

Typological Canonicity of Karuk Agreement

Whitney White

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1. INTRODUCTION¹

1.1. THE KARUK LANGUAGE

Karuk is a native North American language spoken in Northern California along the Klamath River. It is highly endangered and spoken by a very small number of elderly speakers. Karuk is part of the debated Hokan stock, but is otherwise considered an isolate.

As with many of the indigenous languages in the area, Karuk has a high morpheme-to-word ratio (sometimes described as ‘polysynthetic’) and displays great variation in word order. All word orders except VSO are attested in the Karuk corpus (Mikkelsen 2013). Karuk is host to a wide variety of morphological marking on both nominal and verbal elements. For instance, Karuk verbal morphology includes a number of grammatical features such as tense, aspect, directional suffixes, plural action, and, most importantly for this study, subject/object agreement. The relevant morphemes, prefixes on verbs, mark the person and number of the subject and the object. Agreement prefixes appear on possessed nouns as well.

1.2. OBJECTIVES

My objective for this thesis is to classify aspects of Karuk agreement according to Grev Corbett’s *Agreement* and to explore the reason behind some of the deviations from canonicity in Karuk agreement. Corbett’s approach to agreement in this book is intended to “take definitions to their logical end point and build a theoretical space of possibilities” (Corbett (2006:8-9)). This provides me with a well-developed, detailed, and fairly self-contained theory to analyze Karuk agreement.

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1.3. METHODOLOGY AND FRAMEWORK

All of my examples were taken from the Karuk online text corpus which currently contains about 6000 sentences.

In the beginning of his book, Corbett discusses three principles for canonical agreement:

Principle I: Canonical agreement is redundant rather than informative.

Principle II: Canonical agreement is syntactically simple.

Principle III: The closer the expression of agreement is to canonical (i.e. affixal) inflectional morphology, the more canonical it is as agreement. (Corbett (2006:11-17))

From these principles come 20 criteria for canonical agreement along with examples that display canonical patterns and examples that defy canonical patterns. He breaks the 20 into five categories: 1-4 concern controllers, 5-13 concern targets, 14-16 concern domains, 17-19 concern features, and 20 concerns conditions. Each of the 20 criteria fall under one or more principle, to be discussed after TABLE 1.

(1) is an example of a well-behaved Karuk sentence and FIGURE 1 breaks the sentence into the five parts of agreement.

(1)² xás kun-’ipak **pa-’ávans-as**
 then 3PL-come.back the-man-PL
 “Then the men returned.”
 (WB_KL-21, line 16)

² In each example, the controller (subject and object) is in **bold**, the target in *italics*, and the agreement marker underlined (in the examples where any given element is relevant).

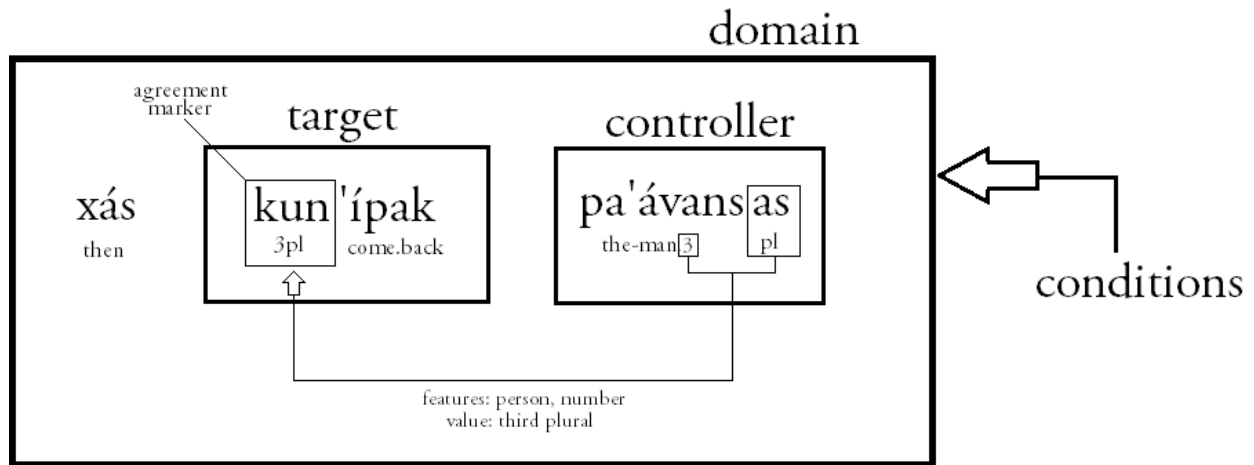


FIGURE 1

In (1), the element determining agreement, or the controller, is *pa'ávansas* 'the men'. To the left of that is the element whose form is influenced by the controller, or the target, *kun'ípak* 'they came back', which is made up of the third person plural verbal agreement marker *kun-* and the verb root *ípak* 'come back'. The way in which there is agreement, known as features, that are carried by the controller can be seen reflected in the agreement marker on the target: the person feature and value (third) from *pa-ávans* 'the man' and the number feature (plural) and value from the nominal plural suffix *-as* are reflected in the third person plural *kun-*. The remainder of the diagram shows the agreement environment, or domain, which in this case is the clause, and any other elements affecting agreement, or the conditions, of which there are none here.

TABLE 1 previews my conclusions with regard to Karuk's position in the typology of canonical agreement. While some cases are fairly straight-forward and require little discussion and so will have relatively little related prose, many others will require a more in-depth look at how Karuk examples compare to Corbett's. It is important to note that declaring something 'canonical' does not mean that there are absolutely no exceptions in Karuk. I will make an effort to note any exceptions I am aware of and to take them into account in determining where Karuk falls with respect to each criterion.

	Criterion		Karuk canonical?
Controllers	1	Controller present > controller absent	Semi-canonical
	2	Overt expression of agreement features > covert expression	Semi-canonical
	3	Consistent controller > hybrid	(Semi-)Canonical
	4	Controller's POS irrelevant > relevant	Canonical
Targets	5	Bound > free	Canonical
	6	Obligatory > optional	Canonical
	7	Regular > suppletive	Canonical
	8	Alliterative > opaque	Semi-canonical
	9	Productive marking > sporadic	Canonical
	10	Target always agrees > only agrees when controller absent	Canonical
	11	Target agrees with single controller > more than one controller	Non-canonical?
	12	Target has no choice of controllers > has choice	Canonical?
Domains	13	Target's POS irrelevant > relevant	Non-canonical
	14	Asymmetric > symmetric	Canonical
	15	Local domain > non-local domain	Canonical
Features	16	Domain one of a set > single domain	Canonical
	17	Features lexical > non-lexical	Non-canonical
	18	Features have matching values > non-matching	Semi-canonical
Conditions	19	No choice of feature value > choice of feature value	Non-canonical
	20	No conditions > conditions	Canonical?

TABLE 1

It is important to note that the term ‘semi-canonical’ is not one used by Corbett in his book. Rather it is a label I have chosen to use for the criteria for which Karuk seems to have great enough variation in the corpus that I struggled to classify the level of canonicity. ‘Canonical’ labels aspects of agreement to which Karuk always or almost always conforms, ‘non-canonical’ marks those which never or almost never conform, and ‘semi-canonical’ marks those which are ‘moderately’ conforming or ‘moderately’ non-conforming, with the leaning discussed under the individual criteria. A question mark next to the canonicity rating indicates the three criteria

that are disputed in Karuk either because of an interpretation of Corbett's text or because of issues of theoretical analysis.

Corbett does not suggest that languages are 'canonical' or 'non-canonical', nor does he expect for languages to behave absolutely canonically or non-canonically regarding any given criterion. As canonicity should be a property of the system rather than the sentence, there may be counter examples to a language's generally canonical or non-canonical behavior; however, in these cases where a systematic explanation is not forthcoming, it should be taken as the sentence failing to display an expected property rather than a failure of the system as a whole.

Principle I, that agreement is redundant, contains C-1, C-2, C-10, C-17, C-18, and C-19. Principle I is not operative in Karuk. Upon examining the table above, it becomes obvious that Karuk is non- or semi-canonical for every criterion found under Principle I except one, C-10. This is logical when exploring the incompatible natures of the principle and the language.

Principle I demands redundant agreement. However, polysynthetic languages require a large amount of information to appear in a number of bound morphemes on a single word - often the verb. If the verb is the target in a large domain of agreement (such as the clause), then it is necessarily informative. The polysynthetic need for dense information combats most criteria under this principle.

Principle II, that agreement is syntactically simple (and thus can be captured with straightforward rules and generalizations), covers C-3 and C-4 and C-10 through C-20. This principle is operative, but is overridden in specific circumstances. First, it is important to note that the criteria under Principle II cross-listed with Principle I that is semi- or non-canonical (C-18 and C-19) is already accounted for under and explained by Principle I. However, C-3, C-

11, and C-13 are not also found under Principle I and are non-canonical. I believe that these have explanations based on polysynthesis and theoretical approach, as will be discussed later. C-20 is potentially non-canonical, though this is a complicated criterion that is not easy to classify and will be discussed under section 6.

Finally, Principle III, that agreement is inflectional, contains C-5 through C-9, all of which are canonical except for C-8, which is semi-canonical. I believe that Principle III is fully operative in Karuk despite C-8 for reasons to be outlined in the discussion for that criterion.

1.4. OVERVIEW OF KARUK AGREEMENT

TABLE 2 shows William Bright's original verbal agreement marker paradigm (1957:64). The subject row labels on the left show the subject of a clause (the subject controller), while the column labels along the top show the objects of the clause (the object controller) if the clause is transitive; intransitive clauses receive the same agreement marking as would a transitive subject with a third person object. To the right of the subject, there are three clause types: imperative and positive and negative indicative. The table shows each combination of clause type and subject and object marker for person and number. Impossible combinations are left blank and null agreement markers have a null symbol (\emptyset).

For example, to find the agreement marker for an indicative clause with a first person singular subject and a second person singular object, first find the label '1 sg.' on the right. Next, locate the label reading 'indicative' beside the 1sg label. Finally, follow that across to the right until you reach the column labeled '2 sg.'. You will then see that the appropriate agreement marker for the verb would be *nú-*.

