1. Introduction

West Greenlandic or Kalaallisut is a polysynthetic language and belongs to Inuit languages, a subbranch in the Eskimo-Aleut language family. The Eskimo-Aleut language family has two branches, Aleut and Eskimo. The Aleutian languages comprise one branch spoken in the Aleutian Islands, and within the Eskimo languages there are two subbranches Yupik spoken in Alaska and Siberia and Inuit languages spoken from Alaska to Greenland. The Inuit languages are Iñupiaq in Alaska, Inuktitut in Canada and Kalaallisut in Greenland, and are described as a continuum of dialects more or less mutually intelligible (Dorais 1990, Fortescue & al. 1994, Mithun 1999: 401). Kalaallisut described in this article is spoken in West Greenland.

Aspect in Kalaallisut is manifested by grammatical derivational affixes and by the inherent meaning of the verb stem (Aktionsart). The grammatical derivational aspectual affixes (henceforth aspectual affixes), are divided into two groups: the quantitative aspectual affixes, including distributive, repetitive and habitual events; and phasal aspectual affixes, which are further divided into an inner phasal aspect and an outer phasal aspect, indicating different kinds of internal time for events. Some phasal
aspectual affixes have developed polysemous meanings, where it seems that the same aspectual affix with scope over the verb stem has also gained scope over the sentence; for example, -ler ‘begin, about to, near future’. With the first meaning ‘begin’, -ler has scope over the verb stem and belongs to the inner phasal aspect category, and with the second and third meanings, -ler has scope over the sentence. With the meaning ‘be about to’, -ler belongs to the outer phasal aspect, and with the meaning ‘near future’, which seems to have developed during the last few decades, -ler belongs to the tense affixes. Thus, the order of the phasal aspectual affixes and the tense is: stem + inner phasal aspect + outer phasal aspect + tense + inflection.

The polysemic nature of the tense and aspectual affixes is a result of an ongoing grammaticalizing process in which affixes with concrete meanings positioned near the stem receive more abstract meanings when the position shifts to the right near the inflection (Kristoffersen 1992, Fortescue 1996, Trondhjem 2007).

Most of the quantitative aspectual affixes have only one meaning, and do not exhibit this pattern, but some habitual affixes, -tar/-sar (-sar is added to vowel stems) ‘repetitive (iterative), habitual’, seem to show a pattern of being both verb-modifying with a ‘repetitive’ meaning and sentence-modifying with a ‘habitual’ meaning (see details in Trondhjem, 2012). There are about 33 quantificational affixes, which are more or less productive as individual affixes. The less productive affixes attach to specific verbal types, and will be specified in the description of the affixes. It seems that the more abstract the semantic meaning of an affix is the more productive is the affix, as in the case of the full productive habitual affix -tar.

The quantificational affixes include semantic categories of “semelfactive/momentaneous; continuative; repetitive; iterative/habitual (also serving as gnomic/generic); and distributive/collective” (Kristoffersen 1992: 161). About three affixes are semelfactive/ momentaneous: -riar ‘set about/dynamic state’; -allag ‘suddenly a bit’; -ummi/-ummer ‘suddenly’ (Hagedorn 1984: 60ff.). About seven are continuative affixes: -juar ‘continuously/still’; -juannar ‘always/continually’; -juarsinnar ‘continually/
always; -innar ‘always/continually’; -usaar ‘keep on -ing (with difficulty)’; -loor ‘the whole time’ (ibid.: 74ff.). About ten are iterative/habitual affixes: -sar/-tar ‘repeated/iterative, habitual’; -kula ‘often’; -gajuC ‘often/inclined’; -nngisaannar ‘never’; -neq ajor- ‘negative habitual’; -qqatuC ‘rarely’; -ja ‘inclined/do easily’; -jaallu ‘early (habitually)’; -(s)ari ‘repeated/habitually’; -saannar ‘often/frequently’ (Trondhjem 2012). About three are repetitive affixes: -(sa)qattaar ‘repeatedly’, -llattaar ‘now and then’ and -umisaar/ ummisaar ‘back and forth’.

