The inner workings of contrast: decomposing A'ingae *tsa'ma*[*]

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1. Introduction

Expressions of contrast in A'ingae (Isolate, Ecuador; ISO: con) often feature the word *tsa'ma*, frequently translated as English *but* or Spanish *pero*. On the surface, it seems to function much like these cross-linguistic counterparts.[1]

(1) Josetatsû bia'a **tsa'ma** Patrisiatatsû chipiri.
Jose=ta=tsû bia'a **tsa'ma** Patrisia=ta=tsû chipiri
Jose=NEW=3 long but Patrisia=NEW=3 short
'Jose is tall, but Patrisia is short.'

In (1), *tsa'ma* seems to be connecting the matrix clauses *Josetatsû bia'a* (Jose is tall) and *Patrisiatatsû chipiri* (Patrisia is short), and expressing some contrast between them, much like English *but*. However, a closer look at *tsa'ma* reveals that it is composed of two separate morphemes – the propositional anaphor and determiner *tsa* and the clitic *-'ma*, previously regarded as counterexpectational or frustrative. We see these two separate functions respectively in (2):

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[1]Examples are presented in the community-produced practical orthography. A list of the glossing abbreviations used in this handout: 3 = third person; ACC1 = accusative type 1; ACC2 = accusative type 2; textscadd = additive; ADJR = adjectivizer; ADVR = adverbializer; ANA = propositional anaphor; ASSOC = associative plural; CMP = comparative; CNTR = contrastive; CT = contrastive topic; DS = different subject; IMPV = imperfective; INF = infinitive; INT = interrogative; IRR = irrealis; LOC = locative; NEG = negative; NEW = new topic; PLH = human plural; PLS = plural subject; PROH = prohibitive; PRSP = prospective; QUOT = quotative; SBRD = subordinator; SG = singular; SS = same subject; VER = verum.

(2) . Tise pûshe tayu athe tsama.
tise pûshe tayu athe **tsa**=ma
PRO.3SG wife already see ANA=ACC1
'His wife had already seen that (the being red of the eyes of the devil).'
Fischer and Hengeveld (t.a.) **Propositional anaphor *tsa*** . Nama an'ma tsû tuya khipue'sû.
na=ma an-**'ma**=tsû tuya khipue'sû
meat=ACC1 eat-CNTR=3 still hungry
'He ate meat but was still hungry.' **Frustrative(?) *-'ma***

This sort of decomposition is not so unusual for the language – many other apparent connectives appear similarly decomposable. For example, *tuya'kaen tuya-'kan=e* still-SIMIL-CMP=ADV 'and' (lit. 'it still being that way'), *tsumbi'ta tsun-mbi=ta* do-NEG=TOP 'or' (lit. 'if not') can each seemingly be broken down into three separate morphemes. The questions, then, is whether these words should be synchronically decomposed in this way and what lessons this has for understanding the semantics of logical connectives.

In this paper, we focus on A'ingae *tsa'ma* as a first step into this larger question. To do this, we must compare the properties of *tsa'ma* with those of *tsa* ANA and *-'ma* CNTR, leaving three plausible options:

1. *Tsa'ma* is decomposable and has a smaller range of uses than *but*/*pero* (only counterexpectational, like *-'ma* on its own)

2. *Tsa'ma* is not decomposable and has the same range of uses as *but*/*pero* (more than *-'ma* on its own has)

3. *Tsa'ma* is decomposable and has the same range of uses as *but*/*pero* (and *-'ma* does too)

Of these, we argue for option 3 – *tsa'ma* truly does operate as a combination of *tsa* and *-'ma*, and its uses (and *-'ma*'s) extend beyond the realm of the counterexpectational. A road map for the paper is as follows: §2 provides basic background information on A'ingae and our data; §3 surveys the range of uses of *tsa'ma*; §4 surveys the range of uses of *-'ma*, showing that *-'ma* is contrastive but not specifically counterexpectational; §5 develops a decompositional analysis for *tsa'ma*, supporting the analysis with subtle syntactic and semantic differences between *tsa'ma* and *-'ma*; §6 concludes.

2. Background

A'ingae (also known as Cofán or Kofán) is an Amazonian isolate spoken by around 2,000 people in Ecuador and Colombia. It is severely understudied and in danger of being displaced by Spanish. The data in this paper come from the The A'ingae Language Documentation Project (ALDP) database, which consists of interviews with native speakers; texts, such as fables and bible translations; and targeted elicitation sessions. Except where a ci-

tation or text name appears, all data is elicited. All data in this paper are written in the community's practical orthography.[2]

A'ingae is a dependent-marking SOV language with agglutinative morphology. Subordinate clauses are formed in a variety of ways, usually via subordinating clitics that attach to the ends of phrases, such as the apprehensional *=sa'ne* in (3).

