Event pluralities - Day 3
Verbal markers of event plurality

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Outline I

1. The semantic field of verbal plural markers

2. Delimiting verbal plural markers
   - Verbal plural markers vs. agreement
   - Verbal plural markers and aspect

3. Variation across verbal plurality markers
   - Productivity
   - Simplex vs. plural marked verb
   - Exact cardinality
   - Types of plurality: asserted / mixed / modalized
   - Distribution of the plural event

4. Distribution possibilities of the plural event
   - Distribution over participants: types of noun phrases
   - Distribution vs. scope
Verbal plurality: the expression of multiple events by markers on the verb (also called pluractional markers)

Verbal plural markers are notoriously heterogeneous.

See e.g. the list of 21 sub-meanings Dressler (1968, 62-) (in German) or the English version in Xrakovskij (1997a, 7) or the list in Cusic (1981, 74)
The semantic field of verbal plural markers

- Why include continuative and intensive meanings?
- Cross-linguistically the same markers can express different shades of
  - iterative
  - distributive
  - continuative
  - intensive meaning
- de Jong (1917:310) on reduplication: (apud Cusic 1981, 75)
  - "reduplication defines a semantic category of increase which has as sub-categories: plurality, distributivity, continuity, repetition, customary action, intensiveness and superlative degree".
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The semantic field of verbal plural markers: Hausa

Meanings expressed by **Hausa** pluractional verbs:

(1) **yâraa sun rur-ruudèe** (Hausa)
   children 3pl.pf RED-be.confused
   The children were very confused (beyond control, alarmed).
   **intensive** (ex 6b Součková and Buba (2008, 137))

(2) **a. mutàanee sun fir-fitoo** (dàngà gidàajensù)
    people 3pl.perf RED-come.out from houses.their
    Many people came out of their houses (one by one / at the same time).

**b. naa sàs-sàyi littàttàfai**
   1sg.perf RED-buy books
   I bought many (different) books (on different occasions/ in different bookstores). **distributive/iterative** (exs 2, 4 Součková and Buba (2008, 137))
Diversity is an important component of the meaning of certain pluractionals.
In the Hausa ex (2b) the books have to be
- of different kinds
- to be bought in different bookshops
Similar restrictions for distributive plurality in Native American languages (Mithun, 1988a; Ojeda, 1998).
The semantic field of verbal plural markers: Chechen

- **Chechen** pluractional (Yu, 2003; Wood, 2007)
- PLR=plural, WP=witnessed past.

(3) a. **frequentative**
   adama takhan duqqa ‘a chai miilira (not melira)
Adam.erg today many tea drink.PLR.WP (not drink.WP)
Adam drank a lot of tea over and over again today.

b. **durative**
   Ahxmed jaalx swohxtiahx idira / *vedira. (Chechen)
Ahxmed six hour.loc run.PLR.WP / V.run.WP
Ahxmed ran for six hours (non-stop). (Yu (2003, 299, ex 18))

c. **distributive** Yu (2003, 296, ex 10a))
   ceera duezalsh takhana duqa hxaalkhie ghittira
their members of family today very early wake.up.PLR.WP
Their family members woke up very early. (does not have "the expected repeated event reading/ means that all the family members woke up more or less around the same time")
The semantic field of verbal plural markers: Squamish

- **Squamish verbal CVC-reduplicant** (Bar-el, 2008)
  - LC=limited control, LS=lexical suffix, NOM=nominalizer, RL=realis, TR=transitivizer.

(4) a. **iterative/many times**

  chen  **kwel-kwelesh-t** ta  sxwi7shn
  1S.SG RED-shoot-tr DET deer

  I shot it several times./ I shot the deer continuously. (ex3a)

b. **continuity**

  chen  **kw’ech-kw’ach-nexw-as** 7alhi slhanay’
  1S.SG RED-look.at-TR(LC)-3ERG DEM woman

  ‘You’ve been watching her for a while’ Bar-el 2008, ex9a/b)

c. **more than once**

  chen  **sek-sak’-an** ta  seplin
  1S.SG RED-cut-TR DET bread

  I sliced the bread.

  Context: I cut it more than once or entire loaf is cut up in pieces.
  (ex 10 b, Bar-el 2008, 4)
Verbal plurality - distributive readings

- Cusic: event-internal verbal plurality (Day 1)
  - Event-internal verbal plurality: many phases in a single event
  - Event-external verbal plurality: many events


- In Lasersohn’s formula (Day 1)
  - requires be temporal gaps between the events
  - that space/ participants do not overlap

\[(5) \quad V-PA(X) \iff \forall e, e' \in X [P(e) \& \text{card}(X) \geq n \& \exists t \ [\text{between}(t, \tau(e), \tau(e')) \& \neg \exists e'' [P(e'') \& t = \tau(e'')]] \& \neg [K(e) \circ K(e')]]\]

with \(K = \) temporal trace or spatial trace or a thematic role
Verbal plurality - durative readings

(6) **durative**

Ahxmed jaalx swohxtiahx *idira* / *vedira*. (Chechen)
Ahxmed six hour.loc run.PLR.WP / V.run.WP

Ahxmed ran for six hours (non-stop). (Yu (2003, 299, ex 18))

- Account of **durative** readings of Vpl markers (Yu, 2003)
  - Verbal pluralization must yield a **mass** interpretation. (Yu, 2003, 304)
  - A mass, by definition, is amorphous, without natural boundary.
    Thus, a mass interpretation of events naturally yields a boundless outcome, hence **atelicity**. (Yu, 2003, 309)

- One possible interpretation:
  - Verbal pluralization in Chechen yields a cumulative predicate
  - The atomic events are not accessible in the event plurality

The semantic field of verbal plural markers - summary

- Have different polysemy of same markers can express different shades of plurality
  - iterative/distributive
  - iterative/distributive/intensive
  - iterative/distributive/continuative/durative

- Lasersohn’s formula is designed to capture distributive markers.