The focus of this article is the distributive and collective affixes, of which there are about 11 affixes. These will be listed below. The distributive/collative aspectual affixes can be divided into two groups, the first group of four affixes indicating a collective meaning of several subjects doing the same action more or less simultaneously. The last seven indicate distributive meaning where the subjects or objects do x bit by bit or one by one. The aim of this article is to demonstrate the semantic difference between the terms of collective versus distributive affixes seen in different contexts.

In section 2 the theoretical frame and the distributive and collective affixes will be presented. In section 3 collective aspectual affixes will be described, and in section 4 the distributive aspectual affixes will be described. In section 5 is the conclusion.

2. The theoretical frame

In general descriptions of quantitative aspects, it sometimes seems as though there is no distinction between the terms iterative and repetitive or frequentative (Cinque 1999: 91ff.), which makes it difficult to differentiate the meanings of the terms. Comrie defines the habitual aspect as “[…] a situation which is characteristic of an extended period of time, so extended in fact that the situation referred to is viewed not as an incidental property of the moment, but precisely as a characteristic feature of a whole period. If the individual situation is one that can be protracted indefinitely in time, then there is no need for iterativity to be involved” (Comrie 1976: 27ff.). Accordingly, an iterative situation cannot be protracted in time. The
habitual is then a situation that is repeated over time as a habit or one that happens occasionally. The iterative aspect may be part of the habitual.

Bybee (1994: 127) makes a distinction between habitual, iterative and frequentative, where “habitual situations are customary, repeated on different occasions”. Here, “frequentative includes habitual meaning – that a situation is characteristic of a period of time [...]” and that the situation is frequent in the specific period of time. Iteratives are also called repetitives, where events are repeated during a particular occasion. In this definition, the iterative is separated from the habitual meaning and points to one repeated event, while the frequentative includes habitual events. “It signals that an action is repeated on a single occasion and differs from the habitual and frequentative, which both signal that the repetition occurred on different occasions.” Bybee also refers to the distributive aspect as: “The plurality or repetition in iterative meaning does not apply just to the action itself, but often has consequences for the participants in the action. [...] a gram used for iterative action may also convey the idea that multiple participants were involved in the action or that the action was distributed over several separate agents, goals, or locations.”

In some languages, the same morpheme may cover the semantics of both iteratives, repetitives or frequentatives. In Kalaallisut, there are about eight to ten affixes that denote the habitual-frequentative aspect, about seven affixes denoting the iterative-repetitive aspect, and about eleven affixes are also categorized as denoting the distributive and collective aspect (Hagedorn 1984: 107, Kristoffersen 1991). Mithun (1999) distinguishes between the ‘collectives’ and ‘distributives’ appearing in both nominals, adjectives and verbs in *The Languages of Native North America*. Here they seem not to be treated as aspectual affixes, but as separate morphemes indicating the plurality of the participants in the event. “Collective affixes may appear in verbs as well. 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 as well, often with the implication that agents cooperate in concerted action, or that patients are affected or manipulated together as a set” (ibid.: 93). “Verbal distributives generally spread an event or state over various locations, participants or occasions. [...] The distribution of
an action over various locations can imply its distribution over different people’’ (ibid.: 88).

In Kalaallisut there are separate affixes for iterative, repetitive and distributive/collective affixes. The iterative, repetitive and habitual affixes often occur within the same verb. An example of iterative, repetitive and habitual affixes in the same verb is shown in (1) below, where -sar/-tar (repeated/iterative, habitual) is followed by -qattaar ‘repetition’:

(1) \[ Ikuttaqattaartarpaa. \]
\[ ikut-ta-qattaar-tar-paa \]
\[ hack-REP-REP-HAB-IND.3SG.3SG \]
\‘S/he used to hack on it (several times).’

