Probing for Conversation Participants: The Case of Jingpo

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1 Introduction
This paper presents novel data from Jingpo, a Tibeto-Burmese language with SOV word order, where the potential target of agreement is the non-argumental speaker or hearer. The hearer agreement, aka allocutive agreement, has long been attested in various Basque dialects (Oyharçabal 1993; Arregi 2004; Adaskina & Grashchenkov 2009), and has also been reported to exist in Beja (Appleyard 2004), Chechen (Molochieva 2007), Mandan (Antonov 2013) and Nambikuara (Kroeker 2001). In these languages, verbs inflect for the gender of the non-argumental hearer to express familiarity or politeness. The speaker agreement, on the other hand, grammatically encodes the gender of the non-argumental speaker, and has been attested in Lakhota (Trechter 1995) and Burmese (Wheatley 2003).

Unlike these languages, the key features at play in Jingpo speaker and hearer agreement are person and number. As such, these discourse participants compete with the syntactic subjects, the real arguments, for agreement. Moreover, I demonstrate that the speaker agreement, which is used to indicate an intimate relation between the speaker and the subject, is always plural whereas the number valuation of the hearer agreement depends on the exact number of the addressees involved in the conversation. To my knowledge, such complications have not been discussed in the literature. The present paper serves as an attempt to fill in the gap by providing a full description of the speaker and hearer agreement in Jingpo.

The paper is organized as follows. Section 2 briefly introduces the syntactic background of Jingpo that is relevant to the ensuing discussion. Section 3 presents the key data and the analysis is postponed until Section 4. I argue that the discourse participants Speaker and Hearer are syntactically active and therefore should be mapped onto syntactic structures, à la Speas & Tenny (2003). I also show that the discourse participants and the syntactic subjects should be treated equally in narrow syntax. More speculatively, I suggest that the plurality requirement of Jingpo speaker agreement is a by-product of the establishment of a bonding relation between the speaker and the subject, not a direct result of the agreement mechanism per se. Section 5 concludes.

2 Agreement paradigms in Jingpo
Jingpo is strictly head-final in both clausal and nominal domains. An unmarked sentence exhibits subject-object-verb order (1). Adpositions and auxiliaries follow their complements (1). Relative clauses precede the head nouns (2).

(1) SOV, postpositions, postverbal auxiliaries

Marip ningwa hte hpun hta na.
Marip axe with firewood split will

‘Marip will split the firewood with an axe.’

List of abbreviations:
1/2/3: first/second/third person; SG/PL: singular/plural number; M/F: masculine/feminine gender; SUBJ/OBJ: subject/object; ABL: ablative; ASP: aspect; COS: change-of-state aspect; DECL: declarative mood; EVID: evidential marker; EXCL: exclamative mood; EXH: exhortative mood; FUT: future; GEN: genitive marker; IMPRF: imperfective; Q: interrogative mood; SPEC: speculative; TOP: topic marker; WH: wh-question
(2) Prenominal modifiers

\[ \text{Marip hta sāi } \text{hpun} \]
Marip split SFP firewood

‘(the) firewood that Marip has split’

Jingpo has a rich inventory of sentence final particles (henceforth SFPs). It has been reported that there are around 350 SFPs in total (Dai 1998), the use of which is obligatory in most cases. According to DeLancey (2008), the SFPs can be subdivided into at least two parts. The final part (usually the last syllables or the rhymes of the last syllables of SFPs) encodes exclusively the clause typing information. Dai (1998) and Zu (2011) identify six clause type morphemes, namely, declarative \( \text{¯a} \), interrogative \( \text{nî/tâ} \), imperative \( \text{⊘} \), speculative \( \text{t¯oN} \), exclamative \( \text{kh¯a} \), and exhortative \( \text{kaP} \). The prefinal part, on the other hand, carries agreement morphemes and optionally encodes other grammatical functions such as aspectuality (of an event), path (of a movement) and urgency (of a request, promise, or suggestion).

There are three sets of agreement relations that are morphologically marked in the prefinal part of Jingpo SFPs, traditionally labeled as subject agreement, possessor agreement, and object agreement. The first two are exemplified below. Here I use declarative SFPs (hence the morpheme \(-\text{¯a})\) as an illustration.

