Conjoined subjects and verbal agreement resolution in Akebu

Andrey Shluinsky
Institute of Linguistics, Russian Academy of sciences

The paper deals with conjoined subjects and verbal agreement resolution in Akebu, contributing to the typology of noun phrase coordination and agreement resolution in Niger-Congo. Akebu demonstrates both inclusory and compositional coordination with pronominal conjuncts. Inclusory coordination is typical for animate conjuncts, while compositional coordination is obligatory for inanimate conjuncts. Semantic person agreement resolution of the verb is possible, and semantic noun class agreement resolution is obligatory with animate conjoined 3rd person subjects, while inanimate conjoined 3rd person subjects trigger syntactic or mixed agreement resolution.

Keywords: Akebu, Kwa, Niger-Congo, noun phrase coordination, inclusory coordination, verbal agreement, agreement resolution

1. Introduction

The paper concerns two closely related issues: Akebu conjoined subjects and verbal agreement resolution. Certain conjunct parameters in a conjoined noun phrase (NP) influence the structure of the coordinated construction itself. Moreover, closely related parameters are relevant for verbal subject cross-reference. The phenomena in focus are demonstrated in examples (1)-(2), which are taken from texts. Both (1) and (2) show conjoined structures, but only in (1) are the conjuncts simply linked by the marker mɨ̄. In (2), the conjuncts are ‘you (sg)’ and ‘your wife’; still, it is not the 2nd person singular pronoun ũ that is used here, but the 2nd person plural form nɨ́. As for the verbal agreement with conjoined subjects, in both examples, it is not the person, number or noun class of any one conjunct that is cross-referenced in the verb. In (1), all the conjuncts are singular and have a singular noun class marker, but the verb agrees with a plural noun class that refers to the group of referents as a whole. In (2), the 2nd person plural subject is cross-referenced, although it refers to the 2nd person singular and to the 3rd person singular.

(1) cfkɛ̀-yɔ̀ mɨ̀ pûtɔ̀-yɔ̀ mɨ̀ kû-yɔ̀ pi-léé-yé kî-pûtâá-kɔ̀
dog-Dṣg and cat-Dṣg and mouse-Dṣg PPl-3.HAB-do K-friendship-Kṣg
‘The dog and the cat and the mouse have had friendship.’ (txt)

(2) ‘nî mî lé tiè nɔ̀-kpî ti ʔ-gú- kpɔ̀
2Pl.INDP and 2SG.POSS woman 2Pl-beFCT in KP-room-KPSG
‘You (sg) and your wife are in the room.’ (txt)

A coordinated construction (or a comitative-based quasi-coordinated construction, which is the case in Akebu) with at least one pronominal conjunct can be structured in two ways. One way is compositional coordination, in which both conjuncts have independent referents, as in
English *he and me*. The second option is inclusory (Haspelmath 2007; Arkhipov 2009a) or asymmetric (Schwartz 1988) coordination, in which one of the conjuncts has a plural reference to both the referent expressed by the other conjunct and another referent, as in Russian *my s nim* {we and/with him} ‘he and me’. Other terms used for inclusory coordinated constructions are “absorbed referent” constructions (Daniel 2000; Arkhipov 2009b; Podlesskaya 2012) or “inclusory constructions” (Lichtenberk 2000). Inclusory coordination appears in many unrelated languages, when at least one conjunct is pronominal, but, as shown by Haspelmath (2007), it is attested extremely rarely with two full noun phrase conjuncts.

Agreement resolution concerns the form of the agreeing target, when the agreement controller is conjoined. In particular, this concerns conjoined subject cross-reference in the verb. Corbett (1991; 2006) distinguished between two main types of resolution. In semantic resolution, the agreeing target is assigned a value that is not a value of any conjunct, but refers to the meaning of the conjoined controller as a whole. For example, in English *John and Peter are walking*, the plural form of the auxiliary is triggered by the conjoined subject, while neither of conjuncts has plural value on its own. In syntactic resolution, the agreeing target is assigned a value of a single conjunct. For example, in Latin *senat-us popul-us-que roman-us* {senate-SG people-SG-and Roman-SG} ‘the Roman senate and people’ the agreeing adjective takes a singular form copying the number value of a single conjunct, but not referring to the plural meaning of the conjoined noun phrase as a whole. Most typically, in syntactic agreement resolution, the agreeing target takes the value of the conjunct that is linearly closest to the conjoined controller, cf. the most recent review of the closest conjunct agreement in (Nevins & Weisser 2019). Agreement resolution is relevant for all categories that trigger agreement, such as person, number, as well as noun class / gender.

Niger-Congo languages are of a special interest for the issue of agreement resolution, because many of them have a prominent noun class system cross-referenced in the verb. Indeed, there is a large body of literature discussing the phenomenon in the Bantu group, spanning about fifty years, see, inter alia, Voeltz (1971); Bokamba (1985); Corbett & Mtenje (1987); Marten (2000; 2003; 2005); Simango (2012); Mitchley (2015); Andrason (2019). In particular, this research has shown that Bantu languages exhibit different resolution strategies, and the animacy of full noun phrase conjuncts, as well as the person of pronominal conjuncts are relevant. Still, to the best of my knowledge, no research has been conducted on the agreement resolution in non-Bantu noun class languages belonging to the Niger-Congo macrofamily,\(^1\) in particular, in Kwa noun class languages. This study aims to fill this gap. As shown below, the animacy of full noun phrase conjuncts and the person of pronominal conjuncts are relevant in Akebu as well, and therefore its system is in line with Bantu patterns. Although more data of non-Bantu Niger-Congo noun class languages should be analyzed in order to make generalizations on Niger-Congo in general, Akebu data still allow to make a preliminary claim that Bantu-like agreement resolution can be extended to the macrofamily in general.