(3) Putaen'nguma am'bian tetetendekhû ji'fasa'ne.
putaen'gu=ma am'bian [tetete-ndekhû ji-'fa=sa'ne]
rifle=ACC have Teteté-PLH come-PLS=APPR
'I got my rifle ready lest the Teteté come.' AnderBois and Dąbkowski (t.a.)

Another relevant note is that, while glottal stops in A'ingae are contrastive, their realization is quite complex and in written form quite inconsistent. What this means for our data is that the contrastive marker *-'ma* sometimes appears without the glottal stop, and the accusative marker *=ma* sometimes appears with it.[3] In previous literature, *-'ma* has been glossed as CNTR for 'counterexpectational.' While we argue this is not a completely accurate label, we will continue to use the gloss CNTR, but to mean 'contrastive.'

3. Uses of *tsa'ma*

In order to gain a fuller understanding of the possible uses of *tsa'ma* and the distinctions we might draw between them, let us first analyze the range of uses of English *but*.

3.1 Uses of English *but*

There are two main uses of *but* and *pero*: counterexpectational and semantic opposition (we set aside corrective and exceptive uses here).

(4) . The player is tall but agile. (Toosarvandani (2014)) . I studied a lot but failed the test. . She knocked on the door, but no one answered.

(5) . The player is tall, but the coach is short. . James likes peaches, but I like plums. . They went to the party, but I didn't.

In all the examples in (4), there is a counterexpectational relationship between the conjuncts; that is, one conjunct sets up some implication, and the other conjunct negates it. For example, in (4), the first conjunct leads you to expect that she is not agile, and the second conjunct tells you that in fact she is. In other words, the first conjunct implies that she is not agile, and the second conjunct negates this implication.

In the sentences in (5), on the other hand, this counterexpectational relationship does not hold. For example, in (5), The fact that the player is tall does not lead us to believe that

[2]Notable features of the orthography: <û> = a high central vowel; <u> = [o] ∼ [u]; <h> following stop or affricate = aspiration; ' = is a glottal stop; vowel nasalization is written with an <n> following the vowel.

[3]See Dąbkowski (2019, t.a.) for detailed analysis of the glottal stop in A'ingae.

the coach is not short. The conjuncts simply refer to "members of a contrasting pair" as Toosarvandani (2014) puts it.

Note that there is an asymmetry between the rhetorical force of the two clauses that make up each of the examples. For cases of counterexpectation, there is an incompatibility between the implications of the two clauses, and one conjunct's implication wins out. In (4), for instance, *she knocked on the door* weakly implies that someone answered, but *no one answered* implies with stronger rhetorical force (or entails, one might say) that this is not the case. This mismatch in rhetorical force exists in cases of semantic opposition as well. While the two conjuncts' implications can peacefully coexist in such cases, the second conjunct has stronger rhetorical force. We can see this by thinking about potential follow ups to the sentences in (5). For example, if such a follow up existed for (5), we would expect it to comment on the speaker's liking of plums or on the contrast between James' and the speaker's preferences; it would be unexpected for the follow up to comment solely on James' liking of peaches.

We will refer to the clause with the weaker rhetorical force as the 'background clause' (BC) and the clause with the stronger rhetorical force as the 'outcome clause' (OC). As we will later see, in the A'ingae data these clauses sometimes appear in a different order while maintaining their respective rhetorical forces, motivating the use of terms which are agnostic to linear order and not specifically counterexpectational.

There have been several semantic accounts of *but* put forth which explain the counterexpectational and semantic opposition uses to varying degrees. We will walk through a few of the most relevant ones here, starting with Winter and Rimon (1994)'s inferentialist account in (6)

(6) **Winter and Rimon (1994)'s semantics for *but*:**
$[\![\text{BC but OC}]\!] =$
At-issue: $[\![\text{BC}]\!] \wedge [\![\text{OC}]\!]$
Presupposition: $\exists p(\diamond([\![\text{BC}]\!] \Rightarrow p) \wedge ([\![\text{OC}]\!] \Rightarrow \neg p))$

In other words, there is some proposition p which is possibly implied by the BC and which is negated by the OC. This account works really well if we apply it to counterexpectational instances of *but*. For example, in (4), *I studied a lot* might imply *I did well on the test*, but *failed the test* implies ¬*I did well on the test*.

