Anti-ergative coindexing and affectedness in Haida

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1. Role and GR Identification: Types of Coindexing

In a language with a verb phrase, all arguments of a predicate are either internal or external to the maximal projection of the verb and so all NPs bearing grammatical relations and semantic roles can be assigned those relations and roles with the assistance of that maximal projection. Case-marking provides another explicit strategy for identifying core roles and relations, and verb agreement still a third. Oblique arguments are of less interest for the general problem posed here, since they are usually explicitly marked for their status. In a language without a verb phrase, without case-marking, and without regular and general verb agreement, one may expect to find a diversity of strategies, some syntacticized, others not, for identifying core roles and relations in complete complex sentences (those with transitive or ditransitive verbs, all arguments present). Of course one should not rule out the use of such strategies in configurational or case-marking languages as well, but one can assume they are not of major importance; they will assume more importance in a non-configurational, non-case-marking but verb-agreement language such as Haida, which has three identificational strategies (in addition to partial agreement, discussed later) for complete complex sentences. Subjects are picked out on the basis of, first, order. This use of order is what Andrews (1985) has described as 'fluid', meaning that it comes into play only when there are two core arguments of equivalent animacy (see Enrico 1986, 1989). Second, relative animacy is used to pick out subjects when there is a difference in this feature (ibid.). The third strategy is the use of semantic and cognitive plausibility, including what used to be called 'selectional restrictions'.

The strategies for complete sentences are not applicable when the complete set of arguments or the predicate is not available in a canonical clause structure. Incomplete structures are obviously very diverse. Additional strategies are required for picking out an argument in case that argument is not in construction with the predicate (including those cases in which the argument is missing altogether, a situation that itself covers a number of types), or for picking out a predicate in case the predicate is missing or is not in construction with arguments; and similarly for modifiers and heads. For example, one well-studied class of principles for a missing argument is that for incomplete infinitival clauses, for which most languages use the principle that a regularly missing noun phrase bears subject relation and then find that noun phrase in a certain

relation in the embedding sentence (in the latter case using principles coming under control theory). Another example is the free-floating focused argument extracted into matrix focus position in Haida:

(1) Bill-.uu [Mary qeeng-gee]-ga dii gudang-gang. (1)
    -t/f   see-infin-pp I want-pr
  I want Bill to see Mary/*I want Mary to see Bill.

I shall call cases of strategies in which a missing or free-floating argument is taken to be a subject instances of accusative coindexing (2) (the missing or free-floating argument is an A or an S). Other types of coindexing exist. In section 2 I shall discuss two kinds of absolutive coindexing (the missing or free-floating argument is an O or an S)., and in Sections 3 and 4 several kinds of anti-ergative coindexing (in which a free-floating modifier can be coindexed with anything but a transitive subject). To give another example of the latter, Haida appends tag constituents to sentences by marking them with clitic particles 7aa (general fragment marker) or 7isan 'too ':

(2) Joe qat'sa-gan, Bill-7isan.
        come.in-pa   -too
    Joe came in, Bill too.

In the case of 7isan, a non-oblique appended fragment can only be assigned an absolutive (O or S) role (oblique phrases can also occur in 7aa or 7isan tags):

(3) hin Joe Mary suuda-gan, Bill-7isan.
    this.way   tell-pa   -too
    Joe told Mary this, (he told) Bill too/*Bill (told Mary) too.

In fact, about half a dozen kinds of anti-ergative coindexing exist in Haida; it is more common than absolutive coindexing.

The syntacticized principles that accompany incomplete structures might fall under some general theory of syntactic dependency such as Koster (1984) tries to develop rather than being utterly diverse and idiosyncratic but it is another question that I address in part in this paper: why a particular type of coindexing should exist in each case. To take 7isan tags, for example, these add new information; thereby they might be subsumed under the correlation discussed by DuBois (1987) between new information and absolutive arguments. I focus on only two species of coindexing here, absolutive coindexing for number and anti-ergative coindexing for quantifiers and perfectivizers, attempting to ferret out reasons for their existence. The result contradicts the common assumption that there is a unified account of ergative phenomena.

