

20 *Subject agreement with Bilua infinitives*

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1 Introduction

Bilua is spoken on the island of Vella Lavella in the Western Province of the Solomon Islands.¹ There is a population of about 4,000 speakers, and the language is in reasonably healthy condition, although it is rivalled by Pidgin, as is the case in most other areas of Western Melanesia. Although Bilua may be related to other so-called Papuan-type languages of the Solomons – Savosavo, Baniata and Lavukaleve – even that relationship is only weakly supported,² and its classification within an even more inclusive East Papuan Phylum is probably premature. All that is reasonably clear is that Bilua is not Austronesian.

Because this language is not at all well known, some introductory information will be provided, but we shall focus in this paper on the relationship between certain verbs and their complement clauses in which the Bilua verb is in infinitival form, morphologically expressed in a final suffix *-o*. The underlying minimalist theoretical model guiding this description of Bilua verbs and their complements essentially follows Bowers (1993), a version of sentence structure in which the verb is base-generated under V(erb) but moved to a higher functional category Pr(edication), and the object of a verb is base-generated as [Spec, V], while the subject is base-generated as [Spec, Pr]. The indirect object and any complement clause are complements of V, while the direct object is not. Notions of checking are from the work of Chomsky (1995).³

¹ This is a revised draft of a paper, 'Bilua verbs with infinitive complements', presented to the Australian Linguistic Society, Brisbane, July 1998.

² The position of Bilua within a possible Solomon language family is discussed in Todd (1975).

³ The notion of checking is somewhat experimental. The essence is that words must be selected in certain positions according to sharing of features, e.g. a transitive verb in Bilua would have an object marker indicating the gender and number of its NP object.

Bilua has no overt case, but in main clauses both subject (S) and object (O) agreement is morphologically marked within the verb complex, and nominals are masculine (M) or feminine/neuter (F) gender.⁴ The basic word-order in sentences is SV/AVO, but other word orders are known including VAO, and other phrase structures are head-final, e.g. postpositional phrases.⁵ A verb in a main clause typically consists of a subject-agreement prefix, optional aspect/mode markers⁶ and other preverbal elements, then the verb consisting of verb root, object-agreement suffix (if transitive) and tense suffix, as in example (1). The tense suffix may be *-o* 'infinitive' in certain constructions.

- (1) *Vo ta o nozue-k-ala koa qotoma ju.*
 he TOP S3SgF drink-O3SgF-Past that.F boiled.F water
 'He drank that boiled water.'

A few verbs are object-agreement prefixing, as in example (2), the object prefix following the subject clitic and any optional aspect/mode marker.

- (2) *Uriavo nio a v-e-ala vo rusu.*
 good Emph S1Sg O3SgM-see-Past Art.M boy
 'It's a good thing I saw the boy.'

Because of the rich agreement in the verb, subject and object pronouns are subject to optional pro-drop. The subject in a basic sentence is followed by a topic particle *ta*, as in (1), the structure of which is shown in example (3). To satisfy checking requirements it is assumed that the Bilua transitive verb would move from its initial position in V, where it assigns a thematic role to its object, to Pr where it assigns a thematic role to the subject. The object DP moves from [Spec, V] to [Spec, Pr] where it checks object-agreement with the verb.⁷ The verb checks tense, without moving to T, which is the location of the subject-agreement clitic.⁸ It may be assumed that the topic marker expresses a functional head, Top(ic) that is higher than T. The subject therefore moves from its initial position in [Spec, Pr], via [Spec, T], where it checks subject-agreement with the clitic in T. Finally the subject moves to [Spec, Top]. Other details of checking will not concern us here.

