Conjoined Arguments in Nisgha
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1.0 Introduction
The coordination of multiple members of a single argument presents a fascinating morphological, syntactic and semantic problem in some languages. This is reflected in the existence of different coordination types whose use depends on the morphological status of the coordinated elements (Schwartz 1985). For example, independent lexical items are syntactically coordinated lexical strings distinct from cases in which a pronominal clitic is conjoined with an independent lexical form. This paper outlines and examines the properties of a number of Nisgha (Ta'mishan) argument coordinations and shows that the use of syntactic and other coordination types is related to general distributional properties of Nisgha arguments. For example, syntactic coordinations occur only in nominal positions. However, on another level, the Nisgha data do not exhibit internal distinctions between coordination types. Syntactically, second conjuncts in all Nisgha coordinations share adjunct rather than argument properties suggesting that all Nisgha conjuncts are coordination by adjunction.

1.1 Background
Nisgha, spoken on the Nass River in British Columbia, is a predicate initial language which exhibits a highly ergative-absolutive syntax. The subject of the intransitive is morphologically and syntactically identical to the object of the transitive; both are absolutive, distinct from the ergative case of the transitive agent. A more notable feature is the alternation in the form and position of the ergative and absolutive person markers depending on whether the construction is verb or non-verb initial.1 Compare the position and form of the pronominals in the following positive and negative examples.

1 For a detailed description and analysis of the pronominal sets assumed here see Livingston 1987.

2 The data are from my fieldnotes collected in Vancouver, B.C. (1985-1987) with the support of the Jacobs Fund, and the Phillips Fund of the American Philosophical Society. Additional support came from the Social Sciences and Humanities Research Council of Canada, award #452-87-1985. I wish to thank the native speakers who generously shared their time and knowledge of Nisgha, particularly Sarah Picard, and those who read and commented on this research, Dick Demers and Kathleen Picard.

Abbreviations used in the glosses are: base = pronominal base; N = negation, FUT = future, CN = connective, DEI = deictic, COMP = complementizer; RED = reduplication for plurality.

In verb initial constructions such as (1a), the ergative pronominal is suffixed to the verb while the absolutive occurs on the pronominal base Al-. In non-verb initial constructions the ergative pronominal is a preverbal clitic while the absolutive is suffixed to the verb.

Nisgha has three conjunction strategies which build on the person markings demonstrated in (1). In syntactic coordinations, conjoined arguments consist of strings of independent words as illustrated in the following highlighted verb initial conjoined absolutives.

(1) a. wUlax-n Al-n
   Know-1p base-2s
   We know you (sg).
   b. niti t p wUlax-n
   NEG 1p know-2s
   We don't know you (sg).

In verb initial coordinations (1a) the pronominal marking is suffixed to the verb. The absolutive is suffixed to the final pronominal.

In non-verb initial constructions (2a), the pronominal marking is suffixed to the final pronominal, while the absolutive is suffixed to the verb.

(2) a. tam-limix t Mary gan s Bill sat kon
   FUT-sing CN M and CN B day DEI
   Mary and Bill are going to sing today.
   b. tam-limix t Mary gan s Bill sat kon
   FUT-sing CN M and CN B day DEI
   Mary and I are going to sing today.

The following non-verb initial constructions demonstrate verb-coded constructions (VCC) whose first absolutive pronominal is the plural verbal suffix -a even though it may refer to the singular entity translating as "I".

(3) a. sat kon t3m ki limix-n a t Mary gan s Bill sat kon
   FUT-sing base-1p and CN base-2s day DEI
   Today you and I are going to sing.
   b. sat kon t3m ki limix-n a t Mary gan s Bill sat kon
   FUT-sing CN M and CN B day DEI
   Today Mary and I are going to sing today.

These constructions are ambiguously between a singular and plural interpretation of the first pronoun; (3a) can also mean "Today you and we are going to sing."

The properties of the above coordinations are combined in plural pronoun constructions (PPC).

