

# A COMPARATIVE STUDY OF THE VERB IN THE MUNDA LANGUAGES\*

*by*

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## 0. INTRODUCTION

**0.1** Studies on the comparative morphology of the Munda languages have hitherto been lacking. Because of the still very imperfect knowledge of these languages, and the lack of comparative phonological studies they would have been premature. Despite many keen observations, J. Hoffmann's attempt (H. 03) to gain insight into the historical development of Mundari morphology from Mundari data alone must be considered a failure. Although S. Konow's (L. 06) comments on the comparative morphology of the Munda languages are often valuable, they contain fundamental errors which were inevitable, considering the material available at the time of his research. Furthermore, Konow's work contains extensive lacunae and can thus be considered only a first pioneering attempt. In comparison with Konow's work the studies of H. Maspero (M. 48; M. 52) represent considerable progress; however Maspero hardly went beyond a general morphological description of the Munda languages giving special consideration to Santali and, secondarily, to Sora. Only occasionally did he attempt to penetrate into earlier linguistic periods (e.g., M. 48; 182 f.). The road was opened for comparative investigations in the field of historical morphology only by

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recent research on the individual languages and in diachronically oriented phonology.

**0.2** The material now available on most of the individual languages is not uniformly accurate and complete; however, it can in most instances be used unhesitatingly as source material. For Santali we now have the excellent works of L. O. Skrefsrud, P. O. Bodding and Th. A. Sebeok, for Mundari the studies of A. Nottrott, J. Hoffmann, M. Bh. Bhaduri, N. Soy, J. Gumperz and H. S. Biligiri, and H. J. Pinnow. For Ho there are the works of L. Burrows and Dh. Bakshi, for Asuri F. Hahn's essay. Kurku has been studied by J. Drake, E. W. Ramsay and N. H. Zide. For Kharia we have the works of G. Ch. Banerjee, G. Druart, H. Floor and V. Gheysens, and the author of this study, who also possesses for Juang unpublished materials which will make possible the investigation of this hitherto almost completely unknown language. For Sora there are the excellent studies of G. V. Ramamurti, and for Pareng the valuable article by S. Bhattacharya. For Gutob and Remo data may be found in Ramamurti's work (R. 33), though not concerning the morphology. Gutob, Remo and all other languages or dialects not mentioned above, viz. Karmali, Mahle, Bhumij, Birhor, Koda, Turi, and Korwa are still comparatively unknown. The most important reference work for them is still, at least for morphology, Vol. 4 of the *Linguistic Survey of India* (ed. G. E. Grierson, Calcutta, 1906). Since Karmali etc., are more or less closely related to Santali or Mundari the only serious gap in our knowledge – unfortunately a wide one – is the insufficiency of material on Gutob and Remo. However it is improbable that a closer examination of the structure of these languages will bring any special surprises which could materially change, or even place in doubt, the results so far achieved. Text collections, so indispensable for a thorough understanding of any language, unfortunately exist only for the most important languages, viz. Santali, Mundari, Ho, Kurku, Kharia, and Sora. Detailed information concerning the available literature is to be found in the bibliography.

**0.3** The importance of historical research in the field of morphology is generally recognized. The investigation of the parent language in the distant past, viz. the common or Proto-Munda, can contribute to the better understanding of its individual descendants, provide valuable information about the relationship of the present-day languages to each other and, at the same time, lead to a scientific grouping of the particular language family. Above and beyond this, only thorough and detailed investigation of linguistic periods of the past could give proof of genetic



connection between a given language group and other languages or language groups. We are here concerned with two problems, which can be solved or at least brought nearer a solution through the methods of historical linguistic research suggested.

