Pluractionality across subject number in Seri

Jérémy Pasquereau, Patricia Cabredo Hofherr

SMG (U. of Surrey), UMR 7023 CNRS (U. Paris 8)

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Background on Seri

- Seri is spoken in northwest Mexico, in two villages on the coast: *Haxöl Iihom*/El Desemboque and *Socaaix*/Punta Chueca

Figure: The Seri region in Mexico

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Figure: The Seri region in Mexico

- Isolate, approx. 900 speakers (Ethnologue 2007 estimate)

Complex morphology

- Verbs typically have up to four forms

(1)

FORM A	FORM B	FORM C	FORM D	GLOSS
-ahit	-ahit-**im**	-aait-**oj**	-aaitolca	'eat'
-apot	-apot-**im**	-apt	-apot-**am**	'pay'
-aasp-**oj**	-aasipl	-atoosipl-**oj**	-atoosipl-**oj**	'write'
-azazin-**ot**	-azazjc	-azazj-**oj**	-azazjc	'weave'

- As far as we know, inflectional classes are not predictable:
    - High degree of paradigmatic variety: the 952 verbs in Moser &
      Marlett's dictionary (2010) fall into at least 255 classes just
      according to the suffix behavior of these four paradigmatic cells
      (Baerman 2016)
    - High degree of allomorphy
- Despite the unpredictability of the morphology, the same
  syntactico-semantic distinctions are encoded across verbs

Methodology

- Work in the village of El Desemboque with 4-6 speakers (3 fieldtrips: Nov/Dec 2017, April 2018, Oct/Nov 2018)
- Elicitation (Matthewson, 2004) with Spanish as the contact language
- Attested examples, common verbs from existing texts

Verb forms

- The majority of verb stems in Seri have at least 4 non predictable forms (some have fewer, some have more)

(2)

	Form A	Form B	Form C	Form D
'run'	*-panzx*	*-panozxim*	*-pancojc*	*-pancoxlca*

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    - category 1: subject number

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- The forms have been analyzed as encoding two meaningful categories in Marlett (2016)
  - category 1: subject number
  - category 2: event plurality / aspect / object number (Moser, 1961; Moser and Marlett, 2010; Marlett, 2016)

Verb forms

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'run'	Form A	Form B	Form C	Form D
	-panzx	*-panozxim*	*-pancojc*	*-pancoxlca*

- The forms have been analyzed as encoding two meaningful categories in Marlett (2016)
  - category 1: subject number
  - category 2: event plurality / aspect / object number (Moser, 1961; Moser and Marlett, 2010; Marlett, 2016)
- 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 one form or the other

Category 1 = Subject number

(3)

	Cat. 1: subject number			
	singular		plural	
	Form A	Form B	Form C	Form D
'run'	*-panzx*	*-panozxim*	*-pancojc*	*-pancoxlca*

(4) I ran

  a. Moxima ihp-yo-panzx.

  b. Moxima ihp-yo-panozxim.
     yesterday 1SG-REALIS.YO-run

  c. *Moxima ihp-yo-pancoj.

  d. *Moxima ihp-yo-pancoxlca.

(5) We ran

  a. Moxima ha-yo-pancojc.

  b. Moxima ha-yo-pancoxlca.
     yesterday 1PL-REALIS.YO-run

  c. *Moxima ha-yo-panzx.

  d. *Moxima ha-yo-panozxim.

Introduction
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MULT = pluractional
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MULT differs across subject number
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Category 2 = ?

(6)

'run'		Form A	Form B
Cat. 1: sbj. number	singular	*-panzx*	*-panozxim*
	plural	Form C	Form D
		-pancojc	*-pancoxlca*

Category 2 = ?

(6)

'run'	singular	Form A	Form B
Cat. 1: sbj. number		*-panzx*	*-panozxim*
	plural	Form C	Form D
		-pancojc	*-pancoxlca*

Category 2 = ?

Question 1

What do Form B and Form D mean?

(6)

'run'		Cat. 2: ?	
		?	?
Cat. 1: sbj. number	singular	Form A *-panzx*	Form B *-panozxim*
	plural	Form C *-pancojc*	Form D *-pancoxlca*

Category 2 = ?

Question 1

What do Form B and Form D mean?

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'run'		Cat. 2: **gram. aspect**	
		perfective	imperfective
Cat. 1: sbj. number	singular	Form A *-panzx*	Form B *-panozxim*
	plural	Form C *-pancojc*	Form D *-pancoxlca*

- Marlett 2016 analyses category 2 as:
  - **aspect**: *perfective* and *imperfective*

Category 2 = ?

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What do Form B and Form D mean?

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'run'		Cat. 2: **obj. number**	
		singular	plural
Cat. 1: sbj. number	singular	Form A *-panzx*	Form B *-panozxim*
	plural	Form C *-pancojc*	Form D *-pancoxlca*

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Category 2 = ?

