

Quantification with ‘all’ in Seri*

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Words meaning ‘all’ in Seri include a verb, a pronoun (which often cooccurs with a coreferential NP), and an NP modifier. This paper explores the syntax of the constructions in which these words occur. It also explores the scope relationship between these words and negation, which seems to vary depending on a non-surface syntactic relation.

1. Introduction

The notion of ‘all’ is expressed by two related words and three structures in Seri:

- a. the verb **-cooo** ‘be whole, entire; be all’
- b. the pronouns **coox**, **cooxo** ‘all’ (especially felicitous with plural NPs), which sometimes directly follow a coreferential noun phrase
- c. the DP-internal modifier **coox** ‘all’ (especially felicitous with certain singular NPs).

The first and second constructions are the most common; the third is somehow more restricted. Using the terminology introduced in Partee *et al.* 1987,¹ the quantifying expressions **-coox** and **cooxo** are D-quantifiers, since each of them “is, or forms a constituent with, a projection of N” (Bittner 1995:59). The verb **-cooo** is not obviously an A-quantifier, however, since an A-quantifier “forms a constituent with some projection of V” (*loc.cit.*) — this quantifier *is* the verb.² And none of these constructions is exactly analogous to the constructions by which they are translated in languages like English and Spanish.

The first two constructions may be used in a paraphrase relationship, as shown by the following sentences (which parallel examples observed in texts):

- (1) a. **Haxaca coi po-cóoo siilx_caha.**
DepIrr-all
dogs the they.being.all they.will.go
All of the dogs will go.
- b. **Haxaca coi cooxo siilx_caha.**
dogs the all they.will.go
All of the dogs will go.

* The text examples cited here come from texts collected by Edward and Mary Moser in the 1950’s. Other examples come from sentences provided for the dictionary that is in preparation, and from recently elicited examples.

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Abbreviations used include: Decl, declarative; DepIrr, dependent irrealis; DepRI, dependent realis; DS, different subject; Neg, negative; Pass, passive; SubjNom, subject nominalizer; 1plSubj, first person plural subject, 2plDirObject, second person plural direct object; 2plSubj, second person plural subject.

¹ I do not have access to this work, which is referred to in various papers in Bach *et al.* 1995.

² The name D-quantifier relates to the word “determiners”, and the name A-quantifier to “adverbial”.

In this paper I explore each of these constructions, including the scope relationship between the quantifier and negation.³

2. The verb **-cooo** ‘whole, entire, all’

The verb **-cooo**, which means ‘be whole, entire; be all’, is a very common expression in the language.⁴ The verb **-cooo** typically occurs in adverbial clauses, either the dependent irrealis form (**po-coóo**) or the dependent realis form (**t-cooo**) and is apparently always non-negative,⁵ and the nominal that it quantifies is apparently always linked to the subject or direct object of the following clause. The use of different subject marking (overt, **ta** and **ma** for the two forms, respectively), or its absence, provide the clue as to whether the quantification is of the “first” subject of the following clause or not.⁶ Examples below illustrate these verb forms. It will be shown that they are also inflected for person of the subject (which is null for third person).

1.1. *Predicating a single item to indicate entirety or wholeness*

The verb **-cooo** may predicate a singular noun and thereby indicate the entirety of the item — the sense of ‘whole’ — as illustrated by the following examples.⁷ Example (2) has four clauses: three adverbial (dependent irrealis) clauses with **po-** followed by one main clause (independent irrealis) with **si-**.

- (2) **Hap com po-coóo-ta impacáaix heme mpoomjcta**
 DepIrr-all-DS
 deer the it.being.whole you.carrying.it camp you.bringing.it
cmaax ihsímoxaha.
 then I.will.butcher.it
If you carry the whole deer to camp, I will cut it into pieces.
- (3) **Zixcám quih xo-coóo.**
 Emphatic-all
 fish the it.is.whole
The fish is whole!
- (4) **Tahéjöc quij t-cooo-x cazíimih toc cömiij.**
 DepRI-all-?
 Tiburon.Island the it.being.whole it.is.pretty there it.is
All of Tiburon Island is beautiful. (LB 321)

³ Gil 1995 claims that the quantifier “*all* and its counterparts in other languages constitute the basic or simple universal quantifier” (p. 321), and that the quantifier ‘every’ in English is more unusual. These claims fit with the Seri facts, as I show below; there is no word that corresponds to ‘every’.