**0.3.1** The first problem concerns the interrelationships of the Munda languages. Since the structure of the languages of the Southern group (Sora, Pareng, Gutob, and Remo) is – in part – quite divergent from those of the Northern group (Kherwari, viz. Santali, Mundari, etc.), the Western group (Kurku), and the Central group (Kharia and Juang) the question arises whether we are dealing with an old family of languages, one which goes back to a common original language, or with two clearly distinct groups, which are not derived from a Proto-Munda – or whatever else one may choose to call it – but are, at best, related far more distantly, for example at the level of Proto-Austroasian. Even though phonological investigations have indicated an original unity of the Munda languages (P. 59), this conclusion remains to be confirmed through morphological investigation. This unity can be established only by demonstrating that all the Munda languages exhibit the same main morphological characteristics. Similarly, in determining the relationship of the individual languages to each other, e.g. that of Kurku to Kherwari, historical data from the field of morphology is essential since purely phonetic or phonemic peculiarities do not suffice to establish a definitive grouping.

**0.3.2** The second problem concerns the genetic relationship of the Munda languages with the Khmer-Nicobarese languages of Southeast Asia, i.e., the Austroasian stock. Although the results of recent investigations leave no doubt of such a connection, there nevertheless remains a striking divergence between the morphological structure of the Khmer-Nicobarese<sup>1</sup> languages and that of the Munda languages. This divergence cannot be used to prove that the two groups are genetically completely distinct (cf. P. 60); however, positive proof that the Khmer-Nicobarese and Munda languages are morphologically related would be desirable. Such proof, which could only be obtained from an extensive historical study of the morphology of both groups is not now available. It is very doubtful that this can ever be obtained in the case of the Khmer-Nicobarese languages. The extreme “isolating” character of these languages at present, and the absence of documents older than the existing Mon and Khmer inscriptions would make this task especially difficult. Yet even here, with the help of the Nicobarese languages and the great mass of other languages which are known only from very recent times some

<sup>1</sup> Formerly called Mon-Khmer (cf. P. 60).

progress in this problem may be made. It is fortunate that historical research on the Munda languages, all of which have fully developed morphological systems, is comparatively easy. Knowledge of the Proto-Munda morphology puts us a step forward in the exploration of the Austroasian languages. At the same time we are now closer to solving the problem of whether or not Nahali, the position of which is disputed (Sh. 40; Sh. 54; Bh. 57), is a member of the Austroasian family, and thus distantly related to the Munda languages.

**0.4** Within the scope of this paper it is impossible to discuss, or even to outline, all aspects of the extensive morphology of the Munda languages. Since limits must be set, this paper will deal only with a small though very important part of the morphology of these languages, namely the conjugation of the verb. A wealth of highly differentiated formations is characteristic of all the Munda languages. Innumerable affixes, compounds, incorporated pronouns, numerous periphrastic constructions, and reduplication of roots and affixes all serve to express fine shades of meaning; the extensive differences among the various groups make comparative investigation seem extremely rewarding. Historical research should therefore start with a consideration of the verb conjugation – to use the conventional term – this being the most important part of the morphology of the Munda languages.

## 1. GENERAL OBSERVATIONS ON THE VERB IN THE MUNDA LANGUAGES

**1.1** In considering the verb in the Munda languages, we generally have to deal with the following factors:

A) The *base* or *root* and its modifications, of which there are the following: Secondary internal transformations (SIT), reduplication of part or all of it, morphophonemic changes in composition or addition of affixes (*sandhi*). Furthermore, two or – less frequently – more than two roots can be combined (composition).

B) The *affix complex*, i.e., the loose or tight addition of prefixes, infixes or suffixes (bound morphemes) in any number to the root, or to another affix, with or without *sandhi*. The affix complex can be analyzed into

a) *primary affixes*, modifying the meaning of the root (causative, reflexive and reciprocal formations, etc.) and corresponding to Konow's 'conjugational bases' (L. 06; 46),

b) *secondary affixes*, which denote mood, aspect, and tense, corresponding to Konow's 'inflectional bases' (L. 06; 48),

c) *tertiary affixes*, expressing, inter alia, the difference between transitive and intransitive,

d) *quaternary affixes* (pronominal affixes), denoting the point of origin or the goal of an action, and

e) a fifth group of affixes indicating finite or nonfinite verb forms (e.g., the so-called categorical *a*, suffixes denoting the absolutive, etc.).

A clear separation of the affixes is not always possible within this classification, which was only meant to bring order into the confusion of forms.

