The Pronominal System and Reference in Pulaar

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1. Introduction

This paper examines pronominal reference and the long-distance anaphor in Pulaar, a West African language spoken from Senegal to Niger and Cameroon. I am focusing on Toore, a dialect of Pulaar spoken in southern Senegal. I will first give a sketch of the pronominal system of Pulaar with specific focus to the facts or paradigm that need to be accounted for. I will further show the different contexts that license the antecedent-pronoun coreference as well as the referential nuances that exist between different classes of pronoun. In this regard, I posit that the differences noted in antecedent-pronoun coreference can be explained by definiteness and/or specificity along the lines of Schwarz (2009) and Enç (1991).

2. Pronominal Paradigm

Since I will be specifically referring to 3rd person pronoun, I abstract away from the rest of the pronominal system. In this respect, we can distinguish two classes of pronouns: one class that can be referred to as the mo-class (human class) and another class of pronouns that can be referred to as the dum-class (neuter class). It should be noted that Pulaar is a noun class language. Every noun fall into one of the twenty one noun classes, and this noun class will also serve as a referential pronoun.

2.1 Paradigm of Human and Neutral Pronouns

The paradigm for the singular human mo class is in the first column of (1). Pulaar also has a series of third person neuter pronouns which do not belong to any particular noun class and can be used to refer to any nominal, no matter its class. This paradigms are similar to Potsdam’s (1995) and Culy’s (1996) accounts of other dialects. The singular forms are given in the second column of (1). Most human pronouns have a corresponding neutral pronoun. We can distinguish five different pronouns in the paradigm:

<table>
<thead>
<tr>
<th></th>
<th>mo-class pronoun</th>
<th>dum-class pronoun</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject pronoun</td>
<td>o</td>
<td>dum</td>
</tr>
<tr>
<td>Object pronoun</td>
<td>-mo</td>
<td>-dum</td>
</tr>
<tr>
<td>Progressive/stative subject pronoun</td>
<td>homo</td>
<td>hudum</td>
</tr>
<tr>
<td>Strong pronoun</td>
<td>deeko</td>
<td>deejum</td>
</tr>
<tr>
<td>Possessive pronoun</td>
<td>makko</td>
<td>mum</td>
</tr>
<tr>
<td>Possessive suffix</td>
<td>-iiko</td>
<td>-um</td>
</tr>
</tbody>
</table>
All mo-pronouns refer to humans. However, in Toore, only the possessive ɗum-pronoun, the possessive suffix and the progressive pronoun can refer to humans. Only the object, strong and possessive pronouns are present in Potsdam’s (1995) ɗum inventory while Culy (1996) lists only the object pronoun, the possessive pronoun and the possessive suffix. However, for them all those pronouns can refer to humans. These two classes interact in an interesting way. For instance, a mo-pronoun cannot be an antecedent to a ɗum-pronoun:

2) *o yii-ma waaji mum.
   He see-perf friend his
   ‘He, saw his friend’

The pronoun o cannot be antecedent to mum. Thus, the sentence is ungrammatical. But if we change mum to the corresponding mo-pronoun, the sentence will be grammatical.

3) o yii-ma waaji maako.
   he see-perf friend his
   ‘He, saw his friend’

A non-pronoun antecedent binds a ɗum-pronoun, but it does not bind a mo-pronoun in the sense that the mo-pronoun can refer to the antecedent or another person not mentioned in the sentence.

4) a. Aali noddu-m waaji mum.
   Aali call-perf friend his
   ‘Aali, called his friend’

   b. Aali noddum waaji maako.
   Aali call-perf friend his
   ‘Aali, called his friend’

3. Long-Distance Anaphors as Bound Variable

The distinction between mo-pronouns and ɗum-pronouns appears to reflect a dichotomy of pronominal reference: coreference and bound variable. In that respect, I hold mo to be compatible with coreference and ɗum pronouns are bound variables along the lines proposed by Potsdam (1995):

5) ɗum-series pronouns are always bound variables
    mo-series pronouns are never bound
3. 1 Quantified DPs as Antecedents

Based on (5), only ɗum pronouns can have a quantified DP as antecedent. As for mo pronouns, they are predicted to be incompatible with quantified antecedents. The example (6) appears to support this argument:

6) [kala mo won-aa] wiy-a-noo-m hudum/*homo waawi naw-or jogorang.
   [every who be-NEG] tell-PASS-PAST-PERF hudum/he can-PERF take-INST weapon
   ‘Everyone; was told they; can carry a weapon with them’

The same is true of Wh-phrases; they can only be antecedents to ɗum pronouns.