Question 1

What do Form B and Form D mean?

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'run'		Cat. 2: **event number**	
		singular	plural
Cat. 1: sbj. number	singular	Form A *-panzx*	Form B *-panozxim*
	plural	Form C *-pancojc*	Form D *-pancoxlca*

- Marlett 2016 analyses category 2 as:
  - **aspect**: **perfective** and **imperfective**
  - **object number**: **singular** and **plural**
  - **event number** **singular** and **plural** (Moser, 1961; Marlett, 1981, 2016)

Category 2 = ?

Question 1

What do singular subject and plural subject MULT-forms mean?

(6)

'run'		Cat. 2: ?	
		unmarked	**multiple**
Cat. 1: sbj. number	singular	Form A *-panzx*	Form B *-panozxim*
	plural	Form C *-pancojc*	Form D *-pancoxlca*

- We use the provisional label ***multiple*** (glossed MULT)

Category 2 = ?

Question 2

Is there a category 2?

- Are MULT SG and MULT PL forms part of the same paradigm as in (7)?

(7) Same-paradigm hypothesis

'run'		Cat. 2: ?	
		unmarked	**multiple**
Cat. 1: sbj. n.	singular	Form A *-panzx*	Form B *-panozxim*
	plural	Form C *-pancojc*	Form D *-pancoxlca*

Category 2 = ?

Question 2

Is there a category 2?

- Are MULT SG and MULT PL forms part of different paradigms as in (8)?

(8) Different-paradigms hypothesis

'run'		unmarked	**multiple-1**	**multiple-2**
Cat. 1: sbj. n.	singular	Form A *-panzx*	Form B *-panozxim*	
	plural	Form C *-pancojc*		Form D *-pancoxlca*

Outline

1. Determine the meaning of singular subject MULT-forms

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2. Decide whether singular and plural subject MULT-forms belong in the same paradigm
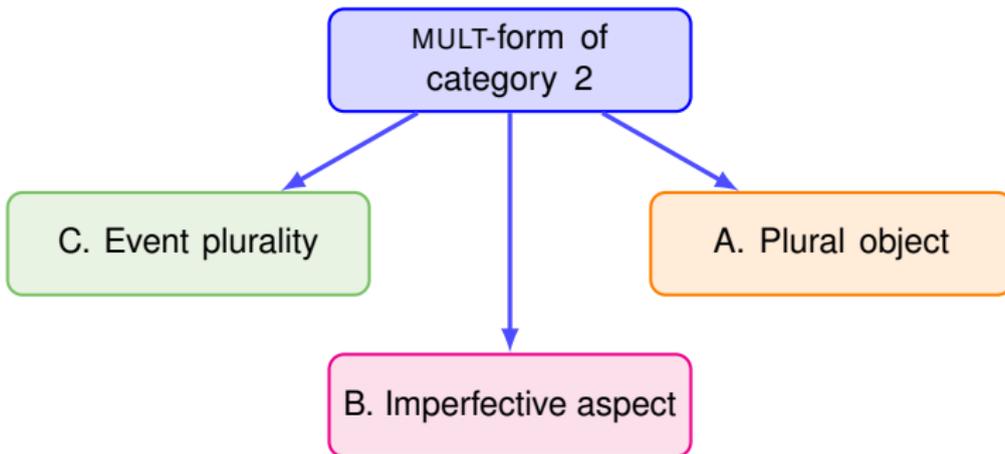
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2. Decide whether singular and plural subject MULT-forms belong in the same paradigm
   2.1 Show that the arguments for the meaning of singular subject MULT-forms carry over to plural subject MULT-forms

Outline

1. Determine the meaning of singular subject MULT-forms
2. Decide whether singular and plural subject MULT-forms belong in the same paradigm
   2.1 Show that the arguments for the meaning of singular subject MULT-forms carry over to plural subject MULT-forms
   2.2 Compare distributive dependencies of singular and plural subject MULT-forms

Part 1: meaning of singular subject MULT-form

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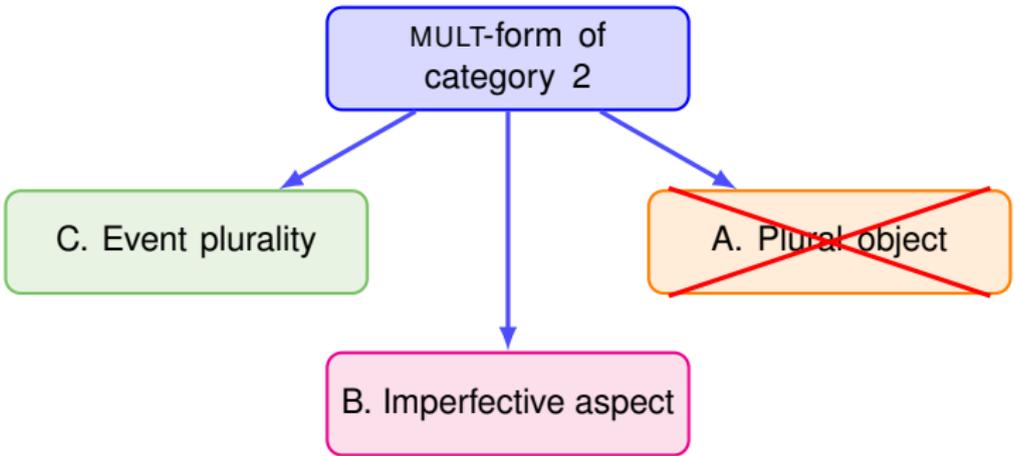○○○○