⁴ Other quantifiers — including the numbers, ‘many’, and ‘few’ — are also verbs. They inflect for person, tense/aspect, number, etc. Unlike the verb ‘be all’, however, they commonly occur as the main verb of a sentence, and they may be negated easily. This is similar to the situation in the related Yuman family (which includes Maricopa), as discussed in Gil 1995:357.

⁵ Attempts to negate these verbs were met with odd expressions by my consultants.

⁶ Marlett 1984a, Marlett 1984b, and Farrell, Marlett and Perlmutter 1991 discuss details of the notion of subject with respect to the switch reference system of Seri. A technical notion called “first subject” is proposed, which is distinct from other notions of subject that more commonly figure in descriptions of language.

⁷ Haspelmath 1995, based on the evidence from Indo-European languages, claims that the development of the meaning ‘all’ for words that meant ‘whole’ is common, but that the reverse is not attested.

Examples (5-6) show the use of the verb in relative clauses. These examples are much less common, although this is the typical way to form relative clauses with predicates (using nominalized forms of the verb).

- (5) **Icózim quih c-cooo tintica iti cömiipca.**

SubjNom-all

summer the that.was.all the on it.rained
It rained all (the entire) summer.

- (6) **Ihámoc quih c-cooo tintica iti cohpxím.**

night the that.was.all the on I.slept
I slept all night (the whole night) last night.

1.2. Predicating a plural noun, to indicate the complete group

The verb **-cooo** may also predicate a plural noun and indicate the complete group — the sense of ‘all’. Some examples with “same subject”, since the quantified NP is the “first” subject of the higher clause, include the following:⁸

- (7) **... yectz tahac iti coii coi t-cooo tojocam ...**

Yaquis there at who.were the(pl.) they.being.all they.fleeing
... all the Yaquis who were there fled, ... (Hands 39.7)

- (8) **... t-cooo hapx toii ...**

they.being.all outside they.being
... they all jumped out, ... (Hands 72.2)

- (9) **Ox tpactama comcáac iti cöihiyáx quih t-cooo tahac iti toii ...**

then Seris every.last.one the they.being.all there on they.being
Then all of the Seris were there, ... (Hands 164.1)

- (10) **Moxíma taasaj cazíim xah hyexl xo t-cooo immázlilca.**

yesterday cups pretty *⁹ I.bought.them but they.being.all they.cracked
Yesterday I bought some pretty cups, but they all cracked.

- (11) **Ziix cöquitalháatim cap mos_ano iitom quih ipacáixajta**

traveling.salesman the more.so his.voice the he.strengthening.it
comcáac quih po-cóoo siizcam_caha.

Seris the they.being.all they.will.arrive
If the traveling salesman speaks loudly, everyone will go to him.

- (12) **Haxaca coi tootar coi t-cooo iyóittoj.**

dogs the chickens the they.being.all they.ate.them
All of the dogs ate the chickens.

The following examples have “different subject” on the ‘all’ verb since the verb is predicating the underlying direct object of the higher clause. (The higher clause may be passive, as is (14); this is irrelevant.)

⁸ See note 6.

⁹ The word **xah** means “and” in some contexts, but it also occurs in many examples without that meaning.