SUBJECT		OBJECT						
		1 sg.	1 pl.	2 sg.	2 pl.	3 sg.	3 pl.	
1 sg.:	imper.			nú-	ki·(k)ʔ...-ap	kánʔ	kánʔ	
	indic.:	pos.		nuʔ	ki·(k)ʔ...-ap	ni-	ni-	
		neg.			kín-	ki·(k)-...-ap	ná-	ná-
1 pl.:	imper.			nú-	ki·(k)ʔ...-ap	nú-	nú-	
	indic.:	pos.		nuʔ	ki·(k)ʔ...-ap	nuʔ	nuʔ	
		neg.			kín-	ki·(k)-...-ap	kín-	kín-
2 sg.:	imper.	ná-	kínʔ			∅	∅	
	indic.:	pos.	ná-	kínʔ		ʔi-	ʔi-	
		neg.	ná-	kín...-ap			∅	∅
2 pl.:	imper.	kanáʔ	kínʔ			ki·(k)ʔ	ki·(k)ʔ	
	indic.:	pos.	kanáʔ	kínʔ		ku-	ku-	
		neg.	kaná...-ap	kín...-ap			-ap	-ap
3 sg.:	imper.	ná-	kínʔ	ʔi...-ap	ki·(k)ʔ...-ap	kám-	kám-	
	indic.:	pos.	ná-	kínʔ	ʔi...-ap	ki·(k)ʔ...-ap	ʔu-	ʔu-
		neg.	ná-	kín...-ap	-ap	ki·(k)-...-ap	∅	-ap
3 pl.:	imper.	kanáʔ	kínʔ	ʔi...-ap	ki·(k)ʔ...-ap	kunʔ	kínʔ	
	indic.:	pos.	kanáʔ	kínʔ	ʔi...-ap	ki·(k)ʔ...-ap	kunʔ	kínʔ
		neg.	kaná...-ap	kín...-ap	-ap	ki·(k)-...-ap	-ap	-ap

TABLE 2

For readability and simplicity, as it is will likely be the most often relevant, TABLE 3 below shows the positive indicative paradigm for Karuk verbs. This table is much the same as TABLE 2. However, it eliminates the choice of clause type. Like above, the row markers on the right show the subject person and number and the column labels at the top show the object person and number. There are no null agreement morphemes in the indicative paradigm and so no cell contains a null symbol. In this table, impossible combinations are marked with an X.

The method for finding the appropriate morpheme is nearly identical to the method above. Again, if you are looking for the agreement marker for an indicative clause with a first person singular subject and a second person singular object, first find the label ‘1sg’. Next look across the columns to the right until you reach the column labeled ‘2sg’. You will then locate the agreement marker *nú-* once again.

	Object						
	Person	3sg/intr	3pl	2sg	2pl	1sg	1pl
Subject	1sg	ni-	ni-	nu-	kiik-	X	X
	2sg	i-	i-	X	X	na-	kin-
	3sg	u-	u-	i-+-ap	kiik'+ap	na-	kin-
	1pl	nu-	nu-	nu-	kiik'+ap	X	X
	2pl	ku-	ku-	X	X	kana-	kin-
	3pl	kun-	kin-	i-+-ap	kiik'+ap	kaná-	kin-

TABLE 3

Though this paper primarily focuses on verbal agreement, possessive agreement (the only other agreement domain in Karuk) is also relevant. TABLE 4 shows the paradigm of possessive pronouns for each person and number.

Subject	1sg	nani-
	2sg	mi-
	3sg	mu-
	1pl	nanu-
	2pl	mikun-
	3pl	mukun-

TABLE 4

This paper will be organized by the parts of agreement: there will be a section for controllers, targets, domains, features, and conditions. The 20 criteria are divided between those five sections as they are labeled in table 1 and are discussed in order of criterion number.

2. CONTROLLERS

Controllers are “[...]the element determining agreement (say the subject noun phrase)[...]” (Corbett (2006:4)).

In regards to verbal agreement, Karuk is generally considered to have one controller in intransitive clauses (the subject) and two in transitive clauses (both the subject and object). It may be useful to note that this is a somewhat debated analysis, however. William Bright considers Karuk verbs to index the person and number of both subjects and objects in the verbal agreement

prefixes (Bright 1957), as discussed in the introduction. Monica Macaulay, on the other hand, argues that Karuk has a direct/inverse system in which verbs agree with the subject and use a semi-defective inverse marker when the person hierarchy is violated (Macaulay 1992). In this paper, I will be assuming Bright's analysis. This will be discussed further under Criteria 11 and 12, in which the analysis is essential in determining whether or not Karuk would be considered canonical or non-canonical in regard to said criteria.

2.1. CONTROLLER PRESENT > CONTROLLER ABSENT

CRITERION 1 states that an agreement system in which the controller is present is more canonical than one in which it is absent. Karuk examples vary greatly in this criterion, as it will in some others. Some clauses are canonical in this way and have overt subjects (and objects in the case of transitive clauses), but others are less canonical and omit one or more of the overt arguments. Logically, this is one criterion which would have to be examined on a case-by-case basis (Corbett, personal communication, September 24, 2014), making it a good example of semi-canonicity.

(2) provides an example of an intransitive clause with an overt subject and (3) provides an example of a transitive clause with both an overt subject and overt object. (4) shows the omission of the subject (pronoun), leaving the phrase with only the verb.³

- (2) **ipasnáhvaanich** káan *ú-krü*
 owl.SP there 3SG.SUBJ -live
 “Pygmy Owl stopped there.”
 (ALK_14-35, line 1)

³ Though I attempted estimate the number of examples with and without overt controllers, all methods I tried seemed to be unreliable. The same goes for other sections that could benefit from example counts, such as the discussion of C-2 which would certainly benefit from a count of the number of instances plural human nouns with and without *-as*. Perhaps in the future this can be completed more reliably.

- (3) *xás pihnêefich u'ám-va p-aathkúrit*
 then coyote 3S>3-eat-PL.ACT the-fat
 “Then coyote ate the fat.”
 (ALK_14-35, line 27)

- (4) *ú-kerii*
 3SG -live
 “He sits.”
 (VS_07, line 10)

It is interesting to note that this also hinges on the theoretical interpretation of argument facts in Karuk. There has been some debate in the past regarding what the arguments are in many languages considered to be polysynthetic. For instance, Baker (1991) argues for null arguments controlling agreement and adjunct satellite nouns, and Jelinek (1984) argues that the pronominal agreement morphemes are the arguments of the verb. However, the analysis given here assumes that the overt nouns (such as ‘Pygmy Owl’ in (2)) are the arguments and agreement controllers.

C-1 falls under Principle I. The fact that Karuk is not canonical in this way reinforces the claims made earlier: that Principle I, a preference for redundant rather than informative agreement, is not operative in Karuk due to the tendency towards densely packing information into one element in polysynthetic languages. In this case, agreement is often required to inform the listener as to who the subject (and object) are.

2.2. OVERT EXPRESSION OF AGREEMENT FEATURES > COVERT EXPRESSION

CRITERION 2 states that a controller overtly expressing agreement features (such as person, number, or gender) is more canonical than one with covert expression. There is overt expression of person and number in pronouns as in (5) where the subject is *nuu*, the first person singular pronoun. However, there is no overt expression of agreement features generally in nouns, as in (6) where the controller *pa-'apxantínibich* ‘the white men’ does not have the nominal/adjectival plural suffix *-as*. The plural marker is used only for some nouns and in certain situations, as will be discussed

throughout the paper. Person and number of subjects, objects, and possessors is expressed in the agreement prefixes on verbs and possessed objects.

- (5) yakún **nuu** tá nu-*'ijikar* **xuntápan**
 you.see we PERF 1PL>3-go.gather acorn
 “We're going to pick acorns.”
 (WB_KL-17, line 27)

- (6) kári **pa-'apxantínihih** tá kun-*kóoha* pa-kun-váthii-naa
 then NOMZ-white.man PERF 3PL>3SG-stop NOMZ-3PL(>3S)-fight-PL

 kári xás pa-'áaraar afyíiv tá kín-mah.
 then then the-human friend PERF 3PL>3PL-see
 “When the white men finished fighting, they were friendly to the Indians.”
 (WB_KL-65, line 1)

The third person pronoun *úum* has the ability to refer to both singular (7) and plural (8) third person arguments (Bright (1957:391)). The third person plural pronoun *uumkun* as in (9), however, can only refer to plural arguments. In the third person plural *uumkun*, the number feature expression is overt. In the third person *úum*, it is not.

- (7) **uum** *t-u-'áxaska*
 3SG PERF-3SG-be.thin
 “He is thin.”
 (VS-06, line 26)
- (8) vaa **uum** kun-*ipí-ti pitaxyárib*
 that 3SG 3PL-say-DUR swearing
 “That, they said, was ‘swearing.’”
 (WB_KL-0, line 3)
- (9) **uumkun** káru kun-*pakúriihva*
 3PL also 3PL-sing.songs
 “They were singing too.”
 (WB_KL-09, line 4)

Feature marking also relies on animacy: the overt plural marker *-as* is almost exclusively used with human nouns (and obligatorily used with human plural nouns according to speaker Vina Smith (VS:judgment_29-11-14)) as in (10), while it is generally not used for non-human nouns and almost always absent, as in (11). Adjectives have no obvious animacy restriction on whether or not they are able to take the plural marker *-as* (12) and take it even when they are compounded with a non-human noun (13).

- (10) tá *kun-fíipha* vúra **pa-'áaraar-as**
 PERF 3PL-be.all.gone INTENSIVE the-human-PL
 “The people died off.”
 (WB_KL-48, line 6)
- (11) yánava itráhyar **akváat** *kun-'irukúuntakoo*
 visible ten raccoon 3pl-sit.on.(pl.)
 “He saw ten raccoons sitting.”
 (WB_KL-04, line 8)
- (12) **vâaram-as** *pa-mu-'ikuntun-vâaramu*
 long-PL the-3SG.POSS-between.joint-long
 “The sections between its joints are long.”
 (JPH_TKIC-III.5.A.b-g, line 37)
- (13) **pa-takaakaa-tunvêech-as** *kun-'ichunvu-naa-tih*
 the-valley.quail-small.(pl.)-PL 3pl-hide.oneself-PL-DUR
 “The little quails are hiding.”
 (VS-18, line 8)

In the presence of a numeral, optionality in plural marking extends to more situations in which the plural marker would otherwise be obligatory (i.e. human nouns). Though a numeral does not prevent plural marking on nouns they modify, they do allow nouns which always or almost always take the plural marker *-as* to omit said plural marker at times. (14) shows *áxak* ‘two’ with a plural marked human noun (*ávans-as* ‘men’), while (15) shows *áxak* with a non-plural marked human noun (*ávansa* ‘man’). Both examples have plural translations.

