A history of Munda person marking

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1 Introduction

The Munda languages show a large variation in their system of participant cross-referencing. In each Munda language, clitics, prefixes and suffixes are used in different constellations. In contrast to the considerable syntagmatic variation, the morphemes themselves are highly similar and seem, on first notice, to allow for an easy reconstruction. However, the details of the reconstruction turn out to be rather complicated. In this paper, I will sketch a reconstruction of the Munda person marking (restricting myself to first and second person marking). Many aspects of this reconstruction cannot be settled definitively, but I will at least try to formulate a complete story, explicitly accounting for all details. Such a comprehensive approach is necessary, because only then it becomes clear which are the weak points in the proposed reconstruction.

As an introduction to the intricate aspects of the person marking in this family, consider the case of preverbal enclitics in the Kherwarian group, as exemplified by Santali in (1). In Santali, the regular place of the subject suffix is before the verb, but not as a prefix (as might be expected) but as suffix to whatever comes before the verb. If the sentence only consists of one verb, then the subject marking is suffigated to the verb.[1]

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[1] The structure as found in the Kherwarian languages is an example of a 'type 5' clitic in the typology by Klavans (1985). Some investigators consider such structures to be impossible, but the Kherwarian case is a rather convincing case of Klavans' analysis (see Cysouw 2004 for a discussion of the relevant literature and a typological survey of such constructions).

(1) Santali (Neukom 2001: 203, ex. 5, 114, ex. 4)

a. *gam, kəhni, kudum emanteak'-**ko*** *jorao-akat'-a*
story tale riddle and_such-**3PL.SUBJ** compose-PERF-IND
'They have composed stories and tales, riddles and so on.'

b. *met-a-pe-kan-a-**ɲ***
say-APPL-2SG.O-IPFV-IND-**1SG**

In a few recent papers, Zide and Anderson (Anderson 2001b; Anderson & Zide 2001; Zide & Anderson 2001) argue for a change in morphological boundary of person affixes in the Kherwarian languages to explain the presence of person suffixes on the immediately preverbal word. They argue that the preverbal suffixes were originally prefixes that have undergone rebracketing. This development is schematically illustrated in (2), where X represents any unspecified pre-verbal constituent.

(2) [X] [person-Verb] → [X-person] [Verb]

Such a change would amount to a strong case of degrammaticalisation, as an inflectional category of person prefixes would develop into person enclitics. Notwithstanding the special status of this proposed development, Zide and Anderson do not specify any reasons why this change should have taken place. I do not think that this history is needed nor warranted. In contrast, I will propose that the enclitics are the original situation, and the prefixes are developed by regular grammaticalisation.

This is not the only aspect of the Munda person marking that has to be explained. Variation is attested in various levels of linguistic structure. First, the Munda languages show differences in the morphological status of the person marking (free pronouns, enclitics, prefixes, suffixes). Second, there are phonological differences to be accounted for by sound changes. Then there are paradigmatic differences, meaning that the languages distinguish different categories in their person marking paradigms (e.g. presenence or absence of dual and inclusive/exclusive oppositions). Also, cognate forms appear in different

functions in different languages, so diachronic proposals for paradigmatic restructuring are needed (addition, loss, merger, or reinterpretation). Finally, highly similar paradigms in different languages mark for subject in the one language, but for object in the other. Also such functional discrepancies have to be explained.

In section 2, I will quickly introduce the Munda languages. Then, in section 3, I will present the variation in the Munda person marking and propose a reconstruction of the morphemes and paradigmatic structure for Proto-Munda. In section 4, the diachronic developments from this reconstruction to the systems as attested in the individual languages are described in great detail. In section 5, the functional differences are discussed and a tentative diachronic development is proposed. Finally, the results are summarised in section 6.

2 The Munda languages

The Munda languages are a subgroup of the Austroasiatic stock. Geographically, they are the westernmost languages of this group, located in India and surrounded by Indo-Aryan languages. The internal structure of the Munda family is shown in (3).[2] The most widely spoken languages, and probably also the most well-known among linguists, are the Kherwarian languages (e.g. Mundari, Ho, Santali, Bhumij). These languages are so strongly alike, as far as their person marking is concerned, that I will mostly speak only of 'Kherwarian', referring to the pattern common to all these languages. I have used language-specific sources as shown in (3) for this survey of the person affixes in the Munda languages. General and comparative information on the Munda languages and the person affixes in

[2] Zide and Stampe (1964; see also Zide 1969: 412-3) proposed the combination of Gutob-Remo-Gtaʔ and Sora-Gorum into one subgroup, called Koraput Munda. This proposal cannot be maintained, as argued by Anderson (2001a). Anderson argues that the South Munda languages show convergence, based on long-term intimate contact between different ethnolinguistic groups. Exactly which similarities are due to diffusion and which are reflexes of a common ancestor is often difficult to decide, as will also become clear in the present paper.

particular has been extracted from various sources (Pinnow 1966; Bhattacharya 1975; Anderson 2001a, b; Anderson & Zide 2001; Osada 2001; Zide & Anderson 2001).

(3) The Munda languages

NORTH MUNDA (NM)

KHERWARIAN

– Bhumij (Ramaswami 1992)
– Ho (Deeney 1975)
– Mundari (Hoffmann 1903; Sinha 1975; Osada 1992)
– Santali (Neukom 2001)

KORKU

– Korku (Kotian & Kotian 1990; Nagaraja 1999)

SOUTH MUNDA (SM)

KHARIA-JUANG (KJ)

– Kharia (Biligiri 1965a; Mahapatra 1976; Banerjee 1982; Peterson 2002)
– Juang (Matson 1964; Mahapatra 1976)

GUTOB-REMO-GTAʔ (GRG)

– Gtaʔ (Zide 1968)
– Gutob (N.H. Zide 1997)
– Remo/Bonda (Fernandez 1967, 1983)

SORA-GORUM (SG)

– Sora (Ramamurti 1931; Biligiri 1965b)
– Parengi/Gorum (Bhattacharya 1954; Aze 1973; A.R.K. Zide 1997)

3 The Munda person markers

3.1 Introduction

Person marking in the Munda languages is found in various guises. Independent pronouns, clitics, suffixes and prefixes are used to cross-reference subject and object. In contrast to earlier attempts at a reconstruction of the Munda person

affixes (Anderson & Zide 2001: 18-21; Osada 2001: 279), I will start with a comparison of the segmental aspects of the person affixes, and explain the diversity in their placement and function as a separate strain of diachronic diversification later on in section 5. In particular, I do not believe that it is warranted to reconstruct subject prefixes and object suffixes for Proto-Munda. I will propose that the Proto-Munda person markers were of a more clitic-like nature.

3.2 Person suffixes

Almost all Munda languages have suffigated person markers of some kind. The only exception is Gtaʔ, which only has person prefixes. The person suffixes are summarised in Table 1.[3] There is a strong similarity among the various cross-referencing suffixes in the Munda languages. Irrespective of the details of the reconstruction of these suffixes, it is obvious that these suffixes are historically related in their form. However, there are some difficulties with a straightforward reconstruction of a Proto-Munda suffix set. First, the syntagmatic function and the place of attachment of the suffixes are not fixed throughout the Munda languages. As for function, in some languages these suffixes mark for subject reference but in others they mark for object reference. As for place of attachment, in some languages the suffixes are 'real' suffixes, being attached to all finite verbs. In a few languages, however, the suffixes are more clitic-like in that the place of attachment can vary depending on the structure of the sentence. Second, there is a strong similarity between the suffixes and the independent pronouns within each of the languages. Most often, the similarity between the suffixes and the pronouns within a language is stronger than the similarity between the suffixes in the various Munda languages. This diversity argues, in contrast to Anderson and Zide

[3] Sources used: Korku (Nagaraja 1999: 68), Kherwarian (various sources), Kharia (Peterson 2002: 67), Juang (Mahapatra 1976: 810), Remo/Bonda (Fernandez 1983: 25), Gutob (N.H. Zide 1997), Parengi/Gorum (Aze 1973: 243), and Sora (Biligiri 1965b: 232).

(2001; 2001), for a rejection of the reconstruction of a Proto-Munda suffigal paradigm.