- Proposals for markers with continuative/durative readings
  - Verbal pluralization yields a mass interpretation in Chechen. (Yu, 2003, 304)
  - Verbal pluralization yields a collective interpretation in Chechen. (Wood, 2007)
  - Verbal periphrasis ir+gerund in Spanish yields a collective interpretation. (Laca, 2006)

- Proposals for markers with intensive readings:
  - degree operator (Součková and Buba, 2008)
Delimiting verbal plural markers

- Event plurality effects arise (Day 1)
  - with plural participants
  - with grammatical aspect
- Need to distinguish **verbal number** from
  - **number agreement** with plural arguments
  - **imperfective grammatical aspect**
Verbal plural markers vs. agreement

- Some Vpl markers obligatorily co-occur with plural arguments.
- Participant number can be a side-effect of event plurality (e.g. in languages without nominal plural)
- Need to distinguish **verbal number** from **number agreement** with plural arguments (Durie 1986, Corbett 2000, 243-264)
- Arguments to distinguish verbal plural stems from number agreement
  1. Ergative alignment of verbal number-marking
  2. Mismatches: semantic vs. morphological number
  3. Stem suppletion may distinguish number values that have no nominal equivalent
  4. Agreement-less verb forms preserve verbal number (infinitives e.g.)
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Ergative alignment of verbal plurality

- Number suppletion often follows an absolutive pattern (see Wood 2007, 66 for discussion)
- The number encoded by the plural verb is that of
  - the intransitive subject or
  - transitive objects Durie (1986, 357)
- See also Dressler (1968, 70, §40), Cusic (1981, 111-23), Mithun (1988b, 214) for North American languages

(7) Example from Huichol (Comrie 1982)

a. wan maria maa-ti me-neci-mieni
   Juan Maria and-subj 3pl.subj-1sg.obj-kill.sg
   Juan and Maria are killing me.

b. nee wan maria maa-me ne-wa-qiini
   1sg Juan Maria and-non.Subj 1sg.subj-3pl.obj-kill.pl
Semantic vs. morphological number

- Durie (1986):
  - Verbal number reflects the number of participants
  - Agreement reflects the morphological Number of the syntactic NP

- Durie (1986:359, citing Aronson 1982): In Georgian,
  - a NP modified by a numeral is formally singular, and controls singular Person-Number agreement,
  - but the suppletive plural verb is non-singular

(8) a. ivane šemovid-a da dajd-a (Georgian)
    John enter-3sg and sit:-sg-3sg
    John entered and sat down. (singular)

b. čemi mšobl-eb-i šemovid-nen da dasxd-nen
   my parent-nonsg-nom enter-3nonsg and sit:nonsg-3nonsg
   My parents entered and sat down. (plural)

c. čemi sami megobari šemovid-a da dasxd-a
   my three friend-sg-nom enter-3sg and sit:nonsg-3sg
   My three friends entered and sat down. (numeral + NP)
Stem suppletion may distinguish Number features which are not nominal Number features (of nouns or pronouns)

(9)  a. Munro (1976) reports that in Mojave one verb suppletes for singular: paucal: plural, but paucal is not a nominal feature of that language.

b. In Karok, several verbs supplete three ways for singular:dual:plural, although pronouns and nouns (and agreement) only distinguish [+/-singular].
Agreement-less verbal forms

- Syntactic contexts without agreement: stems still mark V number
  - control constructions
  - imperatives
  - infinitives

(10) Chickasaw (Durie, 1986, ex.8-10)

  a. Subject agreement without verbal number
     hilha-li "I dance"
     kii-hilha "we dance"

  b. Subject agreement with verbal number
     malili-li "I run"
     kii-tilhaa "we run"

  c. Control: subject agreement disappears, verbal number preserved
     a. malili sa-banna
     run:sg 1sg-want
     "I want to run"
     b. tilhaa po-banna
     run:nonsg 1nonsg-want
     "we want to run"
Aside: suppletion

- Many studies note that verbal plurality marking is often suppletive.

- (Mithun, 1988b, 215): these forms are not suppletive at all
  - There is no **morphological** relationship
  - Have two distinct lexical items

- Putative suppletive verbal plural forms often co-exist with morphologically marked forms.

  (11) a. *speak* vs. *converse*
  
  b. *murdering* an individual vs. *massacring* a village

  c. *have dinner* vs. *have a feast*

  (12) Yurok (Robins 1958, 42)

  - cwinkep "speak"
  - tohkow "talk together, converse"
  - cwinkepoh "several speak"
Mithun (1988b, 215):

(13) The lexically plural verbs are not unlike English *congreate*, *disperse*, *gather* and *scatter*. These English verbs also imply multiple subjects when intransitive and multiple patients when transitive, but it is not immediately obvious what their singular counterparts should be.
Verbal plural markers vs. agreement - summary

- A number of criteria to distinguish verbal plurality and agreement when obligatorily co-occurring with a plural argument
  - Ergative alignment (Vpl patterns with plurality of intransitive subjects and transitive objects)
  - Semantic vs. morphological number
  - Agreement-less contexts preserve verbal plurality markers
Many studies of verbal plurality consider it to be a subtype of lexical aspect (Aktionsarten) (Dressler (1968); Cusic (1981); Xrakovskij (1997b)).