(14) víri payêem áxak **pa-'ávans-as**
 so now two the-man-PL
 “There are two men now.”
 (WB_KL-92, line 22)

(15) kúkuum vúra víri payêem áxak pa-'ávansa
 again INTENSIVE so now two the-man
 “Now again there are two men.”
 (WB_KL-92, line 4)

Because Karuk aligns with the more canonical side of this particular criterion in pronouns and some human nouns but not in all nouns, I conclude that this Karuk is semi-canonical under this criterion. C-2 also falls under Principle I. Again, it is sensible that this would be merely semi-canonical: if the language wanted to convey much of the vital information on one element, and that element was the verb, it would reasonably use agreement to provide some of it. In this case, the agreement is helping to inform the listener about the number of the subject and object.

2.3. CONSISTENT CONTROLLER > HYBRID

CRITERION 3 states that a consistent controller is more canonical than a hybrid controller. “A consistent controller is one which controls a consistent agreement pattern. This is more canonical than one which controls different feature values,” (Corbett (2006:11)). Hybrid structures often occur with collective nouns. For instance, the word ‘committee’ in some varieties English can take both third person singular (16) and third person plural agreement (17):

(16) The committee is meeting upstairs.

(17) The committee are meeting upstairs.

Whether or not hybrid constructions exist in Karuk is difficult to assess, as we are not sure whether there are any collective nouns in Karuk to demonstrate a mismatch or inconsistency in number, and

we lack other features that could cause a variance in agreement such as gender. Karuk lacks common nouns that designate groups such as ‘family’, instead using words like ‘relatives’ (18).

- (18) káru vúra koovúra **pa-mu-’áraar-as** tá *kun-’ív-abaak*
 also INTENSIVE all the-3SG.POSS-human⁴-PL PERF 3PL-die-when
 pu-’ípítih-ara mukun-’íthvuy
 NEG-be.saying.NEG 3PL.POSS-name
 “And when any of his relatives died, he did not say their names.”
 (WB_KL-0, line 2)

However, some examples suggest the existence of some sort of “team effect”. This team effect, if it exists, appears to be very hybrid-like: a verb referring to multiple people in a group (or, as in the following examples, on a team) sometimes takes a singular person agreement prefix, here always the third person singular *u-*, even if the controlling noun is overtly marked with a plural suffix. In (19), we have an unambiguously non-team example of plural marked *avansa*, ‘man’ occurring with the expected third person plural verbal agreement marker *kun-*. In (20) we have an example of regular (expected) plural agreement on the verb referring to multiple individuals on a team (*yu-’kúkam-kam pa-’ávans-as*, ‘the ones on the downriver end’). In (21) we have an example of the so-called team effect occurring. That is, the word *avans* occurs with the plural suffix *-as* controlling a verb marked with the third person singular verbal agreement marker *u-*.

- (19) xás **pa-’ávans-as** *kun-’ísbriim-vanaa-tih*
 then the-man-PL 3PL-shoot.at.targets-PL-DUR
 “And the men were target-shooting.”
 (WB_KL-82, line 3)

⁴ Elsewhere in the Karuk dictionary, this is also glossed as ‘relative’

- (20) púya-va xás uumkun yu'-kúkam-kam pa-'ávans-as tá
 and.so-so then they downriver-side-side the-man-PL PERF

kun-ithvíripraa

3PL-run.up.from.downriver.(TWO)

“Then the men on the downriver end ran up.”

(WB_KL-78, line 16)

- (21) púya-va háari uum pa-yu'-kúkam pa-'ávans-as píshüip
 and.so-so sometime 3SG the-downriver-side the-man-PL first
t-u-'úum pa-tákasar u-phíriv-irak
 PERF-3SG-arrive NOMZ-shinny.tossel 3SG-lie.(TWO)-where
 “Sometimes the men on the downriver end arrived first where the tossel lay.”
 (WB_KL-78, line 25)

(20) and (21) come from a text about a game called *shinny* played with a ball of bound sticks called a tossel. Two teams are at play against each other in this game, and the team effect perhaps shows that the people in each team are conceptualized clearly by speakers as being one collective entity.

It is interesting to note that the dual form of ‘to run up from downriver’, *kun-ithvíripraa*, is used in the non-team (regularly marked) example in (20). I am unsure of what this means exactly though, as the team consists of more than two individuals. In addition, the difference between (20) and (21) could be due to the nature of the verb: perhaps there is some greater sense of ‘teamness’ in ‘arrive’ than in ‘run’.

This has been found in one other situation in the same text. When the tossel is described in the text, it is described with a noun compounded with an adjective that is both inherently plural and is overtly plural marked, *ahup-tumvéech-as* ‘little sticks’, but the verb in the clause is marked with the third person singular *u-* as in (22). (23) shows an example of a noun, *takaakaa* ‘valley quail’, compounded with *tumvéech-as* ‘small’ controlling agreement in a clause marked with the third person plural *kun-*.

(22) *xás pa-tákasar uum ahup-tunvêech-as u-nhítunv-abi-tib*
 then the-shinny.tossel 3SG wood-small.(PL.)-PL 3s-tie.together-ESS-DUR
 “And the tossel was little sticks, they were tied together.”
 (WB_KL-78, line 5)

(23) *pa-takaakaa-tunvêech-as kun-’ichunvu-naa-tib*
 the-valley.quail-small.(PL.)-PL 3PL-hide.oneself-PL-DUR
 “The little quails are hiding.”
 (VS-18, line 8)

The example in (22) is made more complicated by the presence of the essive. The essive is described in Bright 1957 as the following:

[...]added to transitive and intransitive themes, forming intransitive one; it conditions progressive accentuation. It is often translated 'to be...-ed,' but the sense is different from that of a passive construction; themes in {-ahi} have the meaning 'to be in a certain condition,' rather than 'to undergo a certain action.'” (111)

Though, as he explicitly mentions, it does not share an identical meaning with the passive, it still serves the function of promoting the theme of a transitive clause from object to subject. This is vital for the analysis of (22), which could otherwise be interpreted as using the third person singular *u-* in response to some unnamed person tying the “little sticks” of the tossel together. If this is not the case, then the third person singular *u-* is indeed anomalous in not instead taking the expected third person plural *kun-*. (24) is a less ambiguous example of the essive. The subject is translated as plural (‘they’) and the object is translated as singular and has no obvious plural marking (as it is non-human, this means there is no associated adjective that is plural marked with *-as*).

(24) *ásip-ak u-snap-ráammib-va*
 bowl-LOC 3SG-put.on-into-ESS
 “They put it in a cooking basket.”
 (WB_KL-74, line 17)

With this example for comparison, it is reasonable to assume that the agreement marker in (22) was indeed referring to *ahup-tunvêech-as* ‘little sticks’ and does show a discrepancy in the number marking.

These suggest that there may be pockets of non-canonicity here, though not enough perhaps to claim that Karuk is not overall canonical in this regard. If this indeed reflects a greater pattern in the language, then certainly it would warrant at least a classification of semi-canonicity. This criterion falls under Principle II, the desire for syntactic simplicity. I believe however that this too is explained by the need for dense information on the verb in Karuk: here, we see the agreement not telling us merely the basic information of person and number of the controllers as in the previous two criteria. Instead, examples such as those from the shinny game text tell us how speakers conceptualize their controllers. As it seems there are no collective nouns, this could be a useful method of conveying a sense of collectiveness where desired in Karuk.

2.4. CONTROLLER'S PART OF SPEECH IRRELEVANT > RELEVANT

CRITERION 4 says that the controller's part of speech being irrelevant is more canonical than it being relevant, meaning that we do not require different rules for controllers of different parts of speech in the same agreement domain. In Karuk controllers are of three word classes: noun as in (25), pronoun as in (26), and adjective as in (27) - they all are able to control agreement on verbs.

- (25) **ipasnáhvaanich** káan *ú-keri*
 owl.SP there 3SG.SUBJ -live
 "Pygmy Owl stopped there."
 (ALK_14-35, line 1)
- (26) **víri** man ayu'âach **uum** *u-yupsíribi-ti*
 so why... it.was.because 3SG 3S-be.blind-DUR
 "Well of course, because she's blind."
 (GD-MD-VSu-01, line 47)
- (27) **pa-kêech-as** vúra tá *kun-íkxiipshur*
 the-big-PL INTENSIVE PERF 3PL-fly.away
 "The big ones flew away."
 (VS-18, line 15)

This criterion falls under Principle II. Karuk is canonical here and conforms to the need for syntactic simplicity.

3. TARGETS

The target is the locus of agreement, or, “[t]he element whose form is determined by agreement,” (Corbett 2006:4). Relevant targets in Karuk are verbs and possessed nouns; Karuk lacks types of agreement aside from possessive and verbal agreement and, thus, we see only the two types of target. Karuk verbs take agreement prefixes containing information on the person and number of the subject and object of a clause. Karuk possessed nouns also take prefixes which reflect the person and number of the possessor. Unlike verbs, these agree with only one element, the possessor.

3.1. BOUND > FREE

CRITERION 5 states that more canonical agreement is marked by bound rather than free morphology or, more specifically, that inflectional marking on targets/affixes is more canonical than clitics and clitics are more canonical than free words.

Karuk is canonical in this way. Agreement marking on targets is bound in both types of agreement found in Karuk, an example of verbal agreement given in (28). According to Line Mikkelsen (personal communication), (29), an example in which we see an element separating the bound agreement marker from the root would be ungrammatical. Unfortunately, as is often the case in highly endangered languages, we lack negative examples given by native speakers.

(28) **ipasnáhvaanich** káan *ú-kerii*
 owl.SP there 3SG.SUBJ -live
 “Pygmy Owl stopped there.”
 (ALK_14-35, line 1)

(29) ***ipasnáhvaanich** *ú-káan-kerii*
 owl.SP 3SG.SUBJ-there-live
 “Pygmy Owl stopped there.”

This criterion falls under Principle III, which I believe to be fully operational in Karuk. Karuk's behavior with regards to criterion supports that claim, as it seems to be completely canonical and does indeed display a feature that one would expect to be canonical inflectionality (that inflectional morphology is bound).

3.2. OBLIGATORY > OPTIONAL

CRITERION 6 says that obligatory agreement marking on targets is more canonical than optional agreement marking. According to Bright, Karuk verb forms always have an agreement morpheme: "Every verb form contains one, but never more than one, of a series of personal morphemes[...]" (Bright (1957:58)), though unfortunately there are no ungrammatical examples to further substantiate that claim. However, here I will show agreement in a host of grammatical contexts to show that there are no obvious quirks in the grammar that break down the obligatoriness of agreement and would therefore undermine the claim that Karuk is canonical with respect to this criterion in Karuk. Further evidence of the robustness of the agreement system can be found in C-9.