7) Ho mo mbii-daa yid-i maa mum/*maako?
   Q who say-PERF.you love-PERF mother mum/his
   ‘Who, did you say loves his, mother?’

3. 2 Reference with respect Focus Only

According to Reinhart (1986), quoted by Potsdam (1995), bound variable and referential uses of pronouns are ambiguous with the presence of only. So a sentence like the one in (8) is ambiguous between (9a) and (9b):

8) Only John likes his dog.

9) a. Nobody but John likes his own dog (Bound Variable).
   b. Nobody but John likes John’s dog (Coreferential).

In Pulaar, however, we might expect mo-pronouns and ɗum-pronouns to be split between the two readings in (9) so that the following sentences would not be ambiguous, though they contain the focus particle only:

10) a. ko Aali tan waddot-oo welo mum.
    FOC Aali only ride-IMPF-MID bike mum
    ‘Only Aali rides his bike’
    (predicted to be only Bound Variable reading)

    b. ko deeko tan waddot-oo welo maako.
    FOC him only ride-IMPF-MID bike his
    ‘Only Aali rides his bike’
    (predicted to be only Coreference reading)
It occurs, however, that both sentences in (10) are ambiguous between the two readings. This challenges the prediction that they are strictly consistent with one of the readings. But the ambiguity may only hold to the focus element *only* in the sense that it singles out the antecedent, giving a rather contrastive reading. A similar effect emerges in some other contexts.

3. 3 Binding and Reference Ambiguity

When the *dum* pronoun is preceded by two possible antecedents, in the case of double object constructions, ambiguous interpretation arises. In other words, it is compatible with both antecedents. Here, the ambiguity is not between bound and coreference readings, but rather between two bound variable readings, as in (11):

11) Aali hollu-noo-m  Muusaa kotoo mum.
   Aali show-PAST-PERF Muusaa brother his
   ‘Aali$_i$ showed Muusaa$_j$ his$_{ij}$ brother’

The example in (11) makes *dum* pronouns look like *mo* pronouns in picking their reference. The effects obtain with a quantified DP as a possible antecedent, whether it is subject or object, as (12) shows:

   even one show-NEG-PAST Muusaa brother his
   ‘No one, showed Muusaa$_j$ his$_{ij}$ brother’

   b. Muusaa hollu-aa-noo  hay gotto kotoo mum.
   Muusaa show-NEG-PAST even one brother his
   ‘Muusaa$_i$ did not show anyone$_j$ his$_{ij}$ brother’

The ambiguity also holds in long-distance for sentences containing quantified antecedents as well as *Wh*-constructions:

13) Aali wiy-aa hay gotto yii-ma kotoo mum.
   aali say-neg even one see-perf brother his
   ‘Aali$_i$ did not say that anyone$_j$ saw his$_{ij}$ brother’

14) ho mo Aali wii yii kotoo mum?
   Q  who Aali say see.perf’brother his
   ‘Who$_i$ did Aali$_j$ say saw his$_{ij}$ brother?’
If there are two referential DPs in a sentence like (13), mum can refer to either of them, as in (15):

15) Aali wiy-aa hay gotto yii-ma kotoo mum.
   aali say-NEG even one see-PERF brother his
   ‘Aali, did not say that anyone saw his brother’

The ambiguity disappears, however, when one of the possible antecedents is a mo-pronoun and, thus, illicit as antecedent to a dum-pronoun:

16) o hollu-noo-m Muusaa kotoo mum.
   he show-PAST-PERF Muusaa brother his
   ‘He showed Muusaa his brother’