It does not adequately account for the semantic opposition case, however. To get this to work with an example like (5), we would have to say that *James likes peaches* implies that the speaker likes peaches, which seems unlikely (see Toosarvandani (2014) for further discussion).

Next up is Jasinskaja and Zeevat (2008)'s version of the formalist approach to a semantics for *but* requires that the BC imply some proposition in the QUD and the OC imply some other proposition in the QUD. These propositions must be 'doubly distinct' (different in subject and polarity). For example, in (5), *They went to the party* implies went-to-the-party(they); *I didn't* implies ¬went-to-the-party(I). This account works well for semantic opposition, but it falls short of explaining counterexpectation. There are no doubly distinct alternative propositions that correspond to *I studied a lot* and *I failed the test*, for instance.

Finally, Toosarvandani (2014) proposes an account of the semantics of *but* that unifies the previous descriptions and succeeds in explaining *but*'s behavior in both the counterexpectational and semantic opposition cases. Under his account, the BC implies some proposition in the QUD, and the OC implies the negation of some proposition in the QUD. These propositions may be the same, resulting in the counterexpectational sense, or different, resulting in the semantic opposition sense.

(7) **Toosarvandani (2014)'s semantics for *but*:**
$[\![\text{BC but OC}]\!] =$
At-issue: $[\![\text{BC}]\!] \wedge [\![\text{OC}]\!]$
Presupposition: $\exists p.p \in \text{QUD}([\![\text{BC}]\!] \Rightarrow p) \wedge$
$\exists q.q \in \text{QUD}([\![\text{OC}]\!] \Rightarrow \neg q)$

To demonstrate its success with both senses, let us consider it as applied to (4) and (5). For (4), just as in the Winter and Rimon (1994) account, the first conjunct implies that she is not agile, and the second conjunct implies that she is agile. In this case, both conjuncts refer to the same proposition. For (5), the first conjunct implies that the player is tall, and the second conjunct implies that the coach is not tall. In this case, the conjuncts refer to different yet related propositions.

3.2 Uses of *tsa'ma*

With the concepts and terminology from examining the range of uses of English *but*, let us now turn to *tsa'ma* – how does its range of uses compare?

(8) Dyupangi fûndu thesisa'ne tsa'ma athembi.
[Dyu-pa=ngi fûndu thesi=sa'ne] **tsa'ma** athe-mbi
fear-SS=1 scream jaguar=APPR but see-NEG
'I was afraid and screamed for fear of the jaguar, but I didn't see it.'

(9) Me'in inisepachuatsû **tsa'ma** injambie daya.
[Me'in inise=pa=chu=a=tsû] **tsa'ma** inja=mbi=e da=ya
No name=ASSOC=SBRD=ADJR=3 but know=NEG=ADV become=VER
'No, he does have a name and such, but I forgot.' `20170801.autobiography.CLC`

(9) shows a counterexpectational use of *tsa'ma*. The BC, *He does have a name*, implies that the speaker would know and remember his name, but the OC, *I forgot*, implies the negation of that implication – she forgot his name.

(10) Sapotetatsû mesani jin **tsa'ma** geñundatsû mesatsusikûni.
Sapote=ta=tsû mesa=ni jin **tsa'ma** geñu=nda=tsû mesa-tsusikû=ni
Sapote=NEW=3 table=LOC exist but banana=NEW=3 table-under=LOC
'Sapote is on the table, but the banana is under the table.'

(11) Tsa'kaen afe'fasi Chigaja Abelma in'jamba tise afe'chuma'khe in'jan. **Tsa'ma** Caínma ni tise afe'chuma'khe tiseja in'jambi.
'The Lord looked with favor on Abel and his offering. But on Cain and his offering he did not look with favor.' Ashaen'cho (Genesis) 4:5

(10) and (11), on the other hand, cannot be readily explained in terms of counterexpectation. In (10) there is no expectation from *Sapote is on the table* that is being negated. Instead, we have a doubly distinct pair – sapote is on the table; banana is not on the table. Similarly, in (11), we have a doubly distinct pair where Abel pleases God and Cain does not. Therefore, both of these are cases of semantic opposition.

We conclude that *tsa'ma* and *but* (or *pero*) are similar in their range of uses – both can used in instances of counterexpectation and semantic opposition. This argues against analysis 1 from the list in the intro, which has *tsa'ma* performing only the counterexpectational use. Either *-'ma* must share the same range of uses, or *tsa'ma* must have a broader semantics.