Table 1. Person suffixes in Munda

3.3 Person prefixes

Only a few Munda languages have person prefixes. The most notable cases are Juang, Parengi/Gorum and Gtaʔ. In Sora, there are only prefixes attested in the first and second person plural (together with the subject suffixes from Table 1). These prefixes might be leftovers from an erstwhile more extensive paradigm (e.g. a merger of **le* and **pe*, Pinnow 1966: 166), though they could just as well have been developed independently as number markers.[4] The person prefixes are presented in Table 2.[5]

Table 2. Person prefixes in Munda

There is a recurrent proposal in the Munda scholarship that the prefixes are an ancient relic and should be reconstructed for Proto-Munda (Pinnow 1966: 165; Zide 1968: 348; and more recently Anderson & Zide 2001: 17-21; Zide & Anderson 2001: 531-532). The two reasons offered for this reconstruction are not very convincing. First, Pinnow (1966: 165) mentions that some of the prefixes in Juang are infixes, and 'infixation is … certainly a very old process.' However, the development of prefixes into infix-like patterns is not at all uncommon cross-linguistically. I general, prefixes seem to be incorporated into the stem much quicker than suffixes. Further, this infixation is not found in any other Munda language, so it looks more like a Juang idiosyncracy. Finally, I do not see why the

[4] There appears to be a possibility to have person prefixes in some Kherwarian languages, but this has only been noted in passing by Bhattacharya (1975: 145). I have not been able to check the validity of this claim.

[5] Sources used: Juang (Mahapatra 1976: 810), Gtaʔ (Zide 1968: 349), Parengi/Gorum (A.R.K. Zide 1997: 256), and Sora (Biligiri 1965b: 232).

existence of infixes should argue for the need of a Proto-Munda reconstruction, also if the presence of infixation is already around for a long time in Munda (or even Austroasiatic). The infixation could just as well have happened much later. The second argument for reconstructing Proto-Munda prefixes is the fact that prefixes are found in various not directly related languages. As Anderson and Zide (2001: 17) put it: 'subject prefixes … may be relatively straightforwardly reconstructed, based on correspondences between Juang and Gorum.' Juang and Gorum are two not directly related South Munda languages. However, it could just as well have been an coincidence that both these two languages developed prefixes independently of each other. Zide (1968: 348) claims 'on typological grounds – these, admittedly, being rough – it seems unlikely that South Munda acquired these prefixes, and far more likely that some of the South Munda languages and North Munda lost them. Whether one would reconstruct pronominal verb prefixes for P[roto-]M[unda] is a question about the Munda verb at a still further remove from certainty. My guess would be yes.' However, such a guess is of course not a proper basis for a reconstruction.

In contrast to Zide, I would like to propose that the prefixes are not part of Proto-Munda, but are independently acquired by some South Munda languages. The main reason for this position is that the comparative reconstruction of the prefixes turns out the be rather troublesome. There are extensive segmental differences between the prefixes in the various languages, and the comparison of the forms as shown in Table 2 does not warrant an easy reconstruction of a proto-prefix set. In contrast, when the prefixes are compared to other person markers within each individual language, the similarities become much more obvious, as shown in Table 3. In Juang, the prefixes are the last segment of the suffixes (or of the pronouns). In Gtaʔ, the pronouns and the prefixes are almost completely identical. In this language, the prefixes appear to be recently bounded forms of the pronouns. In Parengi/Gorum, the pronouns appear to be rebuild by using the person suffixes, though there are some irregularities. The similarities between the various person marking paradigms within each language is much larger than the similarity between the various prefixal paradigms. Whatever the exact details are of the diachronic origin of the prefixes in these three languages, it seems better to

assume that the prefixes are independent developments within each language separately, than to hypothesise that they are reflexes of proto-Munda.

Table 3. Person prefixes compared with other person markers in the same language

3.4 Independent pronouns

Already after a short glance at Table 4,[6] it is immediately clear that the Munda independent pronouns are historically related to the various cross-referencing affixes, in particular to the suffixes. However, the diachronical details of this similarity need a careful analysis. Following the expected direction of grammaticalisation, it seems natural to hypothesise that the affixes are derived from the independent pronouns. However, there is a problem here with relative chronology, as both the affixes and the free pronouns look very similar across the Munda family, but also within each individual language. Now, if the occurrence of person affixes is reconstructed for Proto-Munda (cf. Anderson & Zide 2001: 17-23; Zide & Anderson 2001: 531-2), then it is necessary to explain parallel changes in both affixes and independent pronouns for each of the Munda languages. If, on the contrary, the similarity between affixes and pronouns within a particular language is interpreted as showing a recent grammaticalisation of the independent pronouns,[7] then it is necessary to explain why almost all Munda languages developed person affixes.

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[6] Sources used: Korku (Nagaraja 1999: 38), Kherwarian (various sources), Kharia (Mahapatra 1976: 809), Juang (Mahapatra 1976: 810), Remo/Bonda (Zide 1968: 349), Gtaʔ (Zide 1968: 349), Gutob (Zide 1968: 349), Parengi/Gorum (Aze 1973: 243), and Sora (Biligiri 1965b: 238).

[7] It is recurrently stated in the literature that the Munda suffixes are recently grammaticalised variants of the free pronouns. Osada (2001: 279) notes that 'the forms of North Munda referent indexing enclitics are clearly derived from the forms of personal pronouns.' Likewise, Nagaraja (1999: 67) proposed for Korku that the personal suffixes 'are nothing but the reduces forms of personal

Table 4. Independent pronouns in Munda

I will propose an intermediate position, already foreshadowed by Zide, but never worked out by him into any detail. Zide proposed that 'subject marking is widespread in Munda … and must have figured in certain basic patterns in P[roto-]M[unda], *most likely as an enclitic whose position in the verb phrase varied*' (Zide 1968: 349, emphasis added, MC) I will argue that the Proto-Munda person markers were clitics, i.e. they were in a diachronic stage somewhere in between free and inflectional morphemes.[8] This suggestion has the advantage that it can explain both the recurrent development of bound cross-reference markers throughout the Munda family and the idiosyncratic similarities between free and bound pronouns within individual languages. The recurrent development of bound person marking is simply a result of a further advance on the grammaticalisation cline from clitics to affixes – a Sapirian kind of 'drift', if you like, throughout the Munda family. The similarities between free and bound forms within a particular language occur because both are derived from the same clitic set.

There are two ways to explain this similarities between free and bound forms, both of which will be used to explain particular circumstances in the present-day Munda languages. First, it is possible that the cross-reference markers were clitics until very recently or even remain clitics until today – irrespective of what other kinds of phonological or paradigmatic changes occurred. The similarity between free and bound forms within a language follows automatically, as there has not

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pronouns.' On Kharia, Biligiri (1965a: 62) says that the 'suffixes … are contracted forms of the independent pronouns.' In another paper on Sora, he notes that 'the person markers used in the third paradigm [i.e. the object suffixes in Table 1, MC] are contracted forms of the independent pronouns' (Biligiri 1965b: 238).

[8] If the Proto-Munda person markers were indeed pronominal clitics, then these clitics might very well go back to an even earlier set of independent pronouns. However, I do not want to speculate about such a Pre-Proto stage, though it might be a useful approach for any further Proto-Austroasiatic reconstructions.

yet been much time to produce larger changes between the two. For example, as Zide argues, 'in Gutob, the bound –enclitic– forms of the subject pronouns are copies of the free forms. In Remo this is true of all the pronouns but the first singular … after the Present-Future tense suffix' (N.H. Zide 1997: 328). I will propose this scenario for Gutob, Remo/Bonda, Gtaʔ. Second, the similarity between free and bound forms can also arise because the original clitics became 'real' inflectional markers and, as a consequence, free pronouns had to be remade by reinforcing the clitics. Such reinforcement of reduced pro-forms is quite common cross-linguistically. A well-known example is the development of the Latin pronouns *nos/vos*, which were reinforced in Spanish as *nos-otros/vos-otros*. More to the point of the Munda languages, Pinnow (1966: 162) proposes for North Munda that 'a demonstrative *a*-, which is perhaps identical in origin with the *a* of the third person, is often prefixed [to the suffixes, MC] to designate absolute forms.' In such cases, the similarity between the free and the bound forms within a particular language is the result of a recent innovation of the free forms.[9] I will propose such a scenario for Sora, Parengi/Gorum, Korku, the Kherwarian languages, and probably Kharia.

3.5 Correspondences and reconstruction

The reconstruction of a first person singular **iN* seems to be uncontroversial (cf. Pinnow 1966: 167; Anderson & Zide 2001: 20), probably even going back to Proto-Austroasiatic (Pinnow 1965: 12). In the reflexes of this morpheme, the final consonant is /ñ/ in Korku, Juang and Sora, corresponding to /ŋ/ in Kharia, Remo/Bonda, Gutob and Parengi/Gorum, with the Kherwarian languages showing variable expressions using either kind of final nasal. Following Zide (1968: 350,

[9] This process of reinforcement is not an example of degrammaticalisation. It might look like a formerly inflectional category of person affixes developed into free pronouns. However, this is not what is proposed here. The person affixes are still affixes, but they are added to a new root (e.g. a demonstrative element, but various other kinds of elements could also be used). This new word is then used in the same way as our typical Indo-European free pronoun.

n. 4), I will use the indication **N* to refer to the Proto-Munda form of this coda, as it is remains unclear what kind of nasal should be reconstructed. In some South Munda languages the reflexes of **iN* have added an initial nasal. I will propose that this is due to an innovation.