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Three hypotheses

Marked form does not mark object number

- Plural object can occur with the unmarked category 2 value.

(9) Juan quih sahmees hizcoi **iyoohit** / iyoohitim.
    Juan DEF.FLX orange DEM.PL 3;3.RLYO.eat 3;3.RLYO.eat.MULT
    John ate those oranges. [EDSEIFEB2017DRPM, elicitation]

- Singular object can occur with the multiple value.

(10) Maria quih hapaspoj iiqui icaaca z
    María DEF.FLX NMLZ.SUJ.PAS.write 3POS.towards NMLZ.OBL.ABS.POS.send INDEF

    iyaaspoj / **iyaasipl**.
    3;3.RLYO.write 3;3.RLYO.write.MULT
    Maria wrote a letter. [EDSEI27NOV2017DRPM, elicitation]

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MULT-form $\neq$ imperfective

- Marlett 2016: non-MULT-forms $\sim$ perfective and MULT-forms $\sim$ imperfective
- Cross-linguistically imperfective forms have 2 main sub-meanings (Comrie, 1976; Cover and Tonhauser, 2015):
    - habitual
    - continuous/iterative

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    - habitual
    - continuous/iterative

- Claim: The distribution of the forms with MULT category 2 is not the distribution observed for imperfective morphology cross-linguistically.

MULT-form $\neq$ imperfective

Not habitual

- The **MULT-form** does not express habituality ...

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

Maria	quih	hant ifii	coox	cah	x,
María	DEF.FLX	NMLZ.OBL.be.morning	every	DEF.FOC	UNSPEC.TIME

iglesia	cap	*contiya* /	#***contiyatim***.
church	DEF.standing	RLYO.go	RLYO.go.MULT

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

MULT-form ≠ imperfective

<div style="border: 2px solid; display: inline-block; padding: 4px;">Not continuous</div>

- The **MULT-form** does not express a continuous event

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

Hoyacj	quih	cöipanzx	/ #*cöipanozxim*	iti,
1POS.brother	DEF.FLX	3IO.3POS.NMLZ.OBL.run	3IO.3POS.NMLZ.OBL.run.MULT	while

hamac	cánoj	quih	iicot	cöyooctim.
fire	NMLZ.SUJ.roar	DEF.FLX	3POS.among	3IO.RLYO.cut

While my brother was running, the light went out. [EDSEI27NOV2017DRPM,
EDSEI29NOV2017GH, elicitation]
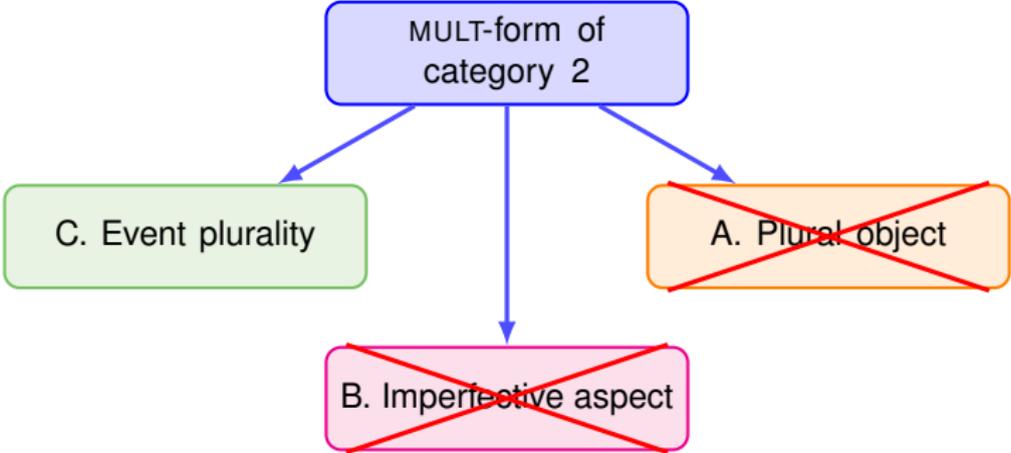
MULT-form $\neq$ imperfective

- The **MULT-form** can be used in a perfective context

(13) Context: Yesterday, I went to Puerto Libertad early in the morning and then came back here. But as soon as we got back, I had to go back because we ran out of gas. When I came back with the gas, I had to leave again almost immediately because a friend hurt himself.