\(^1\) In this context, it is not relevant whether Niger-Congo languages are taken as a genealogical or an areal and typological unity (see Good 2020 for the most recent discussion). In any case, we deal with a cluster of languages with a non-sex-based noun class system marked in the noun triggering agreement in different positions including subject cross-reference. Importantly, as shown by Good (2020), Kwa languages are genealogically related to Benue-Congo, including Bantu, so when comparing Akebu to Bantu we compare distantly related languages.
Akebu (Kebu; ISO 639-3 keu) is a Kwa (< Niger-Congo) language of the Kebu-Animere group, which is part of a unity referred to as “Ghana-Togo Mountain languages” (GTM languages), or “Togo Remnant languages”. Although it is disputable whether GTM languages form a genealogical group, they have a number of structural similarities (see Ameka & Essegbey 2017). In particular, GTM languages have full-fledged noun class systems (see an early review and an attempt of reconstruction in Heine 1968) along with the Guang group of Kwa (see reconstructions of Proto-Guang noun class systems in Manessy 1987; Snider 1988). This distinguishes them from other groups of Kwa, which either do not retain the noun class system at all, or have vestigial noun class systems (see Güldemann & Fiedler 2019: 114–137; Konoshenko & Shavarina 2019 for surveys and discussions). Thus, although the Kwa languages are usually assumed to be isolating and to have minimal morphology, they, in fact, differ in their nominal morphology and agreement systems. Akebu is an example of a Kwa language that has a rather complex morphology and an active noun class system.

Akebu is spoken mainly in the prefecture of Akebu in Togo (West Africa) by ca. 70,000 people (Gblem-Poidi & Kantchoa 2012; Eberhard et al. (eds.) 2019). The language is underdescribed, but at the same time its noun class system is discussed in a number of papers, namely (Heine 1968; Storch & Koffi 2000; Amoua 2011; Makeeva & Shluinsky 2018). The data for this study were collected during a number of field trips to the village of Djon and neighbouring villages of Kotora and Djitrame in the prefecture of Akebu of Togo in 2012, 2013, 2016 and 2019. Examples acquired from texts (about 4 hours of spoken speech) are marked (txt), elicited examples are unmarked.

The rest of the paper is structured as follows. Section 2 introduces the relevant background information on Akebu. Section 3 deals with conjoined subjects including 1st–2nd person pronouns. Section 4 discusses conjoined 3rd person subjects, while Section 5 focuses on inanimate conjoined 3rd person subjects. Section 6 draws a conclusion.

2. Relevant features of Akebu: noun classes, pronouns, verbal agreement, noun phrase coordination

This section provides the information on Akebu grammar that is relevant for the topic of the paper.

2.1. Noun classes and 3rd person pronouns. The Akebu noun class system has been described in detail in Storch & Koffi (2000) and Makeeva & Shluinsky (2018), so only basic relevant information is reproduced here. Based on agreement patterns and the form of corresponding pronouns, seven noun classes are distinguished in Akebu. The letter corresponding to the first sound of the object pronoun is used to name the classes. Noun classes are marked by both prefixes and suffixes. Such marking is usually considered to be the intermediate stage in the historical process of replacing Proto-Niger-Congo prefixes by innovative suffixes, as shown by Greenberg (1977); the current Akebu noun class prefixes look residual, with several classes having zero exponence (see Table 1). Singular and plural forms are regarded as different noun classes that may form a number correlation, as established in the Niger-Congo descriptive tradition (see recent reviews in Güldemann & Fiedler 2019; Zheltov 2021). In all noun classes, 3rd person object pronouns are different from independent pronouns, which are used for topicalization and in coordinated constructions. Table 1 (summarizing the relevant information from Makeeva & Shluinsky 2018 with some changes in the analysis) presents the list of the noun classes,
corresponding object and independent pronouns, nominal prefixes and suffixes, as well as examples.

<table>
<thead>
<tr>
<th>class</th>
<th>object pronoun</th>
<th>independent pronoun</th>
<th>prefix</th>
<th>suffix</th>
<th>example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Π</td>
<td>nù</td>
<td>nù ~ ŋnù²</td>
<td>ø-</td>
<td>-ʊ̀-</td>
<td>fū́i-ţyò ‘bird’</td>
</tr>
<tr>
<td>P</td>
<td>pì</td>
<td>ŋpì ~ ‘bì</td>
<td>ū-³</td>
<td>-pà</td>
<td>ŏ-fù́i-pà ‘birds’</td>
</tr>
<tr>
<td>Ṭ</td>
<td>ṭì</td>
<td>ŋṭì ~ ‘di</td>
<td>`⁻⁴ (voicing)</td>
<td>-ʊ̀-</td>
<td>ɗ-gò-ţò ‘liver’</td>
</tr>
<tr>
<td>W</td>
<td>wò</td>
<td>ŋwò ~ ‘wò</td>
<td>ø-</td>
<td>-wà</td>
<td>náá-wà ‘fire’</td>
</tr>
<tr>
<td>Y</td>
<td>yì</td>
<td>ŋyì ~ ‘yì</td>
<td>ū-</td>
<td>-ʊ̀-</td>
<td>ɗ-naá-ţi ‘fires’</td>
</tr>
<tr>
<td>K</td>
<td>kì</td>
<td>ŋkì ~ ‘gì</td>
<td>`⁻ (voicing)</td>
<td>-kà -</td>
<td>ɗ-gà-kà ‘meat’</td>
</tr>
<tr>
<td>KP</td>
<td>kpì</td>
<td>ŋkpì ~ ‘gbì</td>
<td>wi-</td>
<td>-kòpà</td>
<td>wi-tòó-kpò ‘feathers’</td>
</tr>
</tbody>
</table>

Table 1. Akebu noun classes and corresponding 3rd person pronouns.