4. Uses of *-'ma*

In the previous section, we have shown that *tsa'ma* – similar to English *but* – can be used not only in counterexpectational uses, but also in cases of semantic opposition. In order to assess whether/how *tsa'ma* is compositionally related to *-'ma* CNTR, we turn to now to examine the range of uses of *-'ma* itself. While *-'ma* has been described previously as a counterexpectational or frustrative marker, it has not been investigated in any detail in prior literature.

4.1 Defining and typologizing frustratives

Frustratives are a sparsely studied category of morphemes encoding counterexpectation. Overall (2017) says that a frustrative"is a grammatical marker that expresses the non-realisation of some expected outcome implied by the proposition expressed in the marked clause." Using our terminology, it would be marked on the background clause and optionally followed up by the outcome clause. Much like the counterexpectational case of *but*, the BC in these cases implies some proposition that is later negated. However, it is not the OC that (necessarily) provides this negation; it is the presence of the frustrative marker itself. Because the implication and negation occur here from the BC and the frustrative marker, the OC is often not needed at all, though it may sometimes appear to elaborate or reinforce the nature of the negated implication.

While it remains unclear how common they are cross-linguistically, Overall (2017) shows that they are quite amply attested in Amazonian languages. Some typical examples of frustratives from two Amazonian languages are found in (12-13):

(12) Bãkã-ge eha-ri-bɨ̃.
town-LOC arrive-FRUST-NON3.PST

'I arrived at the town (but I didn't accomplish what I went there for)'
Desano, Miller 1999, cited in Overall (2017)

(13) Hy'jaçaleki.
hy'ja-ça-le-ki
fall-2-FRUST-DECL
'You nearly fell.' **Kwaza**, Van der Voort 2004, cited in Overall (2017)

In (12), the BC is *I arrived at the town*. It implies that the speaker would have accomplished their intended task in town, and the presence of the frustrative negates this implication. The optional OC is not present. Example (13) represents a special case where the expected outcome (OC) is the culmination of the event described by the BC. The extent to which BCs in these languages independently have culmination entailments cross-linguistically is not clear, but such uses are common though not universal.

4.2 Is *-'ma* a frustrative?

Given the prevalence of frustratives in Amazonia and the brief descriptions of *-'ma* from prior literature, it is plausible that *-'ma* would be a frustrative. What we find, however, is that *-'ma* differs from frustratives in several key respects.

First off, we see that monoclausal uses – i.e. those without an overt OC – are ungrammatical and considered incomplete by speakers, both for culmination (14), and other expected outcomes (14). While biclausal uses are often quite frequent for frustratives in many languages, the complete impossibility of monoclausal uses sets *-'ma* apart.

(14) .
*Patrisia amphi-'ma
Patrisia fall-CNTR
Intended: 'Patrisia almost fell' or 'Patrisia fell but didn't get hurt/etc.') .
*José tsetse'pa=ma kû'i-'ma
José chicha=ACC1 drink-CNTR
Intended: 'José drank chicha but didn't finish.' or 'José drank chicha but didn't get drunk.', etc.

Turning to the grammatical biclausal uses, we unsurprisingly find that counterexpectational uses are possible, as in (15). In each case, the *-'ma*-marked BC plausibly sets up the expectation that the OC will be false, which the OC then counteracts. For example, in (15), José having drunk chicha would create a likely expectation of getting drunk, which the OC then goes on to deny.

(15) . José tsetse'pama kû'i'ma khûsiambi.
[José tsetse'pa=ma kû'i]**-'ma** khûsia=mbi
Joseé chicha=ACC1 drink-CNTR make.drunk=NEG

‘José drank chicha but it didn’t get him drunk.’ . Labán tsa’kaen pa’khu ethima tha’tha nani’ma tisû chigandekhûve athembisi.
[Labán tsa=’ka=en pa’khu ethi=ma tha’tha nani]**-’ma** tisû
Laban ANA=CMP=ADVR all house=ACC1 search finish-CNTR RFLX
chiga=ndekhû=ve athe=mbi=si
god=PLH=ACC2 see=NEG=DS
‘Laban finished searching but could not find the household gods.’
(Ashaen’cho (Genesis) 31:35) . Tsumba tse charapama majan ñutshe injambikhakaen dama tuyayi jayifaya.
Tsu=mba [tse charapa=ma majan ñu=tshe inja=mbi-kha=ka=en
do=SS ANA.LOC turtle=ACC which good=ADV.STAT want=NEG-DIM=CMP=ADVR
da]**-ma** tuya=yi jayi=fa=ya
become-CNTR still=EXCL go.PRSP=PLS=VER
‘There are those who have become disillusioned with turtles, but still continue to work.’ 20170806_charapa_proyecto_BRCA

Crucially, though we see that just as in the case of *tsa’ma*, *’ma* is not restricted to such uses, also permitting semantic opposition uses, (16). Unlike above, the *-’ma*-marked BC does not intuitively set up any expectation about the OC. For example, in (16), Patrisia liking bananas doesn’t create any expectation about whether or not I like them.