TRANSITIVITY

Every verb shows agreement with the subject (and object in transitive clauses) in person and number. (30) is an intransitive example and (31) is a transitive example, both with the standard person and number person agreement markers on the verb.

(30) xás **pihnêefich** *ɯ-'áasisb* naa tá ní-kviit-ha
 then coyote 3s-lie.down 1sg. PERF 1SG-sleep
 "Then Coyote lay down, (he said), "I'm going to sleep."
 (WB_KL-10, line 38)

(31) kári xás **pihnêefich** axvâa-k *ɯ-'áaka* pa-'akôora mûuk
 then then coyote head-LOC 3SG>3-hit.(with.implement) the-axe with
 "Then Coyote struck him on the head with the axe."
 (ALK_14-35, line 31)

ASPECT

We see that agreement markers are productively used with every aspect marker. (32) shows third person agreement on a verb with the perfective marker, *t-*, and (33) shows it with the durative marker, *-tib*.

- (32) kúkuum imáan *t-u'ákuunvar*
 again tomorrow PERF-3SG-go.hunting
 “The next day, he went hunting again.”
 (ALK_14-35, line 2)

- (33) *u-kúbi-tib*
 3SG-be.sick-DUR
 “She was sick.”
 (JPH_PHM-24-343a, line 10)

TENSE

It also occurs with every tense marker. (34) shows an example of a verb with no overt tense marking morpheme; (35) is an example with *-at*, the past tense marker; (36) is an example with *-hanik*, the ancient tense marker; (37) is an example with *-beesh*, the future tense marker; and (38) is an example with *-been*, the anterior tense marker.

- (34) tá *ni-máb* **pa-púsihich**
 PERF 1SG>3-see the-cat.(DIMIN.)
 “I see the cat.”
 (SD-VS-01, line 5)

- (35) ipít *ni-máb-at*
 yesterday 1SG>3-see-PAST
 “I saw it yesterday.”
 (LA-VS-01, line 6)

- (36) **ipasnáhvaanich** *u-kúphaa-nik*
 owl.SP 3SG-do-ANC
 “Pygmy Owl did it.”
 (ALK_14-35, line 36)

(37) *ni-váaram-eesb*

1SG-go-FUT

“I’m going to go.”

(SD-VS-02, line 30)

(38) *kári xás u-pakatkát-abeen*

then then 3SG>3-take.a.taste-ANT

“So he tasted it.”

(WB_KL-03, line 17)

IMPERATIVE (MOOD)

Every person and number has a verbal prefix in the imperative, as seen in TABLE 5 below (Macaulay 1992:184). Though some imperative examples may appear to lack a person marking prefix, it is clear after examining the table that the paradigm is complete though two forms in the second person singular are null (cells bolded in the table).

		Object					
		3sg (intr)	3pl	2sg	2pl	1sg	1pl
Subject	1sg	kan-	kan-	nu-	kiik-/-ap	X	X
	2sg	∅-	∅-	X	X	na-	kin-
	3sg	kám-	kám-	‘i-/-ap	kiik-/-ap	na-	kin-
	1pl	nu-	nu-	nu-	kiik-/-ap	X	X
	2pl	kiik-	kiik-	X	X	kana-	kin-
	3pl	kun-	kIn-	‘i-/-ap	kiik-/-ap	kaná-	kin-

TABLE 5

(39) shows an imperative-marked verb with overt (first person singular) person marking, while (40) is an example of the null second person singular marker.

(39) *chimi kan-pakúriihv-i’*

soon 1SG-sing.songs-IMPER

“Let me sing.”

(JPH_KT-12, line 13)

(40) *chími ôok pay ∅-jkrísbrib-i*

soon here this 2sg-sit.down-IMPER

“Sit down right here!”

(CT-01, line 36)

MODALS

Agreement occurs with every verb in phrases with different modals. (41) is *ik*, meaning ‘must’; (42) is *kíri*, which expresses wish ; and (43) is *xaat*, which is of permissive meaning.

(41) *ná-yaavh-eesb* *ik*
 2SG-hurry-FUT must
 “You must hurry to me.”
 (WB_KL-02, line 69)

(42) *kiri* *a'* *ú-úthimshíp*
 I.wish above 3SG-lie.stomach.upward
 “Would that she would lie stomach up.”
 (JPH_KT-12, line 12)

(43) *káru* *vúra* *xáat* *nee-brúuthvab-i*
 also INTENSIVE may 2SG>1SG-make.slave.of-IMPER
 “And you may even take me as your slave.”
 (WB_KL-64, line 38)

VOICE

The essive, discussed above, takes standard person marking as well, as seen in (44), though the (roles of the) controllers are different. As discussed above, it behaves somewhat like a passive, reducing a verb’s arguments by one and making what was the object/patient the subject.

(44) *ásip-ak* *ú-snap-ráamnib-va*
 bowl-LOC 3SG-put.on-into-ESS
 “They put it in a cooking basket.”
 (WB_KL-74, line 17)

NEGATIVE CLAUSES

Like with the imperative, verbs in some negative examples may appear on the surface to lack person/number agreement markers. However, again like the imperative, looking at the paradigm below in TABLE 6, we see that the paradigm is complete with a few null forms, in this case in the second and third person, again bolded for clarity.

		Object					
		3sg (intr)	3pl	2sg	2pl	1sg	1pl
Subject	1sg	na-	na-	kin-	kiik-/-ap	X	X
	2sg	∅-	∅-	X	X	na-	kin-/-ap
	3sg	∅-	∅-/-ap	∅-/-ap	kiik-/-ap	na-	kin-/-ap
	1pl	kin-	kin-	kin-	kiik-/-ap	X	X
	2pl	∅-/-ap	∅-/-ap	X	X	kana-/-ap	kin-/-ap
	3pl	∅-/-ap	kin-/-ap	∅-/-ap	kiik-/-ap	kaná-/-ap	kin-/-ap

TABLE 6

(45) is an example of a negative-marked verb with overt (first person singular) person marking. The second person singular agreement prefix and the third person singular agreement prefix are null, as seen in (46) and (47), respectively.

- (45) vúra uum pu-ná'aapunmu-tib-ara
 INTENSIVE 3SG NEG-1SG-know-DUR-NEG
 “I don’t know (anything).”
 (CT-01, line 18)

- (46) purafâat vúra káru ∅-kupítib-eesb-ara
 nothing INTENSIVE also 2SG-be.doing-FUT-NEG
 “You won’t be doing anything, either.”
 (WB_KL-38, line 18)

- (47) vúra tá pu-∅-ipmáh-ara
 INTENSIVE PERF NEG-3SG>3-see.again-NEG
 “She couldn’t find (the child).”
 (WB_KL-61, line 13)

INTERROGATIVES

Interrogative clauses receive regular agreement marking and are marked with the third person singular agreement marker (48). It could be the case that third person plural marking is also possible, but all examples in the corpus use the third person singular marker. However, there are relatively few examples in the dictionary (16 examples) of *akáay* ‘who’ with a verb whose agreement it can control, so this could be due to an accidental data gap. Regardless, agreement is still marked on the verb as expected.

- (48) akâay ikpúr u-tákir-tih
 who acorn.flour 3SG-leach.(acorn.meal)-DUR
 “Who is leaching acorn meal?”
 (LA-02, line 18)

MAIN AND EMBEDDED CLAUSES

Finally, we see that verbs are marked with agreement morphology in both main clauses, as in (49), and embedded clauses, as in (50) (marked with the complementizer *pa-*).

- (49) **naa** *ni-'aapúnmu-ti*
 1SG 1SG-know-DUR
 “I understand.”
 (VS-06, line 29)

- (50) *t-u-tbítiv* **p-oo⁵-thivnúru-tih**
 PERF-3SG>3-hear NOMZ-3SG-roar-DUR
 “He heard it thundering.”
 (WB_KL-03, line 47)

C-6 also falls under Principle III and displays the expected behavior for criteria under this well-behaved principle. Agreement is completely obligatory in Karuk as would be sensible not only for canonical agreement as a whole, but also more specifically for the canonical inflection, the trait called for by Principle III.

3.3. REGULAR > SUPPLETIVE

CRITERION 7 states that regular agreement is more canonical than suppletive agreement. For example, Corbett gives the following Norwegian examples in (51) and (52) (2006:15):

- (51) en *lit-en* **bil**
 one/a small-M.SG car[SG]
 “one small car”

⁵ Vowel coalescence rules in Karuk cause the third person singular verbal agreement marker *u-* and the initial *i* of *itbivnúru* to form *oo*.

- (52) to *smã* **bil-er**
 two small-PL car-PL
 “two small cars”

In (51), the word for small for singular nouns is *lit*, whereas in (52), the word for small for plural nouns is seen to be *smã*. Clearly, these do not share phonological similarity and are suppletive forms of a word that differs only in number agreement.

We find that Karuk agreement markers are regular and do not have any suppletive forms for certain verbs with certain agreement contexts, and so, unlike Norwegian, Karuk is canonical in this way.

In Karuk, there is a class of suppletive verbs that express posture. These verbs in their stem convey information regarding number and, yet, we still see that they use regular person marking as well. We see the suppletive forms of the verb ‘to live, sit, stay, be’ in the singular form, *ikriv*, in (53) and the dual form, *iin*, in (54).

- (53) uum káru káan *ú-kriv* **kachakâachich**
 3SG also there 3SG-live.(SG) bluejay.(DIM.)
 “Bluejay was also living there.”
 (JPH_PHM-24-343a, line 4)

- (54) xás káan **panamnih'ifápiit** áxak *kun-'iin*
 then there Orleans.girl two 3PL-live.(DU)
 “And two Orleans girls lived there.”
 (WB_KL-06, line 5)

C-7 is another criterion under Principle III. The fact that Karuk is completely canonical under this criterion and thus that agreement is always regular rather than suppletive supports the idea that Karuk’s agreement system uses standard inflectional morphology.

3.4. ALLITERATIVE > OPAQUE

CRITERION 8 states that alliterative agreement is more canonical than opaque agreement. Alliterative agreement is defined by two characteristics: “the agreement marker on the target is identical to the

formant of the controller” and “the same agreement marker is used for different agreement targets” (Corbett 2006:16). In this, Karuk agreement is less canonical. The agreement markers are not identical to the formant on the controller and are therefore more opaque. For instance, the nominal plural marker is the nominal/adjectival suffix *-as*, but the plural verbal subject marker for third person plural is *kum-*. Clearly, the two do not share any phonological similarity.

