Object clitics in comparative Bantu syntax

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41st Meeting of the Berkeley Linguistics Society, 7/8 February 2015

Preliminaries
Bantu languages are around 500 in number, spread over most of sub-Saharan Africa. General linguistic properties are: noun classes, agglutinative morphology and SVO basic word order. Finite verbs typically include derivational suffixes and inflectional prefixes. One of these prefixes can be the object marker, as shown in (1).

Bembe (Iorio in progress)
(1) a. Baana   b-a-kola   bitabo
         2.children   2SM-T-buy 8.books
         'The children bought books.'

     b. Baana   b-a-**bi**-kola.
         2.children   2SM-T-8OM-buy
         'The children have bought them.' [class 8, the books]

There is a long-standing debate regarding the syntactic status of these object markers, in particular languages as well as in the general theoretical picture.

> Aim of this talk is to apply Roberts' (2010) analysis of clitics as defective Goals in an Agree relation to the variation in object marking systems in Bantu languages. This sheds light on the sources of variation (in terms of selection and locus features) as well as the Agree mechanism.
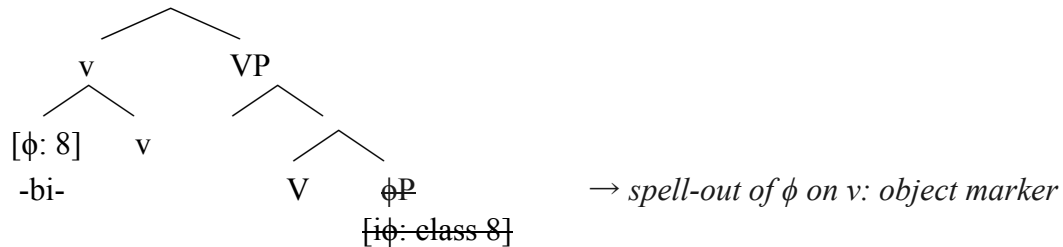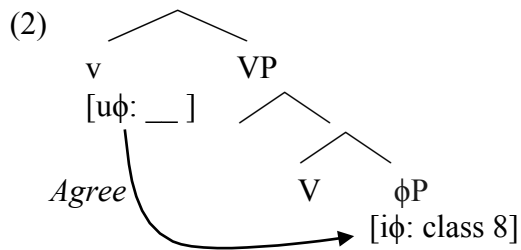
1. Agreement as defective goals
Probe-Goal agreement (Chomsky 2000, 2001), where a head with an uninterpretable feature (uF), called the Probe, searches in its c-command domain for valuation by a constituent with a matching interpretable feature (iF), the Goal. In Bantu languages, this Agree relation may be spelled out by morphology, for example as a subject or object marking prefix.
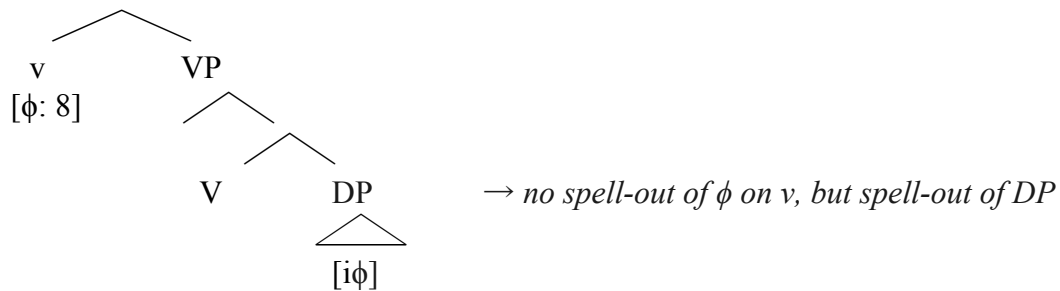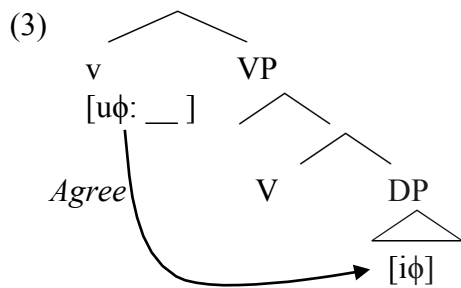
Roberts (2010)
- Goals can be defective, in the sense of having a subset of the features that are present on the Probe.
- In an Agree relation with a defective Goal, the Probe and the Goal end up having the same features (with the Probe having additional features), making the relation indistinguishable from a copy/movement chain.
- In a chain, the highest copy is normally spelled out.
- This looks like incorporation of the Goal, being spelled out on the Probe.