Dressler (1968, 51, §19) "considers iterative, distributive, durative and intensive Aktionsarten" in his study of verbal plurality: Dressler (1968); Cusic (1981).

Certain meanings of verbal plural markers are plausibly aspectual (iteratives, duratives).

However, distributive and intensive markers fit less clearly with lexical aspect.
Brief summary: Grammatical aspect vs lexical aspect (Aktionsarten)

- In many studies, two types of aspect are distinguished Smith (1991)
  - Lexical aspect (Aktionsarten)
  - Grammatical aspect (View-point aspect)

- Lexical aspect (Aktionsarten): *Inherent properties of the event/situation* described by the verb / by the lexical predicate.

- Starting point for this is often the very influential proposal in Vendler (1957) (modified, criticized and discussed in an enormous literature since)

- Vendler classes have been seen as *restrictions on the temporal structure of the eventuality* (how it develops in time)
Lexical aspect - Vendler classes

- **States** *(be beautiful, know something, love someone)* involve no change over time (they are non-dynamic). For a given interval, a state is true of any instant of this interval.
- **Activities** *(run, walk, swim)*, unlike states, are dynamic: they imply change over time. Activities are composed of a series of repeated or successive actions that are not identical from one instant to another. Unlike Accomplishments, activities do not have a natural endpoint as part of their lexical meaning (they are *atelic*).
- **Accomplishments** *(draw a circle, write a letter, build a chair)* are durative like Activities, but have an inherent endpoint (they are *telic*).
- **Achievements** *(find something, recognize someone, arrive somewhere, explode)* are instantaneous changes of state: they have a natural endpoint or outcome that must be reached in order for the achievement to be considered as having taken place.
Lexical aspect: caveats

- The distinction event/action/state is not a property of verbs alone but is influenced by arguments and modifiers (Verkuyl 1972, 1993, and many others since).
- See e.g. Rothstein (2008) and Rappaport-Hovav (2008): is lexical aspect VP or V-level?
- Different lexicalisation "Continuity is in the eye of the beholder"
  - Wood (2007, 221-5) for a discussion of Chechen simulfactive predicates whose English counterparts are activities (but which are not activities in Chechen).
  - Schultze-Berndt (2012, 30) In Jaminjung (Australia, Mirndi family): certain motion verbs "are not conceived of as continuous [...] but rather as consisting of repeated single actions, such as individual strokes in swimming (liwu), individual impacts of a foot on the ground in stomping (thunthun), individual swaying motions in staggering (ngarrangarrang) and individual jumps in jumping (dibard)."
Lexical aspect and verbal plurality

- Vendler classes restrict the temporal structure of the eventuality → need an extension of lexical aspect for distributive and intensive readings

- Question: is **verbal plurality** VP or V-level? → interaction between Vpl marking and type of DP arguments (bare pl, definites, coordinations)
Three types of aspect

It may be useful to think of three levels of aspect (Cabredo Hofherr and Laca, 2010), following Smith (1991):

1. **Situation type** lexical aspect of the lexical root
2. **Derived situation type**: constructed lexical aspect integrating adverbs, plural arguments, distribution
3. **Viewpoint aspect** (grammatical aspect)

Smith suggests to treat habituals as *derived situation type*. 
**Verbal plurality vs. aspect**

- **Extra meaning**: Dressler (1968, 92, §73): Iterative Aktionsarten differ from imperfective (grammatical) aspect in that iteratives more often carry distributive and intensive meaning.

- Test: an imperfective markers may be incompatible with a perfective marker; however, perfective and imperfective may be neutralised in complex sequences of aspectual markers.

(14) a. Cuando hubo / había terminado  
   when had.perf.past / had.imperf.past finished...

   b. Estuvo jugando / estaba jugando  
   perf.be.LOC playing / imperf.be.LOC prog
Verbal plurality vs. aspect

- Imperfectives yield background-event reading:
  
  (15)  
  a. John scattered the petals when the bride arrived.  
      (sequence of events: first the arrival, then the scattering)  
  b. John was scattering the petals when the bride arrived.  
      (simultaneous events: while the scattering is done, the arrival happens)

- Distinguishing Verbal plurality from imperfective:  
  Bar-el (2008) for CVC-reduplication in Squamish

- Distinguishing Verbal plurality from progressive:  
  Schultze-Berndt (2012) for Jaminjung
Variation across verbal plurality markers

- Verbal plurality markers generally impose more conditions than just event plurality

1. Possible polysemies vary across markers (intensive, durative) (see Hausa, Chechen)
2. Productivity of the verbal plural marker
3. Relationship simplex verbs vs. verbs+ plural marker
4. Combination possibilities with exact cardinality
5. Types of plurality: asserted vs. mixed vs. modalized (cf. Day 1)
6. Conditions may bear on
   - Distributive properties over plural arguments
   - Temporal contiguity of the events (distribution in time)
   - Diversity conditions ("different places" "in different ways/ directions")
Variation: productivity

Verbal plurality markers differ wrt their productivity

- "Suppletion for the number of an argument is very widespread in the world’s languages. I have unearthed 40 languages from diverse parts of the world with such suppletion [...]. In all cases only a restricted set of verbs supplet for number, the reported totals ranging from a few to a few dozen." (Durie, 1986)
- 20% of the verbal lexicon in Chechen (Yu, 2003)
- *andar* + gerund in Spanish: with activities and accomplishments, no states, no achievements
- *ter* + participle in Brazilian Portuguese: no non-gradable states
Variation: simplex vs. plural marked verb