There is, however, partial alliteration between pronominal controllers and verbal agreement markers. For instance, the first person plural pronoun is, *núu*, almost perfectly identical to the 1PL>3SG/INTR verbal agreement marker, *mu-*. This can be seen more clearly in TABLE 7. Similarly, the 3PL>3SG/INTR verbal marker, *kum-*, found in part of both the second and third person plural pronouns.

As for the second requirement for alliteration, the same agreement marker is not used for different agreement targets, though they do share some phonological similarities. The verbal person agreement markers are not identical to the possessive agreement markers. TABLE 7 reproduces the pronominal, possessive, and person>3SG/INTR indicative agreement marker paradigms. Though they share a good deal of similarity, they still do not share the same markers for agreement. I have bolded where some of the similarities are obvious.

PERSON	PRONOUN	>3SG/INTR	POSS
1SG	náa	ni-	nani-
2SG	íim	i-	mi-
3SG	uum	u-	mu-
1PL	núu	nu-	nanu-
2PL	iim kun	ku-	mik un-
3PL	uum kun	kun-	muk un-

TABLE 7

(55) and (56) compare examples with the verbal third person singular marker, *u-*, and with the third person singular possessive marker, *mu-*, respectively. (57) and (58) compare examples with the third person plural verbal marker, *kum-*, and the third person possessive marker, *mukun-*, which looks

much like the third person singular possessive marker *mu-* (as in (56)) and the third person plural verbal marker, *kun-*.

- (55) *ú-krii*
 3SG.SUBJ -live
 “He sits.”
 (VS_07, line 10)
- (56) *mu-'ábuɸ*
 3SG.POSS-wood
 “Its stalk”
 (JPH_TKIC-III.5.A.b-g, line 26)
- (57) *xás kun-íshfir*
 then 3PL>3SG-skin
 “Then they skinned it.”
 (ALK_14-35, line 26)
- (58) *xás táay pa-mukun-túnviiv*
 then much the-3PL.POSS-children
 “And they had many children.”
 (WB_KL-24, line 2)

Finally, it is important to note that C-8 can be found under Principle III, that agreement is more canonical if expressed as canonical inflectional marking. However, I believe that there is a sense in which the other aspects of canonical inflectionality according to Corbett (that it is obligatory, productive, regular, and bound) fall under the more intuitive standard for inflectionality than does the idea that canonical inflection is alliterative. Because of this, I choose not to declare that Principle III is non-functional or faulty on the basis of a mere semi-adherence to this particular criterion.

3.5. PRODUCTIVE MARKING > SPORADIC

CRITERION 9 states that productive marking of agreement is more canonical than sporadic marking. Corbett provides examples from Ingush of sporadic agreement marking. Ingush only inflects around 30% of verbs for agreement. Two examples he gives follow in (59) and (60) (2006:82):

(59) *suona v-iezʷa sej vaša*
 1SG.DAT I-like my brother(I)[ABS]
 “I like my brother.”

(60) *suona gu sej vaša*
 1SG.DAT see my brother(I)[ABS]
 “I see my brother.”

In (59), *-iezʷa* ‘like’ has the prefix *v-* that agrees with the word class of the object *vaša* ‘brother’. In (60), on the other hand, *gu* ‘see’ does not inflect in any way to agree with the word class of *vaša*. The agreement marking only sporadically occurs in Ingush.

This is not the case in Karuk. In Karuk, there are no subclasses of verb resisting agreement and so person and number agreement marking is productive. The section on C-6 reviews a wide variety of clauses with different tense, mood, and aspect markers, along with other important grammatical situations, such as negative phrases and embedded clauses, and shows that agreement marking is obligatorily applied in every grammatical situation. It is just as reliable with each subclass of verb, as explored below. Below I show that it is productively applied to verbs derived from other parts of speech, grammatical verbs, and idiomatic expressions.

POSTURE

As discussed in C-7, Karuk has a class of suppletive posture verbs that take regular verbal agreement. The examples from C-7 using the suppletive forms of the verb ‘to live, sit, stay, be’ in the singular form, *ikeriv*, in (61) and the dual form, *iin*, in (62) are reproduced in below.

(61) *uum káru káan í-krii kachakâachich*
 3SG also there 3SG-live.(SG) bluejay.(DIM.)
 “Bluejay was also living there.”
 (JPH_PHM-24-343a, line 4)

- (62) *xás káan panamnih'ifápiit áxak keun-'iin*
 then there Orleans.girl two 3PL-live.(DU)
 “And two Orleans girls lived there.”
 (WB_KL-06, line 5)

DENOMINALIZER

As in (63) and (64), we have productive person marking on verbs formed through the use of the denominalizer *-ha* on a postposition and a noun, respectively.

- (63) *xás ná-mpaan nu-xákaan-ha*
 then 1sg.-EMPHATIC 1PL-both-DENOM
 “Then I myself went with him.”
 (WB_KL-88, line 10)

- (64) *xás yánava t-u-thivtap-ará-kaam-ha*
 then visible PERF-3SG-war.dance-having-large-DENOM
 “And he saw there was a big war dance.”
 (WB_KL-06, line 18)

GRAMMATICAL VERBS

Agreement marking also occurs on grammatical verbs, such as *thiina*, ‘to have’, as in (65).

- (65) *naa áxak pa-púsihich ni-thiiná-tih*
 1SG two the-cat.(DIMIN.) 1SG>3-have-DUR
 “I have two cats.”
 (SD-VS-01, line 20)

IDIOMS

We also find agreement being completely productive in idiomatic phrases. For instance, *áapun* + *iyriúbriv*, ‘to be sick (lit. to lie on the ground)’ in (66); *tápas* + *íkyav*, ‘to keep, take care of (lit. to make real)’ in (67); and *yav* + *xúus-bunish*, ‘to be faithful (lit. to think good toward)’ in (68).

(66) kári xás u-piip uum vúra vaa páy arara-íin kun-xúseen-tih
 then then 3SG-say 3SG INTENSIVE so this human-TOP 3PL-think.about-DUR

kíri áapun *ú-yruubriv*
 I.wish on.the.ground 3SG-(SG.).lie

“Then she said: ‘Someone is causing her sickness.’”

(JPH_PHM-24-343a, line 26)

(67) kári xás u-xus xâatik tápas *ní-kyáa-vunaa*
 then then 3SG-think it's.better real 1SG>3-make-PL

“And he thought, ‘Let me take care of them.’”

(WB_KL-52, line 21)

(68) **pa-mu'-ávan** yáv *ú-xuus-búnish*
 the-3SG.POSS-man good 3SG-think.of

“She is faithful to her husband.”

(KV, WB 1638.3, p. 399)

ÚUM

There is one element in Karuk that looks at first glance like a non-agreeing verb, namely the element *uum* as used (69). More striking, perhaps, is (70), which has both the first person singular pronoun and the third person pronoun in an equative construction, in which the function of *uum* is unclear if it is not acting as a copula.

(69) hôoy *uum* **pa-'ikxáramkunish** **púsihich**
 where 3SG the-black cat.(DIMIN.)

“Where is the black cat?”

(SD-VS-01, line 58)

(70) **naa** vúra *uum* íshriiv
 1SG INTENSIVE 3SG fat

“I am fat.”

(VS-06, line 24)

However, it clearly is not, as it never inflects for tense, aspect, mood, etc.. Thus, we would not expect person marking either and, indeed, we never find it. The idea that *uum* is some sort of verb

(copula) that does not receive person agreement marking, making person agreement marking not completely productive finds no support.

C-9 is the final criterion found under Principle III and Karuk behaves canonically, as expected of criteria associated with Principle III. Agreement is completely productive on all verb types and reflects what can be expected of standard inflectional morphology.

3.6. TARGET ALWAYS AGREES > ONLY AGREES WHEN CONTROLLER ABSENT

CRITERION 10 states that the target always agreeing with the controller is more canonical with the target only agreeing when the controller is absent. In Karuk verbal agreement, the target always agrees, whether the controller is present (71) or absent (72) and so Karuk is canonical in this way as well. The same is true of possessive agreement: absent (73) and present (74).

(71) **ipasnáhvaanich** káan *ú-kríi*
 owl.SP there 3SG.SUBJ -live
 “Pygmy Owl stopped there.”
 (ALK_14-35, line 1)

(72) *ú-kríi*
 3SG.SUBJ -live
 “He sits.”
 (VS_07, line 10)

(73) xás *mu-véeshur-ak* t-u-p-ikniiv-ták-ishnih-ach
 then 3S.POSS-horn-LOC PERF-3SG>3-ITER-live-on.top.of-down-DIM
 “Then he just sat back down on top of its horns.”
 (ALK_14-35, line 5)

(74) akâay **iim** *mi-’áraar-as*
 who 2SG 2S.POSS-human-PL
 “Who are your relatives?”
 (VS-20a, line 46)

C-10 falls under both Principle I and Principle II. This is the only fully canonical criterion under Principle I. The pockets of redundancy found here are similar to the examples in C-1 that lean

towards being canonical (those with a present controller rather than an absent one). This does not go against my claims as to why Principle I is not operative in Karuk, especially with the important point that the verb is especially important for conveying information. We would not expect the verbal target to ever provide less information (as non-canonicity under this criterion would require). As for Principle II, Karuk agreement is straightforward here and can be captured by general rules as expected of a criterion that conforms with the expectations of Principle II.

3.7. TARGET AGREES WITH SINGLE CONTROLLER > MORE THAN ONE CONTROLLER
 CRITERION 11 states that the target agreeing with a single controller is more canonical than a target agreeing with multiple controllers.

In (75) and (76), we have Bright's analysis in which the subject (first person in both examples) and object (second person singular in (75) and second person plural in (76)) always control agreement in transitive clauses. The choice of appropriate agreement marker depends on both the subject and the object.

(75) **iim** tá *nu-mab*
 2SG PERF 1PL>2SG-see
 "I see you."
 (SD-VS-01, line 7)

(76) *yâamach* *vúra* *kii-kyâa-vish-ap*
 pretty Intensive 1>2PL-make-FUT-INV
 "I'll make you pretty."
 (WB_KL-10)

Bright's verbal paradigm, seen above in TABLE 2, is reproduced in TABLE 8.