(16) . Patrisia geñuma chi’ga’ma, ñangi in’jan.
Patrisia geñu=ma chi’ga**-’ma**, ña=ngi in’jan
Patrisia banana=ACC not.want-CNTR PRO.1SG=1 want
‘Patrisia doesn’t want bananas, but I do.’.Jorge bûthoje’ma ñangi tsûi’je.
Jorge bûtho-je**-’ma** ña=ngi tsûi-’je
Jorge run-IMPV-CNTR PRO.1SG=1 walk-IMPV
‘Jorge is running, but I am walking.’. . . . pu’taeñe in’jamangi ma’kaen sararuma atesûmbingi amba kansembipa
pu’tae-ñe in’ja**-ma**=ngi ma’kaen sararu=ma atesû-mbi=ngi a-mba kanse-mbi=pa
shoot-INF want-CNTR=1 how nutria=ACC know-NEG=1 eat-SS stay-NEG-SS
‘. . . I wanted to shoot, but I didn’t know how to eat nutria. . . ’
20170801_hunting_fishing_OCQ

In light of these examples, it seems that *-’ma* not only is not a frustrative, it also does not have necessarily counterexpectational semantics. We therefore conclude that *-’ma* – like *tsa’ma* and English *but* – has a broader contrastive/adversative semantics instead. As with English *but*, counterexpectational cases are likely the predominant use in naturalistic examples, but not the only one.

Taking stock, then, we see that *tsa’ma* and *’ma* both are compatible with the same range of counterexpectational and semantic opposition uses. Returning to the hypotheses in the

introduction, we can therefore conclude that only the third option is supported: *tsa'ma* is potentially decomposable and has roughly the same range of uses as English *but* and *-'ma*.

5. Decomposing *tsa'ma*

In this section, we develop the basic structure for decomposing *tsa'ma* into its apparent parts: the propositional anaphor *tsa* and contrastive morpheme *-'ma*. While we have thus far stressed the parallels between *-'ma* and *tsa'ma*, this decomposition actually also predicts some subtle yet important differences, as we shall see. We have seen above that *-'ma* attaches to the BC clause. Given this, the most obvious way to decompose *tsa'ma* is to assume that *tsa* ANA takes the place of the BC clause syntactically (cf. English *despite that*), with the overt BC clause serving as antecedent for *tsa*.

Syntactically, then, whereas the BC with *-'ma* is a subordinate clause attached to the OC as an adverbial modifier, this predicts that the overt BC clause with *tsa'ma* is merely linked anaphorically and therefore is its own independent matrix clause, as schematized in (17).

(17) . BC. [[tsa-'ma] OC] . [[BC-'ma] OC]

Semantically, the presence of a propositional anaphor in the case of *tsa'ma* predicts greater degree of flexibility compared to *-'ma*. We explore these syntactic and semantic predictions in §5.1 and §5.2 respectively.

5.1 Subordinate and matrix background clauses

Most subordinate clauses in A'ingae show the following differences with matrix clauses (Fischer 2007, Fischer and Hengeveld t.a., Dąbkowski and AnderBois submitted):[4]

(18) **Properties of matrix and subordinate clauses in A'ingae:**

	Matrix	**Subordinate**
Word order	Flexible	Rigidly predicate-final
2nd position subject clitics	Possible	Not possible
Non-declarative moods	Possible	Not possible

Here, we examine each of these properties in turn, showing that the BC is consistently a subordinate clause with *-'ma* and a matrix clause with *tsa'ma*.

[4]There are two known exceptions to this. First, subordinate clauses introduced by the quotative complementizer *khen* QUOT show matrix-like properties in many respects (even in non-quotative uses). Second, what appear to be morphologically unmarked complement clauses occur occasionally as well, though their properties, distribution, and analysis remain quite unclear.