(4) a. t3m-limix Al-n a t Mary gan s Bill sat kon
   FUT-sing base-1p and CN base-2s day DEI
   You and I are going to sing today.
   b. t3m-limix Al-n a t Mary gan s Bill sat kon
   FUT-sing base-1p and CN M day DEI
   Mary and I are going to sing today.

The conjoined strings consist of independent lexical items as in (2), but like (3) the number value of the initial pronominal is plural even though its interpretation may be singular.

2.0 Nisgha Coordination Distributions
The use of different conjunction strategies in Nisgha is tied to the positions of pronominal and nominal material. In verb initial
intransitives, pronominals and nominals occur in a complementary relationship in the position following the verb.

(5) a. *sipkAw Ai-n-a
   sick base-2s-Q
Are you (sg) sick?
b. sipkAw t Mary-a
sick CN M-Q
Is Mary sick?

Because both pronominals and nominals directly follow the intransitive verb, this position allows both syntactic and PPC coordinations, as demonstrated in the following.3

(6) a. sipkAw Ai-n qan s Ai-t-a
   sick base-2s and CN base-3s-Q
Are you (sg) and he sick?
b. sipkAw Ai-n qan s Ai-t-a
   RED-sick base-2p and CN base-3s-Q
Are you (sg) and he sick?

In contrast with intransitives, transitive constructions demonstrate restrictions on the position of absolutive with respect to an ergative nominal. 4

2.1 Transitive Absolutive Pronominal and Nominal Positions

The preferred position for first and second person absolute pronominals is between the verb and ergative nominal. 4

(7) kaf-At Ai-n s Bill k'o:ts
   see-3s-CN B   base-2s yesterday
Bill saw you (sg) yesterday.

While not typically used or preferred, this absolutive form is also grammatical following the ergative nominal.

(8) kaf-At s Bill Ai-n k'o:ts
   see-3s-CN B   base-2s yesterday
Bill saw you (sg) yesterday.

In contrast, third person pronominal absolutes are restricted to the position following the ergative nominal.

(9) a. kaf-At s Bill Ai-t k'o:ts
   see-3s-CN B   base-3s yesterday
Bill saw him yesterday.

3 The example in (6b) is reduplicated in agreement with the plural pronominal. Not all Nisga verbs require such agreement.

4 Ergative nominals occur in addition to a verbal clitic whose form depends on the requirements of the sentence. In verb initial constructions the clitic is a suffix -ot when the ergative nominal directly follows the verb. The suffix is ~ when the absolute Ai-pronominal intervenes. These are exemplified in examples (7) and (8).
Thus pronominals may serve as the initial plural member of the conjunct.

Consider the following conjoined first and second person

(14) kaf-ːt Al-ː t Bill qan s Al-n k'orts see-ːs base-1p CN B and CN base-2s yesterday Bill saw you (sg) and me yesterday.

Moreover, discontinuity is not sufficient: the initial pronoun, that in the pronominal position, must have the plural value which defines it as a PPC.

(15) *kaf-ːt Al-ː t Bill qan s Al-n k'orts see-ːs base-1s CN B and CN base-2s yesterday Bill saw you (sg) and me yesterday

Thus PPCs are associated with pronominal positions even when the entire conjoined unit may not occur within it.

3.0 A Coordination Strategy Analysis

Similar syntactic and PPC constructions are discussed in recent literature (Schwartz 1985; Ladusaw 1989) with a focus on their syntactic and semantic analyses. It is argued that syntactic coordinations are equivalent to lexical NPs while VCCs and PPCs are essentially pronominal constructions. This is borne out in the correlation between the general pronominal and nominal positions in the Nisgha sentence and the use of syntactic and plural pronoun constructions. Syntactic coordinations occur in the position of nominals, that is, following the verb if intransitive and following the ergative nominal if transitive. They are ungrammatical in the pronominal position before the ergative nominal. This pronominal position allows a PPC, with the additional complication that it be discontinuous.