17) o wi ko Aali hollu-noo-m Muusaa kotoo mum.
   he say it’s Aali show-PAST-PERF Muusaa brother his
   ‘He said that Aali who showed Muusaa his brother’

The ambiguity also disappears when the pronoun precedes one of the possible antecedents and is, thus, not bound by it:

18) Aali hollu-noo-m kotoo mum Muusaa.
   Aali show-PAST-PERF brother his Muusaa
   ‘Aali showed Muusaa his brother’

This does not, however, apply to conditional or adverbial clauses. In these clauses, one of the pronouns will be a mo-pronoun:

19) Ndey Aali nodd-i kotoo mum, Muusaa yi’i mo.
    when Aali call-PERF brother his Muusaa see.PERF him
    ‘When Aali called his brother, Muusaa saw him’

The examples in (11)-(16) show that dum-pronoun cannot have a mo-pronoun as antecedent and that a possible antecedent cannot be a barrier. In other words, a dum-pronoun can be bound by two antecedents across clauses.

The mo-pronouns behave differently in that they can refer outside the sentence. In other words, they are not bound and have a coreference reading. They cannot have a quantified DP or a Wh-phrase as antecedent, as (17) and (18) show:
20) o wiy-aa hay gotto yii-ma kotoo maako.  
   he say-NEG even one see-PERF brother his  
   ‘He did not say that anyone saw his* ij/k brother’

21) Ho mo o wii yii kotoo maako?  
   Q who he say see.PERF brother his  
   ‘Who did he say saw his* ij/k brother?’

They can have two or more antecedents in the same sentence, but still have a reference outside, which supports their coreference reading:

22) o hollu-noo-m Muusaa kotoo maako.  
   he show-PAST PERF Muusaa brother his  
   ‘He showed Muusaa his* ij/k brother’

23) o wii ko Aali hollu-noo Muusaa kotoo maako.  
   he say it’s Aali show-PAST PERF Muusaa brother his  
   ‘He said that Aali who showed Muusaa his* ij/k brother’

The examples (17)-(20) show that mo-pronoun have a coreference reading, but they cannot have a bound variable reading.

4. Reflexivity in Pulaar

Pulaar has inherent reflexives like Italian as pointed out by Giorgi (2007). However, reflexives anaphors are consist of the complex DP ‘X’s head’ in which the possessive ‘X’s’ is expressed by either a mo-pronoun or a dum-pronoun.

4. 1 Inherent Reflexives in Pulaar

The verb in Pulaar can be active, middle or passives. Middle verbs have a reflexive interpretation, as the example below shows:

24) a. loot-go  
   wash-INF.  
   ‘to wash’

b. loot-aa-go  
   wash-MIDDLE-INF.  
   ‘to wash oneself’

c. loot-ee -go  
   wash-PASS-INF.  
   ‘to be washed’
The middle morpheme –aa in (21b) encodes reflexive in a way similar to Italian as shown by Giorgi (2007) in (22) below:

25) Gianni si lava.
   Gianni si-washes
   ‘Gianni washes himself’ (Giorgi, 2007; 327)

26) Aali loot-ii-m
   Aali wash-MID-PERF
   ‘Aali washed himself’

However, this middle morpheme does not always encode reflexivity. In some cases, it does not make it clear whether the action is carried out by X on X or by Y on X, as in (24):

27) a. Aali femb-ii-m.
    Aali shave-MID-PERF
    ‘Aali has shaved’

28a) Aali wii o femb-ii-m.
    Aali say.Perf he shave-MID-PERF
    ‘Aali said (that) he_i/j shaved’

28b) b. o wii o femb-ii-m.
    he say.Perf he shave-MID-PERF
    ‘He_i said (that) he_i/j has shaved’

28c) c. o wii Aali femb-ii-m.
    he say.Perf Aali shave-MID-PERF
    ‘He_i said (that) Aali*_i/j has arrived’

While (24b) is clearly not a reflexive, (24a) could be either ‘Aali shaved himself’ or someone else shave Aali. In long-distance, middle can refer to either the subject of the main clause or the subject of the embedded clause if both are mo-pronouns. But it refers to the subject of the embedded clause only when it is an R-expression.

