Event plurality in Seri [*]

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1.   Introduction

Seri[1] is renowned for its complex verbal morphology, displaying a large amount of allomorphy and a high degree of paradigmatic variety (studied in detail in Marlett 2016, Baerman 2016). In particular, typical Seri verbs have four stem forms, distinguished by stem alternations and/or affixation, encoding at least two categories: the first category uncontroversially marks subject number while the second category (CATEGORY-2) is more elusive and has been described in previous work (Moser 1961, Marlett 2016, Moser & Marlett 2010) as reflecting (combinations of) (i) event number, (ii) object number, or (iii) grammatical aspect. All these analyses rely on the intuition that Category-2 is related to multiplicity in the event domain and we will gloss the forms encoding multiplicity with MULT. In this paper, we examine the semantics of the verb stem-suffix forms in more detail. We show that MULT forms require multiple events for their interpretation. We argue that while the choice of the MULT form of the stem has aspectual effects and interacts with object number, MULT forms cannot be analysed as marking imperfective grammatical aspect or plural object number as such. We propose that MULT forms are better analysed as marking event plurality, patterning with event plurality markers described in the literature (e.g. Laca 2006). More precisely, according to the analysis we present MULT forms modify the lexical aspect

[1]Seri is spoken in the state of Sonora (northwest Mexico), in two villages on the coast of the Gulf of California: *Haxöl Iihom*/El Desemboque and *Socaaix*/Punta Chueca. It is a language isolate (Marlett 2007), spoken by approximately 900 speakers (Ethnologue 2007 estimate). We mainly worked with 6 speakers in the village of *Haxöl Iihom*/El Desemboque. The data presented here were collected over 3 fieldtrips to the village of El Desemboque: by Carolyn O'Meara in January/February 2017 and November/December 2017, and by Jeremy Pasquereau in November/December 2017 and April 2018. Data from these fieldtrips is indicated with a reference to one of our data files. Data from other sources are cited.

of the basic eventuality, imposing an interpretation involving multiple events that can be distributed over times or over arguments, but not over locations or occasions.

The paper is organised as follows. We first introduce the basic properties of the verb-form alternations in Seri (section 2). In section 3 we examine the three analytical options proposed in the literature for Seri verb stems. We show that the MULT forms do not have the properties expected of plural object number marking or imperfective grammatical aspect but instead pattern with verbal event plurality markers. In section 4 we examine the semantic profile of MULT forms as compared to other verbal plurality markers described in the literature. In section 5, we argue that MULT forms are best analysed as operating an eventuality modification (i.e. derived lexical aspect or DERIVED SITUATION ASPECT in Smith 1991's terms) yielding frequentative or incremental semantics. We show that the semantic contribution of MULT forms is similar to frequentative and incremental periphrases described for Romance in Laca 2006, with the interpretation of the MULT forms depending to a large extent on the telicity of the embedded predicate. Section 6 concludes.

2. Verb form alternations in Seri

The majority of verbs in Seri have at most 4 non-predictable stem forms as in (1).[2]

(1)	Form A	Form B	Form C	Form D		(Moser & Marlett 2010, 243)
	-panzx	-panozxim	-pancojc	-pancoxlca	'run'	

One contrast that distinguishes the stem forms is clearly linked to subject number (Marlett 2016, 431): singular subjects appear with the forms A and B, plural subjects with the forms C and D, as illustrated in (2).[3]

(2)   *Subject-number forms* [EDSEI19ABR2018AMMO]

			I ran		we ran
Form-A	Moxima		ihp-yo-panzx.	*	ha-yo-panzx.
Form-B	Moxima		ihp-yo-panozxim.	*	ha-yo-panozxim.
Form-C	Moxima	*	ihp-yo-pancojc.		ha-yo-pancojc.
Form-D	Moxima	*	ihp-yo-pancoxlca.		ha-yo-pancoxlca.
	yesterday		1SG-RLS.YO-run		1PL-RLS.YO-run

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[2]Based on the dictionary (Moser & Marlett 2010), Baerman (2016) extracted 952 verbs with at most 4 distinct forms, and 38 with more than 4 distinct forms.

