

## Syntactic variation as a consequence of variable Impoverishment in Fula objects

Daniel Duncan, New York University (dad463@nyu.edu)

**Overview:** Fula is a fusional language which builds complex verbs through head movement (Damonte 2007). Morphemes in these verbs have a fixed order, with a hierarchical structure following the Mirror Principle (Baker 1985). Dialects vary as to the amount of subject/object agreement displayed on the verb. I focus on the Pular dialect spoken around Conakry, Guinea, which has no subject agreement but limited object agreement. Situations where object agreement is licit are subject to intraspeaker syntactic variation. In the alternative variant, an object pronoun complement of the verb may cliticize with no overt agreement:

1. Mi hi'-e-no.

1.NOM see-2OBJ-PST

I saw you.

2. Mi hi'-u-no=**ma**.

1.NOM see-ACT-PST=2.ACC

I saw you.

These morphemes may not co-occur:

3. \*Mi hi'-e-no=**ma**.

I saw you.

This clitic/agreement alternation is additionally subject to categorical constraints. Using an approach rooted in Distributed Morphology (Halle and Marantz 1994), I first offer an analysis of the categorical alternations. Based on this analysis, I show that the syntactic variation is the consequence of variable Impoverishment of features in the agreement marker.

**Agreement:** Agreement is only marked for 1st and 2nd person singular objects as *-an* and *-te*, respectively (post-syntactic phonetic and phonological operations affect the surface form in the verb). Given that the alternative variant to agreement is cliticization, we might ask whether this is actually agreement, or perhaps rather clitic climbing (see Myler To appear). Two pieces of evidence support the view that it is agreement: first, the agreement marker *-te* for the 2nd person is completely different from the pronominal *ma*. Secondly, because Fula verbs are built through head movement, in order to be an instance of clitic climbing, the markers would need to move past the verb into a functional head before the verb then moves through said head. As agreement, we may instead simply posit that the markers take their place within the fixed order of morphemes on an AgrO head.

**Clitics:** Object pronouns that appear as verbal complements are clitics (Kaufman 2002), as can be seen from Double Object constructions: when there is a pronominal and full DP present, the pronominal must be adjacent to the verb. There is no such constraint on the order of full DP objects.

4. Ñaariiru ndun junn-i=lan ñaamete.

cat DEF give.PRS=1.ACC food

The cat gives food to me.

5. \*Ñaariiru ndun junn-i ñaamete lan

The cat gives food to me.

This fact, among others, suggests object pronouns move closer to the verb than remaining *in situ*, perhaps Spec,AgrOP.

**Categorical Alternations:** In addition to person constraints on object agreement, other factors categorically constrain agreement from occurring. Agreement is sensitive to polarity; clitics are found when the verb is marked for negation. At the same time, only certain Tense/Mood/Aspect elements are compatible with agreement. Verbs marked for distant future or distant past are, but not present/recent past or habitual/near future.

Note that if we take the agreement morphemes to be occupying AgrO and clitics to be in Spec,AgrOP, we must fill AgrO with something even when agreement is not overt. That is, in these cases AgrO contains  $\emptyset$ . As such, the agreement markers *-an*, *-te* are subject to allomorphy.

Here, they are specified with features [+participant, -pl]. In contrast,  $\emptyset$  is underspecified for these features, appearing elsewhere. This means that the presence of negation or an improper TMA element trigger Impoverishment rules. Their presence deletes the [+participant] feature of the agreement marker, yielding the elsewhere allomorph  $\emptyset$ .

This accounts for the presence or absence of object agreement. What about the presence or absence of the pronominal clitic? I suggest that this may be accounted for by taking Fula to be an obligatory pro-drop language: when AgrO is filled with an overt element, the verbal complement must be *pro*. Under this view, overt agreement expressly blocks overt complements. In contrast, when  $\emptyset$  fills AgrO, there is no overt element, and the verbal complement surfaces. Thus, we may account for the categorical alternations between agreement/cliticization as a direct result of the Impoverishment of the agreement markers.

**Variation:** While the categorical Impoverishment rules above explain the absences of agreement in certain conditions, they do not explain why there is intraspeaker variation between agreement and cliticization where agreement is licit. Consider the agreement paradigm that has been developed, however (below). As seen, the typical agreement marker is  $\emptyset$ , with allomorphy in the

	Singular	Plural
1 <sup>st</sup>	-an/ $\emptyset$	$\emptyset$
2 <sup>nd</sup>	-te/ $\emptyset$	$\emptyset$
3 <sup>rd</sup>	$\emptyset$	$\emptyset$

few cases with a possible overt element. Following Nevins and Parrott (2010), I suggest that in cases where agreement is licit, variable Impoverishment rules determine the expression of this marker. In effect, object agreement is marked in all situations: in some, like negation, Impoverishment of [+participant] is categorical.

In others, like distant past, this Impoverishment is variable. As such, there is paradigm leveling toward  $\emptyset$  for all persons, seen in variation between an overt element and  $\emptyset$ . While this approach is similar to that of Nevins and Parrott (2010), it extends into explaining the syntactic variation we observe as well, due to Fula having obligatory pro-drop. When the variant selected is the overt marker, an overt complement is blocked. When  $\emptyset$  is selected, the complement surfaces.

**Discussion:** This is an appealing description because paradigm leveling is well-attested cross-linguistically and this account simply extends that of the categorical alternations. While this account successfully describes the observed categorical alternations and intraspeaker variation, its greater success lies in paving the way for further research using variationist methodologies. Note that because DM relies on Late Insertion of Vocabulary Items, the variable Impoverishment that triggers syntactic variation is occurring in PF after the syntax has fed LF. As such, under the proposed account the two forms seen in (1-2) are equivalent in LF. This is important, as variationists have shied away from syntactic variables in the past because it is not clear they satisfy Labov's Principle of Accountability (Labov 1972, Lavandera 1978). Showing syntactic variants to be equivalent in LF shows they satisfy this Principle, opening the door for further research of the factors that condition the observed intraspeaker variation.

**References:** Baker, M. 1985. The Mirror Principle and morphosyntactic explanation. *LI* 16: 373-415. Damonte, F. 2007. The Mirror Principle and the order of verbal extensions: Evidence from Pular. *On-line Proceedings of the Fifth Mediterranean Morphology Meeting (MMM5)*: 337-358. Halle, M., and A. Marantz. 1994. Some key features of Distributed Morphology. *MIT Working Papers in Linguistics* 21: 275-288. Kaufmann, I. 2002. Die interaktion von ereignis- und argumentstruktur in aktiv/medium-systemen am beispiel des Fula. *Linguistische Berichte* 191: 299-342. Labov, W. 1972. *Sociolinguistic patterns*. Philadelphia: University of Pennsylvania Press. Lavandera, B. 1978. Where does the sociolinguistic variable stop? *Language in Society* 7(2): 171-182. Myler, N. To appear. Cliticization feeds agreement: A view from Quechua. *NLLT*. Nevins, A., and J.K. Parrott. 2010. Variable rules meet Impoverishment theory: Patterns of agreement leveling in English varieties. *Lingua* 120: 1135-1159.