The first -tar, with an iterative or repeated meaning, has scope over the verb stem and indicates a repetition of one action – here the hacking. The stem is semilfactive and indicates one hack only and needs an iterative affix to continue the hacking. The repetitive affix -qattaar indicates the repetition of the whole situation, which is that the hacking took place several times, and this also has a scope over the verb stem. The last -tar ‘habitual’ has scope over the whole proposition, and indicates that hacking is a kind of habit.

The eleven collective and distributive affixes are added to the verb stems only, just like the other quantificational aspectual affixes in Kalaallisut, and need an inflection with a portmanteau morpheme of mood, person and number, where the number is either in 1st, 2nd, 3rd, or 4th person plural, shown with 1st person plural in (2).

(2) \[ Ikuttarrappugut. \]
\[ ikut-ta-rrap-pugut \]
\[ hack-REP-COLL-IND.1PL \]
\‘We, as a group, hacked.’

All collective and distributive affixes have scope over the verb stem only, and may follow the repetitive, iterative and semilfactive aspectual affixes as in (2), where it follows a repetitive affix, but do not follow continuative and habitual affixes shown in (3):
Of the four collective affixes listed below, the first one only shows that several subjects do the same action more or less simultaneously as a unit or set. The three last ones may have several objects as a unit or set:

- *rrat(i)/-t(i) ‘many/several subjects do together almost simultaneously’;
- *a ‘duration/evenly continued movement, several subjects/objects following each other, several do simultaneously’;
- *kaa ‘several subjects, more or less close to each other, several do more or less at the same time’;
- *gar/-rar ‘several times, several subjects/objects following each other, several do simultaneously’.

The seven distributive affixes indicate that the subjects or objects do x bit by bit or one by one and are listed below:

- *jorar/-joqqar ‘do bit by bit/one by one’;
- *jortor ‘one by one’;
- *(r)sor ‘several times, longer-term action/piece by piece’;
- *taartor ‘several have got a new x/have got many new x’;
- *ussor ‘several objects, one by one, piece by piece’;
- *ter ‘bit by bit’;
- *titer ‘systematically, several subject/object following each other, several scattered/here and there’.

In section 3 the semantic differences between the four collective aspectual affixes will be described and in section 4 the semantic differences of the distributive aspectual affixes will be described.

3. The collective aspectual affixes

The semantic meaning of some of the collective affixes, for example *rrat(i)/-t(i), might not be aspectual, since it seems that the only meaning is the collectivity. But unlike other ‘modal’ quantifiers, which are added to nominal, adjectives and verbs (Mithun, 1999: 91), they are only added to verbal stems, and are distinguished from the nominal modifiers
-(r)passuit/-(r)paat ‘many/crowd of’ (Fortescue, 1983: 54). When added to non-durative verb stems, such as telic verb stems, the duration expressed by the verb stem will always be extended a bit until all participants of the event have concluded the event, which is the reason for including this affix under the aspectual affixes.

Starting with -rrat(i)/-t(i) ‘many/several subjects do together almost simultaneously’, the contexts in which the collective affixes occur are explained below. -rrat(i)/-t(i) indicates only the plurality of the subject of the verb, and depending on the verb stem the acting of the verb varies. Added to telic or punctual verb stems as achievements or semilfactive verb stems the acting is almost simultaneous, as in (4):

(4)  
Oqaloreermat inuit nikuerrapput.
oqalo-reer-mat  inuit nikue-rra-pput
speak-PERF-CAUS.3SG people.ABS.PL  stand.up-crowd-IND.3PL  
‘When she finished her speach, they all stand up.’

Here, it takes some time before all are standing, but the core meaning is still that many do the same thing. When added to telic verb stems, it seems that the only suitable adverb of time is a punctual one as ataatsikkut ‘at the same time’. Added to durative verb stems as activity or accomplishment or state the duration of the acting depends on the adverb of time used in the sentence as:

(5)  
Ulloq naallugu inuit sulerrapput.
ulloq naa-llugu inuit sule-rra-pput
day.ABS.SG end-CONT.4SG people.ABS.PL work-crowd-IND.3PL  
‘People (as a crowd) worked all the day long.’