[3]The following abbreviations are used in this paper. 1 – first person, 2 – second person, 3 – third person, ABS – absolute, ART – article, AW – away, COMP – complementizer, DCL – declarative, DEF – definite, DEM – demonstrative, FLX – flexible, FOC – focus, GER – gerund, HZ – horizontal, IPFV – imperfective, INDF – indefinite, INF – infinitive, IO – indirect object, LOC – locative, MULT – multiple, NMLZ – nominalization, PASS – passive, PFV – perfective, PL – plural, PON – proposition/oblique nominalizer, POSS – possessive, PST – past, RLS.YO – realis yo form, SBJ – subject, SG – singular, UNSPEC – unspecified, VRT – vertical.

Following Marlett 2016 and Baerman 2016, we assume that Seri verb stems lexicalize two categories: subject number and a second category, that has previously been analysed variously as grammatical aspect, object number or event number (3).

(3) *Stems of* -panzx *'run'* (Moser & Marlett 2010, 243)

Category 1: subject number	Category-2: aspect/object/event number?	
		MULTIPLE
singular	Form A *-panzx*	Form B *-panozxim*
plural	Form C *-pancojc*	Form D *-pancoxlca*

The analysis of verb stems in terms of two categories implies that the forms B and D have a semantically constant meaning component in common. The different analyses proposed share the insight that this meaning component expressed by the forms B and D is related to some form of multiplicity related to the event domain (event number, imperfective aspect, object plurality). Better understanding the exact nature of the distinction is the subject of this study, we use MULT to gloss the forms marking multiplicity in the domain of Category-2 (rather than IPFV or PL used in some descriptions) giving the combined glosses in (4).

(4) *Glossing of stems of* -panzx *'run'*

Category 1: subject number	Category-2: aspect/object/event number?			
				MULTIPLE
singular	Form A	*-panzx*	Form B	*-panozxim*
Gloss		run.SG		run.MULTSG
plural	Form C	*-pancojc*	Form D	*-pancoxlca*
Gloss		run.PL		run.MULTPL

As shown in Baerman 2016, as far as we can tell, there is no consistent mapping between semantics and morphology. In particular, what makes the system complex and arbitrary is that subject number and Category-2 draw from the same inventory of exponents (for the most part) in such a way that a specific exponent does not realize consistent values.[4] We illustrate the morphological complexity of this system in (5) with the verbs used in this paper. Observe that in this sample the suffix *-oj* is found to mark all four forms in table (5), while *-im* is found with forms A, B, and D. Because of the specificity of Seri, in addition to tracking the meaning of morphological exponents, our task is to tease this meaning out of a highly ambiguous system where the same exponents are used to express related though orthogonal meanings, i.e. what we labelled 'subject number' and 'Category-2'. Following previous work by Marlett and Baerman, the stems are given in the order in (1) based on the forms given in the dictionary (Moser & Marlett 2010)).

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[4]Baerman (2016, 17) shows that *-(t)im* is found with all four forms, although the presence of the suffix *-(t)im* tends to encode MULT, see Baerman (2016, 17, 27) for details.

(5) *Verbs used in this paper* (Moser & Marlett 2010)[5]

FORM A	FORM B	FORM C	FORM D	GLOSS
-panzx	-panozxim	-pancojc	-pancoxlca	'run'
-atax	-ataxim	-alx	-alaxolca	'go'
-aaspoj	-aasipl	-atoosiploj		'write'
-oos	-oostim	-oosi		'sing'
-ahit	-ahitim	-aaitoj	-aaitolca	'eat'
-om[6]	-omam	-oiti	-iitoj	'lie'
conti-a[7]	conti-atim	conti-at	conti-atolca	'go'
-actim	-acatim	-acloj		'cut'
isoj[8] cö-apxazl	isoj cö-apxazalim	isoj cö-apxazalam	(isoj cö-apxalacam)[9]	'hug' (lit. cover his/her body)
-exl	-exelim	-exej	-exejam	'buy'
-iih	-iihtim	-oii	-oiitim	'be.FL'
-acat	-acatim	-acat	-acatim	'be bitter'[10]
-paaisx	-paasxim	-paaasxaj		'be clean'

The pre-stem slots host a number of prefixes encoding other distinctions (e.g. person, realis/irrealis) that do not interact with the choice of stem form once subject number is factored out. Thus if the subject is singular, any singular stem (A or B) can be used with any person/TAM combination as exemplified by the person and the YO-realis prefixes in (6) [EDSEIFLD2POST].