Moxima, Xpanohax conthayatim.

yesterday Puerto_Libertad 3IO.AW.1SG.RLS.YO.go.MULT

Yesterday, I went to Puerto Libertad (several times).

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MULT-form of category 2

C. Event plurality

B. Imperfective aspect

A. Plural object

Marked forms require event plurality

- The multiple form expresses multiple events (running events in 14)

(14) Context: Yesterday my brother did a scavenger hunt with other children. While he was playing the light went out.

Hoyacj	quih	cöipanzx	/ ***cöipanozxim***	iti,
1POS.brother	DEF.FLX	3IO.3POS.NMLZ.OBL.run	3IO.3POS.NMLZ.OBL.run.MULT	while

hamac	cánoj	quih	iicot	cöyooctim.
fire	NMLZ.SUJ.roar	DEF.FLX	3POS.among	3IO.RLYO.cut

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

[EDSEI27NOV2017DRPM, EDSEI29NOV2017GH, elicitation]

Marked forms require event plurality

- Marked forms require a plurality of events

(15) a. Juan quih icoozim ccooo tintica iti hehean
      Juan DEF.FLX NMLZ.OBL.warm NMLZ.SUJ.all DEF.AW 3POS.in desert

      com ano coyom / **coyoomam**.
      DEF.lying 3POS.in 3IO.RLYO.lying 3IO.RLYO.lying.MULT

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

   b. Yaacö hamasol quih ihaapl ccooo tintica iti zaaj
      bear DEF.FLX NMLZ.OBL.cold NMLZ.SUJ.all DEF.AW 3POS.in cave

      z ano coyom / #**coyoomam**.
      INDEF 3POS.in 3IO.RLYO.lying 3IO.RLYO.lying.MULT

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

Parallels with nominal plurality in Seri

- There are parallels between the morphology marking category 2 and nominal plurality in Seri
- In Seri the morphology marking category 2 on verbs is also found in nominal plurals (Marlett 2016, Baerman 2016)

(16)

	verbs			*nouns*	
sg. unmarked	sg. multiple	gloss	singular	plural	gloss
-askíta	-askíta-**j**	'refuse to share'	koopa	koopa-**j**	'drinking glass'
-okósi	-okósi-**jam**	'bite and suck'	hax	haxa-**jam**	'fresh water'
-ahiihom	-ahiihom-**xox**	'ambush'	isliik	isliik-**xox**	'left hand/arm'
-apoaax	-apoaaj-**k**	'lean'	iix	iij-**k**	'water'
-ihinej	-ihinel-**ka**	'be exposed'	zaaj	zaal-**ka**	'cave'

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Caveat: 3 plurality markers only occur with verbs: -tim, -ot, and -too- (Baerman, p.c.)

Parallels with nominal plurality in Seri

- **Parallels between nominal and verbal morphology suggest that, at least originally, the morphology marked something similar on both nouns and verbs**

Typical properties of pluractional markers cross-linguistically

- Category 2 marking displays properties observed for pluractional markers in other languages
    1. Exact cardinality expressions do not count event iterations (e.g. adverbs, cardinal arguments) (Yu, 2003; Van Geenhoven, 2005; Laca, 2006)
    2. No multiplication effect for singular indefinites (Van Geenhoven, 2005; Laca, 2006)

Exact cardinality expressions do not count event iterations

- The exact cardinality expression in (17) is considered odd with the multiple form *ihexelim* 'buy' (cf Van Geenhoven 2005; Yu 2003; Laca 2006)

(17) Icatoomec   hino   coofin   tintica Juan quih   sahmees
      week   1POS.to NMLZ.SUJ.happen DEF.AW   Juan DEF.FLX orange

      pac   ihexl   / #**ihexelim**   isnaap yoozoj.
      INDEF.PL   INF.TRNS.buy   INF.TRNS.buy.MULT   RLYO.6.times

   Last week, Juan bought oranges 6 times. [SC on multiple form: It's
   weird. It sounds like he bought oranges six times various times.]
   [EDSEI21ABR2018DRPM, elicitation]

No multiplication effect for singular indefinites

- Event plurality expressed by pluractional markers does not multiply indefinite singulars (Van Geenhoven, 2005; Laca, 2006)
    - In (18) the multiple form of *-iho* 'see, find' does not multiply the indefinite singular object *haxz íí zo* 'a flea'
    - The sentence with the multiple form is thus judged anomalous

(18)   Maria   quih   haxz   iixz   quih   icatoomec   isnaap cazoj   toc
        Maria   DEF.FLX   dog   pet   DEF.FLX   week   SBJ.NMLZ.6   there

       contita   ma,   <u>haxz íí</u>   <u>z</u>   íti   tiij   ma,   **iyooho**   /
       3IO.AW.RLT.move   DS   flea   INDEF   3POSS:on   RLT.sit   DS   3.SUBJ.RLYO.see

       #**iyoohotim**.