2. Data I: Agreement

2.1. Classifier Agreement

Verbs containing a classifier make up a relatively small proportion of verbs, but are among the most important. They fall into several semantic types according to the contribution the classifier makes to meaning: it may characterize rate of movement, consistency, sound, force of contact, among other things; but the presence of a classifier approaches something like verb agreement only in those verbs for which it modifies the subject of an intransitive verb (either so-called unergative or unaccusative) or the object of a transitive. Thus,

(4) xagu 'la gu+gan-daal-gang.
     halibut 3p cl+hold-along-pr
     He is carrying a halibut.
     gu is the lexical classifier here.

     n-ee 7un-sda 'la dlu+wii-t'al-gan.
     house-df roof-from 3p cl+fall-down-pa
     He fell off the roof.
     dla is the lexical classifier here.

     gwaay-ee-ǥaa 'la dla+ga-sa-gan.
     island-df-towar 3p cl+swim-out-pa
     He swam out to the island.
     dla is the lexical classifier here.

     hldaan dii-ga 'la tsa+sdla-gan.
     blueberry me-to 3p cl+give-pa
     She gave me a basket of blueberries.
     tsa is the lexical classifier for a basket.

However, classifiers differ in the amount of semantic information they carry. The closest one comes to semantically empty inflectional classifier agreement is when lexical classifiers (as opposed to those characterizing subject and object in more elaborate ways) are present (see (4)). Most discrete nouns are lexically-specified for a classifier, e.g. ǥa 'rigid two-dimensional extended object' is lexically associated with 'town', 'plate' (or 'dish' in general in the Skidegate dialect), 'canoe', and so on, while related ǥaam 'big rigid two-dimensional extended object' is has added semantic content and is not lexically associated with any noun. (Similarly, there are non-lexical classifiers dlaam, dlal 'big animal, fish', tsaam 'long bag, tall basket'). The lexical classifiers, then, may be called the 'basic' classifiers, the core of the semantic system of those classifiers characterizing shape (Enrico 1981).

The classifier-containing verbs for which the classifier is

an absolutive modifier are verbs of movement, manipulation, location and orientation. The presence of a classifier is basically a signal of manipulability. This is manifested as well in the omission of a classifier with numbers, with which it is optional, in case humans or larger animals are referred to; and in the non-occurrence of classifiers in verbs restricted to characterizing locations and movements of humans and larger animals, such as 'walk', 'fly', 'sit', and so on.

As well as being absolutively coindexed modifiers (even the lexical classifiers have semantic content-- note the lexical classifier tsa in the last ex above), the classifiers in these verbs mark number in a special way. Some classifiers denote aggregates, e.g. xa, gang, t'la. This is not the extent of the departure from characterizing discrete objects, since quite a few classifiers characterize masses, e.g. kal, q'ii, xa, hlgi and so on. There is an opposition between aggregate and non-aggregate (singular) classifiers:

(5) huu xa.a dla+gang-gang.
     there duck cl+float-pr
     A duck is floating there.

     huu xa.a xa+gang-gang.
     there duck cl+float-pr
     Several ducks are floating there (in a group).

The meaning 'in a group' arises here because there exists a plural root 'float' too, which I will get to later. Furthermore, if one can in some other way satisfy the need for a verb root to be bound, one can in many cases omit the classifier, and the result then means that a mass or aggregate absolutive NP is involved:

(6) sq'aang.u 'la skyuu sq'a+gang-gang.
     stick   3p on.shoulder cl+hold-pr
     He is holding a stick on his shoulder.

     sq'aang.u 'la skyuu+gang-gang.
     He is holding several sticks on his shoulder.

skyuu here is one of Swanton's (1911) instrumental prefixes, of which there are over a hundred. Thus the very presence of a non-aggregate classifier with these verbs marks singular number-- singular number is not simply the absence of an aggregate classifier. As the reader will have noted, NPs are not inflected for number in this language, so this number-marking by classifiers is for the most part modification rather than simple agreement.