The D class corresponds to class 1 in the Bantuist / Niger-Congo tradition (see e.g., Meeussen 1967 and the most recent review Van de Velde 2019) and includes most, though not all, animate nouns and some inanimate nouns (typically, borrowed ones) in Akebu. The P class corresponds to traditional class 2 and is the plural counterpart of the D class. The W class is the default class for inanimate objects, as it contains the noun tû-wà ‘thing’. Still, the semantic correlations of Akebu noun classes, with the exception of the D class, are very weak and non-transparent.

Figure 1 summarizes the attested number values and number correlations of Akebu noun classes. Bold lines represent the most typical correlations, dashed lines refer to the less standard cases. Notably, two classes, KP and Y, can be both singular and plural. For the KP class, this concerns different nouns, cf. wi-cú-kpò ‘tree (singular)’, but wi-nù-kpò ‘arms (plural)’; in the Y

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² The symbol ~ is placed between free variants.
³ The symbol ū refers to an underspecified vowel that is present in a number of prefixes and proclitics subject to vowel harmony with the following rules: v ~ e / ī, ư ~ a / _a, u; v ~ ə / _ə, ɨ; v ~ a / _a, ē, ū, ī.
⁴ The symbols ` and ` refer to low and high floating tones.
⁵ In contrast to Bantu, where Class 1 is typically restricted to humans, not any animates.
class, some nouns can be used in the same form in the singular and the plural, such as ï-kpø-yð ‘bag (singular)’ ~ ‘bags (plural)’.

Some mass and abstract nouns that have no number distinctions may belong either to a singular noun class, like fã-wð ‘joy’ of the W class, or to a plural noun class, like ï-fan-pð ‘wine’ of the P class.

![Diagram showing number values and number correlations of Akebu noun classes.](image)

In (3), D ~ P number correlations for several animate nouns are shown. Still, some animate nouns belong to other noun classes and enter other number correlations. For example, in (4), animate nouns that have K ~ KP number correlations are presented. Finally, (5) presents several examples of number noun class counterparts of inanimate nouns.

(3)

- a. nũ̀-yð ~ ñũ̀-pð
  husband-D<sub>SG</sub> ~ P-husband-P<sub>PL</sub>
  ‘husband’
  man-D<sub>SG</sub> ~ P-man-P<sub>PL</sub>
  ‘men’
- b. pũ̀-yð ~ ñũ̀-pð
  child-D<sub>SG</sub> ~ P-child-P<sub>PL</sub>
  ‘children’
  woman-D<sub>SG</sub> ~ P-woman-P<sub>PL</sub>
  ‘women’

(4)

- a. kĩ-põ̀-kã ~ wi-põ̀-kã
  fish-K<sub>SG</sub> ~ fish(KP<sub>PL</sub>)
  ‘fish (sg)’
  snake-K<sub>SG</sub> ~ snake(KP<sub>PL</sub>)
  ‘snakes’
- b. kĩ-p₅₅-kã ~ wi-p₅₅-kã
  K-hand-K<sub>SG</sub> ~ KP-hand-KP<sub>PL</sub>
  ‘hand’
  ‘hands’

(5)

- a. ñũ̀-të~ ñũ̀-yð
  head-T<sub>SG</sub> ~ Y-head-Y<sub>PL</sub>
  ‘head’
  ‘heads’
  ‘hands’
- b. ñũ̀-të~ ñũ̀-yð
  head-T<sub>SG</sub> ~ Y-head-Y<sub>PL</sub>
  ‘head’
  ‘heads’
  ‘hands’
- c. tõkò-wð ~ ñũ̀-yð
  knife-W<sub>SG</sub> ~ Y-knife-Y<sub>PL</sub>
  ‘knife’
  ‘knives’
  ‘axes’
In contrast to Bantu and other Niger-Congo languages that have number modifiers agreeing in noun class with the head noun, in Akebu there are only two parts of speech that agree in noun class inside a clause. First, verbs cross-reference the noun class of the 3rd person subject (see 2.3); subject verbal agreement resolution will be the focus of this paper. Secondly, numerals have overt agreement with some noun classes (see Makeeva & Shluinsky 2018: 20-21; Makeeva & Shluinsky 2020: 347-350 for details). Numeral agreement is not considered in this study, as numeral contexts with potential agreement resolution (e.g., “two spoons and knives”) sound odd for consultants and are not semantically transparent. Other kinds of constituents, such as demonstratives or adjectives, take no noun class agreement in Akebu.

2.2. 1st–2nd person pronouns. As well as 3rd person pronouns, non-3rd person pronouns make distinction between object and independent forms. Object pronoun form, presented in Table 2, is used in the object position and independent form is used in coordinated constructions.

<table>
<thead>
<tr>
<th>person and number</th>
<th>object pronoun</th>
<th>independent pronoun</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>mĩ</td>
<td>`mĩ</td>
</tr>
<tr>
<td>2SG</td>
<td>lə</td>
<td>`lə</td>
</tr>
<tr>
<td>1PL</td>
<td>lá</td>
<td>`lá</td>
</tr>
<tr>
<td>2PL</td>
<td>nĩ</td>
<td>`nĩ</td>
</tr>
</tbody>
</table>

Table 2. Akebu 1st–2nd person pronouns.

2.3. Subject cross-reference and TAM marking. The subject is cross-referenced in the verb by person and number indexing and by noun class indexing of 3rd person subjects. Person and number are expressed in the verb cumulatively with tense, aspect and modality, forming a number of portmanteau series. Some of the series are presented in Table 3. Noun class is typically indexed by separate prefixes, although in some forms cumulation with TAM series is also present. The default series is used to form the subjunctive with the basic stem of the verb and to form the factative with the factative stem.6 For the D noun class, simple and conjoint cross-reference forms are distinguished, the latter being triggered by special syntactic contexts, for example, in a clause that follows a marker of the clausal conjunction.7

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6 The term “factative” is used for a verb form that refers to an ongoing present event with states and to a completed past event with actions (following Welmers 1973: 348 and later works using this term in African linguistics). The term “prospective” is for a verb form that refers to an event that is about to begin (as widely used in cross-linguistic studies of tense and aspect).