- The relationship between verbs with a verbal plural marker and the corresponding simplex verbs is not uniform.
- Case 1: Simplex verbs as **one or more events**
- Case 2: Simplex verbs as **one event**
Variation: simplex vs. plural marked verb

- **Case 1:** Simplex verbs as **one or more events** (simplex as unmarked case)
  - **Karitiana:** simplex verbs can refer to plural events or singular events, **reduplicated** verbs can only denote plural events. Müller and Sanchez-Mendes (2008, 449).
  - **Hausa:** "The use of pluractional verbs in Hausa for describing "plural" situations is not obligatory; a simple, non-reduplicated verb can always be used instead." (Součková and Buba (2008, 134))

(16) Sypomp aluno namangat sypomp ŏwā (Karitiana)
    sypom-t aluno ø-na-mangat-ø sypom-t ŏwā
    two-OBL student 3-DECL-lift-NFUT two-OBL kid

Two students lifted two kids. (together/ one each / any possible cumulative combinations any number of times).
Students lifted two kids twice.
Not: Two students lifted two kids each.
(Müller and Sanchez-Mendes, 2008)
Variation: simplex vs. plural marked verb

- Case 2: Simplex verbs as **one event**
  - Van Geenhoven (2004, 142-148) in West Greenlandic some frequentative affix is necessary to get an iterated reading with a *for*-adverbial

(17) ? Nuka ullaap tungaa tamaat sanioqquppoq.

Nuka ulla-a-p tunga-a tama-at
N.ABS morning-ERG direction-3SG.SG.ABS all-3SG
saniuqqut-puq
go.by-IND.[-tr].3SG

‘Nuka went for the whole morning (moving very slowly) to pass by.’ Van Geenhoven (2004, 146, ex 26)
Variation: exact cardinality

- Marking of iteration and **specification of the exact number of iterations** is not felicitous (Dressler, 1968, 89, §68)

- Same idea (Yu, 2003, 303),

(18) A priori, there is no reason to think that pluractional verbs, which supposedly signify repeated actions, should be incompatible with the explicit mention of the number of iterations, as long the number of iterations is more than one. However, as noted by Xrakovskij (1997b), this incompatibility is observed crosslinguistically. Yu (2003, 303)
Variation: exact cardinality

This is a restriction on combining **cardinality adverbs** with pluractionals.

(19) a. adama takhan yttaza chai melira (Chechen)
    Adam.ERG today ten.times tea drink.WP
    ‘Adam drank tea ten times today.’

b. *adama takhan yttaza chai miillira
    Adam.ERG today ten.times tea drink.PRL.WP
    ‘Adam drank tea ten times today.’ Yu (2003, 303,ex27a/b)
Variation across verbal plurality markers

Variation: exact cardinality

- Yu (2003, 309): incompatibility with exact cardinality due to a general **atelicity requirement** for pluractionals.
- Van Geenhoven (2004, 2005) (West Greenlandic) frequentatives, continuatives and iteratives are analysed as **unbounded** pluractionality, and cardinal temporal adverbs as expressing **bounded** pluralities
  - Pluractional predicates are like mass nouns (i.e., cumulative) and it is this that makes them unbounded and therefore atelic Van Geenhoven (2004, 143)
  - The [cardinal adverbs like *twice, several times*] express a bounded the [frequency adverbs like *regularly, every now and then*] express an unbounded plurality of events Van Geenhoven (2005, 120)
Variation: exact cardinality

- Independent evidence for linking exact cardinality to a general atelicity requirement for pluractionals in Chechen

(20) As  
1sg.erg DEM song  /  DEM song.pl  one.obl hour.loc  sing.PRS  
I sing this song / these songs in an hour.  
telic \(\rightarrow\) simplex verb

(21) As  
1sg.erg DEM song  /  DEM song.pl  again.and.again sing.PRL.WP  
I sing this song / these songs again and again.  
atelic \(\rightarrow\) plural-marked verb (Wood, 2007, 215, exs 22/23)
Variation: exact cardinality

In certain cases with distributive markers **cardinalized arguments** can induce a parallel effect if individual arguments are paired with an individual event:

- John ate three apples (at different times).
- Three girls came out of the house. (Three events)

(22) ?? mutàanee àshirin sun fir-fitoo (dàgà gidàajensù) people **twenty** 3pl.perf RED-come.out from houses.their (Hausa)

(ex from Součková and Buba (2008, 135))
Variation: exact cardinality

- In certain languages Amerindian languages distributive markers contrast with collective markers.

(Mithun, 1999, 92) "Sets of events viewed collectively are typically contiguous in space and time, often implying the spatial proximity of their participants,

- The participants are typically treated as a unit,

- with the implication that agents cooperate in concerted action, or

- that patients are affected or manipulated together as a set."

(Mithun, 1999, 92)

- Number distinctions in collectives/distributives

  - Distributive markers would not be used to describe an action affecting only two elements.
  