This type of number-marking is also found in verbs that do not contain classifiers. For example, k'a.aat'a 'throw' requires a singular, discrete object (a mass or a collection of objects is

not possible), while daang 'discard' allows any of a single discrete, mass, or aggregate object. There is thus an opposition -discrete (unmarked, allowing any of discrete, mass, or aggregate) and +discrete (marked). A non-aggregate classifier results in value +discrete, anything else results in value -discrete (3). Further examples of verbs of these two types are k'ihl 'go out (fire)' (+discrete), tiida 'be in bed' (+discrete), jang 'be long' (+discrete); cl+sdang 'two' (-discrete), dah 'buy' (-discrete), qii.a 'find' (-discrete).

I mentioned that the classifier does not mark number in all classifier-containing verbs. For example, cl+das 'come apart', cl+.ahlqwaay 'tear', cl+quunaa 'be big', allow only non-aggregate classifiers. Because of this fact and the fact that these particular roots happen to have plural forms (discussed below), they are +discrete (a root that allowed singular or plural arguments indifferently obviously does not meet the definition of +discrete and therefore assumes the unmarked value; an example is cl+ng.anda 'be whole').

Finally, there are of course verbs that require mass or aggregate arguments, not permitting singular discrete ones. For example, hiiluu 'be all gone', cl+.usda 'scatter'. I assume that the impossibility of singular discrete arguments in such cases is not due to a special marking (which our system above would not accomodate) but follows from semantics.

2.2. Number

Number marking in the verb is derivational/lexical, not inflectional, consisting about equally in use of a variety of diverse suffixes and in suppletion. Number is not an obligatory part of Haida verb semantics (a fact hinted at with the ex cl+ng.anda 'be whole' above); most verbs have none. It is worth noting that there is a clear semantic distinction between iterativity and number (4).

Number marking in the verb itself (as opposed to the verb complex as a whole) is almost completely restricted to absolutive arguments. This phenomenon is quite widespread, found not only on the Northwest Coast, but also for example in !Kung and Ainu (Bybee 1985), and Gê (Urban 1985). Number marking for transitive subjects in the verb complex is restricted to the human 3p plural suffix -7wa, the distributive suffix -.agang, and plural (as well as singular) forms of two transient forms -.aa 'leave on foot to do', 7in 'leave on a vehicle to do'. These forms will not be discussed.

In case the verb is +discrete, there is nothing unusual about number marking:

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(7) 'la k'ut'al-gan.   versus   'la k'ut'ahlga-7wa-gan.
    3p die-pa   3p die (pl)-pl-pa
    He died.   They died.

-discrete verbs, however, may take a little getting used to:

(8) sguusiid s7alaa qwaan 'la daang-gan.
    potato   rotten lots 3p discard-pa
    She threw away lots of rotten potatoes (one event).

    sguusiid s7alaa qwaan 'la daang.wa-gan.
    potato   rotten lots 3p discard (pl)-pa
    She threw away lots of rotten potatoes (repeated events).

daang.wa, of course, is also used even if only one discrete entity is discarded on each of multiple events. -discrete classifier-containing verbs are illustrated in the following paradigm.

(9) Verb cl+gang subj, obj 'hold' (a stative verb)

    gagang 'hold one rigid II-dimensional extended object'
    xagang 'hold several objects together'
    ga.adiya 'hold several rigid II-dimensional objects in
              different locations'
    xa.adiya 'hold several objects together in each of
              several locations'
    skyuu gagang 'hold one rigid II-dimensional extended
                  object on shoulder(s)'
    skyuu xagang 'hold several objects together on
                  shoulder'
    skyuu ga.adiya 'hold several rigid... objects each on a
                    different shoulder'
    skyuu xa.adiya 'hold several collections of objects each on
                    a different shoulder'
    skyuu.adiya 'hold several collections/masses each on a
                 different shoulder'

Number of subject is irrelevant to choice of verb form here.