(6) a. **ihp-yo**-panzx
        1SG-RLS.YO-run

        'I ran/run.'

    b. **in-yo**-panzx
        2SG-RLS.YO-run

        'You ran/run.'

    c. **yo**-panzx
        [3]RLS.YO-run

        'He ran/runs.'

In what follows we examine the meaning of the MULT forms.

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[5]The stems are given without a TAM or nominalization prefix, which is obligatory for these forms to be used in a sentence. In Moser & Marlett (2010), the citation form of verbs is the subject nominalized form.

[6]Some verbs lexicalise a prefix *co-* or *cö-* (depending on the following sound) (Marlett 2016, 427). In its productive use *co-/cö-* marks agreement with a third person indirect or oblique object. This can be seen in this verb's citation form *cocom*.

[7]The verb *conti-a* 'go' is morphologically complex. It combines the prefix *co-* and the directional prefix *nt-* indicating centrifugal motion (Marlett 2016, 441), which both precede the slot for TAM or nominalization prefixes, left empty here and marked with a hyphen.

[8]The Spanish verb *abrazar* 'hug' is translated to Seri as 'cover his/her/its body' combining *isoj* 'his/her/its body' and *cö-apxazl* 'cover, put on top of' (see Marlett 2016, 320).

[9]Some of our informants do not know the form *isoj cö-apxalacam* and do not make a multiplicity distinction with a plural subject.

[10]In the dictionary, four different forms are given: A=-acat, B=-acatim, C=-acataj, D=-acatalca. However, our informants do not know forms C and D and use forms A and B with singular and plural subjects.

3. Category-2 in Seri verbs marks event plurality

In the literature, the MULT forms have been described as encoding three kinds of information. We formulate these different analyses as the hypotheses in (7) to be tested here.

(7) a. Hypothesis 1: MULT forms require **plural objects**.
  b. Hypothesis 2: MULT forms require **imperfective aspect**.
  c. Hypothesis 3: MULT forms require **event plurality**.

Section 3.1 shows that Hypotheses 1 and 2 cannot be maintained. Section 3.2 provides evidence that MULT forms pattern with verbal markers of event plurality described for other languages in the literature.

3.1 Category-2 does not encode object number or grammatical aspect

The hypothesis that Category-2 encodes object number with the MULT forms necessarily cross-referencing the plurality of the object (Marlett 2016, 443) cannot be maintained. Firstly, singular objects can combine with MULT forms of the verb (8) and inversely plural objects can occur with the A and C forms that do not mark MULT (9).

(8) Maria quih   hapaspoj   iiqui   icaaca   z
     Maria DEF.FLX SBJ.NMLZ.PASS.write 3POSS.toward PON.ABS.POSS.send INDF

     iyaaspoj/   **iyaasipl**.
     3;3.RLS.YO.write.SG/ **3;3.RLS.YO.write.MULTSG**

     'Maria wrote a letter/wrote a letter on and off.' [EDSEI27NOV2017DRPM, elicitation]

(9) Juan quih   sahmees hizcoi **iyoohit/**   iyoohitim.
     John DEF.FLX orange   DEM.PL **3;3.RLS.YO.eat**.SG/ 3;3.RLS.YO.eat.MULTSG

     'John ate those oranges/ate those oranges various times.' [Speaker Comment on MULT form: He ate one from the group, came back and ate some more from the group, and so on.] [EDSEIFEB2017DRPM, elicitation]

Secondly, intransitive verbs can have MULT forms as illustrated in (10) (see also Table 5).

(10) Maria quih   hant ifii   coox cah   x,
      Maria DEF.FLX land 3POSS[PON].be.morning every DEF.FLX.FOC UNSPEC.TIME

      iglesia cap   contiya/   **contiyatim**.
      church DEF.VRT 3IO.AW.RLS.YO.go.SG **3IO.AW.RLS.YO.go.MULTSG**

      'Every morning, Maria went to church/ went to church several times.'
      [EDSEI27NOV2017DRPM, elicitation]

In the grammar of Seri[11], Marlett (2016, 442) analyses Category-2 as grammatical aspect, with the A and C forms indicating perfective and MULT forms indicating imperfective

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[11]Marlett 2016 is the latest version of the as yet unpublished grammar of Seri.

grammatical aspect. Cross-linguistically imperfective forms have two main sub-meanings (Comrie 1976, 24 , Bybee et al. 1994, 151, Cover & Tonhauser 2015, 324): habitual and continuous. Both meanings are illustrated with Spanish examples in (11).