       3.SUBJ.RLYO.see.MKD

       In six weeks, Maria found a flea on her dog [SC on multiple form: It's well written but it is odd because it seems that Maria saw the flea but didn't remove it, and then she kept seeing it without ever removing it.]

       [EDSEI-{25ABR2018DRPM, 27ABR2018DRPM.MOEA.LKPH, -28ABR2018ATHF.AIMR, -30ABR2018GH.AMMO}]

No multiplication effect for singular indefinites

- But if the quantifying phrase *hant ifii coox cah x* 'every morning'
  is added, the sentence becomes acceptable

(19) Icatoomec isnaap cazoj toc contita   ma, Maria quih haxz
      week   SBJ.NMLZ.6 there 3IO.AW.RLT.move DS Maria DEF.FLX dog

      iixz quih **hant ifii**   **coox cah**   **x**   haxz íí z
      pet DEF.FLX NMLZ.OBL.be.morning all DEF.FL:FOC UNSPEC.TIME flea INDEF

      íti   tiij ma, **iyooho**.
      3POSS:on RLT.sit DS 3.SUBJ.RLYO.see

      For six weeks, Maria found a flea on her dog every morning.

No multiplication effect for singular indefinites

- But if the multiple form is used, the sentence becomes anomalous again for the same reason as before (since the plural events conveyed by the multiple form do not distribute over occasions)

(20) #Icatoomec isnaap cazoj toc contita ma, Maria quih haxz
  week   SBJ.NMLZ.6 there 3IO.AW.RLT.move DS Maria DEF.FLX dog

 iixz quih **hant ifii** **coox cah** **x** <u>haxz íí</u> <u>z</u>
 pet DEF.FLX NMLZ.OBL.be.morning all DEF.FL:FOC UNSPEC.TIME flea INDEF

 íti tiij ma, **yoohotim**.
 3POSS:on RLT.sit DS 3.SUBJ.RLYO.see.MKD

 Int. For six weeks, Maria found a flea on her dog every morning.

Summary

- Category 2 marks a form of event plurality
    - not imperfective aspect (no continuous readings, no habitual readings)
    - licensed in contexts with several events
    - morphological parallels with nominal plurality
- Category 2 has properties of other pluractional markers
    - exact cardinality expressions do not count iterations
    - no multiplication effect for singular indefinite

Part 2: comparison of singular and plural subject MULT-forms

Singular and plural subject MULT-forms

2. Decide whether singular and plural subject MULT-forms belong in the same paradigm

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Singular and plural subject MULT-forms

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    2.1 Show that the arguments for the meaning of singular subject MULT-forms carry over to plural subject MULT-forms
    2.2 Compare distributive dependencies of singular and plural subject MULT-forms

Plural subject MULT-forms are pluractionals

- Like singular subject MULT-forms, plural subject MULT-forms require a plurality of events AND exhibit properties typical of pluractional markers cross-linguistically
  - No exact card expression

(21) Icatoomec hino coofin tintica xicacaziil quih sahmees
       week   1POS.to NMLZ.SUJ.happen DEF.AW child.PL DEF.FLX orange
       pac ihexej / #**ihexejam** isnaap yoozoj.
       INDEF.PL INF.TRNS.buy.PL INF.TRNS.buy.MULT.PL RLYO.6.times

       Last week, the children bought oranges 6 times. [QuestionnaireFLT4, elicitation]

Plural subject MULT-forms are pluractionals

- Like singular subject MULT-forms, plural subject MULT-forms require a plurality of events AND exhibit properties typical of pluractional markers cross-linguistically
  - No multiplication of indefinites

(21) Context: Workers came to the village. Each man built his own house over the first few months.

    a. #Ctamcö coi haaco z iyaaizilca
        man.PL   DEF.PL   ABS.house   INDEF.SG   3;3.RLYO.make.MULT.PL

      The men built a house. SC: it sounds like they built one house together

    b. Ctamcö coi haacöt pac iyaaizilca.