The meaning of -a ‘duration/evenly continued movement, several subjects/objects following each other, several do simultaneously’ is both collective and aspectual, as it indicates that the group does the same thing over a period, until all participants have completed the event. It seems to be added to telic verb stems as in (6) and (7). In these examples the entrance is relatively small according to the number of participants. In (6) the subject silaannaq ‘air’ is a mass word, and makes the action as an evenly continual action, and there has to be a hole, through which the air comes in:
When the subject is countable, as in (7), the agents do the acting one by one, as when the crowd goes out almost at the same time through the same door, until all are out. Here again the entrance is relative small in accordance to the amount of the participants. One would not use this form if the door was so big that all participants could go out at the same time:

(7)  **Inuit aniapput.**

    inuit  ani-a-pput
    people.ABS.PL  go.out-several.simultaneously-IND.3PL
    ‘Many people go out (one by one).’

One agent (subject) can also do the same thing several times where the object is plural as in (8). Here there are several stores, where the placement of the stores does not affect the meaning:

(8)  **Pisiniarfiit tamaasa isaavai.**

    pisiniarfiit  tamaasa  isa-a-vai
    shop.ABS.PL  all  enter-one.by.one-IND.3SG.3PL
    ‘She goes into all stores (one by one).’

The next collective affix -kaa ‘several subjects, more or less close to each other, several do more or less at the same time’ also indicates a collective and aspectual meaning. The difference from the last example -a is that the subjects do the same action in different groups like when students leave their home town for study in another town, going by ship or plane, and this event is repeated over a period of time:

(9)  **Ilinniartut aallakaappput.**

    ilinniartut  aalla-kaa-pput
    student.ABS.PL  leave-crowd-IND.3PL
    ‘The students (crowd) leave.’

In the next example the subject is inanimate, and here the meaning is that many stones are falling down in ‘clumps’ in one continuous movement.

(10)  **Ujaqqat nakkakaappput.**

    ujaqqat  nakk-kaa-pput
    stone.ABS.PL  fall-collection-IND.3PL
    ‘Collections of stones fall down.’
The meaning of -gar/-rar ‘several times, several subject/object following each other, several do simultaneously’ is both collective and aspectual, in that the meaning also includes a kind of repetition as in (11). It seems that it must be added to telic achievements and accomplishments, and also semelfactive verb stems. Here the subjects act one by one in a period of time, i.e. a group of hunters, who are out hunting that day, arrive one by one:

(11)   Piniartut tikerarput.
       piniartut  tike-rar-put
       hunter.ABS.PL  arrive-one.by.one-IND.3PL
       ‘The hunters arrive one by one.’

When the verb is transitive the agent does the same thing several times, as in (12) where a football player kicks the ball:

(12)   Arsaq isimmigarpaa.
       arsaq  isimmi-gar-paa
       ball.ABS.SG  kick-several.times-IND.3SG.3SG
       ‘He kicks the ball (several times).’

The duration of the activity can be a period of time, for instance one season (summer time), as when different groups of children go to Tivoli in Copenhagen.

(13)   Meeqqat Tivoli ornigarluarpaat.
       meeqqt  Tivoli orni-gar-luar-paat
       child.ABS.PL  Tivoli visit-repeated-well-IND.3PL.3SG
       ‘Many children visited Tivoli well.’

4. The distributive aspectual affixes

The distributive affixes indicate that the action is done gradually or in sections taken one by one or bit by bit. The seven affixes are divided into three groups:

[A] A set of x is spread one by one or bit by bit, and pieces are gathered into one set, the affixes being -jorar/-joqqar ‘do bit by bit/one by one’ and -jortor ‘one by one’.

[B] A whole action is handled in phases gradually or piece by piece, the affixes being -(r)sor ‘several times, longer-term action/piece by piece’,
-taartor ‘several has got new x/has got many new x’ and -ussor ‘several objects, one by one, piece by piece’.

[C] A graduated action until a result is gained, the affixes being -ter ‘bit by bit’ and -titer ‘systematically, several subject/object following each other, several scattered/here and there’.