(11) a. *Habitual*
María **iba** a la iglesia todos los días. (Spanish)
María **go.IPFV.PST.3SG** to the church all the days
'María went to church every day.'

b. *Continuous*
Mientras que Juan **corría** a casa,
while COMP Juan **run.IPFV.PST.3SG** home

se fue la luz.
REFL go.PFV.PST.3SG the light
'While Juan was running home, the light went out.'

The Seri MULT forms do not have these typical imperfective readings. First, MULT forms do not mark habituality: for instance in the context in (12) which describes a habitual event, we would expect a form marking habituality to be possible, however the Seri sentence with the MULT form *contiyatim* was judged false and only the A form *contiya* was judged true.

(12) Context: Maria died last year. All her life, she went to church once every day.

Maria quih hant ifii coox cah x,
Maria DEF.FLX land 3POSS[PON].be.morning every DEF.FLX.FOC UNSPEC.TIME
iglesia cap **contiya/** **#contiyatim**.
church DEF.VRT **3IO.AW.RLS.YO.go.SG/** **3IO.AW.RLS.YO.go.MULTSG**
'Every morning, Maria went to church.' [EDSEI27NOV2017DRPM, elicitation]

Secondly, MULT forms do not allow durative readings.[12] In the context in (13), although the time of the running is extended and includes the time of the electricity going out, the sentence with the MULT form of the verb meaning 'run' is judged false.

(13) Context. Yesterday my brother ran in a race from point A to B. While he was running, the power went out.

Hoyacj quih cöipanzx **/ #cöipanozxim**
1POSS.brother DEF.FLX 3IO.3POSS.PON.run.SG **3IO.3POSS.PON.run.MULTSG**
iti, hamac canoj quih iicot cöyooctim.
while power DEF.FLX 3POSS.between 3IO.RLS.YO.cut.SG
'While my brother was running, the electricity went out.'
[EDSEI27NOV2017DRPM, EDSEI29NOV2017GH, elicitation]

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[12]This example also shows that the MULT forms do not mark that the time of the event includes the topic time, a Reichenbachian time-relational definition of imperfective aspect, see Cover & Tonhauser 2015, 323.

If MULT forms encoded imperfective aspect, the fact that they are not felicitous with habitual or continuous readings would be unexpected. The analysis of Category-2 as grammatical aspect is therefore problematic.

As an analysis of MULT forms in terms of object number or grammatical aspect does not seem viable, we now explore an analysis of MULT forms as encoding event plurality.

3.2   Category-2 as event number

MULT forms require a plurality of events. When the context forces a purely durative reading as in (14a), or when a plural argument is involved in a single collective event (15), MULT forms are not felicitous.

Example (14a) is judged odd with the MULT form of 'lie', since bears hibernate all winter and therefore no plurality of sleeping events is available to license the MULT form. Compare this example with (14b) where the MULT form is possible: in the most salient scenario for humans over a summer sleeping and waking periods alternate, making a plurality of identifiable events available.

(14) a. Yaacö hamasol quih   ihaapl   ccoo   tintica   iti
          bear   DEF.FLX 3.POSS.PON.cold SBJ.NMLZ.all DEM.AW while

          zaaj z   ano   coyom/**#coyoomam**.
          cave INDF [3POSS]in 3IO.RLS.YO.lie.SG/**3IO.RLS.YO.lie.MULTSG**

          'The bear slept in a cave all winter.' [EDSEIFEB2017DRPM, elicitation]

      b. Juan quih   icozim   ccoo   tintica   iti   hehean
          Juan DEF.FLX 3.POSS[PON]hot SBJ.NMLZ.all DEM.AW while desert

          com   ano   coyom/**coyomam**.
          DEF.HZ [3.POSS]in 3IO.RLS.YO.lie.SG/**3IO.RLS.YO.lie.MULTSG**

          'Juan slept in the desert all summer.'
          [SC on MULTSG form: He does not sleep there every night]

In example (15) the context specifies that only one event of hugging the children took place. The sentence with the MULT form is judged false by speakers, confirming that MULT forms require a plurality of events (and not just a plurality of objects).

(15)   Context: I hugged two children at the same time, just once.