5.1.1 Word order

Word order in matrix clauses in A'ingae is quite flexible in ways that are not well understood. In contrast, subordinate clauses are rigidly verb/predicate-final. In line with this, we see that although *tsa'ma* can occur with a BC of any word order, only verb/predicate-final order is possible for *-'ma* as seen in (19).

(19) . Akhepa tsû a'ingaema tsa'ma tise chan afa'je.
akhepa tsû a'ingae=ma **tsa'ma** tise chan afa-'je
forget 3 a'ingae=ACC but PRO.3SG mother speak-IMPV
'They forgot A'ingae, but their mother speaks it.' .
*Akhepa a'ingae=ma-**'ma** tise chan afa-'je.
forget a'ingae=ACC-CNTR PRO.3SG mother speak-IMPV
intended: 'They forgot A'ingae but their mother speaks it.'

In naturally occurring data, we find ample cases of non-verb-final word order with *tsa'ma* as in (20), but no analogous examples with *-'ma*.

(20) Kanse'fa tsa singû'khûni akhia **tsa'ma** singûkhûmbi tsû akhia.
[kanse='fa tsa singû'khû=ni akhia] **tsa'ma** singûkhû=mbi tsû akhia
live=PL.SBJ ANA lake=LOC only but lake=NEG 3 only
'They live in that lake, even though it is not a lake at all.'
20170801_hunting_fishing_OCQ

5.1.2 2nd position subject clitics

In addition to morphological case on noun phrases, A'ingae has two other forms of indexing arguments. First, a suffix *'fa* PL.SBJ appears on the verb/predicate with plural subjects (but not encoding person). Second, a set of clitics occurring in second position within the clause encoding person of the subject, but not number: *ngi* '1st person subject', *ki* '2nd person subject', and *tsû* '3rd person subject'. While morphological case and *'fa* PL.SBJ occur freely in all clauses, these second position subject clitics are limited to matrix clauses.[5] Turning to our focus here, we see that these clitics are possible in the BC with *tsa'ma*, but ungrammatical with *-'ma*:

(21) A'ingaema tsû akhepa tsa'ma tise chan afa'je.
a'ingae=ma tsû akhepa **tsa'ma** tise chan afa-'je
a'ingae=ACC 3 forget but PRO.3SG mother speak-IMPV
'They forgot A'ingae, but their mother speaks it.'

[5] They additionally are conditioned by some sort of information-structural factors, the details of which are not clear.

(22) *a'ingae=ma tsû akhepa**-'ma** tise chan afa-'je.
a'ingae=ACC 3 forget-CNTR PRO.3SG mother speak-IMPV
Intended: 'They forgot A'ingae, but their mother speaks it.'

Among naturally occurring examples, we find this freely with *tsa'ma* only, as in (23). In contrast to this, we can note that the OC always patterns with matrix clauses, allowing subject clitics, as in (24).

(23) Isha kuendzaki tsa'ma siete ocho año.
isha kuendza**=ki** tsa'ma siete ocho año
really grown=2 but seven eight year
'Really, you're already grown, but seven or eight years old.'
(20170801_autobiography_ARLQ)

(24) Patrisiaja geñuma chi'ga'ma Jose tsû in'jan.
Patrisia=ja geñu=ma chi'ga-'ma Jose **tsû** in'jan
Patrisia=CT banana=ACC not.want-CNTR Jose 3 want
'Patrisia doesn't want bananas but Jose does want them.'

To summarize, while the OC in all cases patterns with independent matrix clauses, the BC, does so only with *tsa'ma*. BCs with *-'ma* pattern with subordinate clauses and therefore disallow second position subject clitics.

5.1.3 Relative order of BC and OC

As an adjunct subordinate clause, we expect that BCs with *-'ma* CNTR can occur either before or after the OC. Although the order BC-*'ma* OC is more frequent, this is indeed what we find, the order OC BC-*'ma* is also amply attested, (25).

(25) . A'ingaema kheñaña chan afajema.
a'ingae=ma kheña-ña [chan afa-je-**ma**]
A'ingae=ACC forget-VER mother speak-IMPV-CNTR
'So he forgot A'ingae even though his mother speaks it'
20170703_comentario_sobre_lengua_vc . Jûnjûn kuyetatsû sepakhue kueña faengaetshe junma.
jûnjûn kuye=ta=tsû sepakhu=e kue=ña [fae=ngae=tshe jun]=**ma**
uh-huh plantain=NEW=3 back=ADVR grow=VER one=MANN=ADV.STAT sow-CNTR
'I don't know, the plantain finishes growing after the banana despite being planted at the same time.' 20170801_cuiccu_chicha_ARLQ