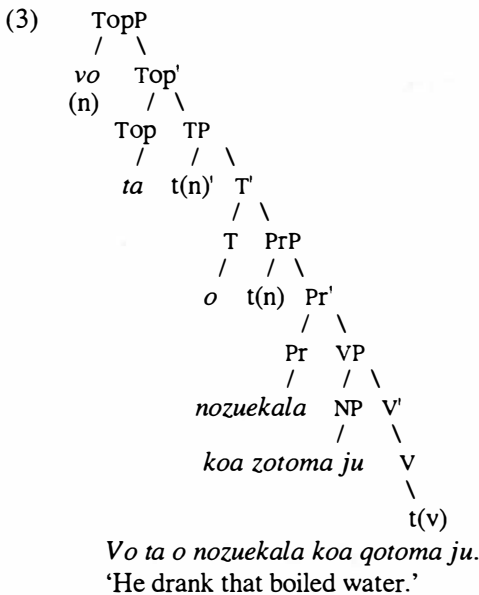
⁴ The marked gender is masculine, while the default gender is feminine.

⁵ For simplicity I shall simply refer to A(gent) as S(ubject) in the following discussion, as the essential difference is between these and O(bject). A list of the abbreviations used in this paper is given in the Appendix.

⁶ I treat these elements as particles to which a preceding subject-agreement particle will cliticise, when present.

⁷ To be consistent, I follow Bowers (1997) who treats case and agreement checking separately, with object-agreement checked in the domain of Pr, and subject-agreement in the domain of T. Agreement is checked between a head and its Spec(ifier), so the object and subject DPs also move to higher positions. Instead of using the notion of Agr(eement) functional heads, multiple Specs are allowed.

⁸ There are several other elements of the verb complex that may occur between the subject-agreement clitic and the inflected verb (see above) suggesting that the verb does not move to T.



Preverbal verb-like forms also occur in Bilua. Comparable to prepositional verbs in Oceanic languages, these are valency-increasing elements that occur with a following verb forming a complex verb. Any subject-agreement prefix will precede, and the preverb also has an object-agreement prefix, which indicates an indirect object when there is also a transitive verb with a direct object. These valency-increasing preverbs occur with a following intransitive verb or with a transitive verb that has object-agreement suffixing. Although these preverbs may occur with normal verbs, they most commonly occur with verbs that require a preverb, as in example (4).⁹

- (4) *Vo ta o k-ai niani-a anime-ko vekala.*
 he TOP S3SgM O3SgF-AI know-Pres our-F language
 'He knows our language.'

In this sentence Bilua *-ai niania-* 'know' is an indivisible combination. For purposes of this paper I will not explore the structure of complex predicates such as these, and simply treat the preverb-verb sequence like a simple verb. In fact I will leave aside an analysis of the derivation of the verb complex between the subject-agreement clitic and the verb.

Many complement and adjunct clauses in Bilua are introduced by a particle *tu* 'to, in order to, so that'. This is temptingly similar to the homophonous English word, which is usually considered in complement clauses to be under the functional head T(ense), as a non-finite indicator. However, in Bilua there is a non-finite tense suffix *-o*, at the end of verbs, that is more likely to serve this function. It is probable that *tu* is some sort of C(omplementiser), but it is at any rate

⁹ Some written materials in Bilua show subject-agreement particles prefixed to the object-agreement prefixes of the preverbs, but I have chosen not to do this. It is true that they are phonologically cliticised to the following word, at least before a consonant, but not prefixed.

under a higher functional head than T, and probably higher than Top.¹⁰ Whatever this head may be, it is no barrier to control of the complement subject by the subject or object of the matrix clause, as will be demonstrated in the following discussion.

2 Subject-control verbs

One class of verbs in Bilua consists of the subject-control verbs, which occur with complement clauses in which the subject is the same as that of the associated matrix verb. Semantically this class of verbs includes modals, but there are several differences in the syntactic behaviour of these verbs. A common feature, however, is that there is no overt subject in the complement clause, so that we may assume a null pronoun PRO since the subject is understood to be the same as the subject of the matrix verb. As is commonly the case cross-linguistically, there is no overt subject-agreement morphology on a complement verb with a subject-controlled PRO subject, i.e. the complement verb is characterised by 'unagreement', lacking the subject-agreement that would be present if that verb were in some other kind of clause, with a subject other than PRO. This unagreement may be considered as part of the lexical specification of the matrix verb, i.e. it has a selectional feature requiring that the complement clause have null subject-agreement [-AgrS] as well as [-Tense].

