'Indexation switch' in person hierarchy and negation in two subgroups of agreeing Tibeto-Burman languages

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1. Plan

    Data:
    Compares two agreeing Tibeto-Burman languages (TB) broadly across the following:
    – Direct and inverse alignment of indices
    – Person/ Number feature split
    – Negation affecting inversion (pseudo-indexation switch)
    Analysis:
    – Direct and inverse triggered by different probes
    – Negation triggers inverse syntax

2. Language groups

The TB language family can be broadly divided into two groups with respect to the agreement.
  (i)   languages which exhibit very rich agreement paradigms; sub-groups like Kiranti, Kuki-Chin (KC) and Qiangic.
  (ii) languages which do not display any kind of argument indexation on verbs; sub-groups like Lolo-Burmese and Bodo-Garo, as well as other branches of KC languages (namely, Meeteilon (Manipuri) and Naga languages, which show no agreement, see Bhattacharya 2017, 2018a, 2018b)

This paper capitalises on the former type of languages, with special focus on Kiranti and KC languages, where the morphological expression of arguments in verb complex appears to have a complicated correspondence to the syntax.

Two representative languages taken-up for the study for this paper are:
– Mara, a Kuki-Chin language spoken in the southernmost part of Mizoram, NE India. (yellow)
– Bantawa, a Kiranti language spoken in the eastern Nepal and in Sikkim, India. (red)

3. Argument alignment in Mara

Let us look at Mara, a KC language, first (data from fieldwork Sharma, 2017, 2018). In the affirmative paradigm, the [PER] feature of S and O are indexed prefixally when the configurations are 1/2 > 3 (direct order)

The template followed is $PER_{SUB}\text{-}PER_{OBJ}\text{-}V\text{-}(T)$

(1)   kej-tə nənɑɯ   ej-tʃə-pəraj
        I-ERG you   1-2-pull
        'I pull/ pulled you.'
(2)   nənɑɯ-tə ənɑɯ nə-pəraj
        2-ERG s/he   2-pull
        'You pull/ pulled her/him.'

Since, the sg is unmarked and since indices for each argument is independently aligned, these are not portmanteau morphs (though see (7) and (8)).

3.1. Person/ Number split

Along with [PER], [NUM] of the argument(s) also gets marked. With the plural, we can see the separation of the person and number marker clearly, showing again, that these are not portmanteau morphs.

The template here is: $PER_{SUB}\text{-}NUM_{SUB}\text{-}PER_{OBJ}\text{-}V(\text{-}T)\text{-}NUM_{OBJ}$

(3)   ej-**mə**-tʃə-pəraj-**ej**
        1-PL-2-pull-PL
        'We pull/ pulled you(pl).'
(4)   nə-**mə**-pəraj-**ej**
        2-PL-pull-PL
        'You(pl) pull/ pulled them.'

3.2. Inverse order or the Indexation Switch

When the configuration is 2/3 >1, which is an inverse alignment, the [PER] S is indexed suffixally and [PER] of O is indexed prefixally.

The template followed is PER$_{OBJ}$-PER$_{OBJ}$-V-(T)-PER$_{SUB}$

(5)   ej-nə-pəraj-tʃi
        1-INV-pull-2
        'You pull/ pulled me.'
(6)   ej-nə-pəraj
        1-INV-pull
        'S/he pull/ pulled me.'
(7)   ej-nə-pəraj-ej-tʃi
        1-INV-pull-PL-2
        'You (pl) pulled me.'

Interestingly, in an inverse configuration there is only one NUM slot available in the verb complex which is controlled by the S. However, 1st.PL.O has its own PL form *mənijə*, which is a portmanteau morph (although one which looks suspiciously long):

(8)   mənijə-pəraj-ej-tʃi
        1.PL-pull-PL-2
        'You (pl) pulled us.'
(9)   mənijə-pəraj-ej
        1.PL-pull-PL
        'They pulled us.'