Plural subject MULT-forms are pluractionals

- Summary of the comparison of sg. MULT-forms and pl. MULT-forms (though I have not shown you everything)
  - like sg. MULT-forms, pl. MULT-forms express/require a plurality of events
  - pl. MULT-forms exhibit properties that pluractional markers exhibit cross-linguistically

	sg. MULT	pl. MULT
requires perfective context	✗	✗
requires plural object	✗	✗
requires pl. of events	✓	✓
scopes under adverbs	✓	✓
compatible with bounded cardinal	✗	✗
multiplies indefinite NP	✗	✗

Singular- and plural- subject MULT forms

- MULT-forms require contexts where there is a multiplicity of events
- There are several ways to obtain a multiplicity of events
- Markers of event plurality are not a semantically-homogeneous class (Dressler, 1968; Cusic, 1981; Yu, 2003; Laca, 2006; Wood, 2007)
- Is MULT the same for singular and plural subjects?
- One way to investigate this question is to compare possible distributive dependencies involving MULT.SG and MULT.PL

Background on distributive dependencies

- Events in general have **a time**, **a participant**, and **a location**

(22)   **Yesterday**, **my brother** stayed **at home**.

- Pluractional forms can be licensed by establishing distributive dependencies between the multitude of events and a multitude of times or participants (or locations) (Dressler, 1968; Cusic, 1981)

Background on distributive dependencies

- Distribution over times only

(23) Last week, my friends went to Puerto Libertad.

- This sentence is true if my friends went (together) to Puerto Libertad several times.

t_1	———	e	———	John+Mary+Matt
t_2	———	e	———	John+Mary+Matt
t_3	———	e	———	John+Mary+Matt

Background on distributive dependencies

- Distribution over participants only

(24) Last week, my friends went to Puerto Libertad.

- This sentence is true if each of my friends went to Puerto Libertad just once at the same time but separately

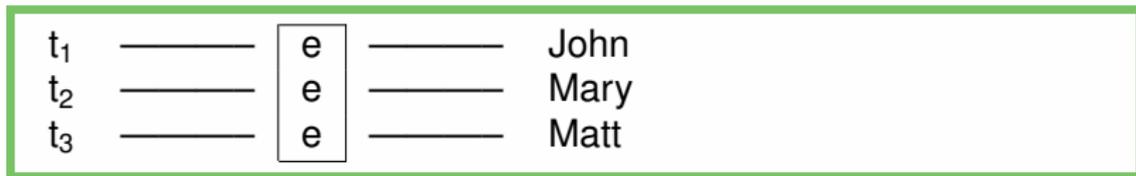|				
t_1	———	e	———	John
t_1	———	e	———	Mary
t_1	———	e	———	Matt

Background on distributive dependencies

- Distribution over participants and times

(25) Last week, my friends went to Puerto Libertad.

- This sentence is true if each of my friends went to Puerto Libertad just once separately and at different times . . .

t_1	———	e	——— John
t_2	———	e	——— Mary
t_3	———	e	——— Matt

What we want to compare

		sg. MULT	pl. MULT
INTR.	dist. over time only		
	dist. over ptcp only		
TR.	dist. over time only		
	dist. over ptcp only { sbj / obj		

Distributive dependencies with sg. MULT (intransitives)

- Distribution over time only is possible

(26)   Hant hino coofin cap Teresa quih iglesia cap   contiyatim.
       last year   Teresa   DEF   church   DEF.STANDING   3IO.AW.RLYO.go.MULT.SG
       Last year, Teresa went to church (several times).
       [EDSEI27OCT2018DRPM.GH.ATHF.LKPH, elicitation]

- Distribution over participant only is not possible
- Distribution over time + participant is possible

(27)   Hehe   iti   icoohitim   quih   yopaaisx /
       wood   3POSS:on   3POSS:[PON:]UNSP.SBJ:UNSP.OBJ:eat:MULT   DEF.FLX   RLYO.clean

       yopaasxim.
       RLYO.clean.MULT.SG

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

Distributive dependencies with sg. MULT (transitives)

- Distribution over time only is possible

(28) Context: The woman has been braiding the same lock of hair over and over because it keeps getting undone.
Cmaam quij quisiil cmaam quij ilit iyacoaazalim.
woman DEF SBJ.NMLZ.small woman DEF [3POS]hair 3;3.RLYO.braid.MULT.SG
'The woman braided the girl's hair several times.' [[PCSEI19DEC2017XMHRMH], elicitation]

- Distribution over subject participant only is not possible/testable

Distributive dependencies with sg. MULT (transitives)

- Distribution over object participants only is not possible

(29) Context: This afternoon at 2pm, I saw Juan pulling his suitcases. He had 3 suitcases so he used ropes. [Questionnaire6FT3, (picture 1A2)]

#Juan quih xiica an ihyaacalca quih hant

Juan   DEF   suitcases   DEF   down

iyootoxim.   [CON]

3;3.RLYO.drag.MULT.SG

Juan dragged the suitcases.