C) The *particles* or *auxiliaries* (free morphemes), which may be added to the complete verb form, and which in conjunction with it make up the many so-called periphrastic formations. At times it is not easy to decide whether one has to deal with a loosely attached suffix or with an independent particle.

D) The position of individual affixes and particles with respect to each other, as well as the tighter or looser bond between the individual morphemes (juncture, etc.), should also be noted.

E) Occasionally the situation is somewhat complicated in that categories of meaning and form do not always correspond, i.e., the intransitive is at times expressed by a secondary affix, and at other times by a tertiary affix, or some tenses by a secondary affix but others by a particle, etc.

*Note:* This classification has been set up on the basis of form rather than meaning, because the latter is not so clearly observable and frequently one affix is employed for more than one group of meanings.

**1.2** The *method* employed here will be that, in accordance with the classification given under 1.1, data from the various languages will be briefly listed, then will be compared with each other, and the comparable forms in Proto-Munda will be reconstructed. By comparing the individual languages with Proto-Munda the development as a whole will be easily shown, as will be their splitting off into subgroups. For details and especially for examples and precise information on the use of aspects, etc., which for lack of space cannot be given here, the works mentioned in the bibliography are to be consulted. Cf. also 3.2.12.

**1.3** For *phonetics* and *phonemics* the *Kharia-Lautlehere* (P. 59) is to be consulted; here, however, we have made several simplifications. A long vowel is indicated by duplication (*ii*, etc.), the difference between open

and closed vowels (in the case of *i*, *e*, *u*, *o*) is often not marked at all when not unconditionally phonemic. Nasal *ɾ* is represented by *ŋ*; for nasal *j* and *ɲ* in Kharia *ɲ* is uniformly written. The voiced palatal stop is written *j*; for [j], the palatal fricative or frictionless continuant, we have *y*, as there is no need to indicate rounded *i*, that is the German *ü*.

## 2. THE BASE OR ROOT

**2.1** Words which denote activities, events, or conditions are not the only ones serving as bases or roots to which the affixes and particles mentioned in 1.1.B and C may be attached. Theoretically any word for any concept, i.e., all words, can function as a verb base. Thus, we may not speak of a verb in the Indo-European sense. This fact was recognized at an early date and is now generally known. This is true for all Munda languages, but cannot be considered distinctive of them since there are innumerable other language families in which the situation is the same. The matter thus deserves only a brief consideration here. Compare, for instance, Mu. *oɾoɾ* in *hoɾo-ko oɾoɾ diku-ko menaɾ-ko-a* 'here are Mundas and Hindus' (used as conjunction), *oɾoɾ diku-ko hijuɾ-tan-a-ko* 'more Hindus are coming' (as adjective), *oɾoɾ menaɾ* 'there is more of it' (as pronoun), *oɾoɾ-ko hijuɾ-tan-a* 'they are coming again' (as adverb), *oɾoɾ ena rabal-a* 'to do it again is easy' (as noun), *oɾoɾ-a-ko* 'they will do it again' (as verb), cf. H. 03; XXII; cf. also G. A. Grierson's review of Hoffmann's work (Gr. 08). In the same way Mu. *buru* means 'a mountain; to heap up; to call something a mountain' (H. 03; 112); Sa. *hẽ* 'yes', *hẽ-ke'd-a* 'said yes' (L. 06; 45; B. 29a; 164 f.); Kh. *maha* 'great', *maha-siɾ* 'he has become great'; *sej* 'first', *sej-na* 'to go first'; *tiri'b* 'cloud', *tiri'b-ta* 'it is cloudy' (LH. 29; 9). Equally Ju. *raɲa* 'the cold, cold, to be cold', e.g., *raɲa diɲo* 'cold weather, winter', *raɲa-ke* '(it) is cold'; *ɖa'g* 'water', *o-ɖag-ε* 'to moisten'. Similarly in So. *kinaa-n* 'tiger', *anin kinaa-te-n* 'he acts the tiger' (R. 31; 25). This phenomenon undoubtedly goes back to very ancient times and can probably be accepted as Proto-Munda.