However, 3>2 configuration doesn't follow the inverse template for the ordering of indices, rather it follows the direct template, i.e. PER$_{SUB}$-(NUM$_{SUB}$)-PER$_{OBJ}$-V(-T)-(NUM$_{OBJ}$) (see(3),(4)):

(10)   ənaɥ-tə nənaɥ ə-tʃə-pəraj
        S/he-ERG you   3-2-pull
        'S/he pull/ pulled you.'

4.   The Negative paradigm

The order of marking followed in a negative verb complex has the template:

PER$_{OBJ}$-V-PER$_{SUB}$

where *nə* and *tʃi/tʃə* are 1st and 2nd person markers respectively, which get suffixed when indexing S and prefixed when indexing O.

This switch in the indexation of the subject marker to the postverbal position is the primary way of signaling negation of the proposition in Mara.

(11)   tʃə-pəraj(-vej)-nɑ
       2-pull(-NEG)-1
       'I did not pull you.'

(12)   nə-pəraj(-vej)-tʃi
       1-pull(-NEG)-2
       'You did not pull me.'

(13)   tʃə-pəraj(-vej)
       2-pull(-NEG)
       'He did not pull you.'

4.1. Negation and number

When it comes to the plural paradigm, unlike affirmative verb complex, only postverbal slot is available for the NUM marking, as in (14) and (15).

However, when one of the arguments in the configuration is 1st person, then both the arguments' [NUM] gets indexed since 1st PL for S is *-məpi* and 1st PL for O is *-mənijə*, and plural marker *-ej* is indexed for other argument.

(14)   tʃə-pəraj(-vej)-ej-məpi
       2-pull(-NEG)-PL-1.PL
       'You(pl) did not pull us.'

(15)   mənijə-pəraj(-vej)-ej-tʃi
       1.PL-pull(-NEG)-PL-2
       'We did not pull you(pl).'

In configuration like 2>3 or 3>2 or 3>3, the NUM slot is controlled by either the S or O. Hence, showing the omnivorous number marking:

(16)   tʃə-pəraj(-vej)-ej
       2-pull(-NEG)-PL
       'He didn't pull you (pl)/ they didn't pull you (pl).'

5.   Summary (Mara)
     (i)   Two orders are followed in the affirmative paradigm
           ▪ S-O-V, when the configuration is 1/2> 3, i.e. direct alignment
           ▪ O-V-S when the configuration is 3/ 2>1, where the we see the indexation switch/ inversion in S marker to the suffixal position due the person hierarchy.
     (ii)   In negative paradigm only one order is followed throughout, i.e. O-V-S. Like inverse

construction, S is suffixed, but here it is not driven by person hierarchy. Therefore, we call this Pseudo-Indexation switch.

(iii) Phi-feature split is very clearly noticeable. Except from 1.PL forms (*mənijə* '1.PL.O and *məpi* '1.PL.S), no portmanteau morphemes can be found.

6. Bantawa

Data for Bantawa (Hatuwali) was collected from fieldwork in Kathmandu (2019), which matches to a good extent with Doornenbal (2009).

In the Affirmative paradigm, direct configuration, [PER] features of S and O are suffixed to the verb, except when the subject is 2nd person in which case the PER$_{SUB}$ is prefixed, whereas PER$_{OBJ}$ is suffixed as in (19). Unlike in Mara (KC), here the 3rd O is marked, which has however been identified elsewhere (Doornenbal, 2009) as a direct marker (DIR). In 1>2 cases (as in (17)), the suffix is a portmanteau morph comprising φ-feature of both arguments. This is a typical feature of argument indexing languages identified as a portmanteau form, where the contributing features are from different arguments; Mara doesn't show this type of portmanteau formation.