Distributive dependencies with sg. MULT (transitives)

- Distribution over object participants + time is possible

(30) Context: This afternoon at 2pm, I saw Juan pulling his suitcases. He had 3 suitcases but no rope, and no one was there to help him. He carried his suitcases one at a time. [Questionnaire6FT3, (picture 1B1)]

Juan quih xiica an ihyaacalca quih hant
Juan def suitcases   DEF down

iyootoxim.   [CON]

3;3.RLYO.drag.MULT.SG

Juan dragged the suitcases. VERDAD

Distributive dependencies with MULT forms, summary

			sg. MULT	pl. MULT
INTR.	dist. over time only		✓	
	dist. over ptcp only		✗	
TR.	dist. over time only		✓	
	dist. over ptcp only {	sbj	✗	
		obj	✗	

Distributive dependencies with pl. MULT (intransitives)

- Distribute over times only is enough to license MULT.PL

(31) Context: The women crossed the arroyo together, various times.
     (source [EDSEIFEB2017DRPM, elicitation])

Cmajiic	quih	hant ipzx	com	imac	cöyatooquelam.
woman.PL	DEF	arroyo	DEF.SG.lying	3POSS.middle	IND.OBJ.cross.PL

     The women crossed the arroyo.

Distributive dependencies with pl. MULT (intransitives)

- Distribution over participants only is subject to variation
  - ATHF.GH (40+) accept it
  - DRPM.LKPH (40-) don't really like these examples: they usually reject them but occasionally accept them (esp. when in group)

(32) Context: The women crossed the arroyo together, once.

Cmajiic   quih   hant ipzx   com   imac   cöyatooquelam.

woman.PL   DEF   arroyo   DEF.SG.lying   3POSS.middle   IND.OBJ.cross.PL

The women crossed the arroyo. ([QuestionnaireFT3, elicitation])
ATHF.GH: true, SC: because there's several of them
DRPM.LKPH: lie/false

Distributive dependencies with pl. MULT (transitives)

- Distribution over times only is enough

(33) Context: Guests arrived just when the light went out. In the confusion, they greeted the host several times.

> Xiica   quiistox   haaco   cap   ano   cazcam
> thing.PL SBJ.NMLZ.have_spirit.PL ABSL;house DEF.VT [3.POSS]in SBJ.NMLZ.come.PL
>
> coi/quih haaco   cap   cyaa   quih   cöiyacaailaxlca.
> DEF.PL   ABSL;house DEF.VT SBJ.NMLZ.own DEF.FLX 3.IO-3;3-RLS.YO-salute.MULT.PL
>
> *The guests greeted the owner of the house. (lit. The people that came to the house greeted the one that owns the house.)* ([Questionnaire4FT2, elicitation])

Distributive dependencies with pl. MULT (transitives)

- Distribution over subject participants is not enough

(34) Context: Guests arrived and greeted the host (once, one after the other).

#Xiica quiistox   haaco   cap ano   cazcam
thing.PL SBJ.NMLZ.have_spirit.PL ABSL;house DEF.VT [3.POSS]in SBJ.NMLZ.come.PL

coi/quih haaco   cap cyaa   quih cöiyacaailaxlca.
DEF.PL   ABSL;house DEF.VT SBJ.NMLZ.own DEF.FLX 3.IO-3;3-RLS.YO-salute.MULT.PL

The guests greeted the owner of the house. (lit. The people that came to the house greeted the one that owns the house.) ([Questionnaire4FT2, elicitation])

Distributive dependencies with pl. MULT

- Distribution over object participants only is subject to variation
  - ATHF.GH (40+) accept it
  - DRPM.LKPH (40-) don't really like these examples: they usually reject them but occasionally accept them (esp. when in group)

(35) Context: This afternoon at 2pm, I saw Juan, Isaac, and Manuel carrying their suitcases. Each of them was pulling his suitcase. [Picture 1B3, CON, Questionnaire6FT3]

Xicacaziil quih xiica an ihyaacalcoj quih

child.PL   DEF   suitcases   DEF

hant iyootyaxlca.

down 3;3.RLYO.drag.MULT.PL

The boys pulled their suitcases.

What we have seen

		sg. MULT	pl. MULT 40-	pl. MULT 40+
INTR.	dist. over time only	✓	✓	✓
	dist. over ptcp only	✗	%	✓
TR.	dist. over time only	✓	✓	✓
	dist. over ptcp only { sbj	✗	✗	✗
	obj	✗	%	✓

(36) Singular subject MULT-form

    a. distribution over time required

    b. additionally, other kinds of distribution possible/obligatory
       depending on predicate (e.g. with once only predicate,
       distribution over participant is obligatory)

What we have seen

			sg. MULT	pl. MULT	
				40-	40+
INTR.	dist. over time only		✓	✓	✓
	dist. over ptcp only		✗	%	✓
TR.	dist. over time only		✓	✓	✓
	dist. over ptcp only {	sbj	✗	✗	✗
		obj	✗	%	✓

(37) Plural subject MULT-form for 40+ consultants

   a. distribution over time (provided it is consistent with world-knowledge/predicate)

   b. if there is an object, the events must distribute over the object, additionally other kinds of distribution possible

   c. if there is no object (i.e. in an intransitive construction), the events must distribute over the subject, additionally other kinds of distribution possible

From two MULT-markers to one

MULTSG and MULTPL lexicalize(d) different operators.
With singular subjects, MULTSG is an iterative operator (38).