In the first person non-singular, there is a regular correspondence between /n/ in Kharia, Juang, Remo/Bonda and Gutob versus /l/ in Korku, Kherwarian, Parengi/Gorum and Sora. I will use **l* as reconstruction of the original segment (cf. Pinnow 1966: 167; Anderson & Zide 2001: 20). The reconstruction of **le* follows straightforwardly for Proto-Munda, with the meaning exclusive first person. Korku, Kherwarian and Kharia have the basic form *(V)le*. A final nasal is added to this proto-form in the reflexes *(b)ileŋ* from Parengi/Gorum and *(ən)lɛn* from Sora. The other languages show the change *l* > *n*. In Juang, the reflex *ne* is only found in the affixes. In the suffixes it is enforced with a first person marker *niñ*, forming the first person plural suffix *-neniñ*. Finally, in Gutob *nei*, Remo/Bonda *nay* and Gtaʔ *nəe* the vowel has become a diphthong.

The reconstruction of an element**laŋ* also seems to be rather safe, although it does not have reflexes in all Munda languages.[10] This morpheme shows the same /n/ vs. /l/ alternation as discussed for **le* above. Reflexes are found in Korku *(a)lañ(j)*, Kherwarian *(a)laŋ*, Kharia *(a)naŋ*, Remo/Bonda *naŋ*, and possibly Gtaʔ *niã*. The meaning of this suffix is inclusive first person. I will assume that this morpheme has been lost in Juang, Parengi/Gorum, Sora and Gutob. There might be reflexes of proto Munda **laŋ* in the Sora inclusive suffix *-ay*, and the Gutob hortative first person plural suffix *-naj*. However, these reflexes appear to be rather far removed from the proto-Munda original, and I will not speculate on any possible historical changes leading to these element. If they would turn out the be real reflexes after all, that would only strengthen the history proposed here.

A morpheme **liN* might be reconstructed (cf. Anderson & Zide 2001: 20), based on Korku *(a)liñ*, Kherwarian *(a)liñ/ŋ*, Kharia *(a)niŋ* and Juang *niñ*, showing

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[10] Pinnow (1965: 24) proposes a composite origin of **laŋ* > **le-am-iŋ* '1PLUR-2SING-1SING'. Although **laŋ* might indeed be a composite of different pronouns, a common phenomenon for inclusives, this particular origin seems to be rather far-fetched.

again an /l/ versus /n/ alternation.[11] However, there is a problematic discrepancy in the meaning of the reflexes of this element. In North Munda it is used for exclusive first person dual reference, in Kharia for inclusive first person plural, and in Juang for first person plural (cf. Pinnow 1966: 162).[12] There are also no reflexes in any of the other South Munda languages. It seems therefore better not to reconstruct this for Proto Munda, but consider the elements to have two different origins (or even three, as I will propose below).

In the second person, the reconstruction of a singular **om* and a plural **pe* are unproblematic, probably even going back to Proto-Austroasiatic (Pinnow 1965: 12). All Munda languages show reflexes of these morphemes. The second person singular **om* appears as **nom* in exactly the same languages in which the first person singular **iN* appears as **niN*. This parallel is a strong argument for the proposal that this initial nasal is an innovation. The second person dual is more problematic. Anderson and Zide (2001: 20) reconstruct **pa* for Proto-Munda, but I consider the evidence for this reconstruction rather meagre. Already Pinnow (1966: 162-5) argued that various dual forms in Munda were based on the numeral **bar* 'two'. This is most clearly attested in Kharia, where the numeral appears almost unchanged. Also the second person dual *pa* in Juang, Remo/Bonda and Gtaʔ would go back to this numeral through a rather long series of changes **pe-bar* > **pe-war* > **pear* > **par* > *pa* (Pinnow 1966: 164-5).[13] The first problem with this reconstruction is that the numeral *bar* 'two' is attested unchanged in various Munda languages, but only in Kharia it is attested unchanged as a dual marker. To me, this looks more like a recent innovation of the dual marker in Kharia, maybe under influence of other Munda languages with

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[11] Pinnow (1965: 24) proposes a compound origin for **liŋ* > **le-e(j)-iŋ* '1PLUR-3SING-1SING'. This particular proposal not convince me, but I will suggest a different compound origin for North Munda in section 4.2.

[12] Pinnow (1965: 24) considers a separate origin for Kharia and Juang to be more plausible. For these languages, he proposes a compound origin **le-iŋ* '1PLUR-1SING', but this does not explain the inclusive meaning in Kharia.

[13] Simply **bar* > **par* > *pa* would of course be much easier, but there does not seem to be a good reason for the voicing to be lost (cf. Pinnow 1965: 16).

dual marking. A second problem is that the link to Kherwarian *(a)ben* remains enigmatic, so the reconstruction of **pa* is really only based on Juang, Remo and Gtaʔ – rather a small basis for a Proto-Munda reconstruction. Finally, even with this narrow basis, the evidence for **pa* is still the best evidence for any dual form in Proto-Munda. All other dual forms in the various Munda language show even more variability.

On the basis of these – admittedly cautious – correspondences, I propose to reconstruct only five morphemes for Proto Munda, resulting in the paradigm as shown in (4).[14] In comparison to the reconstruction by Anderson and Zide (2001: 20), this paradigmatic structure has the advantage of being cross-linguistically common. Anderson and Zide reconstruct a paradigm with dual morphemes, but then there is only (restricted) evidence for the reconstruction of an inclusive/exclusive opposition in the dual, but no evidence at all for the reconstruction of an inclusive/exclusive opposition in the plural. Paradigms with inclusive/exclusive in the dual but not in the plural are attested among the worldís languages, but they are extremely rare (Cysouw 2003: 220 finds only two examples after prolonged searching). The disadvantage of the decision not to reconstruct dual forms for Proto Munda is that I will have to introduce at least two separate innovations of dual markers (but probably even three). However, also the segmental analysis of the dual forms shows quite some diversity, which can be interpreted as showing separate developments.

(4) Proto-Munda person markers

		**laŋ*	INCLUSIVE
1 SINGULAR	**iN*	**le*	EXCLUSIVE
2 SINGULAR	**om*	**pe*	2 PLURAL

4 From Proto-Munda to the present-day languages

[14] A possible problem for this reconstruction is the fact that none of the present Munda languages has such a paradigmatic structure. The combination of an inclusive/exclusive opposition without also having dual forms does not occur in any Munda language.

4.1 Introduction

For a proper historical comparison it is not only necessary to propose a reconstruction, but it is also essential to show how the current situation has arisen out of this hypothetical reconstruction. Only by comparing the effort needed for this second step is it possible to decide which of various concurrent reconstructions is to be preferred. Any reconstruction is only as convincing as the ease with which it can derive the actual variation in the daughter languages.

There are three kinds of developments that should be minimised for a convincing historical derivation. First, the number of unmotivated changes should be as small as possible. Of course, it will always be necessary to propose some changes that simply happened, without any clear reason as to why they happened. However, the number of such changes should be kept as low as possible. One of the most important unmotivated changes that should be avoided is loss of morphemes. In the present recoonstruction, I tend to favour unmotived rise over unmotivated loss – resulting in a rather minimal proto-system with addition in the daughter languages. Second, reinvention of formerly lost structures should be avoided as much as possible. It is troublesome to reconstruct a certain characteristic for a proto-stage, which is then lost in a subgroup, but subsequently reintroduced on a still lower level in the family. For such a proposal, one might ask whether the first reconstruction is really needed.Third, parallel developments should be avoided as much as possible. If the same change happened independently in two branches of the family, then one might ask whether this development had not better be reconstructed for the proto-stage of these two branches. Of course, convergence through contact can be a good reason for independent parallel developments. However, there should be independent evidence for such contact. Proposing some hypothetical contact to explain a particular parallel development is a circular argumentation.

There is one further typological argument that can be used to compare two different reconstructions. Ideally, all reconstructed stages have a structure that is typologically common. It can be the case that a particular reconstruction is typologically idiosyncratic, but this is only convincing if there are very strong arguments for this idiosyncracy. The default approach should be to reconstruct

proto-stages with typologically unmarked structures. Any unmotivated typologically strange structure is a weak point of a reconstruction.