7 More details on the use of conjoint forms in Akebu can be found in Makeeva & Shluinsky (2018). The term “conjoint” is used in line with its use in the Bantuist tradition (for example, see its use in a recent paper collection van der Wal & Hyman (eds.) 2017).
In (6), subject cross-reference in Akebu is shown. Like other Niger-Congo languages with noun class indexation on the verb, Akebu is a pro-drop language, so pronominal subjects are normally expressed only by the verb cross-reference both in non-3rd (6a) and 3rd (6d) person. The same 3rd person form is therefore used for agreement with a full noun phrase subject, as in (6c), and for referring to a pronominal subject with no expressed agreement controller, as in (6d). Still, a topicalized subject gets a surface expression with an independent pronoun form, as in (6b), in contrast to (6a), in which the subject has no special information structure patterns. When a subject is a conjoined noun phrase, independent pronouns are used for any pronominal conjunct, and a conjoined subject is always overtly expressed, even if both conjuncts are pronominal (see further examples throughout the paper).  

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8 To be more precise, one can hardly distinguish between a dropped conjoined subject noun phrase with two pronouns and a dropped simple pronominal subject in the contexts like You and me (we) came vs. We came.

<table>
<thead>
<tr>
<th>person and number / noun class</th>
<th>default</th>
<th>perfective</th>
<th>prospective</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>simple</td>
<td>conjoint</td>
<td>simple</td>
</tr>
<tr>
<td>1SG</td>
<td>ɨ-</td>
<td>ɨnɨ- ~/ nɨ-</td>
<td>ɨnɨ- ~/ ɨnɨ-</td>
</tr>
<tr>
<td>2SG</td>
<td>ɬ-</td>
<td>ɬɨ-</td>
<td>ɬɨ-</td>
</tr>
<tr>
<td>1PL</td>
<td>yɨl-V- / l-V-</td>
<td>yɨl-V- / y-V-</td>
<td>yɨl-V- / y-V-</td>
</tr>
<tr>
<td>2PL</td>
<td>ɲʊń-V- / n-V-</td>
<td>ɲʊń-V- / n-V-</td>
<td>ɲʊń-V- / n-V-</td>
</tr>
<tr>
<td>⌒</td>
<td>ɬ-</td>
<td>ɬ-V-</td>
<td>ɬ-V-</td>
</tr>
<tr>
<td>P</td>
<td>pɨ-</td>
<td>pɨ-l-V-</td>
<td>pɨ-l-V-</td>
</tr>
<tr>
<td>⌒</td>
<td>ɬ-V-</td>
<td>ɬ-V-</td>
<td>ɬ-V-</td>
</tr>
<tr>
<td>W</td>
<td>ɬɨ-</td>
<td>ɬɨ-V-</td>
<td>ɬɨ-V-</td>
</tr>
<tr>
<td>Y</td>
<td>yɨ-</td>
<td>yɨ-l-V- / y-V-</td>
<td>yɨ-l-V- / y-V-</td>
</tr>
<tr>
<td>K</td>
<td>kɨ-</td>
<td>kɨ-l-V-</td>
<td>kɨ-l-V-</td>
</tr>
<tr>
<td>KP</td>
<td>ɬɨ-</td>
<td>ɬɨ-l-V-</td>
<td>ɬɨ-l-V-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>person and number / noun class</th>
<th>habitual</th>
<th>negative habitual-prospective</th>
<th>negative perfective-factative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>simple</td>
<td>conjoint</td>
<td>simple</td>
</tr>
<tr>
<td>1SG</td>
<td>ɨnɨ-V- ~/ nɨ-V-</td>
<td>nɨɟ-</td>
<td>ɨnɨ-~/ ɨnɨ-V-</td>
</tr>
<tr>
<td>2SG</td>
<td>ɬɨ-V-</td>
<td>ɬɨɟ-</td>
<td>ɬɨ-V-</td>
</tr>
<tr>
<td>1PL</td>
<td>yɨl-V- / y-V-</td>
<td>yɨl-V- / y-V-</td>
<td>yɨl-V- / y-V-</td>
</tr>
<tr>
<td>2PL</td>
<td>ɲʊń-V- / n-V-</td>
<td>ɲʊń-V- / ɲ-V-</td>
<td>ɲʊń-V- / n-V-</td>
</tr>
<tr>
<td>⌒</td>
<td>ɬ-V-</td>
<td>ɬ-ɲɟ-</td>
<td>ɬ-V-</td>
</tr>
<tr>
<td>P</td>
<td>pɨ-l-V-</td>
<td>pɨ-ɲɟ-</td>
<td>pɨ-l-V-</td>
</tr>
<tr>
<td>⌒</td>
<td>ɬ-V-</td>
<td>ɬ-ɲɟ-</td>
<td>ɬ-V-</td>
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<td>W</td>
<td>ɬɨ-V-</td>
<td>ɬ-ɲɟ-</td>
<td>ɬɨ-V-</td>
</tr>
<tr>
<td>Y</td>
<td>yɨ-l-V- / y-V-</td>
<td>yɨ-ɲɟ- / y-V-</td>
<td>yɨ-l-V- / y-V-</td>
</tr>
<tr>
<td>K</td>
<td>kɨ-l-V-</td>
<td>kɨ-ɲɟ-</td>
<td>kɨ-l-V-</td>
</tr>
<tr>
<td>KP</td>
<td>ɬɨ-l-V-</td>
<td>ɬɨ-ɲɟ-</td>
<td>ɬɨ-l-V-</td>
</tr>
</tbody>
</table>

Table 3. Akebu TAM and subject cross-reference series.
2.4. **Noun phrase coordination.** Conjoined noun phrases in Akebu are constructed with the marker mì, as shown in (7). In its main function, this marker is a preposition that is used to expresses comitative and instrumental meanings. Lexically close examples (8) and (9) illustrate the difference between the capacity of the coordination marker in (8), where it is placed between the two noun phrases, and of the comitative marker in (9), where it follows the verb.