        Xicaquiziil coi   isoj   cohyapxazl/   **#cohyapxazalim**.
        children   DEF.PL 3POSS.body 3IO.1.RLS.YO.cover.SG **3IO.1.RLS.YO.cover.MULTSG**
        'I hugged the children (lit. I covered the children's body).'
        [EDSEI23NOV2017DRPM, elicitation]

We saw above that (13) did not license the MULT form of *-panzx* 'run'. If we change the context to a treasure hunt that makes separate running events between clues salient, the use of the MULT form *-panozxim* 'run' becomes possible (16).

(16) Context: Yesterday my brother did a treasure hunt with other children. While he was playing the power went out.

Hoyacj	quih	cöipanzx	/ **cöipanozxim**
1POSS.brother	DEF.FLX	3IO.3POSS.PON.run.SG	**3IO.3POSS.PON.run.MULTSG**

iti,	hamac canoj	quih	iicot	cöyooctim.
while	power	DEF.FLX	3POSS.between	3IO.RLS.YO.cut.SG

'While my brother was running (here and there), the electricity went out.'

[EDSEI27NOV2017DRPM, EDSEI29NOV2017GH, elicitation]

These examples confirm that the felicitous use of MULT forms requires a context with a plurality of events.

4. The semantic profile of Seri MULT forms

We have seen that MULT forms require pluralities of events for their interpretation and do not allow durative or habitual readings found with imperfective grammatical aspect cross-linguistically. We therefore conclude that MULT forms behave like verbs with markers of event plurality. It is well-known, however, that what has been called 'event plurality' does not form a uniform class cross-linguistically (Dressler 1968, Cusic 1981, Xrakovskij 1997). In what follows, we examine therefore the semantic profile of MULT forms in more detail by comparing them with other verbal markers of event plurality described in the literature.

4.1 Cross-linguistic properties of verbal plurality markers

MULT forms pattern with verbal plurality markers in other languages with respect to two properties. Firstly, exact cardinality expressions like cardinal adverbs and cardinal arguments do not count event iterations of event plurality markers (Van Geenhoven 2005, Yu 2003, Laca 2006). And secondly, unlike frequency adverbs, the plurality expressed by verbal plurality markers does not allow an interpretation multiplying singular indefinites (Van Geenhoven 2005, Laca 2006, Wood 2007). We now examine MULT forms in Seri with respect to both these properties.

In languages like English, or Spanish, nominal plural markers are compatible with cardinal expressions counting the cardinality of the plurality (17).

(17) *six oranges* ≈ six times one orange

In contrast, for verbal plurality markers, the combination of a verbal plural form with a cardinality expression does not allow counting of the cardinality of the complex event. Cross-linguistically the cardinality of the event plurality expressed by verbal plurality markers cannot be specified by cardinality expressions (Xrakovskij 1997), as illustrated in (18) by the unacceptability of the Chechen verb stem marking verbal plurality with the cardinality expression *yttaza* 'ten times' to describe a total of 10 iterations of drinking tea (Yu 2003).[13]

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[13]In Yu's glosses ERG marks the ergative, PLR a pluractional verb, WP the witnessed past.

(18)   adama   takhan **yttaza**   chai **melira**   / **#miillira**   (Chechen)
         Adam.ERG today **ten.times** tea **drink.WP**   **drink.PLR.WP**
         'Adam drank tea ten times today.' (Yu 2003, 303,ex27a/b)

Seri MULT forms pattern with verbal plural markers in this respect: the exact cardinality expression *isnaap yoozoj* in (19) is considered odd with the MULT form *ihexelim* 'buy' and the speaker comment makes clear that the cardinal does not bear on the number of repetitions expressed by the MULT form but on the number of occasions on which a repetition of orange-buying events takes place.

(19)   Icatoomec hino   coofin   tintica   Juan quih   sahmees
         PON.week 1POSS.in SBJ.NMLZ.happen DEM.AW Juan DEF.FLX orange

         pac   ihexl   / **#ihexelim**   **isnaap**   **yoozoj**[15].
         INDF.PL INF.buy.SG   **INF.buy.MULTSG 3POSS:breast RLS.YO.one**

         'Last week, Juan bought oranges six times.'
         [SC on MULT form: It's weird. It sounds like he bought oranges six times various times.] [EDSEI21ABR2018DRPM, elicitation]

As pointed out in Van Geenhoven 2005 and Laca 2006 the pluractional markers in West Greenlandic and Spanish contrast with iterative adverbs in that verbal plural markers do not multiply singular indefinites. In (20a) the adverbial *varias veces* 'several times' allows multiplication of the singular indefinite while the Spanish periphrases *andar/ir*+gerund do not (20b, c) (see Laca 2006).