As for the current case of the Munda languages, my reconstruction in (4) is different from the proposal by Anderson and Zide (2001: 20). However, there is no good argument to decide between these two different hypotheses as such. Unfortunately, Anderson and Zide do not specify precisely the processed that are needed to derive the actual structures from their reconstruction. My impression is that their reconstruction will need more unwanted developments than mine, in particular their proposal will need many cases of loss and various cases of reinvention. My reconstruction, though, needs much more parallel developments. However, the final verdict on the choice between the two alternatives needs a detailed account of the historical changes that are implied in both reconstructions.

In the following sections, I will describe every tiny detail of the changes that are needed to derive the person marking paradigms in the current Munda languages from the reconstructed paradigm in (4). First, I will focus on the changes in the phonological makeup of the markers themselves and discuss the changes in the paradigmatic structure (i.e. the loss and/or addition of forms). In the next section, I will investigate the functional variability of the various person markers.

The changes that are proposed between the various Proto-stages will turn out to be rather minimal. Most of the work to account for the actual forms in each language is needed in the last step – from the last Proto-Stage to the individual language. However, in this last phase, there should ideally only be idiosyncratic changes. There will turn out to be a few parallel developments in different branches of the family. Parallel developments are a weakness and should ideally be corroborated by areal influence (cf. Anderson 2001a). However, I will refrain from any socio-political interpretation here and only try to account for the linguistic side of the story.

4.2 North Munda

In North Munda, the five reconstructed person markers are found almost unchanged. Only the second person singular **om* became *-m* in the process of

suffixation. Besides the five reconstructed markers, there is a complete set of dual markers added. The most simple development would be that the complete set of dual markers has been added in one development. Such additions have been attested among the world's languages (Cysouw 2003: ???), but then all dual markers show some regularity (reflecting the original dual marker). This is not the case in North Munda. The dual forms are strongly dissimilar, suggesting another origin.

A possible step-wise development of dual marking is through a stage of a so-called minimal/augmented paradigm. In such a paradigm, there is only one 'dual' form, namely the inclusive dual. Except for this one dual form, there are not other duals in the language. For such languages, it is better not to consider the inclusive dual as a kind of dual, but as a combination of the speaker and the addressee. The fact that these are two persons is epiphenomenal (cf. Cysouw 2003: ??? for a survey of the argumentation and discussion of the literature). I tentatively propose such a stage for Pro-Proto-North Munda (see Table 5), innovating an inclusive plural **bu* and reanalysing the formerly inclusive **laŋ* as an inclusive dual.[15] In a second development, leading to Proto North Munda, the minimal/augmented system is reanalysed as a dual/plural system – with the addition of dual forms for the other persons. These newly added dual forms should show some regular origin. For North Munda, I suggest that they are developed out of the plural person markers with an added marker for duality **iN*.[16] This contrasts the development of the dual in Norht Munda from the development of the dual in Kharia, in which the dual forms were derived from the singular person markers (see section 4.6).

In North Munda, the derivation went as follows. For the first person exclusive, the dual marker is derived from **le-iN* > **liN*. For the second person

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[15] Innovating an inclusive plural and using the 'old' inclusive as an inclusive dual is cross-linguistically the most common route for the development of minimal/augmented systems.

[16] This hypothesised dual marker is homophonous with the first person singular. I do not know whether this is simply a coincidence, or whether both are in fact the same element originally.

dual, I propose an origin **pe-iN* > **piN*. This reconstructed morpheme has a direct reflex in Korku *-piñ(j)*. However, why this morpheme changed to *-ben* in the Kherwarian languages remains unclear. The resulting paradigm for Proto North Munda is directly reflected in the suffixes. The independent pronouns are reinforced forms, based on a formative /a/.

Table 5. From Proto Munda to the various North Munda languages

4.3 South Munda

In the development from Proto Munda to Proto South Munda, I only reconstruct a single change, namely the inclusive **laŋ* changes to **naŋ*. This might look like a rather minor detail, even stronger so as this form is lost in various South Munda languages. Still, I do not think that more is needed, implying that Proto South Munda is fairly close to Proto Munda. The person markers are still clitic elements in Proto South Munda and will turn into affixes independently in various South Munda languages. I will now discuss in detail all changes that are needed to derive the person markers as attested in the various South Munda languages. The argumentation is organised into three sections, reflecting the assumed genetic groupings of South Munda: first Sora-Gorum (SG), then Gutob-Remo-Gtaʔ (GRG), and finally Kharia-Juang (KJ).

4.4 Sora-Gorum (SG)

Two changes are proposed in the development from Proto South Munda to Proto Sora-Gorum. First, a final /n/ was added to the plural forms **le* and **pe*, leading to Proto-SG **len* and **pen*. Second, the inclusive *naŋ* was lost. Alternatively, the Sora suffix *-ay* might be related to the South Munda inclusive *naŋ*. In this scenario, a morpheme *naŋ* could be reconstructed for Proto-SG, which then was lost only in Parengi/Gorum. This would make the relation between Proto-SG and

the other South Munda languages even closer. However, I will take the safer assumption that *-ay* is an innovation in Sora.[17]

Table 6. From Proto South Munda to Sora and Parengi/Gorum

There is no real change in the development from Proto-SG to Pre-Sora. The only difference is the fixation of the first person singular **iN* as **iñ*. The Sora suffixes are direct reflexes of these Pre-Sora morphemes, with only a reduction of the vowel to schwa in the second person singular. The inclusive suffix *-ay* is very probably an innovation (or alternatively, but less probably, a strongly reduced reflex of **naŋ*, see above). The independent pronouns in Sora do not have an inclusive. The pronouns are the result of reinforcement of the Pre-Sora forms, using a formative *-ən*, which is suffigated in the singular, but prefigated in the plural. After this reinforcement some further changes took place. First, the initial vowel in the first person singular *iñ-ən* was lost (cf. Pinnow 1966: 161, 165, who documents the existence of the original variant iñen besides the regular ñen). The result of this loss was a monosyllabic pronoun *ñən* with no full vowel, which caused the schwa of the formative to become a full front vowel *ñɛn*. Second, there was (again) a change in the vowel quality in the second person singular, this time changing the expected *om-ən* to *amən*. Finally, the second person plural *ən-ben* changed to *əmben* by assimilation. The circumfixes do not show any similarity to any other Sora paradigm, nor to any other set of Munda person markers. I consider these circumfixes to be a recent innovation from a yet unknown origin.

In the development from Proto-SG to Pre-Parengi/Gorum, the first person singular **iN* appears as *iŋ*. Parallel to this, the final /n/ in both plurals changed to /ŋ/. These Pre-Parengi/Gorum person markers gave rise to three different person

[17] The change *naŋ* > *ay* asks for quite some phonological work. Zide (1968: 357) speculates about a change *naXŋ* > *naX* > *nai* > *naj* > *ay*. Also, reconstructing a Proto-SG inclusive *-ay* does not yet explain why this same element also appears for the first singular and exclusive in the circumfixal paradigm. I tend to believe in an innovation of *-ay* as a first singular in the circumfixal paradigm, which was then later included in the suffixal paradigm as an inclusive.

paradigms. First, they turned into cross-referencing prefixes, by metathesis in the singular and by losing the final consonant in the plural. There is an accompanying vowel change in the first person singular *i* > *e*, probably a simple reduction (Zide 1968: 356 proposes analogy with le-). The second person plural is, as expected, *be-* in the description by A.R.K. Zide (1997: 256) and Bhattacharya (1954: 521). However, in the description by Aze (1973: 245) this form is given as *bo-*. The change *e* > *o* might have occurred because of analogy with the second person singular *mo-* (cf. Zide 1968: 356). Second, the person markers turned into cross-referencing suffixes. In the plural, an epenthetic /i/ was added between the verb and the suffix, probably to regularise the syllable shapes (a common phenomenon in South Munda, Zide 1968: 356).

Finally, the Pre-Parengi/Gorum person markers were used to derive various kinds of free pronouns. The object[18] pronouns are regularly based on a formative *en-*, which is apparently the same formative as *-ən* in Sora. The nominative pronouns are derived by the addition of a formative *mi-* for the first person and *ma-* for the second person (with assimilation in the plural to *bi-* and *ba-*, respectively). These formatives might originally be the same as the singular prefixes *ne-* and *mo-* (cf. Zide 1968: 356, /a/ being the regular Parengi/Gorum reflex of /ç/). The development of the nominative pronouns then follows rather regularly. In the first person singular *mi-iŋ* becomes *miŋ*. In the first person plural *mi-leŋ* assimilates to *bileŋ*. The second person singular *ma-om* becomes *mam* and then changes to *maŋ* because of analogy with the other pronouns, which all end in /ŋ/. And finally, the second person plural *ma-beŋ* assimilates to *babeŋ*, but turns up as *babiŋ* (A.R.K. Zide 1997: 255) or even further reduced as *baiŋ* (Aze 1973: 243).

