pl. *tʷɔl-i* in [Kohnen 1994: 200].

107. THIN

Nuer *bieo* (1), Dinka *toi* (2), Reel *guak* (3), Mabaan *bom-bom-o* (4), Shilluk *rep* (5).

References and notes:

Nuer: Kiggen 1948: 36. Polysemy: 'thin / lean'. Cf. *ɕiw-ɕiw* 'thin' in [Bender 1971: 271] (same word as 'short' q.v.).

Dinka: Nebel 1979: 88. Meaning glossed as 'small, thin'. Cf. also *yem* 'thin, frail' (e.g. of vessels) [Nebel 1979: 96]. Quoted as *tui* ~ *toi* ~ *tɔi* ~ *a=tɔi* ~ *ke=tɔi* ~ *ke=tɔi* ~ *kv=tɔi* for the majority of Dinka dialects and subdialects in [Roettger 1989: 37] (all forms represent phonetic and morphological variants). The same source also lists some additional synonyms: (a) *nɔl* ~ *a=nɔl* (additional synonym for the Bor and Twic subdialects of Rek; the only equivalent for the Dongjol subdialect of Padang) = *nɔl* 'thin, lean' in [Nebel 1979: 62]; (b) *guak* ~ *gueʰk* (main equivalent for the Gək subdialect of Agar and alternate equivalent for the Ciec subdialect of Agar) - no direct parallels in Nebel's dictionary, but cf. perhaps the expression *guk kɔu* 'to chip wood' [Nebel 1979: 33]? Unfortunately, there are too few diagnostic textual contexts in Nebel's data to ascertain the proper semantics for every one of these items.

Reel: Roettger 1989: 37.

Mabaan: Miller 2006: 9. Reduplicated adjectival stem. Additional morphological variants include *bom-an* and *bom-ɕin* [ibid.].

Jumjum: Not attested.

Kurmuk: Not attested.

Mayak: Not attested. Cf., however, *dém-ɕn* 'thinness' in [Storch 2005: 103].

Shilluk: Heasty 1937: 87. Applied, e.g., to boards. Quoted as *rep* ~ *reb-o* 'thin, weak, feeble' in [Kohnen 1994: 170]. Cf. also *pot* 'slim, slender, thin' (of people) [Heasty 1937: 83] = *pot* ~ *pot*, pl. *pot-i* ~ *pott-i* 'thin, narrow, small; fine, slender' [Kohnen 1994: 162].

108. WIND

Nuer *ʒiɔm* (1), Dinka *yɔ:m* (1), Mabaan *ʒwam-mo* (1), Kurmuk *yèm-ìṭ* (1), Mayak *yàm-ít* # (1), Shilluk *yɔm-o* (1).

References and notes:

Nuer: Kiggen 1948: 127. Quoted as sg. *ʒiɔ^hm*, pl. *ʒɔam* in [Frank 1999: 90].

Dinka: Nebel 1979: 98. Quoted as *yô:m* in [Andersen 1987: 15].

Reel: Not attested.

Mabaan: Miller 2006: 52. Plural: *ʒɔm-an* ~ *ʒwɔp-ko*. Quoted as *ʒúam-mí* in [Andersen 1999: 101].

Jumjum: Not attested.

Kurmuk: Andersen 2015: 550. Meaning glossed as 'air', but the word is used in conjunction with the verb *wí:p-* 'to blow' and is clearly polysemous ('air / wind').

Mayak: Storch 2005: 113. Plural: *yàm-id-in*. Not attested in any of T. Andersen's papers.

Shilluk: Heasty 1937: 108; Kohnen 1994: 223. Polysemy: 'wind / fragrance / smell / odor'.

109. WORM

Dinka *ko:m* (1), Mabaan *miella* # (2), Kurmuk *zà:gúl* (3), Mayak *ru:y-áṭ* (4), Shilluk *ɲwɛl-o* (5).

References and notes:

Nuer: Not attested.

Dinka: Nebel 1979: 38. Plural: *ka:m*. Polysemy: 'worm / insect'. Distinct from *ruoi* 'maggots' [Nebel 1979: 80].

Reel: Not attested.

Mabaan: Miller 2006: 74. Plural: *myella-n*. Cf. also sg. *ywo-ɲan*, pl. *yuw-o* 'worm, maggot' [Miller 2006: 121, 122]. Insufficient semantic information makes it unclear which of these equivalents better correlates with the expected meaning of 'earthworm'.

Jumjum: Not attested.

Kurmuk: Andersen 2007b: 47.

Mayak: Andersen 1999c: 13. Plural: *ru:ɕ*.

Shilluk: Heasty 1937: 69. Meaning glossed as 'earthworm'. Quoted as *ɲ^wɛl-ɔ* 'earthworm' in [Gilley 1992: 25]; as *ɲwɛl-o*, pl. *ɲoɛl-i* 'earth-worm' in [Kohnen 1994: 144]. Distinct from *two^hɲ-o* 'a worm, an insect, a cavity in the tooth' [Heasty 1937: 95] = *twoɲ-o* 'insect, worm, chafer' [Kohnen 1994: 193].

110. YEAR

Nuer *ruɔn* (1), Dinka *ruon* (1), Mabaan *yuon-no* (1), Jumjum *yún* (1), Kurmuk *rún-* (1), Mayak *run* (1), Shilluk *run* (1).

References and notes:

Nuer: Kiggen 1948: 285. Plural: *ru:n*.

Dinka: Nebel 1979: 80. Plural: *run*. Quoted as *rú^hn* 'years' (pl.) in [Andersen 1987: 14].

Reel: Not attested.

Mabaan: Miller 2006: 8. For some reason, the word is only found in textual examples and not as a primary entry. Quoted as *yûan-n* / in [Andersen 1999: 101].

Jumjum: Andersen 2006b: 15.

Kurmuk: Andersen 2007b: 63. Only attested in the plural form: *rún-ḏán*.

Mayak: Andersen 2000: 38. Plural: *run-ḏin*.

Shilluk: Heasty 1937: 89. Heasty also notes phonetic variants *un* ~ *wun*. Quoted as *run* ~ *run-o*, pl. *run-i* in [Kohnen 1994: 176]. Alternate synonym: *waj* 'year' [Heasty 1937: 101; Kohnen 1994: 206]. The difference is unclear, but Kohnen's examples suggest that *run* is better applied to 'year' as a measure of time (e.g. 'two years'), whereas *waj* is more commonly used in temporal constructions and clauses (e.g. 'this year', 'in the year when...').