- (13) **T-cooo-ma hacx_itamúhtajma toc_cöcahca ...**
 DepRI-all-DS
 they.being.all they.killing.them it.happening
They killed them all, it happened ... (Hands 208.1-2)
- (14) **... cmaax ziicale catxo hamúme hipcom ano coii coii**
 then birds which.were.many sky this in who.were the
t-cooo-ma tpaatim ...
 DepRI-all-DS
 they.being.all they.being.summoned
... then all of the many birds in the sky were summoned, ... (Sun 24.4)
- (15) **Taax an itámlaje yocyo xica_quizíil cmajúic coii t-cooo-ma ...**
 there to they.taking.them they.say children female the they.being.all
They took them there, they say, (they took) all of the girls, ... (Hands 159.1)
- (16) **Comcáac coii Tahéjöc quij iti cöihiyáx cah po-cóoo-ta**
 Seris the Tiburón.Island the every.last.one the they.being.all
hsiiho ta ...
 I.will.see.them Aux
[I came] so that I might see all of the Seris on Tiburón Island ... (Hands 161.2)
- (17) **Haxaca coii haxöl coii t-cooo-ma iyóitöj.**
 dogs the clams the they.being.all they.ate.them
The dogs ate all of the clams.
- (18) **... yectz coii tezitoj¹⁰**
 Yaqis the they.winning
santáar tahac contícat tanticat t-cooo-ma hacx_itamúhtajma ...
 soldier there who.went those they.being.all they.killing.them
... the Yaqis won, they killed all of the soldiers who went there, ... (Hands 217.5)

1.3. Pronominal subject of verb **-cooo**

The verb may have a pronominal subject. Examples with third person are shown above, but the subject may be first or second person (plural) as well, as the following examples illustrate:

- (19) **Taax ha-po-cóoo-x cöhasmúplaha.**
 1plSubj-DepIrr-all-?
 that we.being.all we.will.be.bad.with.respect.to.it
That would be bad for all of us. (More literally, All of us will be bad off because of it.)
- (20) **Me ma-po-cóoo mizj masóoctamaha.**
 2plSubj-DepIrr-all
 you you.being.all well you.should.look.at.it
All of you should pay attention ...

¹⁰ The lack of different subject marking on this verb indicates that the three clauses in this example are not on the same level of structure, since the subject of the verb **tezi** (“win”) is different from the subject of **tcooo** (“be all”); the verb **tcooo** is irrelevant to the marking of different subject on **tezi**, which looks forward to the **hacx itahmúhtaj** (“kill”) clause.

- (21) **Himcoi ha-t-cóoo-ma hizi_miiht.**
 those we.being.all they.saw.us
They saw all of us.

3. The pronoun **coox** ‘all’

A second expression for ‘all’ is **coox** (or its variant **cooxo**),¹¹ which occurs in two positions: inside the noun phrase (as a quantifier) and outside of the noun phrase (as a pronoun). The pronominal usage is by far the most common, and I discuss it first below.

1.4. Standing alone as a pronoun

The word **coox** may stand alone (and mean ‘all’) or be used immediately after a DP — especially a plural one — apparently in the style of a pronoun. First, I present examples where the word **coox** occurs without an overt adjacent DP. In these examples, it is either a subject or a direct object.

- (22) **Coox hant cötoiima ...**
 all down they.coming.from.it
They all came down from it (sky)... (Sun 25.1)
- (23) **(He) cooxo mazi_hyooho.**
 1Pro all 2plDirObject-1sSubj-Distal-see (< **mazi-h-yo-aho**)
I saw all of you.
- (24) **Coox itáxi itácatx yoque.**
 all he.finishing.it he.leaving.it.behind it.is.said
He finished it all, (and) he left it. (Sun 54.1)
- (25) **Cooxo ipácta ocóa ...**
 all how.it.was she.knew.it
She knew all about it (that had happened), ... (Hands 95.1) (Perhaps more literally, She knew what it was all like...)
- (26) **Enm_an_icáaspoj coox ihtemáaho xo quipxa xah hmiya.**
 typewriter all I.not.knowing.it but what.is.little * I.know.it
I don’t know everything about a typewriter, but I know a little.

1.5. With a singular DP, signifying entirety

The pronoun **coox** may also follow a singular DP — after the phrase-final determiner — to indicate the entirety of something.

- (27) **... hant_hayaa com coox ipaai ipooxi ...**
 farm the all he.doing.it he.finishing.it
... if he finishes doing the whole farm, ... (Sun 51.3)
- (28) **Itaai hant_hayaa com coox itaxi yoque.**
 he.doing.it farm the all he.finishing.it it.is.said
He completed (doing) the whole farm. (Sun 53.1)

¹¹ I do not know how these two forms are distributed.