Concretely for object marking, this can be seen as follows:
- Little v has uninterpretable ϕ features (uϕ), which probe down to find an internal argument (object) with interpretable ϕ features (iϕ)
- If the object Goal is a defective pronoun (a ϕP, see Déchaine & Wiltschko 2002), the Goal's nominal features are a subset of the Probe's
- Agree is established, and the ϕ features are spelled out on v in the form of an object marker

(2)

```
        v              VP
      [uφ: __ ]
                      V      φP
   Agree                   [iφ: class 8]
```

```
        v              VP
   [φ: 8]   v
   -bi-              V      φP          → spell-out of φ on v: object marker
                        [iφ: class 8]
```

This also implies that if the Goal's features are NOT a subset, the features will not be spelled out on the probe. If the Goal is a DP, the Probe simply Agrees with it, valuing uφ, but only the DP spells out.

(3)

```
        v              VP
      [uφ: __ ]
                      V      DP
   Agree                    [iφ]
```

```
        v              VP
      [φ: 8]
                      V      DP          → no spell-out of φ on v, but spell-out of DP
                            [iφ]
```

The advantage is that this approach gives a hybrid solution to the longstanding 'pronoun vs. agreement' debate (cf. Riedel 2009 for Bantu, Preminger 2009, Kramer 2014 among many others), because it combines an Agree relation with incorporation effects.

2. Application to Bembe

Iorio (2014) takes Roberts' (2010) proposal and shows that this makes all the right predictions for the Bantu language Bembe (D54, DRC). The object marker and the full DP object are indeed in complementary distribution, that is, whenever both are present in the same sentence, the DP can be shown to be dislocated. The φP is thus the argument and the DP a dislocated adjunct (which is not in the c-command domain and will therefore not be a Goal).

Arguments for dislocation:
(i)   "obligatory phonological-phrase boundaries in case of object marking (4);
(ii)   co-occurrence restrictions between object marking and indefinite, focused, relativised, passivised elements and negative-polarity items;
(iii)   the order of object-marked objects with respect to other elements (5); and
(iv)   topic interpretation in the presence of object markers."

Bembe (Iorio 2014)
(4)   a. Mwana a-a-(*ya)-yak-a   ngyoʔa.
           1child   1SM-T-9OM-kill-FV   9snake
           'The child has killed a/*the snake.'

        b. Mwana a-a-*(ya)-yak-a.
           1child   1SM-T-9OM-kill-FV
           'The child has killed it.'

        c. Mwana a-a-ya-yak-a   *(,) ngyoʔa.
           1child   1SM-T-9OM-kill-FV   9snake
            'The child has killed it, the/*a snake (that is).'

(5)   a. Ba-koch-ile   bilewa   elya   ekolo.
           2SM-buy-PAST   8food   9DEM.DIST 9night
           'They bought food yesterday.'

        b. Ba-(*bi)-koch-ile   bilewa   elya   ekolo
           2SM-8OM-buy-PAST   8food   9DEM.DIST 9night

        c. Ba-*(bi)-koch-ile   elya   ekolo *(,) bilewa.
           2SM-8OM-buy-PAST   9DEM.DIST 9night   8food
           'They bought it yesterday, the food (that is).'

This shows that object DPs are never locally 'doubled' by an object marker on the verb. Whenever there is an object marker, the object argument is a ϕP pronoun that is spelled out on v, and possible co-occurring DPs are adjuncts.

Interim typology

Type 1: no object marker
Languages: Basaa, Nen, Nyokon, Eton (possibly other zone A/Mbam languages)
Analysis: no uϕ on v

Nyokon (A45, Mous 2014)
(6)   m̀   ándwôm   àmɔ̀   ndà'   ŋgê
        1SG sheep   one   give   2SG.OBJ
        'I have given you a sheep.'

Type 2: non-doubling object marker
Languages: Bembe, Herero, Rwanda, Luganda, Chewa (old style), etc.
Analysis: v has uϕ, OM spelled out iff goal is ϕP, no local doubling

Parameter: uϕ present on v (Y/N)

Taking Roberts (2010) general system of Agree as a point of departure, can we account for Bantu object marking across the board? There is an incredible amount of variation (see the overview in Marlo 2013), two aspects of which we start with today. These are the challenges of local clitic doubling and differential object marking.

3. Deriving the doubling property: bigDP

Challenge 1: Not in all Bantu languages are object marking and full DPs in such a neat complementary distribution, i.e. object DPs can be 'doubled' on the verb (like in Rioplatense Spanish). How can we account for the cooccurrence of the object marker and the DP object?

Sambaa is a language that has been argued to have (local) doubling of the object by an object marker. In order to show that this is truly doubling, it must be the case that the DP is in the same domain as the verb+OM, i.e. is not dislocated as in Bembe.

Arguments for non-dislocated status of doubled DP in Sambaa:
- Doubling can be obligatory (7)
- WH-words, which are arguably in-situ, can (and must) be doubled (8)
- No pause before doubled DP, which is necessary for dislocated DPs (9)
- Same High Tone spread as non-dislocated DPs (9)
- Doubled DP can follow a conjoint verb form, which indicates the presence of a following (focused/non-topical) element in the same domain.

Sambaa (Riedel 2009:44)
(7) a. N-za-**mw**-ona   Stella.
         SM1SG-PERF.DJ-OM1-see 1stella
         'I saw Stella.'

     b. * N-za-ona   Stella.
         SM1SG-PERF.DJ-see   1stella
         int: 'I saw Stella.'