The verbs *tanit-*, *danit* 'begin', and *toqor-*, *doqor-* 'stop'¹¹ may require complement clauses without *tu*.¹²

- (5) *Voa meqora ta o ta tanit-a PRO zial-o.*
 that child TOP S3SgM Asp begin-Past cry-INF
 'That child began to cry.'
- (6) *Niokerunio ngo danit-e PRO pesi-o.*
 when Emph S2Sg begin-Past talk-INF
 'When did you begin to talk?'

¹⁰ Examples in the texts are rare, but this order is illustrated in the following (which may be a deviant sentence with a discontinuity after *tu*):

A matu madoe-k-otu anga ta kala niuniu a daiv-o.
 S.1Sg must try-it-INF to I TOP a fish S1Sg catch-INF
 'Therefore I must try to catch a fish.'

¹¹ Some words alternate between a voiceless stop initially and a prenasalised voiced stop. The latter is selected by certain subject-agreement clitics which have a nasal consonant, real or latent: *a-* '1Sg', *ngo-* '2Sg', *qo-* '3Du', and *me-* '2Pl, 1Pl'.

¹² In my older (1970s) data none of these verbs was found with *tu* introducing the complement. When I checked recently (1998) with a bilingual consultant he was not prepared to reject sentences with *tu* included. Both of the examples (5)–(6) have the matrix verb in past tense. Kazuko Obata has suggested (pers.comm., Oct. 1998) that *tu* may be associated with irrealis, as she has found that *tu* must always occur when the matrix verb is in the future. My data does not agree (see (7) above). The function of *tu* is a matter for ongoing research.

- (7) *Sipole nio a be toqor-ou PRO iruruput-o.*
 soon Emph S1Sg Asp stop-Fut work-INF
 'Soon I will stop working.'

The verb *ubait-* 'be late' may also be of this type, though it is found with an infinitival complement only in example (8).

- (8) *Sokeru ngo m-el-ou keru ngo lolo poso ta*
 if S2Sg O3Pl-see-Fut if P2Sg friend Pl TOP
pui ngo ubait.ou PRO m-ati pesi-o.
 not S2Sg late.Fut O3Sg-with talk-INF
 'If you see your friends, don't talk to them too long.'

Other intransitive modals include *rove-* 'can, be able' and *lupaov-* 'refuse', which have complement clauses both with and without *tu* (examples (9)–(12)).¹³

- (9) *Anga ta a rove-a tu PRO viq-o ko bolo poso.*
 I TOP S1Sg able-Pres TU hear-INF Art.F pig Pl
 'I can hear the pigs.'
- (10) *Esa pui o pa roveov-ou¹⁴ PRO pesi-o ako*
 maybe not S3Sg Asp can-Fut talk-INF so
vo-ko qonaqona ta potu sole.
 his-F throat TOP sore because
 'Maybe he can't talk because his throat is sore.'
- (11) *Ko ta ko ta lupaov-ou tu PRO iruruput-o lea.*
 she TOP S3SgF Asp refuse-Fut TU work-INF tomorrow
 'She will refuse to work tomorrow.'
- (12) *Se ta ke ta lupaov-a PRO tauve-l-o.*
 they TOP S3Pl Asp refuse-Pres help-O1Sg-INF
 'They refused to help me.'

¹³ A generalised valency-adding preverb *-a* may occur with the verb *lupaov-*, and this preverb has object-agreement marking which cross-references with the object-agreement marking on the following verb.

Anga-ko meqora poso kama taku ta
 my-F child Pl some time TOP
ke ta l-a lupaov-a tu PRO tauve-l-o anga.
 S3Pl Asp O1Sg-A refuse-Pres TU help-O1Sg-INF me
 'My children sometimes refuse to help me.'