(7)  kòjò mì kòfí

‘Kojo and Kofi’

(8)  wò jéécé péṭéécé-yó  mì  cifiké-yó  pi-kóŋ-kó

and indeed goat-Dsg  and  dog-Dsg  Pnt-HABPST-go

‘And indeed, the goat and the dog used to go.’ (txt)

(9)  wò jéécé `gòjú-pí-tú  sā  gbí  `góŋ-kó

and indeed T̩-girl-DIM-Tsg  DEM  T̩-bePST  T̩-HABPST-go

mì `né  píf-yé  ñ̩-pōō  wò

with D.Poss  child-Dsg.Dem  Dsg-Jnt-carry_on_back  CNJ

‘And indeed, that girl used to go with her infant at her back.’ (txt)

Apart from the simple coordinated construction illustrated in (7) and (10a), a coordinated construction with a pronominal reprise is attested in Akebu. As shown in (10b) and (10c), the first conjunct can be followed by a pronoun that corresponds to it (10b), or to the entire conjoined noun phrase (10c). The pronominal reprise constructions seem to have the same structural and agreement patterns as constructions with a pronominal conjunct, but are not yet studied in detail and are not considered in the rest of the paper.

(10)  a.  cifiké-yó  mì  púúsú-yó  pi-kpí

dog-Dsg  and  cat-Dsg  Ppl-bePST

‘The dog and the cat are here.’ {a=b=c}

b.  cifiké-yó  nò  mì  púúsú-yó  pi-kpí

dog-Dsg  D.indp  and  cat-Dsg  Ppl-bePST

c.  cifiké-yó  bi  mì  púúsú-yó  pi-kpí

dog-Dsg  P.indp  and  cat-Dsg  Ppl-bePST

3. **Constructions with conjoined subjects including 1st and 2nd person pronouns**

If at least one conjunct is a 1st or 2nd person pronoun, the main strategy attested in naturalistic data involves inclusory coordination and semantic agreement resolution. Namely, if one of the conjuncts is of the 1st person, the 1st plural form is used both for the pronoun of the first conjunct
linearly preceding the coordination marker, and for the subject cross-reference in the verb, as shown in (11)-(12). If none of the conjuncts is of the 1st person and one of the conjuncts is of the 2nd person, the 2nd plural form is used for both the pronoun of first conjunct linearly preceding the coordination marker and for the subject cross-referenced in the verb, as shown in (13)-(14).

(11) ̀ló  mì  `mì  píľ-yò  lá-yã  yáá-wě̆élì
1PL.INDP and 1SG.POSS child-DSG 1PL-PROG 1PL.HAB-speak
‘Me and my child speak.’ (txt)

(12) ̀ló  mì  `lò  lá-pālì  lé-fíí
1PL.INDP and 2SG.INDP 1PL-come<sub>PCT</sub> 1PL-enter<sub>PCT</sub>
‘You (sg) and me came.’

(13) ̀ní  mì  lè  tiè  mì  lè  è-píľ-pò  nó-fò !
2PL.INDP and 2SG.POSS wife<sub>SG</sub> and 2SG.POSS P-child-P<sub>PL</sub> 2PL-take
‘You, and your wife, and your children take!’ (txt)

(14) ǹ  ǹí  mì  ǹò  nǐŋáá-ǹì̄  ñwèè  wí-lò-kòŋ
CNJ 2PL.INDP and 3SG.INDP 2PL.PFV-see REC <sub>WSG-3.PFV-be_long</sub>
‘… because you and him have seen one another long ago.’ (txt)

An alternative strategy involves compositional coordination with any order of conjuncts, but with semantic agreement resolution. For example, in (15b), a compositional 1st person singular pronoun is possible instead of the standard inclusory 1st person plural pronoun in (15a). In (16a), the standard inclusory coordination is used for 1st and 2nd persons singular, and (16b) and (16c) show the alternatives, placing the 1st person singular pronoun before or after the 2nd person singular pronoun. In (17), the same possibilities are shown for a combination of 2nd and 3rd person pronouns. Importantly, it is impossible to place the plural conjunct after the singular in an inclusory construction, as shown in (17d), which allows no inclusory reading, only a compositional one, in contrast to (17a), in which both are possible.

(15) a. ̀ló  mì  píľ-yò  yíľóò-pò
1PL.INDP and chief-DSG 1PL.PFV-come
‘Me and the chief have come.’ {a=b}

b. `mì  mì  píľ-yò  yíľóò-pò
1SG.INDP and chief-DSG 1PL.PFV-come

(16) a. ̀ló  mì  `lò  yíľóò-pò
1PL.INDP and 2SG.INDP 1PL.PFV-come
‘You (sg) and me have come.’ {a=b=c}

b. `mì  mì  `lò  yíľóò-pò
1SG.INDP and 2SG.INDP 1PL.PFV-come

c. ̀lò  mì  `mì  yíľóò-pò
2SG.INDP and 1SG.INDP 1PL.PFV-come
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(17) a. `ní mī nù nínó̈-pō
   2PL.INDP and D.INDP 2PL.PFV-come
1. ‘You (sg) and him have come.’
2. ‘You (pl) and him have come.’

b. `lā mī nù nínó̈-pō
   2SG.INDP and D.INDP 2PL.PFV-come
   ‘You (sg) and him have come.’ {b=c}

c. nù mī `lā nínó̈-pō
   D.INDP and 2SG.INDP 2PL.PFV-come

d. nù mī `ní nínó̈-pō
   D.INDP and 2PL.INDP 2PL.PFV-come
   1. *OK- ‘You (pl) and him have come.’
   2. * ‘You (sg) and him have come.’