(Riedel 2009: 155)
(8) a. U-**mw**-ene   ndayi?
         SM2SG-OM1-see.PERF.CJ who
         'Who did you see?'

     b. * U-ene   ndayi?
   SM2SG-see.PERF.CJ   who
         int: 'Who did you see?'

(Riedel 2009: 66)
(9) a. N-zà-**í**-óná   ng'ómbè.
         SM1SG-PERF.DJ-OM9-see 9cow
         'I saw the cow.'

     b. N-zà-**í**-óná,   ng'òmbè.
         SM1SG-PERF.DJ-OM9-see   9cow
         'I saw it, the cow.'

Again, under Roberts (2010), OM can only be spelled out if the Goal is defective, predicting non-doubling (complementarity) as in Bembe, rather than doubling as in Sambaa. This can be accounted for in the following way:

1. What the probe agrees with is not the whole DP. Instead, it agrees with an extra layer of φ features on the Goal. This extra layer has been proposed as a 'big DP' by Uriagereka (1995) and used by Cechetto (1999), Nevins (2011), Roberts (2010) and others, notably for Bantu object marking by Bax & Diercks (2012). In these approaches the extra layer is itself the object (or subject) marker.
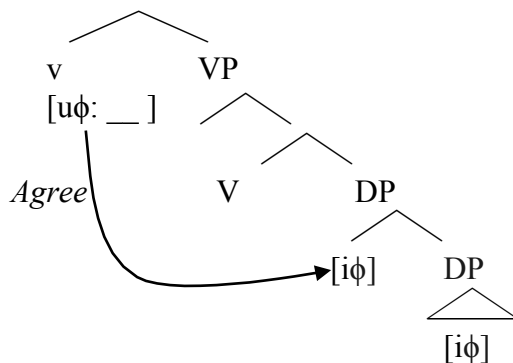
(10) Extra layer of φ on DP

```
            DP
          /    \
       [iφ]     DP
               /  \
             [iφ]
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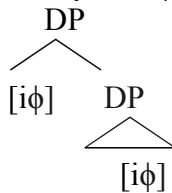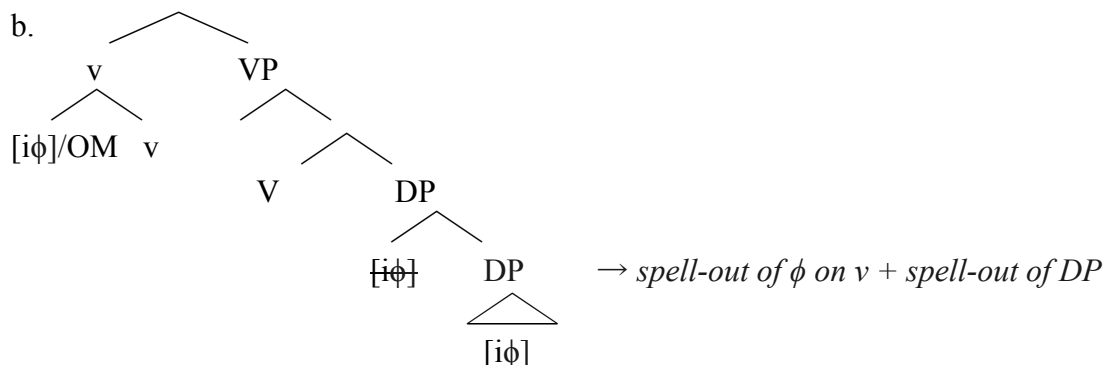
2. The extra layer of φ features is now the Goal for v's Probe, not the whole DP. As these φ features are a subset of the features on the probe, they will be spelled out as an object marker, while still leaving the DP to be spelled out as well, resulting in doubling.

(11) Agree in doubling: v agrees with φ layer, which is a subset and thus incorporates

a.
```
        /    \
      v       VP
  [uφ: __ ]  /  \
            /    \
  Agree    V      DP
               /     \
            [iφ]      DP
                     /  \
                   [iφ]
```

b.
```
         /    \
       v        VP
      / \       /  \
 [iφ]/OM v     /    \
              V      DP
                   /    \
                [iφ]     DP      → spell-out of φ on v + spell-out of DP
                        /  \
                      [iφ]
```

Interim summary: not only do we have a hybrid approach to clitics as the result of an Agree relation, we can also account for both doubling and non-doubling object marking in Bantu languages, as Bax and Diercks (2012) show for object marking in Manyika.

Interim typology

Type 1: no object marker
Type 2: non-doubling object marker

Type 3: doubling object marker
Languages: Sambaa, Manyika, Swahili, Lozi, Luguru, Nyaturu, Chewa (new style), etc.
Analysis: uφ on v, Goals can have an extra layer of φ features

Parameters
uφ present on v (Y/N)
       bigDP possible (Y/N)

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4. Deriving differential object marking

Challenge 2: Not in a single Bantu language is it the case that ALL objects are doubled.
How can we account for which objects are doubled and which are not?

4.1. Prominence of [Person]
Languages with 'doubling' object marking vary a lot as to which objects are marked. In these differential object marking systems, it is usually the animate, definite and/or given objects that are doubled by an object marker. For example, in Nyaturu, definite animate nouns must be doubled by an object marker (12).

Nyaturu (Hualde 1989: 182)
(12)   a. N-a-**mʊ**-onaa   Maria.
       1SG-PAST1-1OM-see 1Maria
       'I saw Maria.'

       b. *N-a-onaa   Maria.
       1SG.SM-PAST1-see   1Maria
       Int: 'I saw Maria.'

       c. N-a-**mʊ**-onaa   mwalimu.
       1SG.SM-PAST1-1OM-see   1teacher
       'I saw the teacher.'

       d. N-a-onaa   mwalimu.
       1SG.SM-PAST1-see   1teacher
       'I saw a teacher.'

The properties that trigger object marking are all high on the various hierarchies associated with 'prominence' or 'topicality' (see Silverstein 1976, Duranti 1979):