4.5 Gutob-Remo-Gtaʔ (GRG)

[18] Aze (1973: 243) calls these pronouns ‘dative’, Bhattacharya (1954: 519) employs the term ‘accusative’, and A.R.K. Zide (1997: 255) uses the designation ‘non-actor’.

In the development from Proto South Munda to Proto Gutob-Remo-Gtaʔ three developments took place. First, the exclusive plural changed from **le* to **nei* (cf. Zide 1968: 35). Second, an /n/ is added to the front of both singular forms, leading to the changes **iN* > **niN* and **om* > **nom*.[19] Finally, the first person singular **niN* turns up as *niŋ* in all GRG languages. The resulting Proto-GRG forms only recently cliticized in this subgroup, as the independent pronouns and affigal paradigms are almost exactly alike in all three languages.

Table 7. From Proto South Munda to Gutob

Two changes since Proto-GRG are needed to explain the Gutob pronouns. First, the inclusive **naŋ* was lost.[20] Second, an /n/ is added to the second person

[19] Zide (1968: 351-2) proposes that all these changes, which result in pronouns with an intial /n/, are the result of prefixation with the enigmatic nasal **N*. Also the formative *en* from Sora-Gorum might be based on the same prefix (Zide 1968: 356). Although I would like to believe such a uniform development of the intial /n/ in South Munda, I think that the evidence for such a unified development is meagre. The biggest problem is that the prefix is not found in all pronouns of each language.

[20] In imperatives in Gutob, the first person plural is *naj*. In this context, the usual meaning is of *naj* is inclusive. Zide (1968: 349) proposes that this forms is a reflex of the inclusive **naŋ*. One might even go further and speculate about a relation between Gutob *naj* and Sora *-ay* (see above). However, the same problems as in Sora comes up in Gutob to historically derive *naj* from **naŋ* (see footnote 17). Also, the usual meaning of a first person plural in imperatives/hortatives is cross-linguistically always inclusive (cf. Dobrushina & Goussev forthcoming). For example, the pronoun *us* in the English hortative expression *let us go* is necessarily inclusive when the first person plural is the subject of the request (viz. meaning 'hey you, let us go, you and I'). It can only be exclusive when *us* is not the subject of the request (viz. meaning 'hey you, let me and my associates go'). It seems more plausible that the inclusive meaning of *naj* is the result of such normal functional pressure.

plural **pe* resulting in Gutob *pɛn*. Both changes are strongly reminiscent of Sora-Gorum (see section 4.4). However, the Gutob first person plural *nɛi* unequivocally points to a relation with Remo and Gtaʔ, and not to a relation with Proto Sora-Gorum **len*.

Table 8. From Proto South Munda to Remo/Bonda and Gtaʔ

A reanalysis of the inclusive/exclusive opposition into a dual/plural opposition took place in both Remo/Bonda and Gtaʔ.[21] In this reanalysis, the erstwhile inclusive first person plural **naŋ* becomes a first person dual and the exclusive first person plural **nei* turns into a first person plural.[22] From extensive cross-linguistic investigation, it is known that duals preferably turn up in all persons. It is extremely rare to find languages that only have a dual in the first person or only in the second person. The few languages that have such patterns are all clearly the result of a recent loss of some of the dual forms (Cysouw 2003: 210-16). From such evidence, it is expected that the appearance of a dual in the first person goes together with the rise of a dual in the second person, which is exactly what is found with the introduction of the dual *pa* in both Remo/Bonda and Gtaʔ.[23]

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[21] I have tentatively reconstructed this reanalysis for Proto Remo-Gtaʔ, although I do not have any other arguments for this subgroup. Further research will have to show whether these two languages really form a subgroup within Gutob-Remo-Gtaʔ.

[22] Zide (1968: 350) adduces that the Gtaʔ pronouns '*niã* means "we" (dual) everywhere except in "subjunctives" where "you (sg) and I" would usually be meant.' This might be taken as additional evidence that *niã* was originally an inclusive. However, see footnote 20 for a different interpretation of such a preference for an inclusive meaning.

[23] It seems to be very well possible that the dual *pa* is regularly derived from the plural *pe*, but I do not know what the original dualising element could have been. Pinnow's (1966: 165). proposal that the dual form *pa* goes back to a combination

To account for the Remo/Bonda independent pronouns, the only subsidiary change is the development of the first person plural **nei* into *nay*, following a regular process in Remo historical phonology (Zide 1968: 349; cf. Bhattacharya 1975: 144, who writes the same pronoun as ney). The same forms as the pronouns are also found as suffixes, which indicates that this affigation only took place recently. The one notable change is found in the second person singular, where the final /m/ is lost **nom* > *-no*.

The changes leading to Gtaʔ are rather more complicated. A whole battery of vowel shifts is needed to account for first person singular **niŋ* > *nəeŋ*, second person singular **nom* > *nam* (followed by loss of the final /m/), first person plural **nei* > *nəe*, and first person dual **naŋ* > *niaŋ* (followed by a reduction of /aŋ/ to /ã/).[24] Zide (1968: 351) implies that these are all regular sound changes in Gtaʔ. A further change is that Gtaʔ reintroduced inclusive/exclusive oppositions by addition of a glottal stop.[25] Finally, the prefixes are clearly recently affigated, as they are almost completely identical to the independent pronouns. Only the first person singular and dual show a reduction.

4.6 Kharia/Juang

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of *pe* with the numeral *bar* 'two' seems to be too far fetched. The change **pe-bar* > **pe-war* > **pear* > **par* > *pa* represents a far too massive reduction compared to the other very minor changes that are needed to derive the current Remo/Bonda forms.

[24] Alternatively *nəeʔ* might be related to **naŋ*, though the details of such a change remain enigmatic. If this change could be accounted for, then *niã* might be related to Kharia-Juang *niñba* by a reduction *niñba* > *niña* > *niã*. However, there are no other strong reductions in the development of the current Gutob-Remo-Gtaʔ forms (cf. footnote 23). These correspondences seem to be less plausible than the ones proposed in the main text.

[25] This glottal stop cannot be a reflex of Proto-GRG. The regular correspondence of the Gtaʔ glottal stop would be a /b/ in Proto-GRG, so working backwards from would result in Proto-GRG inclusive **neb* (Zide 1968: 350-1). There do not seem to be any cognates for this hypothetical reconstruction.

The developments from the proposed Proto Munda forms to the morphemes as actually attested in the individual Munda languages went rather smoothly until here. However, the situation with Kharia and Juang presents much greater problems. Although Kharia and Juang are customarily grouped together as a subgroup of Southern Munda, I will discuss the developments of their person markers separately. The developments in Kharia closely parallel some of the changes in North Munda, which might be the result of contact: 'it is not impossible – but seems unlikely – that the Kharia form was influenced by N[orth-]M[unda], presumably by Kherwarian' (Zide 1968: 357). In contrast, the developments in Juang closely parallel some changes in Gutob-Remo-Gtaʔ

There are various parallels between Juang and Gutob-Remo-Gtaʔ, but the details are such that a direct genealogical connection is not possible. The many similarities are probably to a large extend the result of later admixture, though it is unclear exactly which aspects are reflexes of the original system and which aspects are contact induced loans. The first parallel is the change **le* > *ne*, just like in Proto Gutob-Remo-Gtaʔ. Second, the singular forms appear to have had an initial /n/, also just like in Proto Gutob-Remo-Gtaʔ. Third, the inclusive **naŋ* is lost, just like in Gutob (and in Sora-Gorum). Finally, a dual is added using exactly the same second person dual *pa* as Remo/Bonda and Gtaʔ. However, a different first person dual is innovated, apparently the dual marker *pa* together with the first person singular *niñ*.

In the proposed developments as shown in Table 9, the stage called 'Pre Juang I' is strongly alike to Gutob (though without diphthongization in the first person plural). The stage called 'Pre Juang II' is reminiscent of Remo/Bonda and Gtaʔ (though with a different first person dual). Finally, different from Gutob-Remo-Gtaʔ, the first person dual and plural are reinforced with the first person singular *niñ.*[26]

[26] Alternatively, the reinforcing element *niñ* in Juang is not the first person singular, but a pronoun related to Kharia *niŋ* 'inclusive plural'. However, reconstruction a pronoun **niN* 'inclusive plural' for Proto-Kharia-Juang would

Table 9. From Proto South Munda to Juang

The prefixes in Juang are derived from the forms as reconstructed for Pre Juang II. The reductions are rather strong (e.g. **pe* > *V-*), but that is just what can be expected in the process of prefigation. The suffixes and possessive markers are quite straightforwardly derived from Pre Juang III (with the reinforced first person markers). Various onsets are reduced in the process of suffigation, in particular initial nasals and the following vowel are regularly removed. Finally, the independent pronouns are derived from the short form of the suffixes by reinforcement with the ubiquitous demonstrative element /a/, except for the first person dual and plural. They have already been reinforced with *niñ*, maybe that is the reason they are not again reinforced with /a/.