  - "Collectives, by contrast, very often apply to just two entities". Mithun (1999, 93)
Variation across verbal plurality markers

Types of plurality: asserted / mixed / modalized

Have to distinguish three types of plurality (Day 1)

(23)  a. asserted plurality
    b. mixed plurality: asserted + presupposed
    c. modalized plurality (habituals)
Variation: mixed plurality

- Mixed plurality: for example verbal markers that behave like additive adverbs (repetitive markers) (see also Dressler’s category of *duplicative*)

(24) Il a *re*lu le livre. (French)
    He re-read the book.
(25) apaqqippoq (West Greenlandic)
    api-qqip-puq
    snow-again-ind[-tr]3sg "It snowed again."
    (ex from Fortescue 1984, 284, Van Geenhoven (2005, 115, ex 28))
(26) picha-pa (Cusco Quechua)
    ‘sweep again’ (Faller, 2012)
Variation: exact cardinality

- The incompatibility with exact cardinality does not apply to **repetitive** markers. (27)

(27) She re-read the book once.

- The incompatibility with exact cardinality trivially applies to **modalized** markers, as modalized markers include potential and counterfactual events.

- With modalized markers the cardinality predicate can only modify the iterated event or the frequency.

(28) a. She washes her hair twice. (Whenever she washes it, she washes it twice)

b. She repairs bicycles twice a week.
Distribution possibilities of the plural event: arguments

- Expressions of verbal plurality differ with respect to distribution possibilities of the event plurality over plural arguments
  - **Non-distributive** Vpl marker: the plural predicate has to apply to each individual making up the plural argument.
  - **Distributivity-compatible**: the underlying predicate can apply only once to each individual making up one of the plural arguments.
  - **Distributivity-forcing**: the plural event has to be distributed over an argument (locations, times)
Distribution possibilities: distribution compatible

- **Distributivity-compatible**: the basic predicate can apply only once to each individual making up one of the plural arguments.
- **Test**: Are once-only predicates possible?
  - *die, pass A-levels, arrive, explode* (for the subject)
  - *kill, fish* (for the object)
Distribution possibilities of the plural event

Distribution possibilities: distribution compatible

**Distributivity-compatible**: Once-only predicates


(30) Bombanash **lilxira** (Chechen) bomb.PL explode.PRL.WP The bombs exploded. Wood (2007, 211, ex 17b/c)
Distribution possibilities: distribution compatible

- **Distributivity-compatible**: can have iterative reading with a singular argument

(31) Nuka ullaap tungaa tamaat
Nuka ullam-p unga-a ama-at
N.ABS morning-ERG direction-3SG.SG.ABS all-3SG
sanioqquttarpoq.
saniuqqut-tar-puq
go.by-repeatedly-IND.[-tr].3SG
‘Nuka went by repeatedly for the whole morning.’
(Van Geenhoven, 2004, ex 27)

(32) As jashchik hwala- ai’ira / ii’ira (Chechen)
1SG.ERG box up- lift.WP / lift.PRL.WP
I lifted the box once / repeatedly. (Wood, 2007, 213, ex 19a)
Distribution possibilities of the plural event

Distribution possibilities: non-distributive

- **Non-distributive** wrt plural argument
  - Once-only predicates out
  - Plural predicate applies to each individual making up the plural argument

(33) Squamish CVC-reduplication does not allow distribution

chet  xwet-xwit-im
1S.PL RED-jump-INTR

(i) We are jumping
(ii) */? We jumped (Context: we each jumped once)
Bar-el (2008, 12, ex 25)

"Even if there are plural participants, each participant seems to be required to participate in plural events." (Bar-el, 2008, 12)
Distribution possibilities: non-distributive

- Hoan pluractional marker kí-\texttt{VERB}-q\|o does not allow distribution, (Collins, 2001, 467-8, exs 32/33).

(34) a. tsi i kí- ‘am-q\|o
3pl past ki[pl] eat-around
They ate around.
(Cannot mean Chris ate in one place, Titi ate in another place and Leha ate in a third place.)
They are going around (separately or together) eating in different places.

b. tsi ‘a kí- n\|obo-q\|o ke tcon!a’e
3pl prog ki[pl] talk-around with people
They are going around talking to people.
Cannot mean: each of them is talking to a different person in a separate location.
They are going around (separately or together) talking to different people.
Distribution possibilities: distribution forcing

- **Distributivity-forcing**: the basic predicate *has* to apply to individuals making up one of the plural arguments.

- Yup’ik distributive postbase (Jacobson 1984:542, cited in Wood 2007, 65)

(35)  
  a. *tekite*- to arrive  
      *tekitequut* 'they are arriving one after the other'
  b. *mere*- to eat  
      *ner’qui* he is eating them one after another"
Distribution over participants: types of noun phrases

- Compatibility with distribution depends on the syntactic form of the plural argument.
- Not all types of plural arguments are equally available for distributive readings (van Geenhoven, 2004, 2005)
- Bare plurals are good candidates for distributable plural arguments.
- Plural indefinite NPs are not generally distributable
- Distribution cannot be analysed as quantificational scope taking over an indefinite

(36) John repairs several bicycles/ some bicycles.
(no distribution of the object over events
≠ John repairs bicycles
only John repairs the same bicycles over and over.)
Compatibility with distribution depends on the syntactic form of the plural argument.

The possessive DP in (37a), and the indefinite plural duqq’a +N.pl "many" allow distribution in Chechen.

From the gloss it seems that duqq’a is count as it combines with a plural N in (37b).