29) Aali femb-it-ii-m.
   Aali shave-REFL-MID-PERF
   ‘Aali shaved himself’

But pulaar has another derivational morpheme -t that encodes reflexivity and disambiguates the sentence in (24a), as in (25):
4. 2 Pure Reflexives in Pulaar

Pure reflexives in Pulaar are encoded by a DP in the form of ‘X’s head’ headed by a possessive that can be either a mo-pronoun or a dum-pronoun. This reflexive DP does not, however, co-occur with the middle morpheme or the reflexive suffix:

30) a. Aali femb-it-ii-m
   Aali shave-REFL-MID-PERF
   ‘Aali shaved himself’

   b. Aali fembu-m [hoore maako]
   Aali shave-PERF head his
   ‘Aali shaved himself’

The DP [hoore maako] ‘his head’ behaves as an anaphor subject to principle A and encodes reflexivity. In (26b), the possessive pronoun heading the reflexive DP is a mo-pronoun. But it could be a dum-pronoun as well, as the following example shows:

31) Aali fembu-m [hoore mum]
   Aali shave-PERF head his
   ‘Aali shaved himself’

However, as shown above, a dum-pronoun cannot have a mo-pronoun as antecedent:

32) O fembu-m [hoore maako/*mum]
   he shave-PERF head his
   ‘He shaved himself’

The facts could be somehow summarized as in the table below:

<table>
<thead>
<tr>
<th>Reference</th>
<th>mo-pronouns</th>
<th>dum-pronoun</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantified DPs</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>Wh-phase</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>R-expressions</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>mo-pronouns</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>Multiple DP-antecedents</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Pulaar mo and dum pronouns are long-distance anaphors that behave differently: dum pronouns appear to be bound variables while mo pronouns are not bound and allow only coreferential reading.
Only \textit{ɗum} pronouns can have quantified DPs and \textit{Wh}-phrases as antecedents. Both \textit{mo} and \textit{ɗum} can have multiple possible antecedents within the same construction. But only \textit{mo} can refer to an unstated antecedent.

Reflexive DPs can contain both series of pronouns, but they are bound locally and never long-distance.

5. Characterization of Pronominal Reference in Pulaar

In appears through the data that \textit{mo}-pronouns and \textit{ɗum}-pronouns are somewhat contrastive in their behavior. Potsdam (1995) characterizes the \textit{mo}-series as [+independent reference] and the \textit{ɗum}-series as [- independent reference]. In other words, \textit{ɗum}-pronouns are anaphoric while \textit{mo}-pronouns are not. In a way, the structural properties of the pronouns that I have laid out in this paper fit in that characterization. But Potsdam has not explained why the neuter pronouns do not refer to \textit{mo}-pronouns.

5. 1 Hypothesis

I want to argue, however, for a slightly different hypothesis:

33) a. Pronominal reference in Pulaar is based on specificity, on a specificity scale of
\([+\text{specific}], [\text{specific}], [-\text{specific}]\).
\quad b. \textit{mo}-pronouns refer to \([+\text{specific}]\) and \([\text{specific}]\), but not to \([-\text{specific}]\)
\quad c. \textit{ɗum}-pronouns refer to \([\text{specific}]\) and \([-\text{specific}]\), but not to \([+\text{specific}]\)

Similar to accounts on specificity found in \citet{Enc1991}, I hold \([+\text{specific}]\) to refer to \textit{mo}-pronouns in the sense that they pick up entities that have already been mentioned in the discourse. \([\text{specific}]\) refers to DPs, R-expressions which refer to some clear entity that is salient in the context of discourse or at least presupposed to be so by the speaker. \([-\text{specific}]\) refers to quantified DPs and \textit{Wh}-phrases which refer to less clear entities in the sense that quantified DPs refer to wide range of entities while \textit{Wh}-phrases refer to unspecified entities.

What the hypothesis outlined above clearly means is that: \textit{Mo}-pronouns will refer to: other \textit{mo}-pronouns (o, deeko, etc.) and R-expressions (Aali, gorko mo, etc.), but not to quantified DPs and \textit{Wh}-phrases. \textit{ɗum}-pronouns will refer to R-expressions, quantified DPs and \textit{Wh}-phrases, but not to \textit{mo}-pronouns.