There are, however, verbs that do not behave like either (7) on the one hand or (8,9) on the other. Their plural forms can be used with singular arguments, giving the impression of iterativity (see note (4)), yet they can also be used with plural arguments and the adverb 'at the same time' to talk about single events, something impossible for iteratives:

(10) k'yuu dii-gwii t'sil+gwiid-an.
      clam me-on   cl+discharge-pa
      A clam squirted me (one event).

gudluu/gudlaa' k'yuu qwaan dii-gwii t'sii+gudang-gan/
at.same.time/one.after.other clam lots me-on cl+discharge-
    *t'sii+gwiid-an
pa   cl+discharge-pa
Lots of clams squirted on me at the same time.

k'yuu skaa+swaansang dii-gwii t'sii+gudang-gan.
clam   cl+one   me-on   cl+discharge-pa
One clam squirted on me repeatedly.

huu 'la t'luu+siid-an.
there 3p cl+fart-pa
He made a big fart there.

huu 'la t'luu+sadang-gang.
there 3p cl+fart-pr
He is making big farts there.

gudluu 'la t'luu+sadang-7wa-gan/*t'luu+sad-7wa-gan.
at.same.time 3p cl+fat-pl-pr   cl+fart-pl-pr
They made big farts at the same time.

What is going on in such cases is that there is an implicit
argument (in the case of cl+gud, cl+sad one actually
characterized by the classifier). It is this non-present
argument that is actually singular or plural, not the overt
absolutive argument (subject). Therefore an overt singular
argument can occur with the plural form, giving the impression of
iterativity, while at the same time the plural form must be used
if multiple discharges occur, whether simultaneous or successive.
    The verb 'shoot' (along with its fellows 'spear', 'throw
rocks at') is especially complex: here there is an overt object,
and if that object is plural, the plural form is required, yet at
the same time the plural form is used with a singular object in
an apparently iterative meaning.

(11) taan 'la t'sa-gan.
    bear 3p shoot-pa
    He shot (at) a bear.

    gudluu taan 'la t'sa-7wa-gan.
    at.same.time 3p shoot-pl-pa
    They shot (at) a bear at the same time.

    (gudluu) taan 'la t'sanhluu-7wa-gan.
    at.same.time bear 3p shoot-pl-pa
    They shot (at) bears (at the same time).

    t'sanhluu-hlaa.
    shoot-imperative
    Keep on shooting (at) it.

It won't do to posit an implicit argument here (even though one
is conceivable, namely the projectile), since this verb behaves
very much like a true iterative in allowing the singular form
t'sa with a plural subject and the adverb 'at the same time',
though differing in the requirement that the plural be used if
the target is not singular. It seems to me that this verb
requires one to recognize a third type of plurality which we
might call 'plural events' (an event being one or more
simultaneous discharges aimed at a single target); this type of
plurality might also be extended to the implicit argument cases
noted above, but I do not see that it exists anywhere else in
this language.

3. Data II: Verb Complex Quantification and Perfectivization

    There are two quantifiers occurring in the verb complex (5),
gujuu 'all' (unrelated t'liqaa in the Skidegate dialect) and
qwaan 'much, many'. In the Masset dialect these can correspond
to virtually any NP in the same clause except an agentive
transitive subject (6). Skidegate, on the other hand (which we
won't be concerned with) allows any NP to be coindexed with
t'liqaa and anything except an intransitive subject to be
coindexed with qwaan (7).

(12) tsii.n t'la qada qwaan.gan.
    salmon indf slice lots-pa
    People sliced lots of salmon/*Lots of people sliced salmon.

    t'la taa qada qwaan.gan.
    indf slice.salmon lots-pa
    Lots of people sliced salmon.