SUBJECT		OBJECT						
		1 sg.	1 pl.	2 sg.	2 pl.	3 sg.	3 pl.	
1 sg.:	imper.			nú-	ki·(k)ʰ...-ap	kánʰ	kánʰ	
	indic.:	pos.		nuʰ	ki·(k)ʰ...-ap	ni-	ni-	
		neg.		kín-	ki·(k)ʰ...-ap	ná-	ná-	
1 pl.:	imper.			nú-	ki·(k)ʰ...-ap	nú-	nú-	
	indic.:	pos.		nuʰ	ki·(k)ʰ...-ap	ni-	ni-	
		neg.		kín-	ki·(k)ʰ...-ap	ná-	ná-	
2 sg.:	imper.	ná-	kínʰ			∅	∅	
	indic.:	pos.	ná-	kínʰ		ʔi-	ʔi-	
		neg.	ná-	kínʰ...-ap			∅	∅
2 pl.:	imper.	kanáʰ	kínʰ			ki·(k)ʰ	ki·(k)ʰ	
	indic.:	pos.	kanáʰ	kínʰ		ku-	ku-	
		neg.	kanáʰ...-ap	kínʰ...-ap		-ap	-ap	-ap
3 sg.:	imper.	ná-	kínʰ	ʔi...-ap	ki·(k)ʰ...-ap	kám-	kám-	
	indic.:	pos.	ná-	kínʰ	ʔi...-ap	ʔu-	ʔu-	
		neg.	ná-	kínʰ...-ap	-ap	ki·(k)ʰ...-ap	∅	-ap
3 pl.:	imper.	kanáʰ	kínʰ	ʔi...-ap	ki·(k)ʰ...-ap	kunʰ	kínʰ	
	indic.:	pos.	kanáʰ	kínʰ	ʔi...-ap	ki·(k)ʰ...-ap	kunʰ	kínʰ
		neg.	kanáʰ...-ap	kínʰ...-ap	-ap	ki·(k)ʰ...-ap	-ap	-ap

TABLE 8

However, Macaulay (1992) argues that the Karuk system is a (somewhat defective) direct / inverse system. A direct/inverse system is a method used by some languages to mark argument structure. Typically, there is some sort of person hierarchy and verb will agree with the highest element on that hierarchy. Direct clauses are those in which the subject is the highest element on the person hierarchy; inverse clauses are those in which the subject is not the highest element on the person hierarchy. If the highest argument in the clause is not the subject, then there is an inverse marking morpheme (proposed by Macaulay to be the suffix *-ap* in Karuk) that conveys that the clause is inverse rather than direct.

If Karuk used such a system, it would allow the verb to agree with just one element. Macaulay's person hierarchy is as follows (1992:188):

2PL > 1 > 2SG > 3

Macaulay's list of individual prefixes can be seen in FIGURE 2 (1992:189-190), with Macaulay's explanation following:

(14) Individual prefixes and person referenced:

<i>kán-</i>	<i>ni-</i>	<i>?i-</i>	<i>kám-</i>
1sg	1sg	2sg	3sg
<i>ná-</i>	\emptyset -	<i>?u-</i>	<i>ki-k-</i>
1sg	2sg	3sg	2pl
<i>nú-</i>	<i>nu-</i>	<i>ku-</i>	
1pl	1pl	2pl	
<i>kín-</i>	<i>kín-</i>	<i>kaná-</i>	
1pl	1pl	1sg	

(15) Exceptional cases:

(a) Do not involve usual referenced participant:

\emptyset -	<i>nú-</i>	<i>nu-</i>	<i>kín-</i>
3sg > 3sg/vi (N)	1sg > 2sg (O)	1sg > 2sg (P)	1sg > 2sg (N)

(b) Involve two third-person participants:

<i>kun-</i>	<i>kín-</i>
3pl - 3sg/vi (P/O)	3pl > 3pl (P/O)

(c) Violate the hierarchy (both reference the object):

<i>kín-</i>	<i>kaná-</i>
2pl > 1pl (P/O)	2pl > 1sg (P/O)

FIGURE 2

(14) provides a list of the individual items and the participant whose involvement each one codes, and (15) lists the exceptions. (No attempt has been made here to incorporate the additional glosses fully, such as information [full or partial] on the second participant, or series [P/N/O⁶]. (1992:189).

First person subject controls agreement in (77) because it is higher on the person hierarchy than second person singular and so the clause is direct. The second person plural object in (78) controls agreement because it is higher on the person hierarchy than first person and so the clause is inverse. Under this analysis, the suffix *-ap* is argued to be an inverse marker – as it is glossed in (78) – that appears on many but not all inverse examples.

⁶ P = positive [indicative], N = negative [indicative], and O = optative (imperative in Bright)

(77) **iim** tá *nu-mab*
 2SG PERF 1PL-see
 “I see you.”
 (SD-VS-01, line 7)

(78) *yâamach* *vúra* *kii-kyâa-vish-ap*
 pretty INTENSIVE 2PL-make-FUT-INV
 “I’ll make you pretty.”
 (WB_KL-10)

Throughout my study, I have mostly relied on Bright’s grammar and general analysis of Karuk language and, without enough information to decide between the two, I continue to use Bright’s system. This would suggest that Karuk verbal agreement is quite non-canonical in this particular aspect of agreement typology. This falls under Principle II, that agreement is syntactically simple. If we assume Bright’s analysis and say the verbal agreement prefixes are bipersonal morphemes and so Karuk is non-canonical under this criterion, then it is less syntactically simple to require that the agreement rely on two elements rather than one. With Macaulay’s, it of course can be considered fairly syntactically simple in this regard (though it could possibly create difficulties later on, as in C-12). However, perhaps the most important conclusion to come from this criterion is that canonicity can rely on analysis rather than descriptive facts of the language.

3.8. TARGET HAS NO CHOICE OF CONTROLLERS > HAS CHOICE⁷

CRITERION 12 states that the target having no choice of controller is more canonical than it having a choice of controller. This may also be dependent on the Bright vs. Macaulay analysis. The target always agrees with the subject and object in a transitive clause under the Bright interpretation of Karuk agreement. Under Macaulay, this would be non-canonical – it would not be the case that the

⁷I am not certain that this interpretation of Corbett’s text is correct. It is possible that Corbett may have been talking more about information structure in this criterion than a variation in choice of controller conditioned by the person hierarchy. Thus, my exploration of and speculation on this particular issue may not be quite appropriate and must be considered to be in progress for the time being until I receive further clarification.

target always agrees with the same controller but rather the element higher on the person hierarchy which could be either the subject or the object.

If we take examples from C-11, we can see again how Bright and Macaulay each would consider the arguments. Again, we have Bright's analysis in which the subject and object both always control agreement in transitive clauses. The subject in each is first person singular, though in (79) the object is second person singular and in (80) the object is second person plural. Thus there are different verbal agreement markers for each clause. Though it relies on multiple controllers, what is controlling the agreement never changes.

(79) **iim** tá *nu-mab*
 2SG PERF 1PL>2SG-see
 "I see you."
 (SD-VS-01, line 7)

(80) yâamach vúra *kii-kyáa-visb-ap*
 pretty Intensive 1>2PL-make-FUT-INV
 "I'll make you pretty."
 (WB_KL-10)

In Macaulay however, we again see that the first person subject controls agreement in (81) while the second person plural object in (82) controls agreement. Thus, the controller can either be the subject or the object depending on the person hierarchy status of each argument.

(81) **iim** tá *nu-mab*
 2SG PERF 1PL-see
 "I see you."
 (SD-VS-01, line 7)

(82) yâamach vúra *kii-kyáa-visb-ap*
 pretty Intensive 2PL-make-FUT-INV
 "I'll make you pretty."
 (WB_KL-10)

This criterion also relies completely on Principle II and, with Bright, is in line with the desire for syntactic simplicity, as the controller is consistent. However, though Macaulay's analysis allows for simplicity in C-11, the fact that the agreement controller changes is far from simple and therefore breaks down a portion of Principle II. Again though, this has little to do with the facts of the language and much to do with the theoretical approach adopted by the researcher. It cannot simply be said that the system is more or less standard because of different analyses.

3.9. TARGET'S PART OF SPEECH IRRELEVANT > RELEVANT

CRITERION 13 states that it is more canonical for the target's part of speech to be irrelevant rather than relevant in a given domain of agreement. That is, like C-4, this refers to having the same rules for all targets in a given domain or type of agreement. Karuk is not canonical in this sense, as the part of speech of the target is relevant in verbal agreement/agreement within the clause. Karuk's nonverbal predicates do not receive agreement marking (83), while their verbalized (or denominalized) counterparts do (84).

(83) káru vúra **p-eehêraha** vúra *imxathakêem*
 also INTENSIVE the-tobacco INTENSIVE bad-smelling
 "And tobacco stinks."
 (JPH_TKIC-III.5.A.a, line 5)

(84) **pa-nani-'ákah** vúra *t-u-pibnîich-ba*
 The-1SG.POSS-father INTENSIVE PERF-3SG-old.man-DENOM
 "My father is old."
 (VS-02, line 6)

This criterion falls under Principle II as well. Though it is perhaps not easily explained by polysynthesis, it is sensible if one considers the idea that the verb has a particularly important status in Karuk. In many other polysynthetic languages, nonverbal predicates can receive all or most of the same inflectional marking as verbal predicates. If it is the case that the verb has a particularly important status in Karuk and it alone can carry much of the most vital information, then it would

be logical that the language would require other elements be made into verbs before carrying the same information.

4. DOMAINS

Domains are “[t]he syntactic environment in which agreement occurs[...]” (Corbett (2006:4)). In Karuk, as we have just the two types of agreement, we find them in two domains: for verbal agreement, the domain in the clause; for possessive agreement, the domain is the possessive noun phrase.

4.1. ASYMMETRIC > SYMMETRIC

CRITERION 14 states that asymmetric agreement is more canonical than symmetric agreement, meaning that elements that are identical for an external reason are not agreeing elements and that one element is agreeing with another rather than both with each other. Corbett mentions that “[w]e might treat this as a defining characteristic, or we may see it as a property of canonical agreement,” (Corbett 2006:19).

This seems to be more or less canonical in Karuk. The target agrees with the controller, the controller shows no evidence of agreement from the target.

(85) is an example of a noun with an instrumental use that does not control agreement (*áhup* ‘wood’), which is identical in terms of morphological marking to a the same word in an environment in which it controls agreement in (86), showing that the controller nouns receive no kind of marking from the verbal targets.

(85)	<i>áhup</i>	<i>mûuk</i>	<i>ni-kyaa-t</i>	pa'-ikrívraam
	wood	with	1SG>3-PAST	the-house
	“I made a house with wood.”			
	(VS-21, line 31)			

- (86) **pa-'áhup** uum *t-u-'iinka*
 wood 3SG PERF-3SG-be.on.fire
 “The wood is burning.”
 (VS-08, line 39)

This is expected in a head marking language such as Karuk, which lacks dependent marking elements like case. Criterion 14 falls under Principle II and Karuk is canonical under this criterion. Thus, it conforms with Principle II's desire for syntactic simplicity and is not a source of defectiveness in the principle.