(38) ITER
      Iterative marker: distribution over times is required, in addition
      other types of distribution are possible

With plural subjects, MULTPL is now ambiguous between ITER (38)
and DIST (39).

(39) DIST
      Distributive marker: distribution over S/O argument is required
      (where S is the unique argument of an intransitive construction,
      and O is the object of an transitive construction)

Variation as a blend of two grammars

- For MULT.SG, everybody has ITER
- For MULT.PL,
  - older speakers have DIST
  - younger speakers have DIST and ITER with a preference for ITER

		sg. MULT ITER	pl. MULT ITER/DIST 40-	DIST 40+
INTR.	dist. over time only	✓	✓	✓
	dist. over ptcp only	✗	%	✓
TR.	dist. over time only	✓	✓	✓
	dist. over ptcp only { sbj	✗	✗	✗
	obj	✗	%	✓

Variation reflects ongoing change

(40)   Starting organization of verb bases

'run'		unmarked	**ITER**	**DIST**
Cat. 1: sbj. n.	singular	Form A *-panzx*	Form B *-panozxim*	
	plural	Form C *-pancojc*		Form D *-pancoxlca*

Variation reflects ongoing change

(40) Current organization of verb bases (for younger speakers)

'run'		unmarked	**ITER**	**ITER**/(**DIST**)
Cat. 1: sbj. n.	singular	Form A *-panzx*	Form B *-panozxim*	
	plural	Form C *-pancojc*		Form D *-pancoxlca*

Variation reflects ongoing change

(40)   (Predicted) final organization of verb bases

'run'		Cat. 2: iterativity	
		unmarked	**ITER**
Cat. 1: sbj. n.	singular	Form A *-panzx*	Form B *-panozxim*
	plural	Form C *-pancojc*	Form D *-pancoxlca*

Lessons for Seri morphology

- There are no clear regularities in the morphology of Seri verbal suffixes
- It is striking that the suffix *-tim* – a purely verbal suffix:
  - is the most common suffix that marks MULT.SG forms
  - is not found with MULT.PL forms
- Perhaps this asymmetry reflects the different origins of the MULT-forms

Outlook

- This work is our first attempt to make sense of the variation we have observed in the data collected since the beginning of our work
- Most data not collected specifically for this study, therefore need for more controlled/minimal examples

Conclusion

- **Question 1:** What do singular subject and plural subject MULT-forms mean?
  They both are pluractional forms
    - singular subject MULT requires distribution over times
    - plural subject MULT is undergoing change:
        - originally it require(s) distribution over the participants denoted by the S/O argument
        - now young speakers analyze it as requiring distribution over times like singular subject MULT
- **Question 2:** Is there a category 2?
  We hypothesize that there was not but that a MULT-paradigm is being levelled, thus creating a category 2

Outlook

- This work forms the basis to explore the effect of the syntax of DPs on distribution possibilities

(41)   Cardinal vs other

    a. *Haxaca quih capxa   hacx yomiihtolca.
        dog.PL   DEF   SBJ.NMLZ.three apart RLYO.die.MULT.PL
        Int. 3 dogs died.

    b.%Osa xah Zombi xah Oto xah hacx yomiihtolca
        Osa and Zombi and Oto and apart RLYO.die.MULT.PL
        Osa, Zombi, and Oto died.

    c. Haxaca pac   hacx yomiihtolca,
        dog.PL   INDEF.PL apart RLYO.die.MULT.PL
        Dogs died.

Outlook

- Their syntactic position also plays a role

(42) Subject vs object

   a. *Haxaca quih capxa hacx yomiihtolca.
       dog.PL   DEF   SBJ.NMLZ.three apart RLYO.die.MULT.PL
       Int. 3 dogs died.

   b. Ziix caamjö quih haxaca quih capxa hacx
       thing SBJ.NMLZ.hunt DEF   dog.PL   DEF   SBJ.NMLZ.three apart
       iyamiihitim.
       3;3.RLYO.CAUS.die.MULT
       The hunter killed 3 dogs.

¡Haxahtiipe!

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List of abbreviations

ABS	absolute	MULT	multiple
ART	article	NMLZ	nominalizer
AW	away	OBJ	object
CAUS	causative	PASS	passive
DEF	definite	PL	plural
DEM	demonstrative	POS	possessive
FLX	flexible	RLS	realis
FOC	focus	SG	singular
INDEF	indefinite	SUJ	subject
INF	infinitive	TRNS	transitive
INTR	intransitive	UNSPEC	unspecified
IO	indirect object		