(37) a. ceera duezalsh takhana duqa hxaalkhie ghittira (Chechen)
their members of family today very early wake.up.PLW
Their family members woke up very early.
this example does not have "the expected repeated event reading [...] [the sentence] means that all the family members woke up more or less around the same time" (possessive DP)

b. takhana as duqq’a ch’eerii liicira
today 1S.ERG many=& fish.PL catch.PLW
I caught a lot of fish today. (each fish is only caught once). (Yu, 2003, 297) (many+N)
Distribution over participants: types of noun phrases

- Wood (2007, 216): **demonstrative plurals** and **plural pronouns** in Chechen do not allow distributive dependency readings in contexts where the indefinite (bare) plural does.

- Indefinite *duqqa* "many"+ plural: distinction between
  - distributed with plural V
  - non-distributed with simplex V

(38) Sialxana milcuos tykan chohw duqqa zulamxoi
yesterday police.officer.ERG store.GEN inside many criminal.PL
leeçira (Chechen)
catch.WP
‘Yesterday the police officer caught a lot of criminals (together) in the store.’

(39) Sialxana milcuos ghaalaw duqqa zulamxoi liicira
yesterday police.officer.ERG city.LOC many criminal.PL catch.PRL.WP
‘Yesterday the police officer caught many criminals in the city (separately).’
Distribution over participants: types of noun phrases

Wood (2007:216, ex.24a/b): with a demonstrative pl bounded absolutive:

- distinction between a distributed and a non-distributed reading disappears ($\neq$ (38/39))
- pluractional *liicira* means iteration on the same object

(40) Sialxana milcuos hara zulamxoi leecira (Chechen)
yesterday police.officer.ERG DEM criminal.PL catch.WP
‘Yesterday the police officer caught these criminals (together or separately).’

(41) As ysh sialxana liicira
1SG.ERG 3PL.ABS yesterday catch.PRL.WP
‘I caught them again and again yesterday.’ (Wood 2007:216, ex.24a/b)
Event plurality: distribution vs. scope

- With habituals achievement/accomplishment with a bare plural object allow distribution.
- No multiplication of singular indefinites: same object across the event plurality (42a).
- Distribution of a plural over events: different objects per event possible (42b).

(42)  a. # John eats an apple.
     b. John eats apples.
Event plurality: distribution and scope

- Day 1: If this is a scope effect:
  - Why do sg indefinites have to take wide scope with the verbal plural markers?
  - Why do sg indefinites not have to take wide scope with adverbs?

- Van Geenhoven’s solution: not a scope effect but a distribution effect.
  - Singular indefinite objects do not allow distribution
  - Bare plural objects allow distribution over event plurality (Van Geenhoven, 2004, 136)
Distribution over participants: bare singulars

- Empirical support for Van Geenhoven
- Languages with bare singular objects: Modern Hebrew, Somali (Cabredo Hofherr, 2012)
  - In MH, Somali bare singulars do not allow multiplication with habitu als (same object across events)
  - However, in MH, Somali bare singulars do not take scope wrt to
    - quantified subjects
    - negation
  - lack of multiplication cannot be an effect of obligatory wide scope for the sg indefinite
Distribution over participants: bare singulars

- In MH, Somali: habituals do not multiply bare singulars (same object across events)
- Infelicitous with verbs of creation

(43)  
  a. John kotev šir  (Modern Hebrew)  
      John writes poem  
      ok ’John is writing a poem.’ (episodic)  
      * ’John writes poems.’ (habitual)
  
  b. Cali gabay buu/ayuu qoraa.  (Somali)  
      C. poem BAA+3MSG writes.PRS.3MSG  
      ’Ali is writing a poem.’  
      * ’Ali writes poems.’ (Cabredo Hofherr, 2012, ex from)
Distribution over participants: bare singulars

Modern Hebrew & Somali bare singulars do not take scope wrt to negation

(44) Negation: narrow scope only

a. Rooble buug ma gadan. (Somali)
   R. book NEG buy
   ’Rooble didn’t buy a book.’ (narrow scope for buug)
   Not: There is a book that Rooble did not buy.

b. yosi lo maxar bayit (Modern Hebrew)
   Yosi not sold house
   ’Yosi didn’t sell any house.’ (Cabredo Hofherr, 2012, ex from)
Distribution over participants: bare singulars

Modern Hebrew & Somali bare singulars do not take scope wrt to quantified subjects

(45) Quantifiers: narrow scope only

a. Arday-kasta wuxuu akhriyayaa buug. (Somali)
   student-each WAXAA+3MSG read.PROG.3MSG book
   ’Each student is reading a book.’

b. kol student kara sefer (Modern Hebrew)
   each student read book
   (Cabredo Hofherr, 2012, exs from)
Distribution over participants: bare singulars

- Modern Hebrew & Somali bare singulars do not take scope wrt to quantified subjects & negation
- Bare singulars Modern Hebrew & Somali do not multiply under habituals.
- If lack of multiplication to wide scope were due to wide scope for bare singulars we would have the following situation
  - bare sg never take scope
  - under habituals bare sg have to take wide scope
  - ☇
Aside: Scope and intensional predicates

- Modern Hebrew & Somali bare singulars **differ** wrt to intensional predicates (**want**)
- This suggests that the distinction between specific or non-specific readings with intensional predicates not a scope effect

(46) Somali: non-specific reading only

Guuleed wuxuu rabaa in-uu nin-gabya la
Guuleed WAXAA+3MSG want.3MSG that-3MSG poet with kulmo. (Som)
meet.3MSG.SBJV

’Guuleed wants to meet a poet.’ (any poet)

(47) Modern Hebrew: specific and non-specific readings possible

yosi roce lifgoš mešorer (MH)
yosi wants to-meet poet

’Yosi wants to meet a poet.’ bare sg: ∃ > want & want > ∃
Case study: =Hoan

- Collins (2001, 467): Basic meaning of kí-VERB-q||o
  - there are several different places
  - at which the event or action is sequentially repeated.