4.2. LOCAL DOMAIN > NON-LOCAL DOMAIN

CRITERION 15 says that domains with a smaller structural distance between the agreeing elements are more canonical than those with larger structural distances. We find very local agreement in Karuk through possessive agreement, which takes place within a noun phrase (87, 88).

- (87) *nani-kâit* nee-kshúpih-at
 1S.POSS-maternal.grand-relative.through.woman 3SG>1SG-teach-PAST
 “My grandmother taught me.”
 (CT-02, line 6)

- (88) **áraar** *pa-mu-'áav* ápap u-'ávas-h-unih-va
 human the-3S.POSS-face one.side 3SG-spring-DENOM-down-ESS
 “One side of the man's face was a spring (flowing) down.”
 (ALK_14-35, line 10)

Verbal agreement would then be less canonical than possessive agreement because the controllers are generally considered to be a greater structural distance from the targets than in possessive phrases. However, this does suggest that the overall grammatical system displays canonicity in this regard. This criterion too falls under Principle II and shows syntactic simplicity in having agreement in very local domains.

4.3. DOMAIN ONE OF A SET > SINGLE DOMAIN

CRITERION 16 says that multiple domains of agreement is more canonical than systems with a single domain of agreement. Karuk again can be considered canonical in this way, as we find two domains of agreement: possessing nouns and possessed nouns (89), and subjects/objects and verbs (90), though it would perhaps be considered more canonical if it had more domains of agreement (such as adjectives agreeing with their head nouns) or postpositions agreeing with their complements. Regardless, it can be said that there is more than a single domain of agreement in Karuk.

(89) **áraar** *pa-mu-'áav* ápap u-'ávas-h-unih-va
 human the-3S.POSS-face one.side 3SG-spring-DENOM-down-ESS
 “One side of the man's face was a spring (flowing) down.”
 (ALK_14-35, line 10)

(90) **ipasnáhvaanich** káan *ú-kerii*
 owl.SP there 3SG.SUBJ -live
 “Pygmy Owl stopped there.”
 (ALK_14-35, line 1)

Criterion 16 falls under Principle II and does not create more holes in the principle, as it is considered to be more canonical by having the multiple domains and therefore more syntactically simple than if there was only a single domain of agreement.

5. FEATURES

Features are “[...]when we indicate in what respect there is agreement[...].” (Corbett (2006:4)). In Karuk, we see agreement in person (first, second, and third) and in number (singular, plural) for both verbal and possessive agreement. Karuk lacks other common features like gender.

5.1. FEATURES LEXICAL > NON-LEXICAL

CRITERION 17 states that it is more canonical to have agreement features that are specified lexically rather than contextually or semantically specified (a preference for inherent features). According to Corbett (2006:23) the canonical example of lexical features is agreement with grammatical gender or

noun types. Karuk, however, has no grammatical gender or noun types as far as can be said currently, and it lacks other obvious formally assigned features affecting agreement.

This could be an areal feature/feature of Hokan. FIGURE 3 is a map from *The World Atlas of Linguistic Structures* and shows that there seem to be no gender systems in the western United States. Karuk, found in northern California, is represented by a star. This does not accurately represent every language in the area of course and, according to Andrew Garrett (personal communication), may leave out a number of Penutian languages with gender systems. However, Karuk is Hokan and so perhaps it is also partially due to a divide between Hokan and Penutian languages.

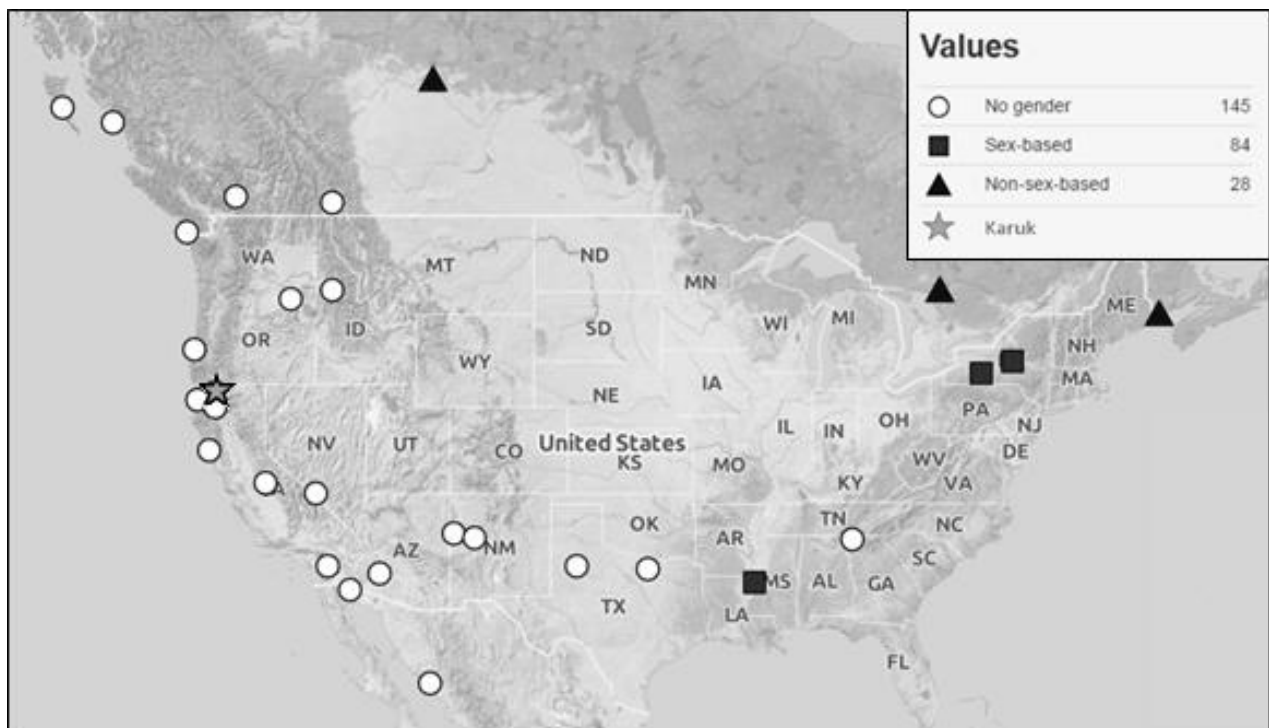


FIGURE 3

C-17 is under Principle I and can be labeled non-canonical for Karuk. It is not obvious that this has to do with polysynthesis or the need for information in Karuk, though. It also does not necessarily

suggest a preference for redundancy, however, but rather a lack of any features to be either redundant or informative.

5.2. FEATURES HAVE MATCHING VALUES > NON-MATCHING

CRITERION 18 says that features having matching values is more canonical than them having non-matching values. As mentioned by Corbett 2006:24, this seems to be the most obvious feature of agreement. However, non-canonical examples of this can be found in English, such as in phrases in which normally agreeing elements agree semantically rather than grammatically ('the committee has' vs. 'the committee have').

In most Karuk cases, the number features will match on the target and controller (91), while in others they may not (92). This seems largely to do with optionality in feature marking on the controller (also discussed under C-19) and animacy effects (discussed under C-2 and C-20).

(91) káan **ávansa** *ú-krii*
 there man 3SG-live
 "A man lived there."
 (WB_KL-32, line 1)

(92) xás **pa-'ávansa** vaa *kun-parísbriihva* **pa-'ápkaas**
 then the-man so 3PL>3S-twine the-iris.SP
 "And the men twined the iris leaves into string."
 (WB_KL-68, line 2)

Criterion 18 falls under both Principle I and Principle II. Though this is less syntactically simple than if features always had matching values, I believe that this often does not display canonical behavior because the most important element to be accurate is the agreement on the verb, whose agreement rightfully matches the number of the controller in the translation. If the controllers are lacking proper feature marking, it is perhaps because it is less important for the controller to convey all of the information that the verb is required to convey.

5.3. NO CHOICE OF FEATURE VALUE > CHOICE OF FEATURE VALUE

CRITERION 19 says that there being no choice in feature value is more canonical than having choice in feature value. This is somewhat interesting in Karuk, as there is a choice in number agreement for some nouns, as discussed under C-2 above.

Corbett, discussing Russian and Hungarian examples given under C-19 in his work, says of the criterion: "The essential point here is that, given the same controller, target, domain and featural specification of the controller, there remains a choice of agreement" (2003:25).

First we can look at the third person pronoun *uum* again, repeated from the C-2 discussion. I am unsure whether or not an underspecified number feature would allow the third person pronoun *uum* to be considered relevant for this (that is, allow us to claim that *uum* has identical features in the singular example in (93) and the plural example in (94)), but if it does, then these provide some evidence of non-canonicity.

(93) **uum** *t-u-’áxaska*
 3SG PERF-3SG-be.thin
 “He is thin.”
 (VS-06, line 26)

(94) *vaa uum kun-ípí-ti pítaxyárib*
 that 3(SG) 3PL-say-DUR swearing
 “That, they said, was ‘swearing.’”
 (WB_KL-0, line 3)

Again from C-2, we see the exact same noun, *pa-’ávans-as* ‘the men’, in both examples below, but in (95) the verb has a plural agreement marker while in (96) it has a singular agreement marker.

- (95) púya-va xás uumkun yu'-kúkam-kam pa-'ávans-as tá
 and.so-so then they downriver-side-side the-man-PL PERF

kun-ithviripraa

3PL-run.up.from.downriver.(TWO)

“Then the men on the downriver end ran up.”

(WB_KL-78, line 16)

- (96) púya-va hâari uum pa-yu'-kúkam pa-'ávans-as pishüip
 and.so-so sometime 3SG the-downriver-side the-man-PL first
t-u-'úum pa-tákasar u-phíriv-irak
 PERF-3SG-arrive NOMZ-shinny.tossel 3Sg-lie.(TWO)-where
 “Sometimes the men on the downriver end arrived first where the tossel lay.”
 (WB_KL-78, line 25)

If, as discussed in C-3, there is indeed a team effect and ‘team’ was considered to be a feature, then this example would not apply to this criterion, as the featural specification of the controllers would differ. If not, however, then they are identical controllers controlling agreement on a target taking completely different agreement markers. This, combined with would then be quite non-canonical.

This is somewhat uncommon, however, especially in the common noun instances. This naturally produces instances of non-matching feature values between agreeing elements.

Criterion 19 also falls under both Principle I and Principle II. Again, this seems to be explained through Karuk’s polysynthetic nature as criteria with similar effects have before. Like in C-18, the feature marking on the controller is not as vital as that on the verb, as the verb obligatorily carries that information. The other examples in (95) and (96), as in C-3, can be considered to be conveying important information about how speakers conceptualize the controller in a system lacking collective nouns.