Aissen (2003: 437)
(13)   a.   Animacy Scale: Human > Animate > Inanimate
       b.   Definiteness Hierarchy: Proper name > Pronoun > Definite NP >
                Indefinite specific NP > Non-specific NP

So in order to have object marking in doubling systems, the object DP needs to have
1) a big DP, and
2) one or more properties on the high end of these hierarchies.
How can we combine these two?

Richards (2008) proposes that animacy and definiteness can be unified and accounted for by a [Person] feature. First and second person are always animate and definite, as represented in (14) and (15), and therefore, according to Richards (p.140), "only [+animate/+definite] nominals have an indeterminacy for Person, i.e. may be first- or second- or third-person. Only animates and definites, then, require a person specification."
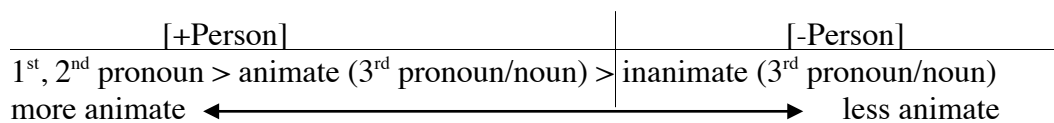
(14) Person-animacy

	Animate	Inanimate
1	✓	✗
2	✓	✗
3	✓	✓

(15) Person-definiteness

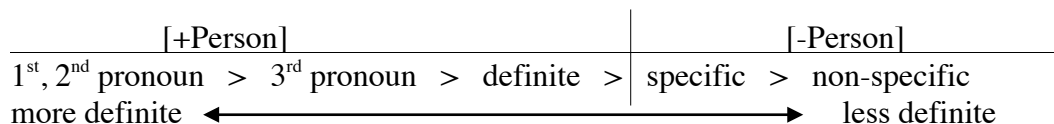|	Definite	Indefinite
1	✓	✗
2	✓	✗
3	✓	✓

This means that 3^{rd} person = absence of [Person] in the syntax, but only for indefinites and inanimates. If a nominal has [Person], it can be either a $1^{st}/2^{nd}$ person, or it is an animate or definite 3^{rd} person. Richards proposes that languages can vary in the association of [Person] with animacy (16), definiteness (17), or both. Languages also vary in where on the scale they locate the cut-off point: for some languages, both definites and specifics have [+Person] (such as Nyaturu), whereas for others definites count but specifics do not (like Ruwund, Riedel 2009).

(16) Person/animacy scale (Richards 2008: 141)

[+Person]	[-Person]
1^{st}, 2^{nd} pronoun > animate (3^{rd} pronoun/noun) >	inanimate (3^{rd} pronoun/noun)
more animate ←	→ less animate

(17) Person/definiteness scale

[+Person]	[-Person]
1^{st}, 2^{nd} pronoun > 3^{rd} pronoun > definite >	specific > non-specific
more definite ←	→ less definite

To these two scales, I propose to add a third scale that [Person] can associate with: givenness. By definition, 1^{st} and 2^{nd} person as speech participants are present in the discourse situation and therefore count as 'given'. This does not hold for 3^{rd} persons, which can be either given or new. A [Person] specification is only necessary for given referents.

(18) Person-givenness

	Given	New
1	✓	✗
2	✓	✗
3	✓	✓

Thus, languages may choose to associate [Person] not only with animacy and/or definiteness, but also with givenness. This scale can be taken to be (similar to) Lambrecht's (1994: 165) topic acceptability scale, which ranks elements on the basis of their mental activation or accessibility:[1]

(19)   active > accessible > unused > brand-new anchored > brand-new unanchored

Sensitivity to givenness is in fact encountered in Bantu object marking. Bax & Diercks (2012) show that object marking in Manyika is determined by old, topical elements. I take this to refer to objects high in givenness or accessibility. They show in (20) that object marking triggers a non-focus interpretation of the doubled object DP: (20a) is felicitous when the verb, the object, or the VP is in focus (as diagnosed by a contextualising question), whereas (20b) is only felicitous when the object is not included in the focus.

Manyika (S10, Bax & Diercks 2012)
(20)   a.   Tendai   w-aka-werenga bhuku   nekukasika.   *non-doubled*
              1.Tendai 1F.SM-PAST-read 5.book   quickly
              'Tendai read the/a book quickly.'

        b.   Tendai   w-aka-**ri**-werenga   bhuku   nekukasika.   *doubled*
              1.Tendai 1F.SM-PAST-5OM-read   5.book   quickly
              'Tendai read the (particular) book quickly.'
              ✓ answer to 'what did Tendai do with the book?' (V foc)
              * answer to 'what did Tendai do?' (VP foc)
              * answer to 'what did Tendai read?' (O foc)