This phenomenon is not common and it is not certain how significant it may be syntactically.

¹⁴ Some verb roots are modified before different tense suffixes.

There are at least three transitive verbs that exhibit subject control of complement clauses, the simple verbs *pai-*, *bai-* 'finish',¹⁵ *madoe-* 'test, try', and the preverb-verb complex *-ai zari-*, *-a zari-* 'want, like'.¹⁶ These verbs take complement clauses both with and without *tu* as shown in examples (13)–(18).

- (13) *Ko pai-k-ou PRO pei-k-o ko niru ti*
 S3SgF finish-O3SgF-Fut grate-O3SgF-INF Art.F coconut when
ko zuzue-k-ou.
 S3SgF squeeze-O3SgF-Fut
 'When she finishes grating the coconut, she will squeeze it.'
- (14) *A bai-k-a PRO vuat-o erisanga.*
 S1Sg finish-O3SgF-Pres eat-INF now
 'I am finished eating now.'
- (15) *Aniqe ta qe madoe-k-ou tu PRO tai-k-o kubo ninuu.*
 we.Du TOP 1PIIncDu try-O3SgF-Fut TU catch-O3SgF-INF many fish
 'We will try to catch many fish.'
- (16) *Sole a madoe-k.a PRO k.ai pesi.o komia vekala*
 so S1Sg try-O3SgF-Pres O3SgF.AI speak-INF that language
melai matu tapata ko l-ai ev-a.
 but too difficult S3SgF O1Sg-AI be-Pres
 'I have been trying to learn that language but I find it too difficult
 (lit. it is too difficult for me).'
- (17) *Vo ta o k-a zari-a*
 he TOP S3SgM O3SgF-A want-Pres
tu PRO k-ai niani-o anime-ko vekala.
 TU O3SgF-AI learn-INF our-F language
 'He wants to learn our language.'
- (18) *Anga ta pui a PRO q-a zari.a kil-o.*
 I TOP not S1Sg O3SgF-A want-Pres come-INF
 'I don't want to come.'

A complement clause with these verbs is analysed here as an object of the matrix verb.¹⁷ This clause acts as if it has the 'default' phi-features <3SgF> which it is suggested account for the

¹⁵ I have recorded the verb *pai-*, *bai-* only with a following *-k* which I originally considered part of the verb stem, but Kazuko Obata (pers. comm. October 1998) notes the existence of an intransitive verb *pai-* 'finish', so this suggests that the *-k* is actually an object-agreement suffix, as I have treated it here.

¹⁶ Both forms of preverb *-a* and *-ai* occur with *zaria* in the data, and for our purposes will be treated as equivalent until demonstrated otherwise. Elsewhere, as Obata (1998) demonstrates, they have different meanings.

¹⁷ Presumably the clause could also be in complement position with an empty object position.

object agreement on the matrix verb.¹⁸ The subject of the matrix clause is the closest available noun phrase to control the PRO subject of the complement clause. This accounts for the observed facts, since there is no subject agreement on the complement verb, as is expected to be the case with infinitives of subject-control verbs, but the subject is nevertheless understood to be the same as that of the matrix clause.¹⁹

3 Object-control verbs

Object-control verbs are always transitive, and the complement clauses associated with them have a null subject, presumably PRO, which is controlled by the object of the matrix verb. As with most subject-control verbs, the complement clauses may or may not be introduced by *tu*, though the use of *tu* is predominant with object-control verbs. What seems to be quite different though, is that the subject agreement on complement clauses is not ordinarily omitted either.²⁰ This requires an explanation not yet developed, to account for why there is 'unagreement' when the complement verb has a subject-controlled PRO, but agreement when it has an object-controlled PRO. It does not seem plausible to attribute 'unagreement' simply to the PRO subject itself. As is the case with subject-control complements, the PRO could facilitate the 'recovery' of the ϕ -features of the object in the matrix clause. The most straightforward explanation seems to be that these object-control verbs are specified in the lexicon to select complements that have subject-agreement [+AgrS], as well as [-Tense].²¹