- (29) **Xepe_an_ihéel com haxoj quih itéel tintica coox cöipahóoantax**
 red.tide the shore the its.edge the all it.making.it.murky
zixám zo hascmáhtaha tax xaa hasílxaha.
 fish a we.will.not.see.it and.so soon we.will.go
If a red tide makes all the seashore murky, we aren't going to see fish and we will go.
- (30) **Xaasj com is quih coox maactoj.**
 sahueso.cactus the its.fruit the all it.shriveled.up
All of the sahueso cactus fruit dried up.

1.6. *With a plural DP or a pronoun*

The pronoun **coox** commonly follows an explicitly plural noun phrase—again, following the phrase-final determiner¹²—with which it is associated pragmatically.¹³

- (31) **Hitáast hizcoi coox immípla.**
 my.teeth these all they.are.bad
All of my teeth are bad. (Baskets 48.1)
- (32) **... ziicalc tamocat coox hant cötoii yoque.**
 birds these all land they.coming.to.it it.is.said
... all of these birds came down to the ground. (Sun 24.11, modified by X.M.)
- (33) **me cooxo**
 you all
all of you
- (34) **Moosni hant_cöhabéectim hizcoi coox icózim isíicotimaha**
 turtles that.are.being.transported these all heat it.will.kill.them
toc cöyaxalca.
 there their.being
*The heat is going to kill all of these sea turtles that are being transported.*¹⁴
- (35) **... inloj iizjoj xaha itóaatj iizjoj xaha isxápcoj quih**
 their.hands their.front and their.feet their.fronts and top.of.their.heads the
taax cooxo tahtáolimma ...
 those(pronoun) all they.being.scraped
... the palms of their hands, the soles of their feet, and the top of their heads were all scraped,... (Hermanos 34.3, modified by X. M.)¹⁵

¹² Seri is like Ancient Greek in that a determiner phrase may often have more than one determiner in it; the medial determiner is most typically **quih** although the final one is more commonly one of the positional articles. See Marlett and Moser 1994 and Moser 1978.

¹³ This pronominal quantifier may also be modified.

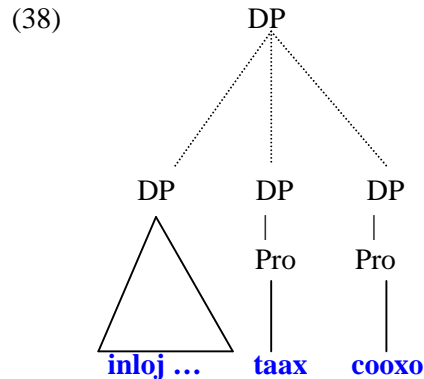
Xica cazíil himcoi hax coox xah imoquépt cöihj ihi.
 children those just all and their.sickness they.are.with
Almost all of those children are sick.

¹⁴ This example has a preposed direct object.

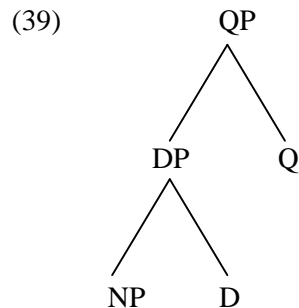
¹⁵ In this sentence, the quantifier actually follows a demonstrative pronoun that itself is coreferent with the noun phrase.

- (36) **Haxaca coi cooxo haxöl coi iyóiiitoj.**
 dogs the all clams the they.ate.them
All the dogs ate the clams.
- (37) **Haxaca coi haxöl coi cooxo iyóiiitoj.**
 dogs the clams the all they.ate.them
The dogs ate all the clams.

I believe these are correctly analyzed structurally as a noun phrase (or DP, to be more exact) followed by a pronoun. In fact, the quantifier may occur after a deictic coreferent pronoun, as shown in (35).¹⁶ Under this analysis, something like the structure in (38) would be something like what is proposed for (35), although it is not even clear that the three DPs form a constituent at all.