Table 1: The “subject” agreement paradigm

<table>
<thead>
<tr>
<th>DP</th>
<th>−change of state</th>
<th>+change of state</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>( \text{wij} -\text{¯a} )</td>
<td>( \text{ka} -\text{¯a} -\text{¯a} )</td>
</tr>
<tr>
<td>2</td>
<td>( \text{nt} -\text{¯a} )</td>
<td>( \text{mâ-t} -\text{¯a} )</td>
</tr>
<tr>
<td>3</td>
<td>( \text{kø} -\text{¯a} )</td>
<td>( \text{mâ-t} -\text{¯a} )</td>
</tr>
</tbody>
</table>

Table 2: The “possessor” agreement paradigm

<table>
<thead>
<tr>
<th>DP</th>
<th>−change of state</th>
<th>+change of state</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>( \text{li} -\text{¯a} )</td>
<td>( \text{sî-nt} -\text{¯a} )</td>
</tr>
<tr>
<td>2</td>
<td>( \text{liit} -\text{¯a} )</td>
<td>( \text{sî-nt} -\text{¯a} )</td>
</tr>
<tr>
<td>3</td>
<td>( \text{lu} -\text{¯a} )</td>
<td>( \text{mâ-lî} -\text{¯a} )</td>
</tr>
</tbody>
</table>

Zu (2011) argues that the choice between the two paradigms is not functional, but structural, and both “subject” agreement and “possessor” agreement are just misnomers. Assuming van Koppen’s (2005) configuration in which a Probe for agreement encounters not one but two Goals, as in (3) below, the “subject” agreement (henceforth first-specifier agreement) in Jingpo targets Goal 1, i.e., the first specifier in the probing domain, whereas the “possessor” agreement (henceforth second-specifier agreement) in Jingpo targets Goal 2, i.e., the specifier of specifier.

(3) One probe, two goals

The following pair of examples show that the so-called “possessor” agreement does not discriminate between possessors (4) and embedded subjects (5), which are functionally different, but occupy analogous positions within DPs and CPs respectively (Zu 2009). Accordingly, they trigger the same agreement morphology. In other words, if the subject DP (4) and the subject CP (5) are the first specifiers in T’s probing domain, the possessor and the embedded subject within these two projections will be the second specifiers.

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3SFPs are absent in sentences with the future tense/irrealis mood auxiliary \( \text{sa} \text{na} \), otherwise they are obligatory.

4In this paper I omit the discussion of these grammatical functions because they are not directly relevant to the main point.

5The terms ‘first’ and ‘second’ are used in reference to the hierarchical depth of the specifiers, not in terms of linear distance.
In the rest of the paper, I argue that just like the target of the "possessor agreement" is not only possessors, the target of the so-called "subject" agreement in Jingpo is not limited to subjects either. The same paradigm is also responsible for the agreement with other first specifiers, such as the non-argumental speaker and hearer.

3 The data set

3.1 Attention-seeking via hearer agreement

Let us start with the simple *wh*-question (6), the SFP of which agrees with the third person singular subject *hkying* 'time'.

(6) *hkying gade htu s-ū?-tā?
  time how.many point COS-3SG.GOAL1-WH
  ‘What time is it?’ = (Lit.) ‘How many does the time point to?’

The following sentences minimally differ from (6) in that the target of the agreement is a second person, singular in (7) and plural in (8). However, in both cases, the overt subject *hkying* 'time' remains third person singular.

(7) *hkying gade htu s-ū-tā?
  time how.many point COS-2SG.GOAL1-WH
  ‘What time is it?’

(8) *hkying gade htu mū-s-ūn-tā?
  time how.many point PL-COS-2.GOAL1-WH
  ‘What time is it?’

In all three sentences, the speaker asks the same question, “what time is it?”, except that in (6) it is not clear whether there is a hearer in the context, whereas (7) and (8) are infelicitous if the speaker is just murmuring the question to herself. The plural morpheme *mū* in (8) further indicates that the speaker addresses the question to a group of people and expects multiple answers from them. One possible scenario for (8) is when the speaker is checking if everyone in the audience knows how to tell the time. Note that in all these cases, agreement only happens once. That is, the SFP has a choice of agreeing with the subject and the hearer, but not both.

The hearer agreement can be found in yes-no questions as well. The third person singular subject *hkyen* 'frost' triggers agreement in (9), but not in (10) and (11). The agreement morphology in the latter two points to the hearer, instead of the subject. At least one hearer is necessary for (10) to be felicitous. On the other hand, the question (11) is most likely used as a survey question. That is, when the speaker asks this question, she has reason to believe that people in the audience are from different places.
(9) nanhte 2PL ga e hkyen n hkrat a?-nî?
place at frost not fall 3SG.GOAL1-Q
‘Is there frost in your hometown?’ = (Lit.) ‘Does frost fall in your place?’

(10) nanhte 2PL ga e hkyen n hkrat n-nî?
place at frost not fall 2SG.GOAL1-Q
‘Is there frost in your hometown?’