In summary, the presence of a [Person] feature on a 3^{rd} person noun means that it is high on one or more of the scales of animacy, definiteness and givenness.

With Richards' (2008) extra ingredient of a [Person] feature, we come back to our earlier question and rephrase it: in order to have an object marking in doubling systems, the object DP needs to have
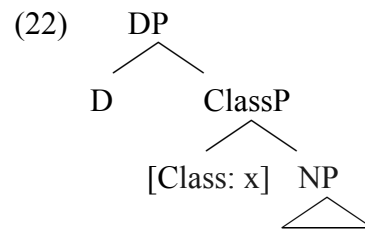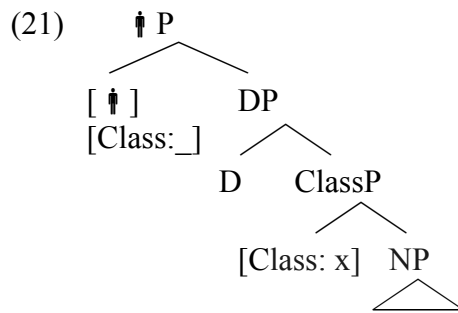
1) a big DP, and
2) a [Person] feature.

Now, what if the ϕ features are split in the DP and the extra layer *is* the Person feature?[2] In type 3 languages, 1^{st}, 2^{nd} and 3^{rd} animate/definite/given would have a [Person] feature and hence the structure in (21), whereas inanimate/indefinite/non-given do not and would have the structure in (22).

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[1] Note that I am not claiming that [person] relates to a topic hierarchy: first and second person can be given or new, and all three hierarchies contribute to topicality, i.e. topics are typically high on all three.
[2] Noun classes in Bantu can be thought of as a combination of Gender and Number, or of Gender alone. They can be split or separated in the structure without consequences for the analysis.

(21)　　　φ P　　　　　　　　　　　　　(22)　　　DP

　[φ]　　　　DP　　　　　　　　　　　D　　　ClassP
　[Class:_]
　　　　　　D　　ClassP　　　　　　　　　　[Class: x]　NP
　　　　　　　　　　　　　　　　　　　　　　　　　△
　　　　　　[Class: x]　NP
　　　　　　　　　　　△

Since the probe spells out complete φ features, not only Person but also Class must be available on the Goal. This is why there is an unvalued [Class: _] feature on the Person head as well, which is valued by the Class specification in the DP.

Interim typology

Type 1: no object marker
Type 2: non-doubling object marker

Type 3: doubling object marker
Languages:　　Sambaa, Manyika, Swahili, Lozi, Luguru, Nyaturu, Chewa (new style), etc.
Analysis:　　uφ on v, Goals ~~can have an extra layer of φ features~~ can be PersP or DP

Type 3A: only animacy (?)
Type 3B: only definiteness (?)
Type 3C only givenness (Manyika, Bax & Diercks 2012)
Type 3AB: animacy & definiteness (Sambaa, Riedel 2009; Nyaturu, Hualde 1989)
Type 3AC: animacy & givenness (Swahili, Seidl & Dimitriadis 1997; Chewa, Downing 2014)
Type 3BC: definiteness & givenness (distinguishable?)
Types 3ABC: all three?

Parameters
uφ present on v (Y/N)
　　　　[Person] can form its own projection (Y/N)
　　　　　　　　which hierarchy (animacy, definiteness, givenness)?

4.2. Extending [Person]
There are a number of languages which restrict object marking to nouns in classes 1 and 2 only. Animacy, definiteness and/or givenness do not play any role whatsoever. An example is Makhuwa, where all and only nouns in classes 1/2 (and 1st, 2nd persons) must be object-marked; no object marker exists for the other classes.

Makhuwa (van der Wal 2009: 84)
(23)　a.　　ki-ni-**ḿ**-wéha　　　　　　Hamísi　/ namarokoló / nancoólo
　　　　　　1SG.SM-PRES.CJ-1OM-look 1.Hamisi / 1.hare　　　/ 1.fish.hook
　　　　　　'I see Hamisi / the hare / the fish hook'

　　　b.　　* ki-m-wéhá　　　　　　Hamísi　/ namarokoló / nancoólo
　　　　　　1SG.SM-PRES.CJ-look　　1.Hamisi / 1.hare/ 1.fish.hook

c.   ki-m-wéhá   nveló   / mikhorá   / kalapinteéro   / etthepó
     1SG.SM-PRES.CJ-look   3.broom   / 4.doors   / 5.carpenter   / 9.elephant
     'I see the broom / doors / carpenter / elephant'

d.   * ki-ni-ḿ-wéha   nveló   / mikhorá / kalapinteéro / etthepó
       1SG.SM-PRES.CJ-1OM-look 3.broom / 4.doors   / 5.carpenter   / 9.elephant

The Bantu noun class system can be seen as involving Gender, with several Bantu noun classes form singular-plural pairs, as indicated in Table 1, the Genders here labelled A-D.

	singular	plural
A	class 1	class 2
B	class 3	class 4
C	class 5	class 6
D	class 7	class 8

Table 1 Bantu noun classes as genders