The question arises, of course, whether the quantifier should be analyzed as a pronoun, as I have claimed above — where there is a DP followed by a coreferent pronoun — or whether these examples are in fact instances of Quantifier Phrases which are head-final (rather than head-initial, as in English), as expected by the general head-final orientation of the language. The structure shown in (39) represents the latter alternative.

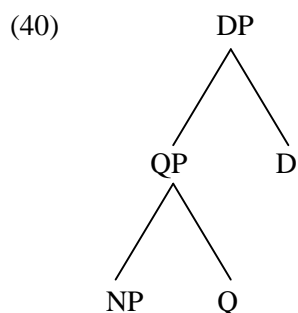


I don't know that I have persuasive evidence to decide this matter. One fact might be the existence of structures such as that discussed in the following section, in which the quantifier clearly occurs *inside of* the DP.

4. The DP-internal modifier **coox** ‘all’

There are examples in Seri in which the quantifier **coox** occurs inside the DP, before the phrase-final determiner. In such examples it might be analyzed as the head of a quantifier phrase which is the complement of the determiner, as shown in (40).

¹⁶ Another example with the pronoun **taax**, without a quantifier, is found in (55).



The quantifier **coox**, like the verb **-cooo**, may modify a singular noun and indicate the entirety of the item. Sometimes the phrase has a meaning that seems best translated with the word ‘every’ in English. The following examples from texts primarily — all readily confirmed as very good examples — are not easily expanded on through elicitation in new contexts, although the construction is clearly productive.

- (41) **ihisax quih coox com**
 his/her.spirit the all the
*(with) all his/her heart, i.e. (earnestly)*¹⁷
- (42) **hant quih coox com**
 land the all the
all the world, everywhere
- (43) **Ziix quih quisax coox cah siifp_caha.**
 thing the who.is.alive all the/Focus s/he.will.arrive
Everyone will arrive.
- (44) **hant com iti cöihüh coox cah**
 land the on his/her.going all the/Focus
always
- (45) **zaah quih coox cah**
 day the all the/Focus
everyday
- (46) **Pedro quij izáxö coox cah**
 the his.saying all the/Focus
everything that Pedro said
- (47) **Haaho quih iti hapx_caap coox cah pti iicx popáquim ...**
 road the on that.defecates all the/Focus together near he/they.being.put
All those that defecate on the road will be gathered together ... [Pinacate 13.1]
- (48) **... hant hapáxquim coox cahx zee quih yoháa.**
 land what.is.put all the/Focus filler.material the it.is
*... everything that remains on the ground is filler material (for coils).
 (Baskets 17.5)*
- (49) **ziix quih oactim coox cah**
 thing the that.he.does all the/Focus
everything that he does

¹⁷ The plural expression *with all of their hearts* is: **iistox quih coox com**.

- (50) **Ihámoç quih coox cah ziiç_ccah quih caziim quih cohmquécöl.**
 night the all the/Focus music the that.is.pretty the I.listen.to.it
Every night I listen to pretty music.
- (51) **Haxz quih coox cah quiipaha.**
 dog the all the/Focus it.has.tail
Dogs (as a class) have tails. (Every dog has a tail.)

Some similar expressions with plural noun phrases were also readily judged grammatical, although those with singular noun phrases are much more common.

- (52) **xica quih quiistox quih coox cah**
 things the who.have.life the all the/Focus
everyone
- (53) **ixáap quih coox cah**
 days the all the
everyday

5. Scope

There are characteristics of scope of negation in Seri that are not well-understood. For example, example (54), the negative morpheme on the higher verb (‘be seen’) has scope over the adverbial clause ‘abundant’: Fish *were* seen, but they were not abundant.

- (54) **Zixám zo po-xtámt-ta t-om-p-áho-ho.**
 DepIrr-abundant-DS DepRI-Neg-Pass-see-Decl
 fish a it.being.abundant it.was.not.seen
Not many fish were seen. DF 27

This structure is paralleled by some of the examples with negative on the higher verb and a quantifier (verbal or pronominal) that is linked to the surface direct object (see (55-57)), surface subject of a passive verb (see (58)), or the surface subject of a presumably unaccusative verb (see (59-60)).