(11) nanhte 2PL ga e hkyen n hkrat mora-nî?
place at frost not fall 2PL.GOAL1-Q
‘Is there frost in your hometown?’

Unlike allocutive agreement in Basque and other languages, the hearer agreement in Jingpo is limited to questions. The following sentence is ill-formed because the declarative SFP cannot agree with the hearer and there is no other second person singular DP available for agreement.

(12) *nanhte 2SG ga e hkyen n hkrat nt-akhir.
place at frost not fall 2PL.GOAL1-DECL
‘There is frost in your hometown.’

3.2 Bonding via speaker agreement
Besides the subject and the hearer, the first-specifier agreement can also target the speaker to establish an intimate relation between the speaker and the subject. For instance, (13) and (14) are truth-conditionally equivalent and both can be used when a teacher is reporting to a principal about her students. What differs the two sentences, however, is that (14) indicates that the teacher and her students are in good terms (or at least she wants the principal to believe so) whereas (13) has no such indication. Note that in both cases, only one agreement relation is spelled out.

(13) jongma 3PL du h Kum  mosa-akiri.
student arrive complete 3PL.GOAL1-COS-DECL
‘The students have all arrived.’

(14) jongma 3PL du h Kum soka?-akiri.
student arrive complete COS-1PL.GOAL1-DECL
‘The students have all arrived.’

Unlike the hearer agreement, the agreement with the speaker which is singular in number, is always plural. This plurality requirement is evidenced by the unacceptability of (15).

(15) *jongma 1SG du h Kum soka-yakiri.
student arrive complete COS-1SG.GOAL1-DECL
‘The students have all arrived.’

The number of the subject does not play any role here. The plurality requirement is not lifted even when the teacher is discussing one specific student with the principal.
Another difference between the speaker agreement and the hearer agreement is that the former is compatible with other clause types, including exhortatives (18), questions (19), exclamatives (20) and speculatives (21).

(18) Mother to her kid(s):

\[\text{atsom shā dûng kā?!} \]
\[\text{well sit IPR.GOAL1:EXH} \]

‘Sit still!’ (Dai 2010:6)

(19) Pig owner to someone else:

\[\text{wa ganang nga sō-kāʔ-tā?} \]
\[\text{pig where exist COS-IPR.GOAL1-WH} \]

‘Where has the pig gone?’

(20) Discussion among friends:

\[\text{masha nga manga nbungli mu yu kāʔ-kīā.} \]
\[\text{person all airplane see PAST IPR.GOAL1:EXCL} \]

‘Unexpectedly, everyone saw airplanes (before).’

(21) Conference organizer to someone else:

\[\text{zupphong hpǒng na nī yóng du ra sō-kāʔ-tōŋ?} \]
\[\text{meeting attend FUT people all arrive all COS-IPR.GOAL1:SPEC} \]

‘All the conference participants have arrived, right?’ (Dai & Xu 1992:380)

In the next section I propose a syntactic account for Jingpo speaker and hearer agreement. I postpone the discussion of the plurality requirement to Section 4.3.

4 The analysis

In the previous section, I have demonstrated that the speaker and hearer agreement in Jingpo is authentic agreement because (i) it is spelled out in the same way as the subject agreement morphemes, and (ii) it competes with the subject agreement for morphological realization. To treat the speaker and hearer agreement as authentic agreement, instead of, say, honorification marking which some may argue is a different matter (Bobaljik & Yatsushiro 2006), we need to ask at least two questions. First, where is the goal? Second, where is the probe?
4.1 Speech features are syntactically active

As has been established so far, in Jingpo the target of the first specifier agreement can be subject, speaker or hearer. Although the subject originates in an argument position, speaker and hearer never do. In fact, they can never even be overtly realized in a sentence.

(22) (*Nang)  hkying gade htu s-ō-tâ?
        2SG  time  how.many point cos-2SG.GOAL1-WH

‘What time is it?’

(23) (*Anhte)  j̍ongma du hkum sā-kā?-āi.
       1PL  student  arrive  complete  cos-1PL.GOAL1.DECL

‘The students have all arrived.’

It is clear that the discourse participants, though phonologically null, are syntactically active in that they trigger agreement. Crucially, this observation shows that the operation Agree does not always depend on Case assignment, pace Bobaljik (2008), since Speaker and Hearer do not bear Case.

Speas & Tenny (2003) propose that Speaker and Hearer are pragmatic roles and can be mapped onto a syntactic structure. Similarly, Sigurðsson (2004) also claims that Speaker and Hearer, or in his own terms, logophoric agent and logophoric patient, are arguments of the speech event, in much the same vein as the subject and object being the arguments of the predicate. As a modern survival of Ross’s (1970) Performative Analysis, Miyagawa (2013) comes up with the following structure, which is a modified version of the original proposals in Speas & Tenny (2003) and Haegeman & Hill (2010).