- Locative + temporal distribution

- Cannot distribute over a plural argument (34)

(48) a. * Titi ‘a- kí- ‘am-q||o ki ci mỌun
Titi PROG kí[pl] eat-around PREP place one

b. * ya ’a- kí kini-q||o Ọ’u ki ci mỌun
3sg PROG kí[pl] want-around duiker PREP place one

c. * kyeama i kí- ciu-q||o ki ci mỌun
dog past kí[pl] dig-around PREP place one

(Collins, 2001, 467, ex 31a-c)
Case study: Karitiana

- Karitiana reduplicated V does not allow distribution over the subject Müller and Sanchez-Mendes (2008); Müller and Negrão (2012)
- Caveat: Karitiana has no nominal plural; the example uses a coordination
  --- check other types of plural DP

(49) *Luciana Leticia nakam’abyadn myhint gooj
Luciana Letícia ø-naka-m’-a- by- ’a-t myhin-t gooj
Luciana Leticia 3-DECL-CAUS-build- ?- RED-NFUT one-OBL canoe
‘Luciana and Leticia built one canoe’
not: Collective reading (as a collective event of building one canoe is not in the denotation of the pluractional verb)
Case study: Karitiana

- Caveat: Karitiana has no nominal plural; the example uses a coordination
  \[\rightarrow\text{check other types of plural DP}\]

- In the same context singular verbs do not allow distribution either only the collective reading.

(50) Luciana Leticia nakam’at myhint gooj
Luciana Leticia ø-naka-m-‘a-t(??)[sic!] myhin-t gooj
Luciana Letícia 3-DECL-CAUS-build-NFUT one-OBL canoe
‘Luciana and Leticia built one canoe’
ok: Collective reading (they built it together, one event)
not: Distributive reading (they each built a canoe)

Case study: Kaqchikel

  - Event-internal -Ca’
  - Event-external -löj

(51) a. X-Ø-u-k’oj-ok’a’ ru-chi’ ri jay.
       CPL-A3S-E3S-knock-Ca’ E3S-mouth the house
       ’He kept knocking at the door.’ Henderson (2014, ex28)

b. X-Ø-b’os-löj.
   CPL-A3S–arrive-löj
   ’He kept showing up (and leaving and showing up again).’
   Henderson (2014, ex 8)
Case study: Kaqchikel

- Event-internal -Ca’: contiguous events only
- Event-external -löj: spaced out events possibly

(52) You see Juan every day and he gives you a dirty look.

#A Xwan x-i-ru-tz’et-etz’a’.
CLF Juan CPL-A1S-E3S-look.at-Ca’

’Juan keeps looking at me.’
Henderson (2014, ex20)

(53) X-Ø-b’oj-löj ri aj
CPL-A3S-explode-löj the fireworks
’The fireworks kept exploding. (every few minutes for a couple of hours)’ Henderson (2014, ex 32)
Case study: Kaqchikel

- **Ca’** does not allow distribution over plural arguments.

(54) There is a large group of people across the street and they each turn and glance at me once.

#X-i-ki-tz’et-etz’a’.
CPL-A1S-E3P-look.at-Ca’

’They kept glancing at me.’ Henderson (2014, ex24)

(55) A bunch of people come by my market and pick up a particular tomato, squeeze it once, and put it down.

#X-Ø-ki-pitz’-ipa’ la jun xkoya’ la’
CPL-A3S-E3P-squeeze-Ca’ that one tomato there

’They kept squeezing that tomato.’ Henderson (2014, ex25)
Case study: Kaqchikel

-\textit{löj} allows distribution over plural arguments.

(56) \textit{X-e-kam-alöj.}
\textit{CPL-A\textsubscript{3}P-die-\textit{löj}}
'They died over time.' Henderson (2014, ex 40)
Speaker comment: Could be used to describe how people die during a plague.

(57) \textit{X-Ø-ban-alöj} \textit{ri jäy}
\textit{CPL-A\textsubscript{3}S-do.pas-\textit{löj}} the house
'The houses were build over time.' Henderson (2014, ex39)
Case study: Kaqchikel

- Ca’ does not imply culmination: with an achievement, V+Ca’ does not entail the simplex counterpart
- löj does imply culmination

(58) X-Ø-u-tzuy-utza’, po man x-Ø-tzuy-e’ ta (Kaqchikel) CPL-A3S-E3S-sit-Ca’, but NEG A3S-sit IRR ‘She kept sitting up and down there, but she didn’t sit.

(59) #X-Ø-u-k’oj-ok’a’ ru-chi ri jay po man CPL-A3S-E3S-knock-Ca’, A3S-mouth the building but NEG x-Ø-u-k’oj-ij CPL-A3S-E3S-knock-ss IRR She kept knocking on the door, but she didn’t knock it.’ Henderson (2014, ex 14/15)
Case study: Kaqchikel

- löj does not allow low cardinality

(60) X-Ø-tz’am-alöj ri säqmolo
     CPL-A3s-take.pas-löj the eggs
     ’The eggs were taken over time.’ Henderson (2014, ex41)
     "speakers reject [this example] in situations where only two or
     three eggs were taken."
Case study: Brazilian Portuguese

PRES-PERF in North-Eastern Brazilian Portuguese
Cabredo Hofherr et al. (2010)

- PRES-PERF disallows simple continuative readings

(61)  

a. Pedro tem dormido na varanda o inverno inteiro.  
    Pedro has sleep.PP in-the balcony the winter whole  
    ‘Pedro has been sleeping on the balcony all winter.’

b. #O urso tem dormido na sua caverna o inverno inteiro.  
    the bear has sleep.PP in-the his cave the winter whole  
    ‘The bear has been sleeping in his cave all winter.’