The templates followed are: V-(PER$_{OBJ}$)-PER$_{SUB(+OBJ)}$ for 1 > 2/3
                               PER$_{SUB}$-V-PER$_{OBJ}$ for 2 > 3

(17)   1→ 2
       ŋka kʰana dʰat-na
       I   you   hit-1>2
       'I hit you.'
(18)   1→3
       ŋka kʰo dʰat-u-ŋ
       I   s/he hit- PER$_{OBJ}$-1
       'I hit her/him.'
(19)   2→ 3
       kʰana kʰo   t̪i-dʰat-u
       You   s/he 2-hit-PER$_{OBJ}$
       'You hit her/him.'

6.1. Person/ Number Split
(20)   2sg>1pl
       kʰana ənkenka **t̪i-d̪ʰat̪-ni**
       You   I.PL   2-hit-PL
       'You hit us'
(21)   2pl>1sg
       kʰana-nin ŋka **t̪i-d̪ʰat̪-ni**
       You-PL   I   2-hit-PL
       'You(pl) hit me.'
(22)   2PL>1PL
       kʰana-nin   ənkenka **t̪i-d̪ʰat̪-ni**
       you-PL   I.PL   2-hit-PL
       'You(pl) hit us.'

6.2. Inverse configuration

In an inverse configuration, where the S is 3rd person and the O is 1st or 2nd person only PER$_{OBJ}$ is affixed to the verb, since [PER] of 3rd subject is not marked. In this situation an inverse marker *(n)ɨ* is prefixed to the verb.

The template followed is: INV-V-(T)-PER$_{OBJ}$

(23)   3→1
       kʰosɑ ŋka ɨ-dʰat-ɑ-ŋ
       S/he I   INV-hit-PST-1
       'S/he hit me.'
(24)   3→ 2
       kʰosɑ kʰana   nɨ-dʰat-ɑ
       s/he   you INV.PL-hit-PST
       'S/he hit you.'

However, given the essential prefixal nature of the 2nd subject (see (19)), in the 2>1 context, the prefixal slot is occupied by PER$_{SUB}$ and an inverse configuration doesn't obtain:

(25)   2→1
       kʰana ŋka tɨ̰-dʰat-ɑ-ŋ
       You I   2-hit-PST-1
       'You hit me.'

7.   The Negative Paradigm

In negative constructions, the negative particle *man* is prefixed to the verb, as in (26) - (28). In case of 2>3 configuration, the affixation of the negative particle results in the switch of 2nd person marker *tɨ* to the postverbal position since its essential prefixal slot is taken over by the prefixal negation (ranked higher), as in (28), we call this a pseudo indexation switch (PIS), caused by negation; other examples of PIS follow.

The order of marking is: NEG-V-PER$_{SUB}$-T-PER$_{OBJ}$

(26)   1→ 2
       ŋka kʰana man-dʰat-na
       I   you   NEG.PST-hit-1>2
       'I didn't hit you.'
(27)   1→ 3
       ŋka kʰo man-dʰat-u-ŋ
       I   you NEG.PST-hit-PER$_{OBJ}$-1
       'I didn't hit him.'

7.1. Pseudo Indexation Switch

(28)   2→ 3
kʰana kʰo man-dʰat-tu-d-u
You   3   NEG.PST-hit-2-PST-PER~OBJ~
'You hit him.'

(29)   2→ 1
kʰana ŋka man-dʰat-ti-da-ŋ
You   I   NEG.PST-hit-2-PST-1
'You didn't hit me'

(30)   3→1
kʰosa-a   ŋka   man-dʰat-i-da-ŋ
You-ERG   I   NEG.PST-hit-INV-PST-1
'He didn't hit me.'

(31)   3→ 2
kʰosa-a   kʰana   man-dʰat-ni-da
He-ERG   you   NEG.PST-hit-INV-PST
'He didn't hit you.'