The person markers in Kharia show almost the completely opposite developments as in Juang. The first person plural **le* does not change to *ne*. The inclusive *naŋ* is not lost. The singular forms do not have the initial /n/. In contrast, Kharia is a rather straightforward continuation of Proto South Munda. However, there are various additions, as summarised in Table 10. First, in Pre Kharia I, an inclusive plural *niŋ* is added, forming a minimal/augmented paradigm (a parallel to North Munda, see section 4.2). Then, in Pre Kharia II, this minimal-augmented system is reanalysed as a dual by the introduction of dual version of the exclusive and the second person. Both these dual markers are based on the singular markers with the numeral *bar* 'two'. These dual forms are found almost without phonological changes, indicating that these additions are relatively recent.

From these Pre Kharia II elements, both the suffixes and the pronouns are derived. The suffixes are reduced variants, mainly by reducing the morphemes that start with a vowel. The pronouns are reinforced variants of the Pro Kharia II forms by the addition of /a/ to all consonant initial forms.

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make the historical derivation of the present situation in Juang only more complicated.

Table 10. From Proto South Munda to Kharia

4.7 Summary of diachronic developments

I have summarised the proposed changes from Proto Munda in (5). Only the changes in the paradigmatic structure and the segmental changes that do not seem to be caused by regular sound changes are summarised here. As already indicated in the detailed discussions above, there are many parallels between the changes in apparently different branches of the family. There are parallels between North Munda and Kharia, between Gutob and Sora-Gorum and, most prominently, between Juang and Remo-Gtaʔ.

(5) Summary of segmental changes

PROTO NORTH MUNDA: introduction inclusive **bu*, introduction duals **liN* and **piN*, pronouns reinforced with *a*.

PROTO SOUTH MUNDA: **laŋ* > **naŋ*

PROTO SORA-GORUM: loss of **naŋ*, **le* > **len, *pe* > **pen*

PARENGI/GORUM: pronouns reinforced with *en* (oblique) or *mi/ma* (nominative)

SORA: pronouns reinforced with *ən*.

PROTO GUTOB-REMO-GTAʔ: **le* > **nei*, **iN* > **niN*, **om* > **nom*

GUTOB: loss of **naŋ*, **pe* > **pen*

REMO-GTAʔ: introduction dual *pa*, inclusive/exclusive changes to dual/plural

JUANG: loss of **naŋ, *le* > **ne, *iN* > **niN, *om* > **nom*, introduction duals with *pa*, pronouns reinforced with *niñ* or *a*.

KHARIA: introduction inclusive *niŋ*, introduction duals with *bar*, pronouns reinforced with *a*.

The impact of such parallels is difficult to evaluate. It might be the case that the division in the various branches is not correct. However, using any other grouping of the languages might solve the parallel development, but it would also

bring up other parallels between these new branches. The similarities between the languages are shown in a different format in Table 11. In this table, some key characteristics of the person marking are summarised.[27] From this table, a continuum of variation can be discerned. The apparent wave-like spreading of characteristics points towards contact induced changes (cf. Anderson 2001a). To make things even more complicated, when looking at the function and the morphological position in the next section, different parallels between the Munda languages will appear.

Table 11. Survey of segmental changes

5 Position and function of the affixes

5.1 Introduction

On the basis of their function and placement, three different kinds of person marking paradigms can be distinguished in the Munda languages: subject prefixes, subject suffixes and object suffixes. The subject prefixes as attested in Juang, Parengi/Gorum and Gtaʔ cannot be reconstructed for proto-Munda, as argued in section 3.3. Notwithstanding, their function and placement is strongly alike. In all three languages these prefixes are positioned directly onto main predicates and they are always used for subject reference. In contrast, the person suffixes are segmentally very much alike, but their function and placement differs strongly throughout the various Munda languages. When the suffixes are used for object reference, then they always attach directly onto the main predicate. This is found in North Munda, and in Sora, Parengi/Gorum, and Juang. However, when the suffixes are used for subject reference, there is variation in their placement

27 The brackets around some plus-signs indicate that the plus sign is not absolutely clearly granted. First, the in Kharia and Juang, only some of the pronouns are made with an initial /a/. Second, in Gta? and Sora, the inclusive/exclusive opposition was lost, but subsequently reinvented. Depending how these situation are interpreted, a plus or a minus might be put in the table.

throughout the Munda languages. 'Real' subject suffixes are found in Remo/Bonda and recently innovated in Sora. Variably placed subject suffixes (i.e. enclitics) are found in Gutob, Kharia and the Kherwarian languages. Subject marking using the object suffixes is attested in very restricted contexts in Korku and Sora.

5.2 Subject suffixes

The subject suffixes are either suffigated to the main predicate or to the word that is directly preverbal to the main predicate. The languages differ as to when these two positions are used. A summary of the contexts of preverbal vs. postverbal attachment is given in Table 12. In the Kherwarian languages, exemplified in (6) by Santali, the unmarked position of the suffix is on the preverbal constituent, independent of the kind of element that is present in preverbal position – in (6a) for example a complex noun phrase and in (6b) a sentential negation. However, in a few contexts the suffixes are placed obligatorily postverbal. First, when the sentence only consists of a single verb, then the subject is suffigated onto this verb, as illustrated in (6c). Further, in imperative sentences the subject suffix is placed postverbally, independent of the presence of other preverbal constituents, as illustrated in (6d).[28]

Table 12. Position of suffixal set when used for subject reference

[28] This summary of the Santali suffix placement appears to hold for all Kherwarian languages, though note that Ramaswami (1992: 128-32, 143-51) in his description of Bhumij gives many examples of multi-word indicative sentences with the subject marking suffigated to the verb, which indicates that the preverbal placement is not the default position in this language.

(6) Santali (Neukom 2001: 203, ex. 5, 207, ex.31, 114, ex. 4, 147, ex. 1)

a. *gam, kəhni, kudum emanteak'-**ko** jorao-akat'-a*
story tale riddle and_such-**3PL.SUBJ** compose-PERF-IND
'They have composed stories and tales, riddles and so on.'

b. *onate cet'-hɔ̃ ba-**e** met-a-e-kan-a*
therefore anything-also NEG-**3SG.SUBJ** say-APPL-3SG.OBJ-INPF-IND
'Therefore she was not say[ing] anything to him'

c. *met-a-pe-kan-a-**ɲ***
say-APPL-2SG.O-IPFV-IND-**1SG**
'I tell you.'

d. *masɛ mit' ghəri dɔhɔ-ɲɔ̃g-eɲ-**pe**!*
PTCL one moment put down-litle-1SG.O-**2PL**
'Put me down for a moment!'

In comparison to the Kherwarian languages, the preferential position of the suffixes in Kharia and Gutob is reversed. The default position of the subject suffixes in both languages is the postverbal position, as illustrated in (7a) and (8a), but in some constructions the suffix occurs immediately preverbal. In Kharia, the suffixes are attached to the sentential negation, which occurs in immediately preverbal position (7b). In Gutob, the suffixes are attached to various preverbal elements. N.H. Zide (1997: 317-323) mentions the WH-pronouns *ũdoj* 'when' (8b), *monoʔ* 'where' and *maŋ* 'why', and the adverbs *eke* 'here', *aʔ* 'now', *begi* 'quickly', *dapre* 'afterwards'.

(7) Kharia (Peterson p.c.)

a. *am-bar hokaɽ-te yo-te-**bar***
2-2.HON 3SG-OBL see-PAST-**2.HON**
'You (polite) saw him/her.'

b. *am-bar hokaɽ-te um-**bar** yo-te*
2-2.HON 3SG-OBL NEG-**2.HON** see-PAST
'you (polite) did not see him/her'

(8) Gutob (N.H. Zide 1997: 317-323)

a. *jom-lai* *bu-oʔ-**NIŋ***
name-ACC beat-PAST-**1SG**
'I will beat up Jom.'

b. *NIŋ* *ũdoj-**NIŋ*** *sorpei-oʔ-beʔ-tu*
1SG when-**1SG** hand over-PAST-AUX-FUT
'When will/do I hand over (the girl to the tiger)?'