In contrast to the coordination construction, in which the standard inclusory construction varies with the compositional construction with any order of conjuncts, in the domain of agreement resolution there is no variation. Semantic resolution, using the 1st plural form if the speaker is involved and the 2nd person plural form otherwise, is the only option, see (18a) and (19a). As shown in (18b) and (19b), choosing the plural form referring to the person of the closest conjunct is ungrammatical. Choosing a singular cross-reference form referring to any conjunct is ungrammatical, as well, as shown in (18c-d).

(18) a. `mí mī `lā yéé-sītī à-kókó-pá̀ è-yí
   1SG.INDP and 2SG.INDP 1PL.PFV-sell P-hen-PPL P-two
   ‘You (sg) and me have sold two hens.’

b. *mí mī `lā nēé-sītī à-kókó-pá̀ è-yí
   1SG.INDP and 2SG.INDP 2PL.PFV-sell P-hen-PPL P-two

c. *mí mī `lā nḗ-sītī à-kókó-pá̀ è-yí
   1SG.INDP and 2SG.INDP 1SG.PFV-sell P-hen-PPL P-two

d. *mí mī `lā èlè-sītī à-kókó-pá̀ è-yí
   1SG.INDP and 2SG.INDP 2SG.PFV-sell P-hen-PPL P-two

(19) a. `mí mī nù yáá-só fó-è-yó̀
   1SG.INDP and D.INDP 1PL.PFV-pound fufu-DSP
   ‘Me and him have pounded the fufu.’

b. *mí mī nù pì-lá-só fó-è-yó̀
   1SG.INDP and D.INDP PPL-3.PFV-pound fufu-DSP

4. Constructions with animate 3rd person conjoined subjects

If the conjuncts are of the 3rd person of the D noun class and animate, the main strategy attested in naturalistic data involves semantic agreement resolution and inclusory coordination if one of the conjuncts is pronominal. The form of the P noun class is used as a default animate 3rd person plural form both for inclusory coordination and for semantic agreement resolution. In (20) and
(21a), two full noun phrases are coordinated in the subject position, and in this case compositional coordination is the only logically possible option. In (22), one of the conjuncts is pronominal and semantically singular, and the independent pronoun of the plural animate P noun class is used before the coordination marker. In examples (20) to (23) the plural animate P noun class is cross-referenced in the verb. As shown in (21b), syntactic agreement resolution cross-referencing the singular animate D noun class is ungrammatical, although both conjuncts are of this class.

(20) \( \text{wō tiē-yō' mī 'nō nūŋ pi-kōh-tě́ wē} \) and woman-D\( _{\text{SG}} \) and D.POSS husband\( _{\text{SG}} \) P\( _{\text{PL}} \)-HABPST-put \( _{\text{SG}} \) DEM \( \text{'-wāt̪-āpī-tō' wē} \)

‘And the woman and her husband used to place this ring.’

(21) a. \( \text{pít ŋī-yō' mī tiē-yō' pi-lā-pō} \)

\( \text{man-D\( _{\text{SG}} \) and woman-D\( _{\text{SG}} \) P\( _{\text{PL}} \)-come} \)

‘The man and the woman have come.’

b. \( \#\text{pít ŋī-yō' mī tiē-yō' Ø-lā-pō} \)

\( \text{man-D\( _{\text{SG}} \) and woman-D\( _{\text{SG}} \) D\( _{\text{SG}} \)-come} \)

(22) \( \text{bī mī pít ŋī-yē pi-lō-kō pi-lō-tō̞mō tī} \)

P.INDP and man-D\( _{\text{SG}, \text{DEM}} \) P\( _{\text{PL}} \)-3.PVF-go P\( _{\text{PL}} \)-3.PVF-copulate in place-W\( _{\text{SG}} \) DEM

‘She and that man have gone and copulated in that place.’

(23) \( \text{bī mī 'né è-pī-pō' pi-lē-kē-yē d-tā} \)

P.INDP and D.POSS P-child-P\( _{\text{PL}} \) P\( _{\text{PL}} \)-3.PVF-AND-do P???-ten

‘They and the children have become ten. (lit. They and the children have done ten.)’

An alternative strategy for pronouns is compositional coordination involving the singular noun class independent pronoun. For example, pronominalizing the first conjunct from (24a) allows both standard inclusory (24b) and less standard compositional (24c) coordination. According to the language consultant’s intuition, (24c) is preferable when the speaker makes a deictic gesture to the referent; still, such constructions have been attested quite rarely.

(24) a. \( \text{kē-tiē-yō' wē mī 'né tiē pi-lō-sāpī āwēē} \)

friend-D\( _{\text{SG}} \) DEM and D.POSS wife\( _{\text{SG}} \) P\( _{\text{PL}} \)-3.PVF-divide REC

‘This man and his wife have divorced.’

b. \( \text{bī mī 'né tiē pi-lō-sāpī āwēē} \)

P.INDP and D.POSS wife\( _{\text{SG}} \) P\( _{\text{PL}} \)-3.PVF-divide REC

‘He and his wife have divorced.’ \( \{b=c\}\)

c. \( \text{ŋō mī 'né tiē pi-lō-sāpī āwēē} \)

D.INDP and D.POSS wife\( _{\text{SG}} \) P\( _{\text{PL}} \)-3.PVF-divide REC

If at least one of the animate conjuncts does not belong to the main animate D noun class, but rather belongs to the K noun class, an alternative strategy of agreement resolution is possible. The plural noun class counterpart of the noun class of the closest conjunct can be cross-referenced in the verb. This type of agreement resolution can be regarded as a mixed one, involving both the semantic pattern of choosing the plural form as indexing a plural referent and the syntactic pattern
of indexing a feature of the closest conjunct. For instance, in (25a), cross-referencing the plural KP noun class that is the counterpart of the K noun class is possible (see (4) with the number correlations), as well as cross-referencing the plural P noun class that is the default animate plural noun class. In contrast, in (25b), cross-referencing the P noun class is the only possibility, since it is the plural counterpart of the closest conjunct that belongs to the D noun class. Cross-referencing the P noun class is possible even if both singular conjuncts do not have it as a plural counterpart, as in (26a). Still, cross-referencing is ungrammatical, when the conjuncts of a different noun class are plural, as in (26b).