(24) A “super-structure” above CP

```
    SP
   /
  Speaker
   /
       S
       /
       HP
       /
  Hearer
   /
   H
   /
   C P
       /
   Utterance
```

This “super-structure” bridges the discourse with an utterance CP and has been argued to be a root clause phenomenon (Miyagawa 2012). Speaker and Hearer occupy the specifier positions of the two speech act projections respectively.

4.2 Agreement at C and T

Now that we have designated positions for Speaker, Hearer and subject, the next natural question to ask is what probes for them. Assuming every full-fledged sentence contains at least a CP and a TP, there are three options, namely, (i) C probes for Speaker and Hearer, and T probes for subject, (ii) C probes for all three DPs, and (iii) T probes for all three DPs.

The first option is not desirable, because it is not obvious why discourse participants could compete with the subject for agreement if they were targeted by different probes. The unacceptability of (25) suggests that two agreement morphemes cannot co-occur in the same clause.

(25) * j̍ongma du hkum mā-sā̄i n-nī?
       student  arrive  complete  3PL.GOAL1-COS-DECL  2SG.GOAL1-Q

(Int.) ‘Have all the students arrived?’
In contrast, (26) is well-formed, which minimally differs from (25) in having only one agreement morpheme.

(26) jongma du hkum mō-s-āi
    student arrive complete 3PL.GOAL1-COS-DECL Q

    ‘Have all the students arrived?’

The fact that C-agreement and T-agreement cannot co-occur in Jingpo does not necessarily mean there is a universal constraint against this from happening. Haegeman & van Koppen (2012) argue that in certain Dutch dialects and West Flemish, C and T can probe separately. The allocutive agreement in Nambikuara also suggests that both heads can probe.

(27) Nambikuara (Kroeker 2001:66)

    a. Wxā�
       -naľ
       -tuľ
       -waľ.
       come -1SG:EVID -FUT -IMPRF:ALLOC:M

       ‘I will come.’ (said to a man)

    b. Wxā�
       -naľ
       -tuľ
       -xarľ.
       come -1SG:EVID -FUT -IMPRF:ALLOC:F

       ‘I will come.’ (said to a woman)

There are some differences between Jingpo and these languages. In Dutch dialects and West Flemish, C-agreement and T-agreement are structurally different. More specifically, the latter targets the first specifier, i.e., the subject, while the former targets the second specifier, i.e., the first conjunct or the possessor (see Haegeman & van Koppen’s original paper for details). In Jingpo, on the other hand, Speaker, Hearer and the subject are all first specifiers. Although in Nambikuara allocutive agreement does not show any structural differences from subject agreement, the two agreements check different features. Person and number features of the subject is checked in subject agreement, and gender feature of the hearer is checked in allocutive agreement. In Jingpo, however, the same set of φ-features is involved in all instances of agreement. In this paper, I do not attempt to provide a comprehensive account for these seemingly relevant yet distinct phenomena.

The second option is not satisfactory either. Based on morphological evidence, Zu (2011) claims that the evidential marker da projects between TP and CP. Interestingly, although da can co-occur with the SFP that agrees with the subject, it is incompatible with the SFP that agrees with the speaker.

(28) jongma du hkum mō-s-āi
    student arrive complete 3PL.GOAL1-COS-DECL EVID

    ‘The students have all arrived. (I heard it from someone.)’

(29) *jongma du hkum sō-kāʔ-āi
    student arrive complete COS-1PL.GOAL1-DECL EVID

    (Int.) ‘The students have all arrived. (I heard it from someone.)

(30) *jongma du hkum da sō-kāʔ-āi.
    student arrive complete EVID COS-1PL.GOAL1-DECL

    (Int.) ‘The students have all arrived. (I heard it from someone.)

---

6By adding the interrogative marker i on top of the declarative SFP, the declarative mood of the sentence has been cancelled. The sentence thus becomes an interrogative one.
Assuming *da* is an intervening category that blocks agreement, if C is the one that probes, we should expect the opposite pattern. That is, *da* should block the agreement between C and the subject, which is not the case.