6. CONDITIONS

Conditions are “[...] other factors[...] which have an effect on agreement but are not directly reflected like features,” (Corbett (2006:4-5)). Examples of conditions include animacy and humanness effects (extended animacy) and word order.

6.1. NO CONDITIONS > CONDITIONS

CRITERION 20 is the only criterion relating to conditions: the presence vs. absence of them. That is, it is less canonical to have any conditions than it is to lack them entirely.

It is unclear whether there are conditions on agreement in Karuk. One imaginable condition Karuk could have is grammatical environment. This could mean effects such as a lack of agreement in negated (97, 98) or embedded clauses (99). However, as discussed in C-6, this is not the case and agreement is completely obligatory, as seen in examples from C-6 reproduced below:

Negated clauses:

(97) shows an overt first person singular agreement marker and (98) shows a null second person plural agreement marker):

(97) *vúra* *uum* *pu-ná-'aapunmu-tib-ara*
 INTENSIVE 3SG NEG-1SG-know-DUR-NEG
 “I don’t know (anything).”
 (CT-01, line 18)

(98) *purafâat* *vúra* *káru* *∅-kupítib-eesb-ara*
 nothing INTENSIVE also 2SG-be.doing-FUT-NEG
 “You won't be doing anything, either.”
 (WB_KL-38, line 18)

Embedded clauses:

- (99) *t-u-thítiv* **p-oo⁸-thivnúru-tih**
 PERF-3SG>3-hear NOMZ-3SG-roar-DUR
 “He heard it thundering.”
 (WB_KL-03, line 47)

Another possible condition could be effects based on an animacy hierarchy. There is a sense that, as humanness affects which controllers can take the plural marker *-as*, as discussed in C-2, that humanness may be considered to be a relevant condition on agreement.

Whether or not it should qualify as a condition is somewhat controversial. It can be argued that it is not a condition on agreement, but rather merely a condition on feature marking on the controller. If we interpret the restrictions on the productiveness of *-as* in this way, then there are no obvious conditions on agreement in Karuk.

However, we can explore the idea that humanness effects are a condition on agreement rather than simply a condition on the feature marking on the controller.

There are examples in the dictionary of both inanimate (*áy-as* ‘grapes’), as in (100), and animate non-human (*patakaakaatumvêchas*, ‘quails’) nouns having plural marking, as in (101).

- (100) *na-víshtaan-ti* **áy-as**
 1SG-like.(food)-DUR grape-PL
 “I like grapes.”
 (CT-01, line 30)

- (101) **pa-takaakaa-tunvêch-as** *kun-’ichumvu-naa-tih*
 the-valley.quail-small.(PL.)-PL 3PL-hide.oneself-PL-DUR
 “The little quails are hiding.”
 (VS-18, line 8)

⁸ Vowel coalescence rules in Karuk cause the third person singular verbal agreement marker *u-* and the initial *i* of *itbinnúru* to form *oo*.

However one Karuk consultant, Vina Smith, recently gave a number of judgments regarding plural non-human objects without plural nominal marking (102) and rejecting the use of the plural nominal morphemes *-as* and *-sas* for non-human things (103). In addition, when presented with the sentence in (104), she responded, “I don’t know, they don’t use that.”

(102)vúra *uum* taay **pa-chishíih**
 INTENSIVE 3SG much the-dog
 “Lots of dogs”
 (VS_29-11-14)

(103)*vúra *uum* taay **pa-chishíih-as**
 INTENSIVE 3SG much the-dog-PL
 “Lots of dogs”
 (VS_29-11-14)

(104)*vúra *uum* taay **pa-púufich-as**
 INTENSIVE 3SG much the-deer-PL
 “Lots of deer”
 (VS;judgment_29-11-14)

She also was on the same day presented with examples concerning humans and only considered them to be plural when the plural marker *-as* was used (105). Otherwise, she interpreted them as singular. Of (106), she said, “no, that’s only one boy,” (107) and, when asked if it could mean a ‘big boy’, she also said no.

(105)vúra *uum* taay pa-‘avansáxiich-as
 INTENSIVE 3SG much the-boy-PL
 “Lots of boys”
 (VS_29-11-14)

(106)*vúra *uum* taay pa-‘avansáxiich
 INTENSIVE 3SG much the-boy
 Intended: “Lots of boy”
 (VS;judgment_29-11-14)

(107)vúra uum taay pa-‘avansáxiich
 INTENSIVE 3SG much the-boy
 “One boy”
 (VS:judgment_29-11-14)

Though there is some speaker variation, this could be to do with elicitation conventions and/or semi-grammatical judgments, speaker variation, or optionality. Regardless, there seems to be a preference for plural humans to have obligatory plural marking and for plural inanimates/non-humans to lack plural marking.

This is sensible looking at the Extended Animacy Hierarchy:

Extended Animacy Hierarchy: first/second person pronouns < third person pronoun < proper names < human common noun < nonhuman animate common noun < inanimate common noun (Croft 2003:130).

It would present the typologically sound suggestion that the plural *-as* can apply to everything above a certain level on the hierarchy (human common noun) and not to anything below that (nonhuman animate common noun or below).

XÁKAAN

One postposition (as defined by Bright), *xákaan* ‘with; both’, also may display animacy/humanness effects. See two animate arguments with *xákaan* (108) vs. one animate argument and one inanimate argument (109). Note that *xákaan* is a somewhat unusual example and has been considered as a candidate to host number of various grammatical uses, so it is not the primary data point used to illustrate the final and perhaps most fascinating criterion. However, it may be interesting to see the relevant examples and consider them with the other data regarding animacy effects on Karuk agreement.

(108) xás **uum** *ʔun-chúuphi-ti* **pa-'ávansa** xákaan
 then 3SG 3PL.SUBJ-speak-DUR the-man both
 “She and the man are talking.”
 (WB_KL-92, line 96)

(109) yukún vaa xákaan *u-'iifshípree-nik* **pa-mu-tákasar**
 you.see that both 3SG.SUBJ-grow.up-ANC the-3SG.POSS-shinny.tossel
 “You see, he had grown up with that tossel.”
 (WB_KL-54, line 27)

This falls under Principle II. Principle I is also relevant, as it potentially includes the reasoning behind the label of semi-canonicity in C-2 (which is under Principle I) if humanness is analyzed as a condition on agreement. This would likely mean that C-20, if interpreted as non-canonical, is non-canonical for the same reasons as in C-2: the language wants to convey information on the verb where possible, and here the verb is delivering information about the number of the speaker and so the controller (which can be freely omitted) is less relevant. This would also create syntactic complexity, going against Principle II. If the above cannot be analyzed as conditions on agreement, then it conforms to Principle II and does not create any syntactic complexity and so Karuk canonical in this way.

7. CONCLUSION

TABLE 1 is reproduced in TABLE 9. Again, it summarizes my decisions regarding the canonicity status of various aspects of agreement in Karuk.

	Criterion		Karuk canonical?
Controllers	1	Controller present > controller absent	Semi-canonical
	2	Overt expression of agreement features > covert expression	Semi-canonical
	3	Consistent controller > hybrid	(Semi-)Canonical
	4	Controller's POS irrelevant > relevant	Canonical
Targets	5	Bound > free	Canonical
	6	Obligatory > optional	Canonical
	7	Regular > suppletive	Canonical
	8	Alliterative > opaque	Semi-canonical
	9	Productive marking > sporadic	Canonical
	10	Target always agrees > only agrees when controller absent	Canonical
	11	Target agrees with single controller > more than one controller	Non-canonical?
	12	Target has no choice of controllers > has choice	Canonical?
Domains	13	Target's POS irrelevant > relevant	Non-canonical
	14	Asymmetric > symmetric	Canonical
	15	Local domain > non-local domain	Canonical
Features	16	Domain one of a set > single domain	Canonical
	17	Features lexical > non-lexical	Non-canonical
	18	Features have matching values > non-matching	Semi-canonical
Conditions	19	No choice of feature value > choice of feature value	Non-canonical
	20	No conditions > conditions	Canonical?

TABLE 1

The three principles are restated below:

Principle I: Canonical agreement is redundant rather than informative.

Principle II: Canonical agreement is syntactically simple.

Principle III: The closer the expression of agreement is to canonical (i.e. affixal) inflectional morphology, the more canonical it is as agreement. (Corbett (2006:11-17))

Why Karuk is non-canonical under certain criteria can be largely explained by which of the principle are active: Principle I is defunct in Karuk, Principle II is defective in Karuk, and Principle III is operative in Karuk.

The first can mostly be explained by the nature of polysynthesis, which is at odds with Principle I's need for agreement not to be informative. As much information must be reflected in a highly inflected element (here, most importantly the verb) for the language to be considered polysynthetic, it follows that a language with this trait – like Karuk – would carry a great deal of information on the verb. If being maximally expressive, it would make sense to include information about the person and number of the subject and object and mood as we have seen in Karuk agreement. The one non-canonical criterion in Principle I not obviously explained by polysynthesis seems to have areal/familial explanations.

The second is explained both by polysynthesis and by theoretical approach. Again, if the verb can express more, it is more ideal for polysynthesis. In the case of Principle II, some are violated for the exact reason as in Principle I (as they are cross-listed), while one (C-3) provides potential information about how speakers conceptualize controllers. The other issue, that of theoretical approach, has little to do with the actual nature of the language.

Finally, Principle III is operative. Though I am unsure as to why Karuk does not have fully alliterative agreement, making C-8 is semi-canonical rather than simply canonical, I firmly believe there is a clear sense in which it is separate from what we would expect from standard inflectional morphology. Alliteration may be characteristic of canonical agreement, but I do not believe it should be considered part of the discussion of canonical inflectional morphology.

It is impossible to simply say that an entire system within a language is simply ‘canonical’ or ‘non-canonical’. Karuk has a complex and interesting agreement system like many languages and cannot be confined by such simplistic labels. However, some aspects of its agreement systems clearly conform more to Corbett’s conditions for typological canonicity than others – domains as a whole are particularly interesting in that they seem to be fairly standard as languages go – while others are less predictable.

The Karuk agreement system has a good deal of work to be done on it in the future in terms of sorting out many of the theoretical and data-based issues, such as the matter of the potential direct/inverse system and the lack of highly important negative judgments. Most interesting to explore in the future might be the criteria regarding the features and conditions (primarily criteria 18-20) with further examination of the Karuk corpus and more relevant examples from speakers from future trips to meet with speakers.

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