Gender A is reanalysed as representing [Person]. That is, 1st and 2nd person always fall under gender A, and a [Person] feature is only needed to distinguish within gender A. The result is that a 3rd person with a [Person] feature will belong to gender A. Only when [Person] is not specified/absent does [Gender] kick in to distinguish other 3rd persons (24). From a diachronic perspective such a reanalysis is plausible, as the reconstructed Bantu gender A typically contained humans (i.e. high on animacy hierarchy). Furthermore, it would explain why we only find systems with restrictions to class 1/2 and not other classes as well (e.g. only class 5 and 11 can be object-marked).

(24) Person-gender

	A	B	C	D
1	✓	✗	✗	✗
2	✓	✗	✗	✗
3	✓	✓	✓	✓

4.3. Cut-off points on the hierarchies
Languages also differ in the cut-off point on the animacy and/or definiteness hierarchy. For example, Nyaturu and Ruwund both associate [Person] with definiteness but to a different degree: Nyaturu marks only definite objects, whereas Ruwund marks definites and also specific obejcts.

Futhermore, if the Person hierarchy (1/2 > 3) is incorporated into either or both animacy and definiteness hierarchies, then Lubukusu (Diercks and Sikuku 2013) and Kivunjo-Chaga (Moshi 1998) can be accounted for as well. These languages generally do not allow doubling (type 2), but do have doubled strong pronouns. These can then be seen as the most restricted association on this hierarchy.

        [+Person]   [-Person]
──
1st, 2nd pronoun > 3rd pronoun > definite > specific > non-specific
        Bukusu, Chaga | Nyaturu | Ruwund | --

Chaga (Bresnan & Moshi 1990, via Marten et al. 2007, glosses adapted)
(25) a.   n-á-í-**m**-lyì-í-à   k-èlyá   ò
            PROG-1SM-PRES-1OM-eat-APPL-FS 7-food   1.PRO
            'He/she is eating food for him/her.'

      b.   n-á-í-**kì**-lyí-í-à   m-kà   kyô
            PROG-1SM-PRES-7OM-eat-APPL-FS   1.wife   7.PRO
            'He/she is eating it for/on the wife.'

      c.   n-á-í-**kì**-**m**-lyì-í-à   òó   kyò
            PROG-1SM-PRES-7OM-1OM-eat-APPL-FS 1.PRO   7.pro
            'He/she is eating food for him/her.'

4.4. [Person]al problems

If the Person feature is located in Person node on top of DP, the prediction is that all 1^{st} and 2^{nd} persons, which *must* have a Person feature, are PersP as well, in both type 2 and type 3 languages. We would thus predict 1^{st} and 2^{nd} persons to always trigger object marking.

       One exception is noted by Polak (1986: 375, via Marlo 2013), who mentions that there are languages in Bantu zones C and D that lack some $1^{st}/2^{nd}$ person object prefixes (e.g. Nyali, Harries 1959). This may be a superficial effect in the morphology, a gap in the paradigm.

       For type 3 (local doubling, DOM) the predicted variation is between either only an OM (i.e. object is ɸP, as in (26a)), or an OM doubling a strong pronoun (i.e. object is DP with Person layer, as in (26b)).

Haya (Riedel 2009: 72)
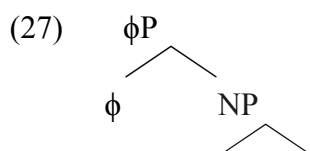(26) a.   A-ka-**m**-bona   ijo.
            1SM-PAST3-1SG.OM-see   dby
            'He saw me the day before yesterday.'

      b.   A-ka-**m**-bona   inye   ijo.
            1SM-PAST3-1SG.OM-see1SG.PRO dby
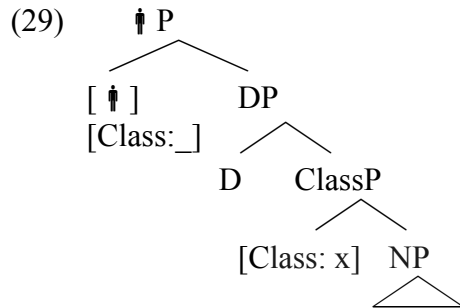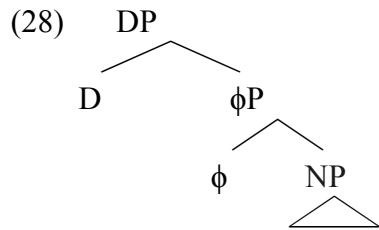   'He saw ME the day before yesterday.'

Potentially problematic are cases where only the strong pronoun is present, without the object marker.

Haya (Riedel 2009: 72)
(26) c.   A-ka-bona   inye   ijo
            1SM-PAST3-see 1SG.PRO   dby
            'He saw ME the day before yesterday.'

This can be seen as variation between various types of pronouns within a language (see Cardinaletti & Starke 1999, Déchaine & Wiltschko 2002 a.o.): the pronoun in (26a) is a ɸP (so only the OM spells out), in (26c) a DP (so only the DP spells out), and only in (26b) is [Person] projected in a separate layer (hence doubling).

(27)   ɸP

      ɸ   NP

11

(28) DP
      ／＼
  D   φP
       ／＼
     φ   NP