The only option we have left is the last one: T is the one that probes. Here I adopt Richards’s (2007) assumption that the unvalued φ-features originate at C and percolate down to T via obligatory feature inheritance.\(^7\) Two other assumptions are in order. First, the locality domain of agreement is a phase domain. Second, the two speech act projections above CP belong to the same phase as CP. If the function of a phase is to delimit a spell-out domain, the last phase is practically defined by the second-but-last phase head and should only close off at the end of the syntactic derivation. This lends conceptual support to the crosslinguistic observation that agreement triggered by discourse participants is a root phenomenon (Miyagawa 2012). I believe this is so because the embedded T cannot probe across the embedded CP, which is a bona fide phase. Given these two assumptions, in the structure (31) below, nothing above vP is off limits to T.

(31) One probe, three goals

\[\text{SP} \rightarrow \text{HP} \rightarrow \text{CP} \rightarrow \text{EvidP} \rightarrow \text{TP} \rightarrow \text{H}
\]

\[\text{SP} \rightarrow \text{HP} \rightarrow \text{CP} \rightarrow \text{EvidP} \rightarrow \text{TP} \rightarrow \text{H}
\]

T can choose between Speaker, Hearer and the subject to check its φ-features. The choices it makes will directly affect the semantic interpretation upon spell-out. That is to say, all three agreement relations are treated equally in narrow syntax. The difference in interpretation is postsyntactic. When there is an intervening category EvidP, however, T cannot probe through it. In this case

\(^7\)The proposal does not crucially rely on this assumption. Nothing would change if I adopt the standard assumption from the earlier framework that the unvalued φ-features start out at T.
the only available DP that it can check $\phi$-features with is the subject, hence the unacceptability of (29) and (30). It is not obvious why EvidP blocks the agreement with discourse participants. One possibility is to say its specifier accommodates the source of evidence which itself contains partial $\phi$-features, i.e., third person. I leave this to future study.

The argumentation in this section is based on the assumption that in Jingpo what you see is what you get. I do not preclude alternative accounts that require a series of covert phrasal movements and/or a set of covert functional projections in the CP domain. However, I think the burden of proof lies with the person making such claims.

4.3 A closer look at bonding
The final question I need to address is the plurality requirement of the speaker agreement in Jingpo. It is worth noting that the same requirement also holds in English nurse-\textit{we} constructions, which indicates the same kind of intimate relationship between the speaker and the subject.

(32) Nurse to single patient
   a. Are we feeling better today?  
      (Collins & Postal 2012:34)
   b. # Am I feeling better today?

(33) Teacher to students
   a. Now students, last time we all filled out questionnaires.  
      (Collins & Postal 2012:218)
   b. # Now students, last time I filled out questionnaires.

The fact that the singular pronouns (32b) and (33b) are infelicitous, in comparison with their plural counterparts in (32a) and (33a) suggests that the plurality requirement is specific to the function – bonding, rather than to the syntactic mechanism. Assuming that the bonder, in this case, the speaker, has an open feature slot $\Delta$, and that bonding is established once the slot is filled in by the bondee which could be any DP, à la Vassilieva & Larson (2005), the result will be \textit{we}.

(34)\[
we = \text{Speaker} + \text{someone else}
\]

\begin{center}
\begin{tikzpicture}
  \node (S) {Speaker} ;
  \node (T) {Subject} ;
  \node (1SG) at (S.south) {$1\text{SG}$} ;
  \node (1/2/3SG/PL) at (T.south) {$1/2/3\text{SG/PL}$} ;
  \draw (S) -- (T) ;
  \draw (1SG) -- (T) ;
  \draw (1/2/3SG/PL) -- (T) ;
  \draw (S) -- (1SG) ;
  \draw (S) -- (1/2/3SG/PL) ;
\end{tikzpicture}
\end{center}

Linking bonding to the plurality requirement predicts that in languages where speaker agreement is used for purposes other than bonding, we should be able to find agreement with the first person singular. It is difficult to confirm or challenge this prediction directly, since there are not a lot of languages that have speaker agreement to begin with. Furthermore, in languages where politeness is expressed through speaker agreement, such as Lakhota and Burmese, only gender feature is involved. However, it is still worth testing in these languages whether the result would change if the subject and the speaker together constitute a group with mixed gender features.

5 Summary
This paper examines the curious phenomenon of the speaker and hearer agreement in Jingpo. I argue that in order for Speaker and Hearer to trigger agreement, they must be syntactically active. Following Speas & Tenny (2003), Haegeman & Hill (2010), and Miyagawa (2013), I map the discourse participants to the specifiers of two speech act projections, S\(\text{(peaker)}\)P and H\(\text{(earer)}\)P, above CP. The T head with unvalued $\phi$-features probes Speaker, Hearer, or the subject, the three of which are treated equally in narrow syntax. The interpretational differences accompanying these agreement relations are only postsyntactic. Finally, I suggest that the plurality requirement in Jingpo is specific to bonding, not to the agreement mechanism.
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