In addition, the two strategy types are analysed as having distinct internal compositions. Syntactic coordinations consist of equivalent lexical NPs while VCCs and PPCs are pronominal plus modifier constructions.

(16) a. Syntactic Coordination: [[NP & [NP]]p

b. VCC and PPC:

[(PRO)p {[NP]p]modlp]

The plural pronominal in the PPC encodes the entire conjunct as a group. The second conjunct is an adjunct modifier which individualizes the members of the group by specifying additional information about one of them (Ladusaw 1989:13).

Additional Nisgha PPC constructions show that the structure in (16b) accounts for the plurality of the first pronominal, restrictions on the order of the pronominals themselves, and the non-argument properties of the second conjunct. In section 3.1 I turn to syntactic coordinations to show that the internal analysis in (16a) does not hold for the Nisgha data. The analysis predicts the second conjunct to be an NP distinct from the adjunct modifier in the VCC or PPC, yet all Nisgha second conjuncts exhibit adjunct properties.

3.1 The Internal Properties of the PPC

There are ordering constraints among the units in a PPC. Not all pronominals may serve as the initial plural member of the conjunct. Consider the following conjoined first and second person constructions.

(17) a. kaf-ːt Al-ː t Bill qan s Al-n see-ːs base-1p CN B and CN base-2s yesterday Bill saw you (sg) and me

b. *kaf-ːt Al-n t Bill qan s Al-ʃ see-ːs base-1s base-2p CN B and CN base-2s Bill saw you and me

While both examples contain plural first conjuncts, only when the first person precedes the second is the construction grammatical. A second person cannot precede the first. However, it can precede a third.

(18a) kaf-ːt Al-n t Bill qan s Al-ʃ see-ːs base-2p CN B and CN base-3s yesterday Bill saw you and him yesterday.

The data show that the elements in the PPC must be ordered with respect to person values: 1 > 2 > 3. A possible explanation is that a person hierarchy dictates the order of elements. But such a hierarchy must be restricted to PPCs since Nisgha otherwise allows ordering freedom between conjuncts whether two pronominals as in (19a) or nominal and pronominal as in (12) above.

(19a) a. sip-sipk ʃA-ʃ qan s Al-n RED-sick base-1s and CN base-2s I and you are sick.

b. sip-sipk Al-n qan s Al-ʃ RED-sick base-2s and CN base-1s You and I are sick.

In the absence of independent evidence for a person hierarchy, it is an ad hoc morphological and syntactic stipulation which lacks explanatory force. In contrast, there is a semantic solution in which the ordering requirement is a morphological reflection of the interpretation relations between the conjuncts in the PPC.

3.1.1 Semantic Inclusion Constraints in PPCs

Ladusaw (1989) proposes a semantic inclusion analysis which accounts for the ungrammaticality of (17b). In essence, the initial (plural) pronominal in the construction is the argument, while the second conjunct is a semantic adjunct modifier to the initial pronominal. The adjunct specifies the reference of one member of the conjunct group. To be semantically interpretable, the reference of the two PPC conjuncts must overlap. Specifically, the value of the initial

5 The general restriction on third person pronominals in the position before the ergative nominal precludes the possibility of directly testing the ungrammaticality of the opposite order.

6 This is consistent with PPC constructions in other languages (Ladusaw 1989).
pronoun must include the person and number of both conjuncts within its scope of reference. Since the first pronominal in a PPC references a group containing both members of the conjunct it must be plural. This same requirement is manifest in the ordering restrictions. Some plural pronominal values inherently include person values in addition to their own.

Consider the inherent reference scope of the plural pronominals. A first person plural references a first person in addition to any second and/or third persons. A second person plural references one or more second persons and additionally allows a third, while a third person plural references only third persons. Below I chart the plural person values which include the references of the intersecting values. For example, the highlighted 1pl corresponds to a group including a second and first person.