The other Munda languages with subject suffixes do not use the preverbal position. In Remo/Bonda (Fernandez 1983: 20-25) the subject suffixes are always attached to the main predicate – a case of pure verbal inflection. In Sora and Korku the suffixes are also attached to the verb in all these circumstances. However, in Sora and Korku, these suffixes are normally used for object reference, but they are, in some restricted contexts, used for subject reference. Sora has two different suffixal paradigms. First, there is a circumfixal set (though mainly consisting of suffixes), which seems to be a Sora innovation. This set marks for subject cross-reference. Second, there is an exclusively suffixal set of person markers, closely related to the person suffixes of the other Munda languages. This set is mainly used for object cross-reference. However, it is used for subject cross-reference with a few impersonal predicates (Biligiri 1965b: 233). In Korku, the suffixes are normally used for object marking. They are only used for subject cross-reference in locational predicates, as illustrated in (9).

(9) Korku (Bhattacharya 1975: 145; Anderson & Zide 2001: 20)

a. *ura-**iñ***
house-**1SG**
'I am in the house.'

b. *di-kiñ* *Sikag-òn-**kiñ***
3SG-3DL Chicago-LOC-**3DL**
'They-2 are in Chicago.'

In contrast to Anderson and Zide (2001), I suggest that the languages that show variable placement of the suffixes (i.e. Kherwarian, Kharia and Gutob)

represent an older phase in the development of person marking. From this origin, the regular verb inflection as found in Remo/Bonda is a recently grammaticalised system. In Korku and Sora, the usage of the suffixes for subject reference can be interpreted as a leftovers from an earlier usage. The prefixes of Juang, Parengi/Gorum and Gtaʔ arose by shift of the direction of attachment, from enclitics to proclitics to prefixes. Such a change is in line with the expected direction of grammaticalisation and apparently attested in other languages (cf. Steele 1977; 1995 for a comparable change in Uto-Aztecan).

5.3 Object suffixes

The presence of object suffixes in so many languages from different branches suggests the reconstruction of Proto-Munda object prefixes, with loss in Kharia and Gutob-Remo-Gtaʔ (Anderson & Zide 2001: 17-20). However, this reconstruction has various drawbacks. First, if object affixes are reconstructed for Proto-Munda without subject affixes, then Proto-Munda had a cross-linguistically quite unusual structure. Anderson and Zide solve this problem by also reconstructing subject prefixes for Proto-Munda, but this reconstruction is not very convincing. Second, the various suffixal object paradigms do not show a strong across-Munda similarity. The affixes are all rather similar, though when looking at the details, then the object affixes are more similar to the other person paradigms within each language than to the object affixes in the other languages. So, the reconstruction of a set of object suffixes for Proto-Munda is not an ideal solution. Yet, the opposite solution of not reconstructing object suffixes for Proto-Munda has the drawback that object suffixes developed three time independently of each other (in North Munda, Sora-Gorum and Juang).

Neither the reconstruction nor the parallel development of object suffixes is very convincing. Linking the presence of object suffixes to the various strategies for subject marking also does not help, as almost all possible combinations are attested. The function of the person affixes in the various Munda languages is

summarised in Table 13.[29] Subject can be either marked by enclitics, prefixes, suffixes, or subject marking can be absent. Each of these options is attested both with object suffixes and without object suffixes, except for the combination absent subject marking and absent object marking.[30]

Table 13. Summary of the function of person affixation in Munda

5.4 A tentative scenario

It is not possible to give a definitive solution, but I will sketch a tentative development of the function and position of the Munda person marking. This proposal should not be interpreted as a definitive reconstruction of the historical events, but as an explicit formulation of a possibility, to enhance the discussion with the rather different proposal by Anderson and Zide (2001).

Proto-Munda had person-marking enclitics, which were variably placed preverbally or postverbally, but always enclitically, i.e. at the end of a word. The suffixes were originally used for subject reference. In some languages, the function of the suffixes was extended to object reference, with accompanying loss of subject reference in most languages (except for Kherwarian). This development separates the Gutob-Remo-Gtaʔ branch plus Kharia, which did not develop the usage of object suffixes. Gutob en Kharia show still some of the original variation in the placement of the subject suffixes. As a replacement for the marking of subject reference, new subject prefixes were innovated in Parengi/Gorum and Juang, and person circumfixes in Sora, but no replacement arose in Korku. The developments in Gutob-Remo-Gtaʔ were independent of this scenario. In

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[29] The brackets for the Sora subject prefixes indicate that the subject marking is basically performed by suffixes, though there is some information added by the usage of prefixes.

[30] This variation is really daunting: there are eight different theoretical possibilities, and among the nine languages discussed here, seven out of eight possibilities are attested.

Remo/Bonda, the original subject enclitics were regularised as strictly postverbal and in Gtaʔ the enclitics turned into prefixes.

6 Conclusion

The person markers in the Munda languages are strongly alike and it seems almost immediately evident that they are related. Still, when indulging in the details, it turns out to be extremely difficult to account for all the details of the variation.

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Table 1. Person suffixes in Munda

	1SG	1DUAL		1PLUR		2SG	2DUAL	2PLUR
		INCL	EXCL	INCL	EXCL			
Korku	*-(i)ñ(j)*	*-lañ(j)*	*-liñ(j)*	*-buñ*	*-le*	*-mi*	*-piñ(j)*	*-pe*
Kherwarian	*-(i)ñ/ŋ*	*-laŋ*	*-liñ/ŋ*	*-bu*	*-le*	*-m(e)*	*-ben*	*-pe*
Kharia	*-ñ/ŋ*	*-naŋ*	*-jar*	*-niŋ*	*-le*	*-em*	*-bar*	*-pe*
Juang	*-(ni)ñ*	*-ñba*		*-neniñ*		*-(nɔ)m*	*-pa*	*-pe*
Remo/Bonda	*-(n)iŋ*	*-naŋ*		*-nay*		*-no*	*-pa*	*-pe*
Gutob	*-niŋ*			*-nei*		*-nom*	*-pen*	
Parengi/Gorum	*-iŋ*			*-ileŋ*		*-om*	*-ibeŋ*	
Sora (object)	*-iñ*	*-ay*	–	–	*-lɛn*	*-ɘm*	*-bɛn*	
Sora (subject)	*-ay*	*-be*	–	–	*ə-…-ay*	*-ɛ*	*ə-…-ɛ*	

Table 2. Person prefixes in Munda

	1SING	1DUAL		1PLUR		2SING	2DUAL	2PLUR
		INCL	EXCL	INCL	EXCL			
Juang	*V-*	*ba-*		*nV-*		*mV*	*a-*	*V-*
Gtaʔ	*N-*	*niʔ-*	*ni-*	*nœʔ-*	*nœ-*	*na-*	*pa-*	*pe-*
Parengi/Gorum	*ne-*	*le-*				*mo-*	*be-*	
Sora	*Ø-*	*Ø-*	–	–	*ə-*	*Ø-*	*ə-*	

Table 3. Person prefixes compared with other person markers in the same language

	1SG	1DUAL		1PLUR		2SG	2DUAL	2PLUR
		INCL	EXCL	INCL	EXCL			
Juang								
Pronouns	*añ*	*niñba*		*niñ*		*am*	*apa*	*ape*
Suffixes	*-(ni)ñ*	*-ñba*		*-neniñ*		*-(nɔ)m*	*-pa*	*-pe*
Prefixes	*V-*	*ba-*		*nV-*		*mV*	*a-*	*V-*
Gtaʔ								
Pronouns	*nəeŋ*	*niã*		*nəeʔ*	*nəe*	*na*	*pa*	*pɛ*
Prefixes	*N-*	*niʔ-*	*ni-*	*nəeʔ-*	*nəe-*	*na-*	*pa-*	*pɛ-*
Parengi/Gorum								
Pronouns	*miŋ*	*bileŋ*				*maŋ*	*maiŋ/baiŋ*	
Suffixes	*-iŋ*	*-ileŋ*				*-om*	*-ibeŋ*	
Prefixes	*ne-*	*le-*				*mo-*	*bo-*	