    Joe-ga hlanngas hlgwaaga qwaan.gang.
      -pp Tlingit fear   lots-pr
    Lots of Tlingits fear Joe.

    qugiin-ee liidadi-yee t'laa-.an sang7iit'sa qwaan-gang.
    book-df read-infin indf-for be.hard lots-pr
    For lots of people, the book is hard to read.

    t'laa-ga tsiin-ee 'la giida gujuu-gan.
    indf-to salmon-df 3p give all-pa
    He gave all the salmon to people/*He gave the salmon to
    everyone.

    t'laa-ga tsiin-ee t'la giida gujuu-gan.
    indf-to salmon-df indf give all-pa
    They gave all the salmon to people/*Everyone gave the salmon
    to people/*They gave the salmon to everyone.

t'laa-ga t'la duu ɡujuu-gan.
indf-to indf invite all-pa
They invited everyone/*Everyone invited them.

tlada.aw-ee-gwii t'la 7ishla ɡujuu-gan.
mountain-df-on indf go.up all-pa
Everyone went up the mountain/*They went up all the
mountains.

ɡud-ee-ɡay kyaa.n-gee 'la juuga ɡujuu-gan.
box-df-into can-df 3p pack all-pa
She packed all the cans into the boxes/*She packed the cans
into all the boxes.

'laa gyaa t'la ɡu 'laa ɡujuu-gan.
hers indf like all-pa
Everyone liked hers/*They liked all of hers.

'laa gyaa t'la faw'lada ɡujuu-gan.
hers indf find.delicious all-pa
Everyone found hers delicious/*They found all of hers
delicious.

It follows from the meaning 'all' that the argument coindexed
with ɡujuu must be definite or generic or the special case of the
indefinite pronoun t'la. The formally oblique argument NPɡa with
verb duu 'invite' differs from the oblique phrase with
intransitive 7ishla 'go up' in being coindexable with ɡujuu; the
only other syntactic difference this correlates with is one of
obligatoriness (for NPɡa) vs. optionality (for NPɡwii). Note
that the objective transitive verbs ɡu 'laa 'like', faw'lada
'find delicious' permit coindexing with the subject in preference
to the object (coindexing with the latter occurs if it is plural
and definite or generic while the subject is singular).
    If one looks only at elicited sentences, there seems to be
always be a choice between NP quantification and verb complex
(hereafter VC) quantification in Haida, e.g.

(13) stuw-ee 7waadluwaan 'la taa-gan.
     sea.urchin all 3p eat-pa
     He ate all the sea urchins.

     stuw-ee 'la ta ɡujuu-gan.
     sea.urchin 3p eat all-pa
     He ate all the sea urchins.

     t'la qwaan 7isdlii-gan.
     indf lots embark-pa
     Lots of people went away.

t'la 7isdlii qwaan-gan.
indf embark lots-pa
Lots of people went away.

However, if one looks at occurrences of both kinds of quantifier
in texts, one finds a difference: VC quantifiers are very
strongly skewed toward coindexing with O, and can only be used if
the NP is not being introduced for the first time. Thus in the
first 99 pages of Swanton (1908), I counted 8 instances of S
ɡujuu, one instance of S qwaan, while there were 27 instances of
O ɡujuu and three instances of O qwaan. NP quantification, on
the other hand, is the preferred type for S, there being 39
instances of 'all' and 6 instances of 'many' in these same pages,
compared with 16 'all' and two 'many' for O.
    Perfectivity in Haida does not inhere in tense (as it does
in the English past) nor in verbs themselves. Rather,
perfectivity must be marked by means of various verb complex
elements. Some of these contain a classifier characterizing an
argument and so these too require coindexing. Once again this
coindexing is actually anti-ergative though the classifier makes
it difficult to come up with an example that could conceivably
have coindexing with either a transitive subject or some other
argument in the sentence.

(14) n-ee-ɡay 'la di.ing tii+sdla-gan.
     house-df-pp 3p search cl+whole-pa
     She searched around the whole house.

     buud-gee 'la k'udlan q'ii+st'a-gan.
     boat-df 3p paint cl+whole-pa
     He painted the whole boat.

     buud-gee 7aa 'la tla.a'whla q'ii+.aaw-gan.
     boat-df own 3p fix cl+whole-pa
     He fixed the whole of his boat.