The affixes from group [A] seem to be added to transitive verb stems mostly, where the agent acts towards a plural object, the object being a set of x spread one by one or bit by bit or pieces gathered into one set. On intransitive verb stems the plural subjects act one by one, for example in different places or spaces. In the example (14) the laundry is a unit or set, which is spread on the clothes line, one by one.

(14)  Errortat maniorarpai.
      errortat      mani-orar-pai
      laundry.ABS.PL  hang.up-one.by.one-IND.3SG.3PL
      ‘She hangs up the laundry (one by one).’

Used in intransitive verbs, the subjects are separate as the flowers growing up one by one especially in spring:

(15)  Naasut naajorarput.
      naasut       naa-jorar-put
      flower.ABS.PL  grow-one.by.one-IND.3PL
      ‘The flowers grow up one by one.’

By using -jortor ‘one by one’ the pieces are gathered into one set, as when the fjords freeze one by one in the winter as in (16) or taking a set of clothes as in (17). One cannot use -jortor for pairs of something, for example shoes.

(16)  Kangerluit sikujortorput.
      kangerluit     siku-jortor-put
      fjord.ABS.PL   freeze-one.by.one-IND.3PL
      ‘The fjords freeze one by one.’

(17)  Atisassani atijortorpai.
      atisa-ssa-ni      ati-jortor-pai
      cloth-FUT-POSS.4.SG.ABS.PL   put.on-one.by.one-IND.3SG.3PL
      ‘She puts on her clothes (one by one).’

With the affixes from group [B], a whole action is handled in phases gradually or piece by piece. It seems that -(r)sor ‘several times, longer-
term action/piece by piece’ is a basic affix whereas the two last, -taartor ‘several has got new x/has got many new x’ and -ussor ‘several objects, one by one, piece by piece’, are composed – in the first case by adding -taar ‘get a new’ forming -taartor ‘several has got new x/has got many new x’. In the second case is added -ut(i) ‘do with’, a transitivizing affix. Both -taartor and -ussor are lexicalized productive units.

The first affix -(r)sor is added to both intransitive and transitive verb stems. The action is done gradually as in (18), where the unpacking and putting up the tent is included in the meaning. In (19) the meaning includes the person lying on the bed and covering the body with the duvet gradually, until only the head is free:

(18)  
_Tupertorpoq._
tuper-tor-poq
tent-piece.by.piece-IND.3SG
‘He puts up the tent (piece by piece).’

(19)  
_Qipittorpoq._
qipit-tor-poq
duvet-piece.by.piece-IND.3SG
‘He takes the duvet on (gradually)’

When added to transitive verb stems the meaning is that the agents handle the object piece by piece as in (20), where the letter is torn to pieces:

(20)  
_Allagaq alittorpaa._
allagaq alit-tor-paa
letter.ABS.SG tear-piece.by.piece-IND.3SG.3SG
‘He tears the letter to pieces.’

The affix is also used in the name of the modern toy as a jigsaw puzzle, where single pieces becomes a whole in the end.

(21)  
_ikkussortakkat._
ikku-ssor-tak-kat
put.on-piece.by.piece-HAB-PASS.PCP.ABS.PL
‘jigsaw puzzle’

The next affix -taartor is intransitive and adds only to nominal stems. The meaning is concrete: the singular subject gets many new things or the plural subjects get one kind of thing. In (22) the subject gets a set of clothes, maybe not at the same time, but over a period, for example, when
one changes one’s ‘look’. In (23) the plural subjects, every single pupil, get books:

(22) Atisartaartorpoq.
    atisar-taar-tor-poq
cloth-get.new-piece.by.piece-IND.3SG
‘S/he gets new clothes (piece by piece).’

(23) Atuartut atuagartaartorput.
    atuartut atuagaq-taar-tor-put
pupil.ABS.PL book-get.new-piece.by.piece-IND.3PL
‘The pupils get new books (one by one).’

The last affix -ussor consists of transitivizing -ut(i) and -(r)sor as explained above. In (24) the subject, the hunter, brings his catch home piece by piece.