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Now consider the ramifications of these inherent values for the PPC. Since the initial plural pronominal must include the person values of both conjuncts within its scope of reference, those values with the largest reference must take precedence. The conjoined example in (17a) is interpretable because, as the chart shows, the first person plural value of its initial conjunct references a group which includes the second person value of the second conjunct. In contrast (17b) is not interpretable; the second person plural value of the initial conjunct does not include a first person within its reference possibilities. The constructions in (18) are also interpretable since the second person includes the third in its reference possibilities.

This semantic explanation for the relationship between the conjuncts in the PPC provides a nice account of the obligatory plurality and precedence requirements. However, it relies on the following assumption: while the initial conjunct encodes the value of the entire conjunct argument, the second conjunct is an adjunct modifier to it. I now argue that word order properties of second conjuncts in Nisg̱a̱ are the syntactic reflection of their non-argument and therefore adjunct status.

3.2 Evidence for the Second Conjunct as Adjunct
Nisg̱a̱ ergative and absolutive arguments occur in a fixed position with respect to the verb and one another. Other elements in the sentence are restricted to the position following the predicate-argument unit but exhibit word order freedom with respect to one another. These include oblique phrases and time adverbials such as *k'o:ts 'yesterday'.

(21) a. kin-3-s Bill t Mary 7a; i hən 7a present-3s-CN B CN M yesterday OBL CN fish Bill presented Mary with fish yesterday.

b. kin-3-s Bill t Mary k'o:ts 7a; i hən present-3s-CN B CN M yesterday OBL CN fish Bill presented Mary with fish yesterday.

Now consider the position of absolutive nominals and second conjuncts with respect to the oblique phrase and time adverbial. The ungrammaticality of (22) shows that the absolutive nominal must precede the oblique.

(22) *kin-3-s Bill t Mary present-3s-CN B OBL CN fish CN M Bill presented Mary with fish

This contrasts with the absolutive second conjunct which optionally precedes or follows the oblique.

(23) a. kin-3t Al-3 t Bill gan s Mary 7a; i hən present-3s base-1p CN B and CN M OBL CN fish Bill presented Mary and me with fish.

b. kin-3t Al-3 t Bill 7a; i hən s Mary present-3s base-1p CN B OBL CN fish and CN M Bill presented Mary and me with fish.

Absolutive nominals must also precede time adverbials while the second conjunct again exhibits positional freedom.

(24) a. *tix-ttalq-3s Mary k'o:ts t Bill speak-3s-CN M yesterday CN B Mary spoke to Bill yesterday.

b. tix-ttalq-3t Al-3 t Mary k'o:ts gan s Bill RED-speak-3s base-1p CN Mary yesterday and CN B Mary spoke to Bill and me yesterday.

c. tix-ttalq-3t Al-3 t Mary gan s Bill k'o:ts RED-speak-3s base-1p CN Mary and CN B yesterday Mary spoke to Bill and me yesterday.

I take the difference in positional freedom between the absolutive nominals and second conjuncts as evidence that they have fundamentally different syntactic properties. The word order freedom of second conjuncts with respect to other non-arguments suggests that they are indeed non-arguments.

One question remains: what are the positioning properties of second conjunct adjuncts in the Nisg̱a̱ sentence? Thus far the data have shown that they have freedom of position with respect to predicate final elements. Moreover, the ungrammaticality of (13b) above demonstrated that the absolutive adjunct could not occur adjacent to its pronominal head in the position before the ergative nominal. These facts suggest that a general property of the Nisg̱a̱ sentence restricts adjuncts to positions outside the predicate-argument unit. However, conjoined ergative data show that this is incorrect. Rather, adjunct positions in the Nisg̱a̱ sentence are determined by the regular restrictions on pronominal and nominal arguments; argument positions which are restricted to pronominals cannot contain conjoined adjuncts.