4. Data III: Adverbial quantifiers

    In addition to adverbial 'floated' quantifiers, Haida has a
number of non-verbal adverbial quantifiers. The following
display anti-ergative coindexing: tlii 'quite a bit, quite a
few', qiisdluu 'how much?, how many?', and hlanqaan 'a bit, a
little'.

(15) a. tlii

     tlii t'la 7ist'sa-gan.
     quite.a.few indf come.in-pa
     Quite a few people came in.

tlii t'la 'laaganang qaa'7aa.aa-gan.
quite.a.few indf go.to.feast-pa
Quite a few people went to the feast.

tlii cookies 'la taa-gan
quite.a.few 3p eat-pa
She ate quite a few cookies.

tlii t'saanuu-cii 'la sginanang-gan.
quite.a.bit wood-pp 3p chop-pa
He chopped quite a bit of wood.

tlii 'laangaa t'la gu 'laa-gan.
quite.a.few indf like-pa
Quite a few people liked his.

*tlii hak'un 'laa t'la suuda-gan.
quite.a.few that.way 3p indf say.about-pa
(Quite a few people said that about him)

*tlii sguusiid t'la tlat'sa-gan.
quite.a.few potato indf plant-pa
(Quite a few people planted potatoes)

b. giisdluu

giisdluu t'la 7ist'saa-yaa?
how.many indf come.in-evidential
How many people came in?

giisdluu cookies dang taa-gaa?
how.many you eat-evidential
How many cookies did you eat?

giisdluu t'saanuu-cii dang sginanaang-aa?
how.much wood-pp you chop-evidential
How much wood did you chop?

giisdluu daangaa t'la gu 'laa-gaa?
how.many your indf like-evidential
How many people liked yours?

*giisdluu t'la qeeng-aa?
how.many indf see-pa
(How many people saw it?)

c. hlangaan

hlangaan t'la 7ist'sa-gan.
bit indf come.in-pa
A small number of people came in.

hlangaan cookies 'la taa-gan.
bit 3p eat-pa
She ate a little of the cookies.

hlangaan t'saanuu-cii 'la sginanang-gan.
bit wood-pp 3p chop-pa
He chopped a bit of wood.

hlangaan 'laangaa t'la gu 'laa-gang.
bit his indf like-pr
Hardly anyone likes his.

*hlangaan 'laa t'la qeeng-aa-n.
bit 3p indf see-nw-pa
(Hardly anyone saw him)

The final bit of data I'll discuss here-- and there is still more along the same line that could be introduced-- is for number quantifiers co-occurring with the inflectional punctual verb suffix -7iihl. The quantified NP in this case cannot be a transitive subject.

(16) tsii.n sdang 'la qada-7il-gang.
salmon two 3p slice -pr
She has sliced two salmon so far.

qung sdang 'la hlcanggula-7il-gang. (oblique)
month two 3p work- -pr
She has worked two months so far.

t'la sdang-ga 'la tla.ad-7il-gang.
indf two-pp 3p help- -pr
He has helped two people so far.

7iit'l sdang-gan 'laa ga jii'-7aa.aa-7il-gang.
us two-for 3p indf pack.water-go.to- -pr
He has gone to get water for two of us so far.

t'la sdang 'laangaa gu 'laa-7il-gang.
indf two hers like- -pr
Two people like hers so far.

*t'la sdang 'la qing-7il-gang.
indf two 3p see- -pr
Two people have seen him so far.

5. Analysis

Leaving aside the number data in Section 2 for the moment, the important facts adduced in Sections 3 and 4 are these: (1) there is a skewing toward O as far as coindexing with VC quantifiers is concerned; (2) VC quantifiers, adverbial quantifiers, and quantifiers co-occuring with punctual -7iihl can all be coindexed with objective transitive subjects but not with agentive ones.

Consider the semantics of the items discussed in Sections 3 and 4. In the barest possible terms, they denote the degree to which an entity is affected. Thus they can be coindexed with objective (affected) transitive subjects but not unaffected transitive subjects. And despite the grammar's extension of coindexing to intransitive subjects regardless of whether these are affected or unaffected, textual data reveal a skewing toward the invariably affected O role in the actual use of at least the VC quantifiers (the other kinds of data in Sections 3,4 are too sparse in texts to be examined in this way). The property accounting for anti-ergative coindexing in the case of the items covered in Sections 3 and 4 is therefore that they denote (degree of) affectedness.

