

Researching Wolof reciprocals in a situation of pandemics

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Our research focuses on reciprocal morphology in Wolof (Niger-Congo, Atlantic), an agglutinative language with a rich verbal morphology [1,2,3]. In the literature, it has been described that reciprocity in Wolof can be expressed by three different verbal suffixes [1,4,5]: *-ante*, *-e*, *-oo*. Yet, the distribution and the constraints on the use of these morphemes are still under-investigated, and it is unclear whether they are the result of different morphological processes. Our study, aiming to fill this gap, originally involved a field trip to Senegal for interviews with native speakers, but the pandemic ruled out this possibility. To carry out the research, we resorted to three sources for the data collection, alternative to the traditional *in loco* fieldwork: domestic fieldwork, remote fieldwork and corpus-based research. Below, we first highlight the challenges of these fieldwork alternatives and suggest viable ways to address them; we then briefly present relevant collected data, illustrating their contribution to our proposal.

Fieldwork alternatives

(i) Domestic fieldwork. We suggest that social media could constitute a precious tool for finding native speakers in the country where the researcher is located. To ascertain the speaker's language proficiency, that might not be high enough after the years spent abroad, we suggest including a series of questions aimed at determining the language proficiency (language use frequency, sphere, language spoken at home, at work) in the questionnaire.

(ii) Remote fieldwork. This can not always be implemented satisfactorily because of the undeveloped technical infrastructure in the target country. The researcher has to be flexible enough to use different communication channels (including phone calls, calls with and without video, chats, etc.) and to train the local contacts online or with the use of short tutorials.

(iii) Data collection can be supplemented with corpus-based research. Some of the world languages do not have their own representative corpora; in that case smaller dataset collections dedicated to a certain topic can be used [3,6]. Moreover, the Bible text is available in most of the world languages (for Wolof, see [7]). To obtain relevant data, we automated customizable searches in the Bible text. Using these alternatives we were able to collect a sufficient amount of data for a linguistic analysis, despite the impossibility of fieldwork in Senegal; our results are presented below.

Results on Wolof reciprocals

We identified crucial differences in the distribution of *-ante* as opposed to *-e/-oo*. Based on these data, we propose that *-ante* is a productive morpheme that operates on the valency of the verbs, turning transitive predicates into reciprocal intransitive verbs, while *-e/-oo* are markers of natural reciprocal entries. We support our proposal with the following observations: **I.** The morpheme *-ante* is productive and can reciprocalize the object of any transitive verb (1a); *-e* and *-oo* are not productive (1b);

II. Verbs reciprocalized by *-ante* always retain the meaning of the transitive verb root (2a); entries with *-e* and *-oo* may undergo a semantic drift (2b)-(2c). This contrast supports the observation that only lexicalized reciprocals get new drifted meaning [8];

III. Intransitive verbs cannot take *-ante* (3a), but they may appear with *-oo* and *-e* (3b);

IV. Only *-ante* can appear with natural reflexives (5a). In Wolof, predicates with natural reflexive meanings are expressed with the unproductive morpheme *-u* (4). Such verbs can only be reciprocalized by *-ante* (5a) and lead to ungrammaticality with *-e* and *-oo* (5b). This is in line with the observation that natural reflexives and natural reciprocals are two closed classes with no overlapping verb stems [9].

Examples:

- (1) a. *Khady mu ngi foon Fatou*
Khady PREST.3SG kiss Fatou
'Khady kisses Fatou'
- b. *Khady ak Fatou ñu ngi foon-ante/*foon-e/*foon-oo*
Khady and Fatou PREST.3PL kiss-REC
'Khady and Fatou kiss'

- (2) a. *Khadi ak Fatou ñoom* *naar dañu* *gis-ante*
 Khady and Fatou PRO.3PL two FOC.V.3PL see-REC
 ‘Khady and Fatou saw each other’
- b. *Khadi ak Fatou ñoom* *naar dañu* *gis-e*
 Khady and Fatou PRO.3PL two FOC.V.3PL see-REC
 ‘Khady and Fatou met’
- c. *Khadi ak Fatou dañu* *dogg-oo*
 Khady and Fatou FOC.V.3PL cut-REC
 ‘Khadi and Fatou broke up’
- (3) a. **Khadi ak Fatou ñoo* *dekk-ante*
 Khady and Fatou FOC.V.3PL live-REC
- b. *Khadi ak Fatou ñoo* *dekk-oo/dekk-e*
 Khady and Fatou FOC.V.3PL live-REC
 ‘Khady and Fatou are neighbors’
- (4) *Khady sang-u* *na*
 Khady wash-REF PFV
 ‘Khady washed’
- (5) a. *Khadi ak Fatou ñu ngi* *sang-ante*
 Khady and Fatou PREST.3PL wash-REC
 ‘Khadi and Fatou washed each other’
- b. **Khadi ak Fatou ñu ngi* *sang-e/sang-oo*
 Khady and Fatou PREST.3PL wash-REC

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