(25) a. cíkê-yô’ mî kî-p55-kô’ wî-lâ-pô / pî-lâ-pô
dog-DSG and K-snell-KSG KPL-3.PFV-come PPL-3.PFV-come
‘The dog and the snake have come.’

b. kî-p55-kô’ mî cíkê-yô’ pî-lâ-pô
K-snake-KSG and dog-DSG PPL-3.PFV-come
‘The snake and the dog have come.’

(26) a. kî-pôôê-kô’ mî kî-p55-kô’ wî-lô-pô / pî-lô-pô
‘The fish (sg) and the snake have come.’

b. wî-pôôê-kpô mî wî-p55-kpô wî-lô-pô / *pî-lô-pô
‘The fish (pl) and the snakes have come.’

5. Constructions with inanimate conjoined 3rd person subjects

If the conjuncts are inanimate, the main coordination strategy is compositional coordination with both a full noun phrase and pronominal conjuncts, as well as syntactic agreement resolution cross-referencing the noun class of the closest conjunct. As seen from (27a) and (27b), changing the order of conjuncts triggers changing the noun class cross-referenced in the verb, and cross-referencing the noun class of a non-closest conjunct is ungrammatical (27c). If one of the conjuncts is pronominal, the corresponding noun class form of the pronoun is used, as in (27d), as opposed to one of the corresponding plural counterparts, as with animate conjuncts in (22).

(27) a. ’gû-kô’ mî tûkô-wô’ wî-lân-tô
K-spoon-KSG and knife-WSG WSG-3.PFV-fall
‘The spoon and the knife have fallen down.’

b. tûkô-wô’ mî ’gû-kô’ kî-lân-tô
knife-WSG and K-spoon-KSG KS-3.PFV-fall
‘The knife and the spoon have fallen down.’

c. * ’gû-kô’ mî tûkô-wô’ kî-lân-tô
K-spoon-KSG and knife-WSG KS-3.PFV-fall
‘The spoon and the knife have fallen down.’

d. ’gî mî tûkô-wô’ wî-lân-tô
K.INDP and knife-WSG WSG-3.PFV-fall
‘It [the spoon] and the knife have fallen down.’
(28a-b) are further examples showing the closest agreement and ungrammaticality of constructions cross-referencing a different conjunct. In (28c-d), the compositional coordination of two pronominal inanimate conjuncts is illustrated with the same pattern of syntactic agreement resolution as in (28a-b).

(28) a. ɗ-føŋ-pɔ̀ mì mèŋ-wɔ̀ wi-kpéelfì / *pi-kpéelfì
   P-wine-PPL and water-WSG wSG-be_lyingFCT PPL-be_lyingFCT
   ‘The wine and the water are here.’

   b. mèŋ-wɔ̀ mì ɗ-føŋ-pɔ̀ pì-kpéelfì / *wi-kpéelfì
   water-WSG and P-wine-PPL PPL-be_lyingFCT wSG-be_lyingFCT
   ‘The water and the wine are here.’

   c. ‘bì mì ‘wò wi-kpéelfì / *pi-kpéelfì
   P.INDP and W.INDP WSG-be_lyingFCT PPL-be_lyingFCT
   ‘This [the wine] and this [the water] are here.’

   d. ‘wò mì ‘bì pì-kpéelfì / *wi-kpéelfì
   W.INDP and P.INDP PPL-be_lyingFCT wSG-be_lyingFCT
   ‘This [the wine] and this [the water] are here.’

(29) and (30) exemplify the same with other noun classes. Comparing (29a) and (29b) demonstrates how the order of conjuncts of the KP and T classes influences the subject agreement. In (30), a combination of the K and KP classes is shown, KP being used in its capacity of a plural class.

(29) a. wi-taà-kpɔ̀ mì ‘-dɔŋ-tɔ̀ ‘-là-wɔ̀
   KP-market-KPSG and T-road-TSG TSG-3.PFV-be_brokenFCT
   ‘The market and the road have been destroyed.’

   b. ‘-dɔŋ-tɔ̀ mì wi-taà-kpɔ̀ wi-là-wɔ̀
   T-road-TSG and KP-market-KPSG KPSG-3.PFV-be_brokenFCT
   ‘The road and the market have been destroyed.’

(30) a. à-niŋ-kɔ̀ mì wi-kàà-kpɔ̀ wi-là-cìff
   K-face-KSG and KP-hand-KPPPL KPPPL-3.PFV-get_dirty
   ‘The face and the hands have got dirty.’

   b. wi-kàà-kpɔ̀ mì à-niŋ-kɔ̀ wi-là-cìff
   KP-hand-KPPL and K-face-KSG KSG-3.PFV-get_dirty
   ‘The hands and the face have got dirty.’

Interestingly, the same strategy is used when a conjoined noun phrase formed with the mì marker is asymmetrical, with the conjuncts having a different semantic relation than the compounding of two objects of the same type. In (31), this is illustrated with the noun phrase ‘calabash of water’ (literally: ‘calabash with water’ ~ ‘calabash and water’) where the water fills the calabash, and they are not two independent objects. As seen in (31a), ‘the water’ is cross-referenced in the verb, being the linearly closest conjunct; cross-referencing ‘the calabash’ is ungrammatical, as visible in (31b).
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(31) a. `vó-tò` mì mèn-wò` wi-téé tì kpöl5-yò`  
    T-calabash-TSG and water-WSG wSG-be_placedFCT in table-DGS  
    ‘A calabash of water is on the table.’

b. *vó-tò` mì mèn-wò` `déé tì kpöl5-yò`  
    T-calabash-TSG and water-WSG TSG-be_placedFCT in table-DGS

An alternative strategy of agreement resolution for inanimate conjoined subjects is cross-referencing the plural noun class counterpart of the closest conjunct (see (5) for the relevant number correlations). This is another instance of mixed agreement resolution. In (32a), the closest conjunct to the verb is of the K noun class, and indexing the same class, as well as indexing the KP class that is its plural counterpart, are acceptable. As seen from (32b), reordering the conjuncts and placing the conjunct of the T class closer to the verb makes two different options possible, namely, indexing the T class or indexing the Y class that is its counterpart. (33) illustrates an analogous pair of examples, where a noun of the K class is conjoined with one of the W class.