7 Ladusaw and I arrived at this conclusion independently.
3.2.1 Conjoined Pronominal-Nominal Ergatives

All ergative pronominals are clitics, whether preverbal in the non-verb initial or a verbal suffix in the verb initial. This clitic property suggests that conjoined arguments will be VCC constructions, the clitic equivalent to the PPC. This holds for the following verb initial constructions.

(25) a. kəf-3ss t Mary gən s Bill
    see-3s CN M and CN B
    You (sg) and Bill saw Mary.

b. 7əmXK'-A t John gən s Mary
    hət-1p CN J and CN M
    Mary and I hate John.

The ergative pronominal occurs in its normal suffix position and is plural even when its referent is singular. Furthermore, the conjoined string is discontinuous with the second conjunct following the absolutive nominal. With the exception that the pronominal is preverbal, these properties hold for the following non-verb initial constructions as well.

(26) a. niti nisəm kəf t Mary gən s Bill
    NEG 2p see CN M and CN B
    You (sg) and Bill didn’t see Mary.

b. niti 7əp/ə t John gən s Mary
    NEG 1p hate CN J and CN M
    Mary and I don’t hate John.

Relevant to the placement of adjuncts, non-verb initial cases allow the second conjunct to optionally sit in the ergative nominal position before the absolutive nominal.

(27) a. niti 7əp wa7 gən s Ann J 7əs-Å
    NEG 1p find and CN A CN dog-1p
    Ann and I didn’t find our dog.

b. niti 7əp wa7 J 7əs-Å gən s Ann
    NEG 1p find CN dog-1p and CN A
    Ann and I didn’t find our dog.

(28) a. b. niti 7əp kəf J gən s Mary J kət
    NEG 1p see CN and CN M CN man
    Mary and I didn’t see the man.

b. c. niti 7əp kəf J kət gən s Mary
    NEG 1p see CN man and CN M
    Mary and I didn’t see the man.

These demonstrate that second conjunct adjuncts are not globally restricted to a post (absolutive) argument position in the sentence. Instead, the adjunct positioning reflects the general morphological and positional restrictions on nominal material in the Nisg̱a’a sentence. The second conjunct is restricted to those positions which allow an equivalent nominal argument. If a position allows only a pronominal, no nominal whether an argument or a modifying adjunct may occur there. This applies to the conjoined absolutive in (13b) above, repeated as (29a) below.

(29) a. kəf-3s t Al-Å gən s Al-n s Bill k’ōts
    see-3s base-1p and CN base-2s CN B
    Bill saw you (sg) and me yesterday.

b. kəf-3s t Al-Å t Bill gən s Al-n k’ōts
    see-3s base-1p CN B and CN base-2s yesterday
    Bill saw you (sg) and me yesterday.

Since Al-Å in a position restricted to the absolutive pronominal, its adjunct is not permitted to occur there. In contrast, the ergative position before the absolutive nominal permits nominals and therefore also a second conjunct.

These data show that just as the conjunction type itself is determined by the general morphological argument properties, so is the placement of the second conjunct adjunct. A pronominal position allows only a pronominal and does not allow a either a syntactically coordinated string nor an adjunct. Instead these are restricted to those positions which allow nominals.

The internal properties of PPCs have shown that the syntactic and semantic analysis of the two conjuncts as a pronominal head and an adjunct modifier accounts for their form, ordering, and positioning in the Nisg̱a’a sentence. Now I consider the results of an analysis of Nisg̱a’a syntactic coordinations as equivalent NP units.

3.3 The Properties of Syntactic Coordinations

Recall, it is proposed that syntactic coordinations consist of syntactically equivalent NP conjuncts. If correct, such an analysis predicts that the two conjuncts share argument properties.

In conclusion, the syntactic coordinations with the absolutive pronoun Al-

(30) demonstrates typical syntactic coordination traits. The highlighted first pronominal is singular, and the second person can precede the first.

(30) kəf-ś s Bill t Al-n gən s Al-Å k’ōts
    see-śs-CN B CN base-2s and CN base-1s yesterday
    Bill saw you (sg) and me yesterday.