For *tsa'ma*, on the other hand, we expect the BC, being merely an adjacent independent clause, not to show such variability. Instead, *tsa* itself should show flexible word order (similar to English phrases like *despite that*). This is exactly what we find:

(26) . Tsandiendekhûkheti maphajenfambi **tsa'ma**.
tsandie=ndekhû=khe=ti mapha-jen=fa=mbi **tsa'ma**
man=PLH=ADD=INT wash-IMPV=PL.SBJ=NEG but
'Men don't wash though?' 20170703_comentario_sobre_lengua_vc .
Randevetsû ejeya majanjan, jûn u'fama khitsa thûñajama tsa'ma.
rande=ve=tsû eje-ya majan=jan, jûn u'fa=ma khitsa thû-ña=jama
big=ACC2=3 load-IRR who=CT yeah rope=ACC pull tear-CAUS=PROH
tsa'ma
but
'Some pack on big loads, yeah, don't tear the rope despite that.'
20170801_cuicca_chicha_ARLQ

Such cases are infrequent for the same reasons as with *-'ma* and presumably also because the intervening material may make the propositional anaphora harder to resolve. Despite these factors, such examples are possible, compatible with treating for *-'ma*-clauses as clausal adjuncts, and treating *tsa'ma* entirely compositionally.

In this section, we have argued that whereas the BC with *'ma* is a typical subordinate clause according to several language-internal diagnostics, the actual clausal material with *tsa'ma* is only linked indirectly via propositional anaphora and therefore is a matrix clause. The propositional anaphor *tsa* itself serves as the complement of *-'ma*.

5.2 The anaphoric function of *tsa*

Cross-linguistically, propositional anaphors such as English *that* can pick up a variety of salient propositions other than the literal semantic content of the preceding clause (cf. Snider (2017) and references therein). While a detailed investigation of propositional uses of A'ingae *tsa* is beyond the scope of this paper, it too allows for such uses in certain cases. We therefore predict that whereas *-'ma* should uniformly express contrast with the literal semantics of overt BC clause, *tsa'ma* will allow for greater flexibility.

Indeed, we see several ways that this is borne out. First, *tsa'ma* can contrast the OC with the combined content of a multisentence passage and/or that of a sentence which is not linearly adjacent, as in (27). In contrast, *-'ma* is infelicitous in such uses, (27).[6]

(27) . Alejandro tshai'patshi'ma ki'an tsa'ma José tsû favatshi.
[Alejandro tshai'pa-tshi**-'ma** ki'an] **tsa'ma** José tsû fava-tshi
Alejandro slow-ADJR-CNTR strong but José 3 fast-ADJR

[6]Distinguishing between these two options in this case is very tricky. It is not clear to us how to construct a conjunction that contrasts with an OC, but where neither conjunct individually can be said to do so. The same is true in the naturalistic data we have looked at (omitted here for space).

'Alejandro is slow but strong but José is fast.' .
#Alejandro [tshai'pa-tshi-**'ma** ki'an]-**'ma** José tsû fava-tshi
Alejandro slow-ADJR-CNTR strong José 3 fast-ADJR
'Alejandro is slow but strong but José is fast.'

Another case where the anaphoric potential afforded by *tsa* is arguably seen is in cases where the BC is introduced by a non-declarative sentence, as in (28). Here, *tsa'ma* picks up propositional content that the imperative introduces (that the addressee tries to speak again) and contrasts it with the addressee speaking slowly like how the speaker is demonstrating.

(28) Jenda, khase afakanjan ke tsa'maki khen upatshe afayaya.
jenda, khase afa-kan-jan ke **tsa'ma**=ki khen upa-tshe afa-ya-ya
then again speak-try-IMPER PRO.2SG but=2 QUOT quiet-ADVR speak-IRR-VER
'Ok, then try to talk again, but you might speak calmly like this.'
20170801_autobiography_ARLQ

Finally, we find that *tsa'ma* can pick up (presumed) pragmatic content, similar to English *in fact* or Spanish *más bien*. In 29, for example the overt BC clause implicates that it is not the case that the speaker knows that he is mad. *Tsa* picks up this implicature and *-'ma* contrasts it with the OC, which expresses its opposite (while being compatible with the literal content).

(29) Iyikhayeje khen in'jan. Tsa'ma atesûngi tise iyikhaye'chuma.
iyikhaye-je=khen in'jan. **tsa'ma** atesû=ngi tise iyikhaye='chu=ma.
angry-IMPV=QUOT think but know=1 PRO.3SG mad=SBDR=ACC
'I think he is mad. In fact, I know that he is mad.'