(20)   a.   **Varias veces** escribió   una carta. (Spanish)
             several times wrote.PFV.PST.3SG a   letter
             'Several times s/he wrote a letter.' —→ok **a different letter** each time

       b.   **Andaba**   escribiendo una carta.
             walk.IPFV.PSG.3SG write.GER   a   letter
             'S/he wrote a letter on and off.' —→(parts of) **the same letter** over time

       c.   **Iba**   escribiendo una carta.
             go.IPFV.PST.3SG write.GER   a   letter
             'S/he gradually wrote a letter.' —→**the same letter** is written gradually

Like other verbal plurality markers, the Seri MULT forms do not multiply singular indefinites. In (21) the MULT form of *-aaspoj* 'write' does not multiply the indefinite singular object *hapaspoj iiqui icaaca zo* 'a letter'. The speaker comment makes clear that the sentence is interpreted as a complex event of writing the same letter over several occasions.

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[15]The expression for *six* is an addition of *one* to something (Marlett 2016, 456).

(21) Maria quih   hapaspoj   iiqui
     Maria DEF.FLX SBJ.NMLZ.PASS.write 3POSS.toward

     icaaca   z   **iyaasipl**.
     PON.ABS.POSS.send INDF **3;3.RLS.YO.write.MULTSG**

     'Maria wrote a letter.' [SC: She didn't finish it, came back to write it.]
     [EDSEI27NOV2017DRPM, elicitation]

The following section examines the distributive configurations found with Seri MULT forms.

4.2 Distributive dependencies

Cross-linguistically, verbal plurality markers differ with respect to the distributive dependencies they allow between the multiplicity of events on the one hand and pluralities of participants, locations, and/or times on the other hand (Dressler 1968, Cusic 1981, among others).

A Seri MULT form allows an interpretation with event plurality distributed to individuals making up a plural argument: in (22), the MULT form is licensed by a multiplicity of events of hugging a single child.

(22) Context: I hugged two children. I hugged the first one only once, and I hugged the second one once too. [EDSEI23NOV2017DRPM, elicitation]

     Xicaquiziil coi   isoj   cohyapxazl/   **cohyapxazalim**.
     children   DEF.PL 3POSS.body 3IO.1.RLS.YO.cover.SG **3IO.1.RLS.YO.cover.MULTSG**

     'I hugged the children.' (lit. I covered the children's body)

With respect to this property, the Seri MULT form patterns with English *keep +V-ing* and unlike the event plurality marker *kí-*VERB-*q‖o* in ǂHoan (Collins 2001). English *keep+ V-ing* allows distributive dependencies with respect to a plural argument (23a): none of the individuals making up the referent of *the guests* has to arrive several times for *keep arriving* to be felicitous. This contrasts with the event plurality marker *kí-*VERB-*q‖o* in ǂHoan (23b) (Collins 2001, 467-8, exs 32/33): for this marker, an interpretation in which each of the individuals making up the plurality only participates in a singular event is not felicitous. As Collins stresses, the marker *kí-*VERB-*q‖o* can only be used if each individual making up the referent of *they* is involved in a plural event.

(23) a. The guests kept arriving. ⟶Ok if each guest only arrives once.

     b. tsi i   kí-   'am-q‖o(ǂHoan)
        3PL PAST ki[PL] eat-around

       'They ate around.'
       They are going around (separately or together) eating in different places.
         ⟶Cannot mean Chris, Titi and Leah each eat once: Chris ate in one place,

Titi ate in another place and Leha ate in a third place.)

From the available evidence it appears that MULT forms in Seri are not licensed by distributive dependencies over locations. In (24a) the MULTSG form of 'cut' is not felicitous if the event of the light going out just happened in one location at one time, as expected. However, it is not felicitous either if the lights go out in all the houses in the village at the same time (24b).

(24)   a.   Context: Yesterday, my brother ran a race from point A to point B. While he was running, the power went out in our kitchen. We stayed without power for a few hours.