          △

(29) 🧍P
     ／＼
[🧍]   DP
[Class:_] ／＼
      D   ClassP
         ／＼
    [Class: x] NP
           △

The structure in (29) would not be available in type 2 languages at all, accounting for the complementary distribution found in Bembe, where strong pronouns cannot be object-marked.

Bembe (Iorio 2014: 14)
(30) a.   Na-(*m)-mon-ine   ɛwé.
          1SG.SM-1OM-see-PST   1.PRO
          'I saw him.' or 'I saw HIM.'

      b.   Ewe,   na-*(m)-mon-ine.
          1.PRO   1SG.SM-1OM-see-PST
          'Him, I saw (him).'

The next question is then what determines when [Person] forms its own projection…

Preliminary typology of Bantu object marking

Type 1: no object marker
Languages: Basaa, Nen, Nyokon, Eton (possibly other zone A/Mbam languages)
Analysis: no uφ on v

Type 2: non-doubling object marker
Languages: Bembe, Herero, Rwanda, Luganda, Chewa (old style), etc.
Analysis: v has uφ, OM spelled out iff goal is φP, no local doubling

Type 3: doubling object marker
Analysis: uφ on v, Goals can be PersP or DP

Type 3A: only animacy (?)
Type 3B: only definiteness (?)
Type 3C only givenness (Manyika, Bax & Diercks 2012)
Type 3AB: animacy & definiteness (Sambaa, Riedel 2009; Nyaturu, Hualde 1989, Ruwund, Matengo, Chaga, Lubukusu)
Type 3AC: animacy & givenness (Swahili, Seidl & Dimitriadis 1997; Chewa, Downing 2014)
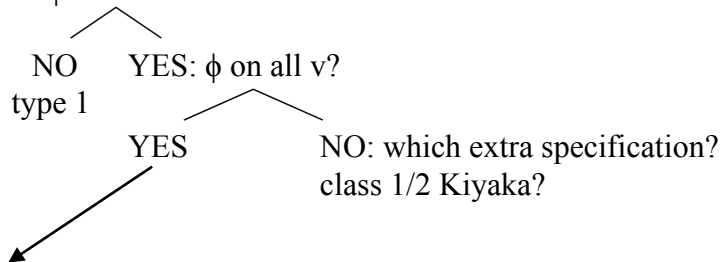Type 3BC: definiteness & givenness (distinguishable?)
Type 3ABC: all three?

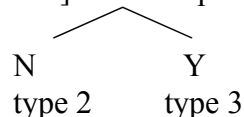Type 3-extended: class 1/2 (Makhuwa, Van der Wal 2009; Ekoti, Kimatuumbi), also Kiyaka

Parameters
- uφ present on v (Y/N)
  - [Person] can form its own projection (Y/N)
    - which hierarchy does [Person] associate with (animacy, definiteness, givenness)?
    - which cut-off point on hierarchy?
  - restricted probe?
- internal structure of strong/weak/clitic pronouns

Dependencies in parameters?
(31)   uφ on v?

            NO   YES: φ on all v?
          type 1

                    YES   NO: which extra specification?
                                        class 1/2 Kiyaka?

Nominal structure: Can [Person] form a separate layer?

                        N   Y
                     type 2   type 3

[Person] association with animate/definite/given/gender A

5. Conclusion and further challenges

We can account for (at least some of) the crosslinguistic variation in object marking by keeping the agreement mechanism the same (Roberts 2010) and varying the features of the Goal. This unites approaches to object marking as agreement and as cliticisation (a debate since at least Bresnan & Mchombo 1987), while also accounting for the differential object marking properties. Furthermore, using Richards' (2008) insights on the prominence of [Person] and extending this to include givenness relates differential object marking to just one syntactic feature.

5.1. More variation in object marking

This is only the very beginning of an account of object marking in Bantu, since the variation is huge. Variation that is not (yet) accounted for in this model (cf. Marten & Kula 2012, Marlo 2013), with thoughts on possible analysis in italics:

a. Variation according to predicate (Marten & Ramadhani 2001 for Kiluguru)
b. The '+1' property, where a second OM is allowed if and only if one OM is 1st person or reflexive (32), see Marlo (2013a) and Sikuku (2012) → *an extra probe is created iff all features are satisfied immediately (Bejar & Rezac 2009)?*

Bemba (Marten & Kula 2012: 245)
(32) a. N-àlíí-**mù**-péél-à.
          SM1SG-PAST-OM1-give-FV
          'I gave him (it).'

      b. N-àlíí-**yà**-péél-à.
          SM1SG-PAST-OM6-give-FV
          'I gave it (e.g. water) (to him).'

      c. *N-àlíí-**mù**-**yà**-péél-à.
          SM1SG-PAST-OM1-OM6-give-FV
          Int: 'I gave him it (e.g. water).'

      d. *N-àlíí-**yà**-**mù**-péél-à.
          SM1SG-PAST-OM6-OM1-give-FV