¹⁸ In an earlier analysis I introduced an expletive *pro* as object with default features to account for the object-agreement morphology of the verb, using notions from the discussion of expletive arguments discussed by Chomsky (1995). To have a *pro_{expl}* in [Spec,V] would require a stipulation that it could not be a controller of the PRO subject of the complement clause, or some other rule with the same effect. Since the clause is in the same position as a nominal object would be, this may be an unnecessary complication. Maybe the head of the clause, whether T or something higher, has a feature that would match (and therefore 'check') the default object-agreement of the verb, in line with more recent ideas about agreement proposed by Chomsky (1998).

¹⁹ Exceptionally, the sentence example in footnote 10 above exhibits subject agreement in a clause that is a complement to one of the transitive modal verbs. But in that example there is also a topicalised subject pronoun rather than PRO in the complement clause, another anomaly. It is possible that this sentence is not well-formed. A different reason might be the fact that it has a pronominal in a topicalised position, and this may affect the subject-marking on the following verb.

²⁰ A very few examples occur in the data where there is no subject-agreement in the complement verb after an object-control verb, as in the following:

Ko-vo mama t o kaiti-k-a tu PRO rae-v-o voa maba.
her-M father TOP S3SgM forbid-O3SgF-a TU marry-O3SgM-INF that man
'Her father forbid her to marry that man.'

²¹ A similar proposal is offered by Raposo (1987) to account, in part, for the subject-agreement on infinitive verbs in European Portuguese.

I am excluding from this discussion sentences in which there are complement clauses associated with expletive subjects because these have non-verbal predicates such as *tapata* 'difficult', *olu* 'easy', and *kutumana* 'dark' which do not carry tense information. These also lack subject-agreement inflection with the complement infinitive verb where there is an indefinite null *pro_{arb}* subject of that complement, but otherwise the infinitive complement has subject agreement.

Most of the object-control verbs have to do with expressing statements or commands, e.g. *bazu-* 'tell', *pase-*, *base-* 'ask, request', *kaiti-*, *qaiti-*, 'forbid' and *zariev-* 'allow, let, permit' in the following examples.

- (19) *Anga ta a bazue-v-ala vo.*
 I TOP S1Sg tell-O3SgM-Past him
tu PRO o l-a k-ov-o ko ju.
 TU S3SgM O1Sg-A O3SgF-get-INF Art water
 'I told him to get water for me.'
- (20) *Anga ta a base-k-ala ko tu PRO ko tauve-mel-o.*
 I TOP S1Sg ask-O3SgF-Past her TU S3SgF help-O1Pl-INF
 'I asked her to help us.'
- (21) *Ko ta ko kaiti-m-a meqora poso*
 she TOP S3SgF forbid-O3Pl-Pres child Pl
tu PRO ke zura-o nioro kale
 TU S3Pl play-INF rain in
 'She forbid the children to play in the rain.'
- (22) *Pui zarie-m-o se tu PRO ke el-o engea sase.*
 not allow-O3Pl-IMP them TU S3Pl live-INF us with
 'Don't let them come to live with us.'

Most of our present data has overt subject agreement. As expected, though, overt subjects are subject to pro-drop in the complement clause.

4 Raising verbs

The analysis of Bilua has not yet revealed any clear instances of verbs which involve raising-to-object. One possible example exists, the verb complex *-a zari-*, *-ai zari-* 'want', which occurs with complement clauses that have a different subject from that of the matrix verb. This could also conceivably be an example of an object-control verb, though it seems semantically unlikely. This complex predicate can occur with a nominal object as in example (23), but in (24) it seems that the complement clause does not have a PRO subject.

- (23) *Anga ta a ng-a zari-a.*
 I TOP S1Sg O2Sg-A like-Pres
 'I like you.'
- (24) *Anga ta a ng-a zari-a pro tu t ngo eraeraov-ou.*
 I TOP S1Sg O2Sg-A want-Pres (you) TU 2Sg confess-Fut
 'I want you to confess.'