8.   Summary (Bantawa)
   (i)   Two orders for indexation are followed in direct configuration:
        a.   V-O-S, for 1>2 /3
        b.   S-V-O for 2 > 1/ 3
   (ii)   The order followed in inverse construction: INV-V-O; inverse is morphologically marked by an inverse particle (n)ɨ in 3>2/1. (In Mara it is expressed by the indexation switch)
   (iii)   Phi-feature split is very clearly noticeable. Portmanteau morphemes are not the norm in Banatwa as well, except for 1>2 marker *na* (which is not the fused form NUM and PER like we find in Mara for 1.PL)
   (iv)   Negation causes the change in indexation order in Bantawa (like Mara.)

9.   Analysis
   (i)   Cross-reference vs. agreement (Nichols, 1986)
   (ii)   Our claim: **Agree** parametrized is able to broadly account for different ordering effects (as opposed to postsyntactic Morphology)
   (iii)   Challenge: disharmonizing affix order (prefixal) in an SOV language
        –   (Jacques, 2013) – diachronic, prosody and cognitive
        –   Despić, Hamilton & Murray [DHM] (2019) concentrate on inner suffixes
        –   Giorgi (2017) chooses a language (Hayu) without prefixes
   (iv)   Our guiding principle:

> *Whatever is prefixal, is a result of T-probing*
> (with concatenative morphology)

   (v)   Since inverse is bleeding, we will need **Cyclic Agree** (CA) (Béjar and Rezac, 2009)
   (vi)   **Portmanteau**: Why should we talk about it?

    (a) Contrary to Algonquian, there are very few portmanteau agreement affixes in these two languages.

    (b) we distinguish 2 types: typical and atypical
- typical: fused PNG features of a single argument (many languages)
- atypical: undecomposable person or person/ number features from 2 different arguments. (Algonquian, Kiranti/KC?)
  (Atypical is generally typical for multiple indexation languages)

    (c) We have certain instances of typical (P+N, e.g. *mənijə* [(8), (9)], *məpi* [(14)]) in Mara and one instance of atypical in Bantawa (1>2 in (17) and (26)).

    (d) Campbell (2012) considers the Algonquian pattern as a discontinuous exponence and DHM (2018) implies portmanteau as the basis for multiple Agree (MA).

(vii)   The two probes, T and *v* are differentiated on the basis of the following:

> *T-probe can indulge in **excessive** MA, but v-probe cannot.*
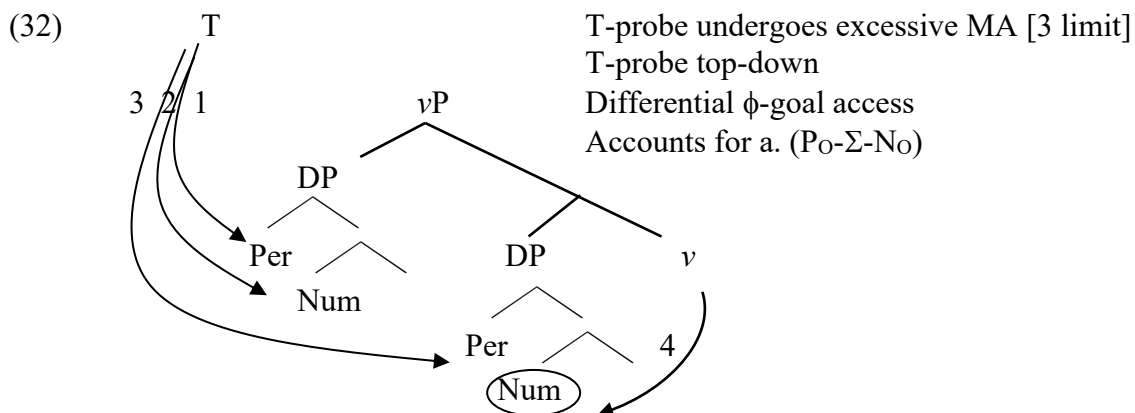
(viii)   **Person Hierarchy**:

    a.   We consider an argument to be indexed on the predicate if it is fully marked, which require it to be:
        i.   either represented by an affix (if portmanteau) or if person/ number are split (in that order)
        ii.   appear prefixally
        [2 exceptions: 1PL> 2PL and 3>2]