(32) a. `yú-tò` mì à-kàà-kò` ki-lá-nááni / wi-lá-nááni  
    ‘The head and the hand have got wounded.’

b. à-kàà-kò` mì `yú-tò` `lá-nááni / Yi-lá-nááni  
    K-hand-KSG and T-head-TSG TSG-3.PFV-get_wounded YPL-3.PFV-get_wounded  
    ‘The hand and the head have got wounded.’

(33) a. tókù-wò` mì kí-sá5-kò` ki-lá-tò` / wi-lá-tò  
    knife-WSG and K-axe-KSG KSG-3.PFV-fall KPPL-3.PFV-fall  
    ‘The knife and the axe have fallen down.’

b. kí-sá5-kò` mì tókù-wò` wi-lá-tò` / Yi-lá-tò  
    K-axe-KSG and knife-WSG WSG-3.PFV-fall YPL-3.PFV-fall  
    ‘The axe and the knife have fallen down.’

6. Conclusion

A description of noun phrase conjoining and verbal agreement resolution with conjoined subjects in Akebu was presented in the paper. There are diverse strategies for both parameters in Akebu, summarized in Table 3. The main distinction lies between animate and inanimate noun phrases. Animate NPs take semantic agreement resolution and prefer inclusory coordination if at least one conjunct is pronominal, although compositional coordination is also attested and mixed agreement resolution is possible with full noun phrase conjuncts as well. Inanimate NPs take compositional coordination and prefer syntactic agreement with the closest conjunct, although mixed agreement with a plural noun class correlate of the closest conjunct is also possible. With animate noun conjuncts, both in inclusory coordination and in semantic agreement resolution, the 1 > 2 > 3 person hierarchy is at play. Therefore, the 1st person plural independent pronoun and the cross-reference form are used if the speaker is referred to as part of the conjoined subject group referent; the 2nd person plural independent pronoun and the cross-reference form are used if the hearer is referred to, but the speaker is not; the 3rd person plural independent pronoun and the cross-reference form are used if no speech act participants are involved. In compositional coordination,
Akebu allows any order of conjuncts, but in inclusory coordination the inclusory pronoun obligatorily precedes other pronouns.

<table>
<thead>
<tr>
<th>conjuncts type</th>
<th>coordination</th>
<th>agreement resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>include 1&lt;sup&gt;st&lt;/sup&gt; and/or 2&lt;sup&gt;nd&lt;/sup&gt; person</td>
<td>inclusory &gt; compositional</td>
<td>semantic</td>
</tr>
<tr>
<td>animate, include 3&lt;sup&gt;rd&lt;/sup&gt; person pronoun</td>
<td>inclusory &gt; compositional</td>
<td>semantic</td>
</tr>
<tr>
<td>animate, include only full noun phrases</td>
<td>compositional</td>
<td>semantic &gt; mixed</td>
</tr>
<tr>
<td>inanimate</td>
<td>compositional</td>
<td>syntactic &gt; mixed</td>
</tr>
</tbody>
</table>

Table 4. Summary of Akebu coordination types and subject agreement resolution.

In the general cross-linguistic perspective, the Akebu system is in line with universal factors influencing grammatical features, such as the animacy hierarchy and the person hierarchy actively discussed in the literature starting from (Silverstein 1976; Zwicky 1977). A detailed comparison of the Akebu coordination and agreement resolution system with those of other Niger-Congo noun class languages (reported only for Bantu so far, as mentioned above) is not an aim of this paper, but one can conclude that Akebu is mostly in line with Bantu systems in certain ways (see Corbett & Mtenje 1987; Marten 2005 and other references mentioned Section 1). First, a distinction between animate and inanimate conjoined noun phrases, like the one in Akebu, is reported for Bantu, with the former triggering semantic agreement resolution and the latter involving syntactic agreement resolution. Second, inclusory coordination with pronominal animate conjuncts is reported for Bantu as well. Nevertheless, such Bantu options as, for example, a default noun class for agreement resolution with inanimate conjuncts is not attested in Akebu. Therefore, this study contributes to the research on Niger-Congo noun class agreement systems, and similar studies of more non-Bantu noun class languages are needed.

The mutual distribution between inclusory and compositional coordination of animate pronominal conjuncts, between semantic and mixed agreement resolution with animate full noun phrase conjoined subjects and between syntactic and mixed agreement resolution with inanimate conjoined subjects require further studies, because a text corpus significantly larger than the one accessible now is necessary.

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**Abbreviations**

K, KP, D, P, T, W, Y – noun class markers
1, 2, 3 – 1st, 2nd, 3rd person
AND – andative
CNJ – conjunction
DEM – demonstrative marker
DIM – diminutive
FCT – factative
HAB – habitual series
HABPST – past habitual
INDP – independent pronoun
JNT – conjoint agreement marker
PFV – perfective series
PL – plural
POSS – possessive marker, possessive pronoun
PROG – progressive auxiliary
REC – reciprocal
SG – singular

**References**


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http://roa.rutgers.edu/content/article/files/1787_mitchley_1.pdf


https://journals.flvc.org/sal/article/view/107639/102955


Andrey Shluinsky
Institute of Linguistics
Russian Academy of sciences
ashl@yandex.ru