Hoyacj	quih	coipanzx	iti,	hamac	canoj	quih
1POSS.brother	DEF.FLX	3IO.3POSS.PON.run	while	power		DEF.FLX

iicot	cöyooctim/	**#cöyoocatim.**
[3POSS]between	3IO.RLS.YO.cut.SG/	**3IO.RLS.YO.cut.MULTSG**

'While my brother was running, the electricity went out.' [EDSEIFLD2POST, elicitation]

   b.   Context: Yesterday, my brother ran a race from point A to point B. While he was running, the power went out in every house in the village at the same time because the generator broke down. We stayed without power for a few hours.

Hoyacj	quih	coipanzx	iti,	hamac	canoj	quih
1POSS.brother	DEF.FLX	3IO.3POSS.PON.run	while	power		DEF.FLX

iicot	cöyooctim/	**#cöyoocatim.**
3POSS.between	3IO.RLS.YO.cut.SG/	**3IO.RLS.YO.cut.MULTSG**

'While my brother was running, the electricity went out.' [EDSEIFLD2POST, elicitation]

The MULT-forms in Seri are not licensed by a distributive dependency between the plurality of events and a plurality of occasions expressed by a temporal adjunct either: the sentence in (25) with the MULTSG-form *contiyatim* 'go' is judged false in a context where there was just one event of going to church per morning. In other words, the plurality of events expressed by the MULTSG form takes scope under the frequency expression 'every morning'.

(25)   Context: Maria died last year. All her life, she went to church once every day.

Maria	quih	hant	ifii	coox	cah	x
Maria	DEF.FLX	land	3POSS.PON.be.morning	every	DEF.FLX.FOC	UNSPEC.TIME

iglesia	cap	contiya	/ # **contiyatim.**
church	DEF.VRT	3IO.AW.RLS.YO.go.SG	**3IO.AW.RLS.YO.go.MULTSG**

'Every morning, Maria went to church.' [EDSEI27NOV2017DRPM, elicitation]

Note however that the sentence with the MULTSG form is judged true in (26) if there are several events of Maria's going to church per day. The sentence with the MULTSG form only has the meaning that Maria went to church several times every morning.

(26)　Context: Maria died last year. All her life, she went to church several times every day.

Maria	quih	hant	ifii	coox	cah	x
Maria	DEF.FLX	land	3POSS.PON.be.morning	every	DEF.FLX.FOC	UNSPEC.TIME

iglesia	cap	**contiyatim**.
church	DEF.VRT	**3IO.AW.RLS.YO.go.MULTSG**

'Every morning, Maria went to church several times.' [EDSEI27NOV2017DRPM, elicitation]

To recapitulate, the plurality of events denoted by Seri MULT forms can distribute over individuals (22) and times (14b), but not over occasions expressed by a lexical adverbial expression (25), nor over locations (24b).

5.　MULT forms as eventuality modification

We have argued that MULT forms pattern with verbal markers of event plurality. More precisely we propose to analyse Category-2 as eventuality modification (or derived situation aspect in Smith 1991's terms), adapting the analysis for a subset of Romance periphrases proposed in Laca (2005, 2006). This section first shows that MULT forms have additional semantic content not found in imperfective grammatical aspect marking (section 5.1). In section 5.2 we provide evidence that MULT-marked forms can change the lexical aspect of the eventuality. This provides support for the proposed analysis of MULT-marking as eventuality modification (i.e. derived lexical aspect).

5.1　Frequentative and incremental readings

Like some other event plurality markers, e.g. *ir/andar* + gerund periphrases in Spanish, described in Laca 2006, the MULT form has frequentative and incremental event plurality readings. Consider the Spanish examples from Laca 2006. Example (27a) with *andar* has a frequentative reading (corresponding to FREQ in Van Geenhoven 2005) where sub-events of reading War and Peace are not ordered with respect to each other and are temporally separated. Example (27b) with *ir* has a directed incremental reading (corresponding to INCR in Van Geenhoven 2005), where sub-events of reading War and Peace are ordered incrementally towards completion of a drawn out book reading event.

(27)　a.　María anda leyendo La Guerra y la Paz. (Spanish)
　　　　　María walks read.GER War and Peace.
　　　　　'María is reading War and Peace on and off.'

b.   María fue   leyendo   La Guerra y la Paz.
        María went   read.GER   War and Peace.

        'María read War and Peace incrementally.' (Laca 2006, ex 6c)

MULT forms allow frequentative and incremental readings. Furthermore, whether one or the other reading is possible correlates with atelic and telic construal of the underlying predicates (resembling the semantics described for movement periphrases in Romance in Laca 2005).