- (55) $\neg [\forall (x:\text{girls}) [(y:\text{soldiers}) \text{take}'(x)]]$

Ox tpactama xica quiziil cmajúic coi taax mos itóonec —
 then children females the those also they.carrying.them
t-cooo-ma imacálx[iha] — anxö itóonec yacálxiha.
 they.being.all they.didn't.take.them much¹⁸ they.carrying.them they.took.them
[Then] they (soldiers) took the girls — they didn't take all of them — they took a lot of them. (Hands 210.1-3) (< i-m-ac-álx, Nom-Neg-Caus-go)

- (56) **Haxaca coi cooxo hyomáho. / Haxaca tanticat coox ihyomáho.**
 dogs the all I.didn't.see.them (same)
I didn't see all of the dogs (but I did see some).
- (57) **Haxaca coi t-cooo-ma hyomáho.**
 dogs the they.being.all I didn't.see.them
I didn't see all of the dogs (but I did see some).

¹⁸ The word **anxö** is an adverb which precedes and modifies a verb and typically means “much, a lot”.

(58) \neg [\forall (x:gnatcatchers) [(y:Unspecified) call' (x)]

Po-cóoo-ta coneepisíl impáhiha.¹⁹

they.being.all gnatcatchers they.weren't.called

They weren't all gnatcatchers (that were flying over the moon). [Some were; but there were other animals flying over the moon also]. (*Moon 5.1*) (< **i-m-p-áh-ihá**, Nom-Neg-Pass-call-Decl)

(59) **Canóataj coi t-cooo imhéeliha.**

boats the they.being.all they.are.not.red

Not all of the boats are red (but some are).

(60) **Comcáac coi t-cooo immoquéptiha.**

Seri.people the they.being.all they.are.not.sick

Not all of the Seris are sick (but some are).

Of course, it is well known that this is not an ad hoc collection of grammatical terms; the concept of underlying direct object (in Relational Grammar terms), figures in the grammars of many other languages.²⁰

When the quantifier is linked to an ergative or unergative subject, the sentences are ambiguous with respect to the scope relations between negation and the quantifier. Sentence (61) is from a text, and the meaning is clearly one where the quantifier has scope over the negative. The sentences in (62-63) show that these types of sentences do not *necessarily* have this kind of interpretation, but they *may* have.

(61) \forall (x:old-people) \neg [able-to-walk' (x)]

Comcáac queeej hizi_quiim coi t-cooo icálx itcmáaj ...

Seri.people old who.were.with.us the they.being.all to.go they.not.knowing

None of the old people who were with us could walk ... (*Tiburón Trip-X 36.1-2*)

(62) a. **Haxaca coi t-cooo yomálx.**

dogs the they.being.all they.didn't.go

None of the dogs went.

b. **Haxaca coi t-cooo yomálx xo pac yoolx.**

dogs the they.being.all they.didn't.go but some they.went

Not all of the dogs went, but some went.

(63) **Haxaca coi t-cooo tmalxiho.**

dogs the they.being.all they.didn't.go

None of the dogs went. Or Not all of the dogs went.

(ambiguous reading)

Of course, pointing out these apparent correlations between the syntactic structure and the kinds of interpretation that are obtained is not the same as providing an analysis that actually explains them. At this time, however, I do not have such an analysis.

¹⁹ An alternative form of this sentence, with the realis form **t-cooo ma** at the beginning is also possible. The difference in meaning, if any, is very slight.

²⁰ Of course, many other current syntactic frameworks propose something (either syntactic or semantic) that is meant to be equivalent.

6. Conclusion

The expressions for 'all' in Seri are unusual in that they are primarily either verbal or pronominal. The one structure which appears most similar to that of more well-known languages is one which is most restricted in usage.

While more work needs to be done to verify and explore the facts, there is apparently a difference in scope between the quantifier and the negative which is related to differences in the structure of the sentences involved. Negation has scope over the quantifier-linked NP that is an underlying direct object. Negation may or may not have scope over a quantifier-linked NP that is an underlying subject.

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