          Int: 'I gave him it (e.g. water).'

      e. À-**chí**-**m**-péél-é.
          SM1-OM7-OM1SG-give-OPT
          'S/he should give it to me.'

c. 'Combined' doubling and non-doubling, as in Ruwund (Woolford 2001) and Kuria (Ranero et al. 2013) → *????*
d. Object marking as postverbal clitics (as in Kiyaka) → *extra probe above v, which can be restricted to locatives (cf. Diercks 2011)*
e. Pragmatic effects of doubling: Lubukusu is generally a non-doubling language, apart from exceptional doubling with strong pronouns and to trigger a "confirmation" reading (33) → *extra layer only for focused/contrastive objects (is that what it means in the syntax to be focused/contrasted)? Pragmatic implicature?*

Lubukusu (Diercks & Sikuku 2013)

(33) a.   A-som-ile   li-gazeti.
          1SM.PST-read-PST   5-magazine
          'He read the magazine.'

       b.   A-**li**-som-ile   li-gazeti.
          1SM.PST-5OM-read-PST 5-magazine
          'He definitely read the magazine.'
          (i.e. confirmation reading, that it occurred as expected)

f. Double object constructions
       o   Multiple markers (34) → *multiple probes?*

Kinyarwanda (JD61, Beaudoin-Lietz et al. 2004: 183)

(34) Umugoré   a- ra- na- **ha- ki- zi- ba- ku- n-**
      1woman   SM1-DJ-ALSO- OM16- OM7- OM10- OM2- OM2SG- OM1SG-
      someesheeshererereza.
      read.CAUS.CAUS.APPL.APPL
      'The woman is also making us read it (book) with them (glasses) to you for me there (in the house).'

       o   Variable ordering of prefixes (35)

Setswana (Marten & Kula 2012: 247)

(35) a.   Ke **mo**   **e**   ape-ets-e.
          1SM 1OM   9OM   cook-APPL-PERF
          'I cooked it for him/her.'

       b.   Ke **e**   **mo**   ape-ets-e.
          1SM 9OM   1OM   cook-APPL-PERF
          'I cooked it for him/her.'

       o   Person-Case-Constraint effects.
       o   (A)symmetry. In asymmetric languages with one OM only the higher object can be marked (unless this object is completely omitted), and when the language has multiple OMs the lower object can only be marked if the higher object is also marked. In symmetric languages either the higher or the lower object can be marked. Assuming the UTAH and locality constraints, this is unexpected: How can the higher object be skipped in an Agree relation? Variable base positions (Anagnostopoulou 2003, 2005, McGinnis 2001, 2004, Pylkkänen 2002, Jeong 2007)? Agreement with both but spell-out of one?

Kîîtharaka (Muriungi 2010:84, 83)

(36) a.   Mu-borisi a-kû-**mî**-nyu-ithia   mû-ûragani.
          1.-police   1SM-T-9OM-drink-CRC   1-murderer
          'The policeman has coerced the murderer to drink it.' [the poison]

       b.   Mu-borisi a-kû-**mû**-nyu-ithia   cûmû.
          1.-police   1SM-T-1OM-drink-CRC   9-poison
          'The policeman has coerced him/her to take the poison.'

5.2. Further research questions include

- What about subject marking? That should work the same way as object marking… which it does in Bembe, but not cross-Bantu:

	OM double	OM non-double
SM double	big DP - with high DAG for obj - with TOP for subj (& TOP = person)	big DP only for subj - TOP? - nom Case?
SM non-double	X	never bigDP

Prediction: languages with agreeing subject inversion always allow doubling objects

- How does [Person] get linked to one or more of the scales?
- Is it conceptually more attractive to posit the restrictions on the probe or on the goal? Or do we need both in accounting for the variation?

> **NOTE:** This is work in progress - please contact me before citing!

Abbreviations and symbols
Numbers refer to noun classes, or to persons when followed by SG or PL

APPL	applicative	OM	object marker
CJ	conjoint verb form	OPT	optative
CRC	coerce	PASS	passive
DEM	demonstrative	PROG	progressive
DJ	disjoint verb form	SM	subject marker
FS/FV	final suffix/final vowel	T	tense

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