(24) Pisani majuussorpai.
    pisa-ni maju-ussor-pai
catch-POSS.4.SG.ABS.PL ascend-piece.by.piece-IND.3SG.3PL
‘He brings his catch up piece by piece.’

The affixes in group [C] are -ter ‘bit by bit’ and -titer ‘systematically, several subject/object following each other, several scattered/here and there’, where the agent performs a graduated action until a result is gained. The action in (25) is raising the picture gradually upwards until the right place:

(25) Assiliaq qullarterpaa.
    assiliaq qullar-ter-paa
picture.ABS.SG raise-bit.by.bit-IND.3SG.3SG
‘He raises the picture up a bit.’

In (26) the acting is done bit by bit, like when the house is renovated, you renovate one thing at a time.

(26) Illu nutarterpaa.
    illu nutar-ter-paa
house.ABS.SG new-bit.by.bit-IND.3SG.3SG
‘He renovates his house (bit by bit).’

The affix -ter also adds to intransitive verb stems where the agent acts gradually as in (27). Here, the original meaning of iserterpoq is that you creep through the entrance in a traditional Inuit house with a long entrance. The creeping is gradually until you come into the house. Today this word is used when moving to a new house, or apartment.
(27)  *Iserterpoq.*  
iser-ter-poq  
enter-bit.by.bit-IND.3SG  
‘S/he creeps in through the entrance.’  
‘S/he moves into his new house.’

The last affix -titer contains causative -tiC ‘cause’. It is usually added to transitive verbs stems, where the patient of the verb indicates a group, as in (28) where the sewings are finished one by one and in (29), where the homework is learnt piece by piece.

(28)  *Mersukkani inertiterpai.*  
Mersor-gap-ni  iner-titer-pai  
sewing-PASS.PCT-POSS.4SG.ABS.SG  finish-one.by.one-IND.3SG.3PL  
‘She finishes the sewings one by one.’

(29)  *Ilinniagassani ilikkartiterpai.*  
ilinniar-gap-ssaq-ni  ilikkar-titer-pai  
learn-PASS.PCT-FUT-POSS.4SG.ABS.SG  learn-one.by.one-IND.3SG.3PL  
‘She learns her homework one by one.’

5. Conclusion

The quantificational affixes in Kalaallisut are divided into semelfactive/momentaneous, continuative, repetitive, iterative/habitual and distributive/collective aspects. The collective and distributive affixes are subgroups of iterative aspectual affixes. There are two groups, where the collective affixes indicate plurality of the subjects or objects, and the distributive affixes indicate subjects/objects do one by one or bit by bit etc. The affixes of the first group are -rrat(i)/-t(i) ‘many/several subjects do together almost simultaneously’, -a ‘duration/evenly continued movement, several subjects/objects following each other, several do simultaneously’, -kaa ‘several subjects, more or less close to each other, several do more or less at the same time’, and -gar/-rar ‘several times, several subjects/objects following each other, several do simultaneously’. The distributive fall into three groups where the first group indicates that a set of x is spread one by one or bit by bit or pieces are gathered into one set, the affixes being -jorar/-joqqar ‘do bit by bit/one by one’ and -jortor ‘one by one’. The second group indicates that a whole action is handled in phases gradually or piece by piece. The affixes are -(r)sor ‘several times, longer-term action/piece by piece’, -taartor ‘several have got new x/have got many
new x’, and -ussor ‘several objects, one by one, piece by piece’. The third group indicates a graduated action until a result is gained, where the affixes are -ter ‘bit by bit’ and -titer ‘systematically, several subjects/objects following each other, several scattered/here and there’.

Abbreviations
1=1st person; 2= 2nd person; 3=3rd person; 4=4th person (reflexive); ABS=absolutive; CAUS=causative; COLL=collective; CONT=contemporative; FUT=future; HAB=habitual; IND=indicative; PASS=passive; PERF=perfective; PL=plural; POSS=possessive; PCP=participle; REP=repetitive; SG=singular

References