    b.   Person hierarchy in Mara is a tripartite scale: 1 >2 >3 (specific to underspecific)

    c.   There is no evidence of a number scale in Mara but given omnivorous number agreement in Bantawa, pl > sg.
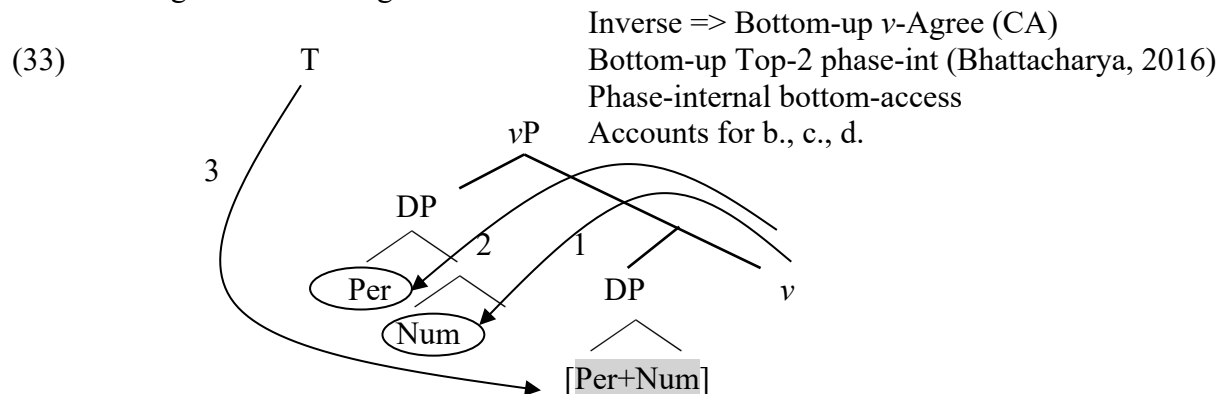
Derivations

    Person-Number Split (Mara): There are 4 things to note:

(3)   [1 --> 2] $P_S - N_S - \boxed{P_O - V - N_O}$ a.   (Direct)

(8)   [2 --> 1] $[P+N]_O - V - \boxed{N_S - P_S}$ d.   (Inverse)
        c.
        b.

Direct: T-Agree bleeds *v*-Agree

(32)

T-probe undergoes excessive MA [3 limit]
T-probe top-down
Differential φ-goal access
Accounts for a. (P_O-Σ-N_O)

Inverse: *v*-Agree bleeds T-Agree

(33)

Inverse => Bottom-up *v*-Agree (CA)
Bottom-up Top-2 phase-int (Bhattacharya, 2016)
Phase-internal bottom-access
Accounts for b., c., d.

With this, we have accounted for all the 4 "unusual things" observed for the direct and inverse contrasting pair ((3) and (8)).

In the negative paradigm, the NEG activates inverse syntax (Pseudo Indexation Switch), implying bottom-up, phase-internal Top-2 *v*-Agree resulting into an inverse-like configuration. NEG-T facilitates a "restricted" T-Agree of the remaining (subject) argument (see (11) to (13)):

(34)
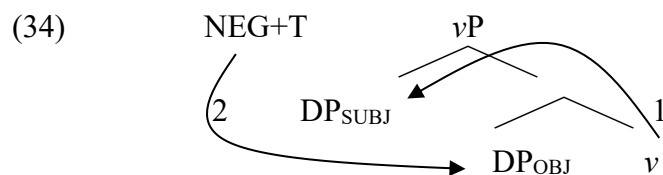
"Restricted" NEG+T probe becomes relevant when the number scale is activated in plural.

Due to its broadly suffixal character, Bantawa shows prevalence of *v*-probing (without any essential inverse diagnostics), and T-probing is required only for 2nd person which is always prefixal.

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