It is proposed that (24) be considered an example of raising. Although there is no overt pronominal subject of the complement verb, and no overt pronominal object of the matrix verb, because pro-drop is common in this language it is assumed that there is a null pronoun *pro* with

<2Sg> phi-features base-generated in the subject position [Spec, Pr] of the complement clause, and it accounts for the subject agreement of the verb in that clause. This *pro* is raised (leaving a trace *t*) to the [Spec, V] object position of the matrix clause, where it accounts for the object agreement on the preverb. This phenomenon is E(xceptional) O(bject) M(arking), the equivalent in an object-agreement language to the E(xceptional) C(ase) M(arking) of a case-marked language.²²

The complement clauses with this verb complex are like those of object-raising verbs, in which *tu* and subject-agreement marking are normal in the complement verb. In this way it is possible to distinguish (25) from (26) even though the matrix verbs are the same.

- (25) *Anga ta a q-a zari-a PRO kil-o.*
 I TOP S1Sg O3SgF-A want-Pres go-INF
 'I want to go.'

- (26) *Anga ta a q-a zari-a pro tu t ko kil-o.*
 I TOP S1Sg O3SgF-A want-Pres (her) TU S3SgF go-INF
 'I want her to go.'

As a subject-control verb complex in (25) the object-agreement marking on the preverb refers to a clause as object, but in (26) it is a raising verb and the object-agreement marking on the preverb refers to the subject of the complement clause. If the raising verb allowed deletion of 'unagreement', especially if *tu* were also omitted (as it may be) it would be the same as (25), creating ambiguity. It is of course possible that this may happen on occasion, but the distinctive treatment of the subject-agreement seems to be important in the raising construction.

5 Conclusion

The data presented show that both subject-control and object-control verbs occur in Bilua and that there is a significant difference in their complements. Although both may occur with or without the introductory particle *tu*, this particle is normally present with the object-control verb complements. Even more important is the 'unagreement' exhibited only in the case of subject-control verbs, where the subject agreement is omitted in the complement verb. Although it seemed that this might reflect the lack of agreement with a complement subject PRO, the presence of subject agreement in the verbs of object-control complements requires explanation because it is normal for infinitives to lack subject agreement in most languages. Therefore it seems likely that the two kinds of control verbs have a selectional feature in the lexicon which determines that subject-control verbs require a [-AgrS] complement and object-control verbs require [+AgrS]. Data from a single possible raising verb, which has features similar to object-control verbs, and also requiring a complement with [+AgrS], has demonstrated the significance of subject agreement in raising complements to disambiguate certain constructions.

²² Exceptional object-agreement marking (EOM) has been observed by the author in several other languages unrelated to Bilua, where a common feature is the presence of object-agreement inflection. This does not preclude the co-occurrence of the ECM construction, if one assumes covert case would be present in a language that has no overt case.

Finally it has been noted that in Bilua, an object-agreement marking language, there may be an EOM construction involving object agreement of a matrix verb with a raised complement subject, treated exceptionally as if it were the object of the matrix verb.

Appendix

1. Abbreviations

Person

1	first
2	second
3	third

Heads

V	Verb
T	Tense
Pr	Predication
Top	Topic (or TOP)
C	Complementiser
DP	Determiner phrase

Tenses

Past

Pres	Present
Fut	Future
INF	non-finite
IMP	imperative

A	Agent
S	Subject
O	Object
P	Possessor

t	trace
n	noun
v	verb

Sg	Singular
Du	Dual
Pl	Plural

Asp	Aspect (undifferentiated)
Emp	Emphatic particle
Art	Article

F	Feminine/Neuter
M	Masculine

2. Orthographic Notes

b, d, j, q are prenasalised voiced stops.

ng is a velar nasal, usually written with an underlined n in contemporary Bilua.

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