(30) Gayetandekhûma tsû an. Tsa'ma pa'khuma tsû an.
gayeta-ndekhû=ma tsû an. **tsa'ma** pa'khu=ma tsû an
cookie-PLH=ACC 3 eat but all=ACC 3 eat
'He ate some of the cookies, in fact he ate all of them.'

In sum, we have seen that *tsa'ma* shows flexibility in the semantic content that is contrasted with the OC. These forms of flexibility are expected under a decompositional account since *tsa* is a propositional anaphor and therefore has a greater degree of flexibility. On the other hand, *-'ma* itself shows no such flexibility in either case, uniformly contrasting the propositional content of the subordinate BC clause it embeds with that of the matrix OC it modifies.

5.3 A sketch of a formal analysis of *-'ma*

Thus far, we have argued that *tsa'ma* is synchronically composed of the propositional anaphor *tsa* plus the contrastive/adversative suffix *-'ma*. Given this, it is straightforward to assign *-'ma* a uniform semantics across its uses, drawing on accounts of English *but*.

In particular, we draw on Toosarvandani (2014)'s QUD-based account above in (7). We adapt this semantics minimally to the case of A'ingae *-'ma* in (31) by tweaking it to be a propositional modifier rather than a coordinator.

(31) **Unified semantics of *-'ma*:**
$[\![\text{-'}ma]\!] =$
at-issue: $\lambda r.\lambda s.\lambda w.r(w) \wedge s(w)$
presupposition: $\exists p.p \in \text{QUD}(r(w) \Rightarrow p(w)) \wedge$
$\exists q.q \in \text{QUD}(s(w) \Rightarrow \neg q(w))$

Recall that the propositions p and q may be the same, resulting in the counterexpectational sense, or different, resulting in the semantic opposition sense.

Crucially, the first argument of *-'ma*, r, can be saturated in one of two ways depending on what it combines with. First, in the case where *-'ma* combines with a subordinate clause, it takes the denotation of the BC itself. While differing from English *but* in terms of its subordinate syntax, this use is semantically identical. Second, when *-'ma* combines with anaphoric *tsa* – i.e. the surface word *tsa'ma* – it is the proposition *tsa* picks up which saturates this argument. While *tsa* most typically refers back to the denotation of preceding clause, like other propositional anaphors, it exhibits a greater degree of flexibility, allowing some uses that diverge more clearly from English *but*.

6. Conclusions

In this paper, we have explored the apparent discourse connective *tsa'ma* 'but' in A'ingae. While often the translation equivalent of English *but* or Spanish *pero*, we have argued that *tsa'ma* is synchronically decomposed into two parts: the propositional anaphor *tsa*, and the contrastive suffix *'ma*. We have further shown that regardless of whether it combines directly with a clause, *-'ma* is not necessarily counterexpectational, but instead has a broader semantics allowing for semantic opposition uses as well.

Beyond *tsa'ma* itself, this work provides a first step in understanding other apparent connective in A'ingae. In addition to asyndetic coordination/juxtaposition and the Spanish borrowing *u* 'or', A'ingae has a wide range of morphologically transparent forms which are frequently translation equivalents with discourse connectives like *and* and *or*, (32).

(32) **Complex apparent connectives in A'ingae**

and	*tuya'kaen*	tuya-'kan-e	still-CMP-ADV	lit. 'it still being like that'
	tsumba	tsun-pa	do-SS	lit. 'having done so (same subj)'
	tsunsi	tsun-si	do-DS	lit. 'having done so (diff. subj)'
	tsa'kamba	tsa-'kan-pa	ANA-CMP-SS	lit. 'it being like that (same subj)'
	tsa'kansi	tsa-'kan-si	ANA-CMP-DS	lit. 'it being like that (diff. subj)'
but	*tsa'ma*	tsa-'ma	ANA-CNTR	but/although that
or	*tsumbita*	tsun-mbi=ta	do-NEG=NEW	lit. 'if not so done'
	tsambita	tsa-mbi=ta	ANA-NEG=NEW	lit. 'if not that'

In this paper, we have shown that one of these elements, *tsa'ma*, should indeed be morphologically decomposed in this way. While not ensuring that other apparent connectives will be similarly decomposable (*tuya'kaen* in particular seems more likely to be lexicalized), we hope this serves as a useful first step in investigating this domain and better understanding the syntax and semantics of discourse connective cross-linguistically.

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