Is there evidence that this property is also the explanation for absolutive number agreement? The only sort of data that could be used to answer this concern whether verbs having number agreement mark number for (affected) O, affected S, or unaffected S roles. Recall that the majority of verbs have no number agreement so that whether a verb does or does not was historically determined in some way by the pressures of actual use on the one hand, and, if we are right, by the affectedness of the coindexed argument on the other. That is, affectedness would not be the whole explanation, so interpretation of these data might be expected to be difficult and perhaps impressionistic.

I compared a sample of 23 number-marking verbs with a same-sized random sample of non-number marking ones for affectedness of the absolutive role, using as criteria for affectedness verb meaning and whether a personal pronoun in that role is objective or agentive. The small size of the sample was due to the elimination of transitive verbs-- all Os would be +affected whether the verb marked number or not, so these were irrelevant; and I wanted the samples to be matched in numbers of intransitive and transitive verbs. Since I had arranged number-marking data by aspect (punctual, durative) for an earlier study, I compared the two samples by aspect. Number-marking is relatively rare for duratives, for reasons I won't go into, and the result for duratives offered no support whatsoever for the hypothesis: out of 7 duratives, ⁓100% had -affected absolutive arguments, so I didn't even bother to tally affectedness in the non-number marking sample (8). The results were the opposite for the punctuals, for which number-marking is relatively common:

	+number-marking	-number-marking
+affected	13	6
-affected	2	9

That is, there is roughly a 50% split for the non-number-marking sample, but a strong skewing toward affected absolutives for the number-marked sample.

Classifier-containing verbs raise more issues than that of a relation between affectedness and number-marking, for example, the question of a relation between the very presence of an absolutive classifier and affectedness. Answering this question in a principled way is very difficult. To illustrate, take a root like cl+ga 'move on the surface of the water' which allows unaffected animate subjects but for other (inanimate) entities requires causativization. Is one to say that the absolutive argument is basically +affected or -affected? Earlier in this paper, I referred to this and similar verbs as unergative, implicitly choosing the latter alternative. Despite such problems, I proceeded to examine the relation between classifier number-marking and affectedness. Recall that classifier number-marking occurs when a root allows a contrast between singular discrete classifiers on the one hand and aggregate, mass or absent classifiers on the other. The problem of roots like ga was solved arbitrarily by choosing the - value of 'affected', thereby giving the benefit of the doubt to the null hypothesis (no relation between affectedness and number). Even so, the sample of 37 verbs looked like this:

	-number-marking	+number-marking
-affected	6	8
+affected	7	16

The large number of {-number, +affected} cases is mostly due to the inclusion of adjectives containing a predicative (as opposed to modifying) classifier: cl+nq.anda 'be whole', cl-definite 'laa 'be good-sized', cl-adjective 'be of a certain size', cl+quunaa 'be big', cl+juu 'be of classifier-nature'. I am not sure whether it is really meaningful to call these +affected, though the language itself does so by treating them as objective

intransitives (see Merlan (1985:329-330) for similar doubts about the affectedness of subjects of adjectives of this sort).

In conclusion, physical closeness to the verb has been noted to be iconically associated with affectedness in other languages (see Saksena (1980) for English) so it is not surprising that the verb complex and the verb itself should be chosen as locations for (coindexed) markers of the affectedness of arguments. The relation between ergativity and a perfective/imperfective aspectual contrast has been noted many times and Givon (1984:155-156) also notes a correlation between ergativity and degree of affectedness of O independent of perfectivity. But these observed correlations are between the use of ergative morphology and affectedness, not between affectedness and anti-ergative or absolutive coindexing.

Footnotes

(1) This paper focuses on the Masset dialect. ǥ is a phrayngealized glottal stop, x a pharyngeal fricative in that dialect; 7 stands for glottal stop, period an unlinked C slot. Apostrophe after a vowel marks low tone. The work reported here was partly supported by NSF grant BNS-8711541 to the author.