The MULT form of a **telic** predicate with a singular object, e.g. *hapaspoj iiqui icaaca z -aasipl* 'write a letter' conveys that the event is incremental and directed (28) (with a plural object a reading with a distributive dependency between the event plurality and the plural argument is possible, see (22)).

(28)   Maria quih   hapaspoj   iiqui   icaaca
           Maria DEF.FLX SBJ.NMLZ.PASS.write 3POSS.toward PON.ABS.POSS.send

           z   **iyaasipl**.
           INDF.ART **3;3.RLS.YO.write.MULTSG**

           'Maria wrote a letter.' [SC: She didn't finish it, came back to write it.]

On the other hand, the MULT form of an **atelic** predicate, e.g. *-iihtim* 'be (in location)' conveys that the eventuality of being in the desert is intermittent (14b) or undirected (29).

(29)   Pancho quih   hehean com   ah   ano   **yiihtim**.
           Pancho DEF.FLX desert   DEF.HZ FOC [3POSS].in **RLS.YO.be.LOC.MULTSG**
           'Pancho walks around in the desert.' [EDSEI23NOV2017DRPM, elicitation]

5.2   Derived lexical aspect

We propose to analyse Seri MULT forms as eventuality modification, i.e. as derived lexical aspect. This analysis is supported by two observations.

First, MULT forms change the lexical aspect of the predicate. The verb *-ooxi* 'finish' is only good with activities/accomplishments in Seri and it can therefore be used as a diagnostic for lexical aspect type. As (30) shows, the singular subject form of *-iih* 'be' is not compatible with *-ooxi* while the MULTSG form *-iihtim* is felicitous in a context where, for instance, Fernando was in different locations in the desert, e.g. in a context where he has been given the job of observing and collecting data on deer in the desert for a specific amount of time and he completed the job. This contrast suggests that the MULTSG form changes the lexical aspect from a state 'be (in a location)' to an activity 'be (in different locations)'.

(30) Fernando quih   [hehean com   ano   **#cöyiih/**
      Fernando DEF.FLX desert   DEF.HZ [3POSS].in **3IO.PON.3POSS.be.LOC.SG/**

      cöyiihtim   hac]   **iyooxi**.
      3IO.PON.3POSS.be.LOC.MULTSG DEF;LOC **3;3.RLS.YO.finish**

      'Fernando finished walking (lit. being) in the desert.' [EDSEI4DEC2017DRPM, elicitation]

And secondly, if the MULT form involves an operator at the level of the temporal structure of the eventuality description, we expect it to be sensitive to the type of eventuality it combines with. This is borne out: the state *-acat* (31), for instance, cannot be in the MULT form (Marlett 2016). However, a state that has a plausible inchoative reading like *clean / become clean* allows a MULT form with the inchoative reading for the state (32).[16]

(31) Sahmees coi   cacat/   ***cácatim**   iha.
      orange   DEF.PL SBJ.NMLZ.bitter **SBJ.NMLZ.bitter.MULT** DCL

      'The oranges are bitter.' [EDSEI29NOV2017DRPM, elicitation]

(32) Hehe iti icoohitim quih   yopaaisx   / **yopaasxim**.
      table   DEF.FLX RLS.YO.clean   **RLS.YO.clean.MULT**

      'The tables are clean.' / 'The tables are becoming clean.' [SC on MULT form: But when they are still cleaning them] [EDSEI29NOV2017DRPM, elicitation]

6.   Conclusion

We have shown that MULT forms in Seri do not correlate with object plurality and that these forms do not behave as imperfective aspect markers as they do not have habitual readings (12) and do not allow simple continuous readings (14b).

We propose to analyse MULT forms as verbal event plurality marking, modifying the eventuality description to require a complex temporal structure for the event, contributing additional semantic content of intermittent or incremental action. Depending on the telicity of the complement, this results in a frequentative interpretation for atelic predicates and an incremental interpretation for telic predicates.

The MULT forms in Seri allow distribution over a multiplicity of times (14b) and plural arguments (22) but disallow distributive dependencies between a multiplicity of events and locations (24) or occasions (25) (unlike Engl. *keep+Ving* in *Marie kept going to church*).

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[16]Notice that the verb forms used are singular subject forms but the translation of the sentence uses the plural noun 'tables'. (The same sentence is acceptable with the plural subject form *-paaasxaj* too but this form does not have a MULT counterpart.) We are not sure at the moment why this is possible.

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