According to the hypothesis, both set of pronouns will refer to R-expressions.
5. 2 Hypothesis Testing

According to my hypothesis, only mo-pronouns refer to other mo-pronoun antecedents, as in the sentences below:

34) o yii-ma waaji maako/*mum.
   he see-PERF friend his
   ‘He_{i} saw his_{ij} friend’

35) o hollu-noo-moo-m kotoo maako/*mum.
   he show-PAST-HIM-PERF brother his
   ‘He_{i} showed him_{j} his_{ij} brother’

36) o wii ko deeko hollu-noo mo kotoo maako/*mum.
   he say it’s him show-PAST-PERF him brother his
   ‘He_{k} said that HE_{i} showed him_{j} his_{ij/k} brother’

The same is true of reflexives:

37) O fembu-m [hoore maako/*mum]
   he shave-PERF head his
   ‘He shaved himself’

In (34)-(37), all possible antecedents are mo-pronouns. Thus, düm-pronouns are banned as referring to these antecedents. However, when the antecedent(s) is/are DPs (R-expressions) both mo and düm pronouns are potential coreferents, as the examples below show:

38) Aali noddu-m waaji maako/mum.
   Aali call-PERF friend his
   ‘Aali_{i} called his_{ij} friend’

39) Aali hollu-noo-m Muusaa kotoo maako/mum.
   Aali show-PAST-PERF Muusaa brother his
   ‘Aali_{i} showed Muusaa_{j} his_{ij} brother’

40) Jibi wii ko Aali hollu-noo-m Muusaa kotoo maako/mum.
   Jibi say it’s Aali show-PAST-PERF Muusaa brother his
   ‘Jibi_{i} said that Aali_{j} who showed Muusaa_{k} his_{ij/k} brother’
Reflexives work the same way, as seen below:

41) Aali fembu-m [hoore maako/mum]
   Aali shave-PERF head his
   ‘Aali shaved himself’

In (38)-(40) both mo and dium pronoun can refer to all of the available antecedents, with
difference being that mo can refer to some entity outside the sentence, unlike dium. In other
words, dium is bound and mo is not.

Third prediction of the hypothesis is that only dium-pronouns can be antecedents to quantified
DPs and Wh-phrases. The examples below provide evidence for that claim:

42) [kala mo won-aa] wiyanoom hudum/*homo waawi naw-or jogorang.
    [every who be-NEG] tell-PASS-PAST-PERF he can-PERF take-INSTR weapon
    ‘Everyone; was told they; can carry a weapon with them’

43) Ho mo mbii-daα yaα-y maa mum/*maako?
    Q who say-PERF.you love-PERF mother his
    ‘Who; did you say loves his; mother?’

44) Aali wiy-aa hay gotto yii-ma kotoo *maako/mum.
    aali say-NEG even one see-PERF brother his
    ‘Aali; did not say that anyone; saw his; brother’

45) Ho mo Aali wii yi α kotoo *maako/mum?
    Q who Aali say see-PERF brother his
    ‘Who; did Aali; say saw his; brother?’

Here too, reflexives confirm the prediction:

46) Ho mo fembu-m [hoore *maako/mum]
    Q who shave-PERF head his
    ‘Who shaved himself’

In these examples, only dium-pronoun is an appropriate coreferent. In (44) and (45) though, mo
can refer to Aali but not to the quantified DP or the Wh-phrase, thus, confirming the prediction
made by the hypothesis.
Conclusion

Pronominal reference in Pulaar offers two paradigms: mo-pronouns and ďum-pronouns. ďum-pronouns are anaphoric while mo-pronouns are not. Another way to characterize these pronouns is that mo-pronouns refer to more specific (transparent) antecedents like other mo-pronouns while ďum-pronouns refer to less specific (non-transparent) antecedents like quantified DPs and Wh-phrases. However, both pronoun types can refer to antecedents that are just specific like R-expressions.
References

Culy, Christopher. 1993. Fula Pronouns and Agreement. ms., University of Iowa.
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