However, if the two elements are equivalent argument units, both should exhibit argument properties. The position of the time adverbial in the following demonstrates that the second conjunct is unlike the absolutive argument.

(31) kəf-ś s Bill t Al-n k’ōts gən s Al-Å
    see-śs-CN B CN base-2s yesterday and CN base-1s
    Bill saw you (sg) and me yesterday.

Rather it shows the same positional freedom with respect to non-arguments which defined the adjunct property of the second conjunct in the PPC. This positional freedom can be seen in other syntactic
coordinations such as nominal-nominals.

3.3.1 Conjoined Nominal-Nominals

Both ergatives and absolutes conjoin nominals with the string [NP gan CN NP], which can sit in the regular nominal position. The following demonstrate conjoined ergative constructions.

(32) a. kaj-3s John gan s Mary j kaj see-3s-CN John and CN Mary CN man
   John and Mary saw the man.

b. kaj-jt Nt-jt t Ann gan s Bill k'ots see-3s base-lp CN A and CN B yesterday
   Ann and Bill saw us yesterday.9

In (32a) the conjoined nominals sit between the verb and the absolutive nominal. In (32b) they follow the absolutive pronominal. In both they occur as a single unit, although this is not a requirement: the absolutive argument may occur between the conjuncts.

(33) his-yats-3s Mary j lakw gan s Bill
   RED-chop-3S-CN M CN wood and CN B
   Mary and Bill chopped wood.

In (33) the second conjunct follows the absolutive argument lakw. It can also follow the time adverbial as in the following absolutive nominal constructions.

(34) a. kaj-f t Ann gan s Bill k'ots
   see-3s CN A and CN B yesterday
   I saw Bill and Ann yesterday.

b. kaj-f t Ann k'ots s Bill
   see-3s CN A yesterday and CN B
   I saw Bill and Ann yesterday.

The second conjunct in syntactic coordinations share the positional freedom of adjuncts; thus they are syntactically distinct from the initial element which acts like a grammatical argument by being restricted to a single position with respect to the verb and other arguments. However, the two conjuncts are semantically equivalent; each independently specifies the values of its referent. For example, the nominal Ann in (34) neither references nor implies a unit which includes Bill. This complex mismatch of syntax and semantics shows that Nisga'a syntactic coordinations cannot be analysed as either a purely syntactic unit of equivalent NPs, nor a head and modifier unit.

9 This construction is ambiguous between a conjoined ergative nominal and a conjoined absolutive glossed as "Ann saw Bill and me yesterday". They can only be distinguished by context.

4.0 Conclusions

This paper has examined a range of Nisga'a data to show that there are a number of different conjunction types distinguishable on the basis of specific morphological properties. Their occurrence is governed by the regular distribution of pronominals and nominals in the Nisga'a sentence: syntactic coordinations pattern with nominals, VCCs pattern with clitics, while PPCs pattern with the independent pronoun Al.

The details of PPC and VCC constructions require an analysis which treats the initial pronominal as a syntactic and semantic head and the second conjunct as an adjunct which specifies the reference of one member included in the head. Finally, syntactic coordinations cannot be treated as strings of syntactically equivalent argument NPs. Syntactically, the initial element acts like an argument while the second conjunct is an adjunct. However the two are semantically equivalent since each specifies its own reference with no overlap in interpretation.

These Nisga'a data pose interesting questions for an analysis of the interaction of morphology, syntax and semantics in the interpretation of arguments. For example, what principles account for the different interpretations of second conjunct adjuncts? Why are the interpretations of adjunct modifiers dependent on the reference of an argument in the PPC and VCC, but while syntactically identical units have independent referents in the syntactic coordinations? From a larger perspective, what interpretation principles allow a first person plural pronoun to reference a singular entity in the presence of a conjunct in Nisga'a, but not in English. Or put another way, why can't English speakers say "we and the man" to mean "I and the man".

References