Table 4. Independent pronouns in Munda

	1SING	1DUAL		1PLUR		2SING	2DUAL	2PLUR
		INCL	EXCL	INCL	EXCL			
Korku	*iñ*	*alañj*	*aliñj*	*abuñ*	*ale*	*a:m*	*apiñj*	*ape*
Kherwarian	*iñ/añ*	*alaŋ*	*aliñ/ŋ*	*abu/o*	*ale*	*am*	*aben*	*ape*
Kharia	*iñ*	*anaŋ*	*iñjar*	*aniŋ*	*ele*	*am*	*ambar*	*ampe*
Juang	*añ*	*niñba*		*niñ*		*am*	*apa*	*ape*
Remo/Bonda	*niŋ*	*naŋ*		*nai*		*nɔm*	*pa*	*pɛ*
Gtaʔ	*nəeŋ*	*niã*		*nəeʔ*	*nəe*	*na*	*pa*	*pɛ*
Gutob	*niŋ*	*nɛi*				*nɔm*	*pɛn*	
Parengi/Gorum	*miŋ*	*bileŋ*				*maŋ*	*maiŋ/baiŋ*	
Sora	*ñɛn*	*ənlɛn*				*amən*	*əmben*	

Table 5. From Proto Munda to the various North Munda languages

	1SING	1DUAL		1PLUR		2SING	2DUAL	2PLUR
		INCL	EXCL	INCL	EXCL			
Proto Munda	**iN*	**laŋ*	–	–	**le*	**om*	–	**pe*
Pre-Proto NM	**iN*	**laŋ*	–	**bu*	**le*	**om*	–	**pe*
Proto NM	**-iN*	**-laŋ*	**-le-iN*	**-bu*	**-le*	**-m*	**-pe-iN*	**-pe*
Korku								
Suffixes	*-(i)ñ(j)*	*-lañ(j)*	*-liñ(j)*	*-buñ*	*-le*	*-mi*	*-piñ(j)*	*-pe*
Pronouns	*iñ(j)*	*alañj*	*aliñj*	*abuñ*	*ale*	*a:m*	*apiñj*	*ape*
Santali								
Suffixes	*-(i)ñ*	*-laŋ*	*-liñ*	*-bo(n)*	*-le*	*-m(e)*	*-ben*	*-pe*
Pronouns	*iñ*	*alaŋ*	*aliñ*	*abo*	*ale*	*am*	*aben*	*ape*
Mundari								
Suffixes	*-ñ*	*-laŋ*	*-liŋ*	*-bu*	*-le*	*-m(e)*	*-ben*	*-pe*
Pronouns	*añ*	*alaŋ*	*aliŋ*	*abu*	*ale*	*am*	*aben*	*ape*
Ho								
Suffixes	*-iŋ*	*-laŋ*	*-liŋ*	*-bu*	*-le*	*-m*	*-ben*	*-pe*
Pronouns	*aiŋ*	*alaŋ*	*aliŋ*	*abu*	*ale*	*am*	*aben*	*ape*
Bhumij								
Suffixes	*-iŋ*	*-laŋ*	*-liŋ*	*-bu*	*-le*	*-m*	*-ben*	*-pe*
Pronouns	*aiŋ*	*alaŋ*	*aliŋ*	*abu*	*ale*	*am*	*aben*	*ape*

Table 6. From Proto South Munda to Sora and Parengi/Gorum

	1 SING	1 PLUR		2 SING	2 PLUR
		INCL	EXCL		
Proto South Munda	**iN*	**naŋ*	**le*	**om*	**pe*
Proto Sora-Gorum	**iN*	**len*		**om*	**ben*
Pre Sora	**iñ*	**lɛn*		**om*	**ben*
Suffixes	*-iñ*	*-ay*	*-lɛn*	*-əm*	*-ben*
Pronouns	*ñɛn*	*ənlɛn*		*amən*	*əmben*
Circumfixes	*-ay*	*-be*	*ə-…-ay*	*-ɛ*	*ə-…-ɛ*
Pre Parengi/Gorum	**iŋ*	**leŋ*		**om*	**beŋ*
Prefixes	*ne-*	*le-*		*mo-*	*be-*
Suffixes	*-iŋ*	*-ileŋ*		*-om*	*-ibeŋ*
Oblique pronouns	*eniŋ*	*enleŋ*		*enom*	*enbeŋ*
Nominative pronouns	*miŋ*	*bileŋ*		*maŋ*	*ba(b)iŋ*

Table 7. From Proto South Munda to Gutob

	1 SING	1 PLUR		2 SING	2 PLUR
		INCL	EXCL		
Proto South Munda	**iN*	**naŋ*	**le*	**om*	**pe*
Proto Gutob-Remo-Gtaʔ	**niŋ*	**naŋ*	**nei*	**nom*	**pe*
Gutob	*niŋ*	*nɛi*		*nɔm*	*pɛn*

Table 8. From Proto South Munda to Remo/Bonda and Gtaʔ

	1SING	1DUAL		1PLUR		2SING	2DUAL	2PLUR
		INCL	EXCL	INCL	EXCL			
Proto South Munda	**iN*	**naŋ*	–	–	**le*	**om*	**pe*	
Proto Gutob-Remo-Gtaʔ	**niŋ*	**naŋ*	–	–	**nei*	**nom*	**pe*	
Proto Remo-Gtaʔ	**niŋ*	**naŋ*		**nei*		**nom*	**pa*	**pe*
Remo/Bonda								
Pronouns	*niŋ*	*naŋ*		*nai*		*nɔm*	*pa*	*pɛ*
Suffixes	*-(n)iŋ*	*-naŋ*		*-nay*		*-no*	*-pa*	*-pe*
Gtaʔ								
Pronouns	*nəeŋ*	*niã*		*nəeʔ*	*nəe*	*na*	*pa*	*pɛ*
Prefixes	*N-*	*niʔ-*	*ni-*	*nəeʔ-*	*nəe-*	*na-*	*pa-*	*pɛ-*

Table 9. From Proto South Munda to Juang

	1SING	1DUAL		1PLUR		2SING	2DUAL	2PLUR
		INCL	EXCL	INCL	EXCL			
Proto South Munda	**iN*	**naŋ*	–	–	**le*	**om*	**pe*	
Pre Juang I	**iñ*	–		**ne*		**om*	**pe*	
Pre Juang II	**iñ*	**pa*		**ne*		**om*	**pa*	**pe*
Prefixes	*V-*	*ba-*		*nV-*		*mV-*	*a-*	*V-*
Pre Juang III	**niñ*	**niñ-pa*		**ne-niñ*		**nom*	**pa*	**pe*
Suffixes	*-(ni)ñ*	*-ñba*		*-neniñ*		*-(nɔ)m*	*-pa*	*-pe*
Possessives	*-(ni)ñ*	*-(ni)ñba*		*-eniñ*		*-(n)ɔm*	*-pa*	*-pe*
Pronouns	*añ*	*niñba*		*niñ*		*am*	*apa*	*ape*

Table 10. From Proto South Munda to Kharia

	1SING	1DUAL		1PLUR		2SING	2DUAL	2PLUR
		INCL	EXCL	INCL	EXCL			
Proto South Munda	**iN*	**naŋ*	–	–	**le*	**om*	**pe*	
Pre Kharia I	**iñ*	**naŋ*	–	**niŋ*	**le*	**m*	**pe*	
Pre Kharia II	**iñ*	**naŋ*	**iñ-bar*	**niŋ*	**le*	**m*	**m-bar*	**pe*
Suffixes	*-ñ/ŋ*	*-naŋ*	*-jar*	*-niŋ*	*-le*	*-m*	*-bar*	*-pe*
Pronouns	*iñ*	*anaŋ*	*iñjar*	*aniŋ*	*ele*	*am*	*ambar*	*ampe*

Table 11. Survey of segmental changes

	pronoun with /a/	dual added	**le* > *ne(i)*	clusivity lost	**laŋ* lost	**pe* > *pen*
Kherwarian	+	+	–	–	–	–
Korku	+	+	–	–	–	–
Kharia	(+)	+	–	–	–	–
Juang	(+)	+	+	+	+	–
Gtaʔ	–	+	+	(+)	–	–
Remo/Bonda	–	+	+	+	–	–
Gutob	–	–	+	+	+	+
Parengi/Gorum	–	–	–	+	+	+
Sora	–	–	–	(+)	+	+

Table 12. Position of suffixal set when used for subject reference

Language	Preverbal position marking subject	Postverbal position marking subject
Kherwarian	default	with imperatives
		with one-verb sentences
Kharia	after negation only	default
Gutob	after interrogative words	default
	after certain adverbs	
Remo/Bonda	never	default
Korku	never	with locative predicates only
Sora	never	with impersonal verbs only

Table 13. Summary of the function of person affixation in Munda

	subject enclitics	subject prefixes	subject suffixes	object suffixes
Korku	–	–	–	+
Kherwarian	+	–	–	+
Kharia	+	–	–	–
Juang	–	+	–	+
Parengi/Gorum	–	+	–	+
Sora	–	(+)	+	+
Gutob	+	–	–	–
Gtaʔ	–	+	–	–
Remo/Bonda	–	–	+	–