Example (1) may be better treated under the general heading of gap location and identification (the gap here being in the infinitival clause). Woolford (1986) has proposed to treat this problem in syntactic terms with another distinct module of grammar but the properties of the problem are suspiciously like those required by a parser.

(2) The concept is a generalization of that proposed by Napoli (1989) to handle predication.

(3) I said that -discrete is the unmarked value, allowing any of a singular discrete, aggregate, or mass argument. However, in the case of classifier-containing verbs that have this opposition between singular discrete and mass or aggregate arguments, the absence of an aggregate or mass classifier -- the -discrete configuration-- does not permit a singular discrete argument. This description thus requires some fine tuning.

(4) Verbs with iterativity marking pass the following test, others fail it. I use the term 'plural' as a neutral cover term here in the sense of Bybee (1985).

If the -plural form can be used with a non-singular argument and an adverb 'at the same time' to talk about a single event and the +plural form cannot, then the +plural form denotes succession, i.e. iterativity.
Thus,

(1) gudluu dii-gwii gandl 'la t'lah sq'al.usda-7wa-gan/*t'lah
     at.same.time me-on water 3p slap   splash-pl-pa   slap

     sq'algujaang-7wa-gan.
     splash-pl-pa
     They splashed water on me at the same time (one event).

sq'al.usda is semelfactive, sq'algujaang iterative. Note that a verb that marks iterativity thus has a kind of plurality marking that is independent of argument reference-- the number of individuals involved in the event is irrelevant. Repeated splashing by one individual is just as iterative as repeated splashing by more than one; and a single event of splashing can involve any number of individuals. It follows from this fact-- independence from reference-- that the feature 'discrete' is irrelevant for verbs that mark iterativity. Further exx of such verbs are ǥa kaadas 'jump', squda 'punch', kinda 'call', skin.a 'wake'.

(5) See Enrico (1989, forthcoming) for some discussion of the verb complex. Historical movement of outright quantifiers into the verb complex is paralleled by movement of semi-quantifier adverbials like jiingaa 'for a long time',ǥaqwii 'for a long time yet', jahlii 'exactly', yahk'aa 'only', all of which also occur as adverbs or particles.

(6) Haida is a 'split intransitive' language, differentiating intransitive subjects according to whether they are agentive or objective, but also differentiating transitive subjects in this way. This agentive-objective distinction, however, is lexicalized-- it is not a (free) semantic one as has been claimed for some split intransitive languages (my opinion is that it is always lexicalized).

(7) As one might expect from the existence of a different sort of coindexing for these forms in the Skidegate dialect, there were at one time some M speakers, at least, who followed the Skidegate pattern, attested in Swanton's (ca. 1900) Masset texts, e.g. Swanton 1908:322.11. I should also note the unique case of the verb 'eat', which permits gujuu to be coindexed with its subject:

(i) saaw-ee t'la taa gujuu-gan.
     ooligan-df indf eat all-pa
     Everyone ate the ooligans.

Compare English Q-float: the adverbial quantifier 'all' is accusatively coindexed, i.e. with an S or an A. For a while relational grammarians proposed a hierarchy of grammatical relations determined by ability to 'launch' (be coindexed with) a floated quantifier, subject being at the top of the list. However, Foley and Van Valin (1977) noted that Lakhota has the same type of coindexing as Haida, and that this makes nonsense of

such a hierarchy by skipping over A.

(8) The number-marking durative intransitives in the sample were cl+qa 'move on surface of water', qaa 'walk', k'waawa 'defecate', tlajuu 'admire', qwahjuu 'think of going', op cl+juu 'move in classifier amount', sqayhla 'cry' (op = instrumental). k'waawa should probably be dropped since it involves an implicit object in the manner of cl+qud, cl+sad. Regarding those verbs ending in juu, this is a number-marking root basically meaning 'stick off' and number-marking in these three could be viewed as an artifact of this.

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