Cabredo Hofherr et al. (2010)
Case study: Brazilian Portuguese

- **PRES-PERF** in North-Eastern Brazilian Portuguese
  - Cabredo Hofherr et al. (2010)
    - **PRES-PERF** allows gradable s-level states (62c/d)
    - **PRES-PERF** disallows yes-no s-level states (62a/b)

(62)  

a. # Esse livro sempre tem estado na prateleira da direita.
   "This book always has been on the right-hand shelf.'

b. # Pedro tem estado no jardim/ nos Estados Unidos.
   "Pedro has been in the garden / in the US.'

c. Pedro tem estado muito doente nos últimos tempos.
   "Pedro has been very ill lately.'

d. Pedro tem estado bêbado / aborrecido.
   "Pedro has been drunk / upset.' Cabredo Hofherr et al. (2010)
**Case study: Brazilian Portuguese**

- **PRES-PERF** in North-Eastern Brazilian Portuguese (Cabredo Hofherr, Laca & de Carvalho 2010)
  - can distribute over a plural argument (once-only predicates)
  - excludes exact cardinality of the plural argument

(63)  

a. **Muitas / # Vinte** pessoas têm morrido no Iraque.  
Many / twenty people have die.PP in+the Iraq  
‘A lot of / #twenty people have been dying in Iraq.’

b. **Muitos / # Vinte** estudantes têm aderido ao Partido Comunista.  
Many / twenty students have join.PP to+the Party Communist  
‘A lot of / #twenty students have been joining the Communist Party.’ Cabredo Hofherr et al. (2010)
Case study: Brazilian Portuguese

- **PRES-PERF** implies the process continues beyond Utt-T (universal perfect)
- Time-relational aspect

(64) # Eu tenho visitado meus pais, mais não vou mais.
    I have.PR.1SG visit.PP my parents but NEG go.PR.1SG more

‘I have been visiting my parents but I don’t anymore.’ example 21b in Molsing 2007
Case study: Brazilian Portuguese

- The NEBP-Present Perfect amalgamates of properties of lexical and grammatical aspect:
  - lexical aspect (temporal contour of the event over the interval): frequency+habituality with temporal gaps, with distribution over subject possible (habituality: need a long enough interval to create a habit, "this morning" is too short) (→ pluralactional markers)
  - grammatical aspect (time-relational aspect): interval of assertion placed with respect to Utterance-Time (has to be on-going at Utterance-Time)
Case study: Brazilian Portuguese

Cabredo Hofherr, Laca & de Carvalho 2010 propose that \textsc{PRES-PERF} introduces an operator that applies to VP and has the following definition:

\begin{align*}
\lambda P \exists i \exists E i \subset \tau(E) \& RB(\tau(E)) \not\in i \& RB(i) = \text{Utt-T} \& P(E) \\
\text{& } i \text{ is of a certain length} \\
\text{& } \exists e, e' \in E \& e \neq e' \\
\text{& } \forall e, e' \in E \rightarrow \tau(e) \bigcirc \tau(e') \\
\text{& } V(e) \& V(e') \& \text{card}(e \oplus e') > 1
\end{align*}
Case study: Brazilian Portuguese

- Distinguish between $P = [[vP]]$ and $V = [[V]]$ to accommodate cases with plural and quantified objects.

- Since $e$ and $e'$ are contained in $E$ and since $P$ applies to $E$ by the first line of the definition, the events $e$ and $e'$ have to have the participants that are contained in the participants of the plural event: $\text{PART}(e) \subset \text{PART}(E)$, where $\text{PART}$ can be any participant: Agent, Patient.

- The asserted part is a Present Perfect
Case study: Brazilian Portuguese

The underlined conjuncts in the following lines constitute presuppositions (felicity conditions) for use of the PRES-PERF.

- The first conjunct requires a sufficiently long interval
- The second and third line capture the pluractional-like properties of the PRES-PERF: there is a plurality of events of the type described by the verb, and the temporal traces of different events do not overlap.
- The conjuncts in the last line of the presupposition are intended to capture the felicity condition holding in varieties which, as the one we describe, do not admit continuative readings. It amounts to a ban on the possibility for the sum of events to count as a singular event.
- For our consultant accomplishments with singular objects like read a book, paint his house, cannot appear with the PRES-PERF, even though an interpretation involving temporal gaps, namely an intermittent interpretation, is in principle available.
Pluactional markers are a heterogeneous class.

One clear subclass that should be kept apart are the markers (like re-, called DUPLICATIVES in Dressler 1968) with a reading similar to additive adverbs again, encore, ancora, zài.

A single pluactional marker can have a wide range of readings: distributive, durative, continuative, intensive.

The incompatibility with exact cardinality is plausibly related to an atelicity requirement.
Summary 2

- Verbal plurality markers do not multiply singular indefinites
- Some verbal plurality markers allow distribution over certain types of plural arguments
- Distributive dependencies vary wrt to the plurals that they can distribute over (Laca, 2006)
  - bare pl
  - plural indefinites
  - definite pl
  - coordinations
  - quantified expressions
References I


References II


References III