**2.2** *Secondary internal transformation (SIT)* is also a characteristic trait of the Munda languages. In contrast to 2.1, however, it is both typical and distinctive. The secondary internal transformation, as far as can be seen now, is used only to mark lexicographical nuances and not to express definite morphological categories, cf. Sa. *θhela*, *θhelaο* 'to push, to shove', *θhela θhili* 'pushing and shoving, to push, shove', Mu. *θhela θhili* 'id.', Ju. *θhɛle* 'to push' (H. *θhelna*, O. *θheliba*). This method of

forming new words has not as yet been fully investigated; however, for the reasons mentioned above it need not be considered further here. Any comparative theory of word formation, however, would have to take this phenomenon into account. For more details on SIT, see P. 59; 19 ff.

**2.3 Reduplication** of the root, in part or in its entirety, is a common technique of word formation in the Munda languages and seems not to be missing in any of them. Its function is usually *intensive*.

**2.3.1** In Santali partial reduplication is used in forming the so-called 'performative base', which emphasizes an 'active' action and expresses an intensive, repeated or habitual action. Cf. *dal* 'to strike', *da-dal* 'to strike much', *da-dal-a-e* 'he is in the habit of using the stick'; *bə-n nə-nəl-a* 'I cannot see at all, I am blind', in contrast to *bə-n nəl-a* 'I don't see' (L. 06; 45; B. 29a; 164 f.). Words with an initial vowel duplicate the vowel, e.g., *əgu* 'to bring', *əəgu*. This method of word formation occasionally occurs elsewhere in this language, e.g., *benao* 'to make', intensive *bebenao* and *beenao*. According to Bodding (B. 29a; 168 ff.) this should be considered an infix /*p*/, i.e. *bəpnao*. This interpretation, however, is based on an incorrect analysis, for /*ee*/ is phonetically [*eʔe*], while /*eʔ*/ is realized as [*eʔʔe*], and therefore the two forms are easily confused. In Santali, complete reduplication is used in the so-called 'repetitive base', expressing repeated or continuous action, e.g., *taɾam taɾam-pe* 'walk steadily on, hurry up' (B. 29a; 179 ff.). The passive form of the performative base is indicated by duplication of the suffix *-oʔ* (from an earlier *\*-og*), therefore by *-ogoʔ*; the causative of the performative base is similarly expressed, namely by *-ooco* (or *-oʔco*), i.e., by duplication of the initial vowel of the affix (B. 29a; 174 f.). For the reciprocal base (formed by the infix *-p-*) the affix of the performative base is likewise duplicated: *dal*, reciprocal *da-pa-l* (or *d-ap-al*), performative *da-pa-pa-l* (or *d-ap-ap-al*) (L. 06; 47).

**2.3.2** The situation is comparable in Mundari. Either the root is partially duplicated (*dal* – *da-dal* 'to strike', *sen* – *se-sen* 'to go') or – more frequently – the vowel of the root will be doubled ("lengthened"), a process which also could be considered as a 'secondary internal transformation'. From the point of view of structure and meaning, however, it should be classified as reduplication, since the vowel of the root is being reduplicated, e.g. *sen* – *seen*. In Mundari, unlike Santali, there is no insertion of inorganic [*ʔ*] between the vowels /*aa*/, /*ee*/, etc., e.g. *daal* (instead of *dadal*), *seen* (instead of *sesen*) etc. This particular method is the only one commonly employed in words with an initial vowel or an *h-*, e.g. *aaium* from *aium* 'to hear', *hiijuʔ* from *hijuʔ* 'to come'. As in Santali, such formations serve to denote intensity, habit, occurrences and

happenings of a general nature, e.g. *ne hoŋo da-dal-a-e* 'this man is in the habit of beating', *en jo ka-ko jo-jom-a* 'they do not eat that fruit', i.e., 'that fruit is not eatable' (for *da-dal* and *jo-jom*, also *daal* or *joom*, respectively). Furthermore the attempt or intention to begin an action is also expressed in this way (performative), e.g., *aaum-te-bu sen-a* 'you and I will go to listen'. Finally, this form is also used to designate a successful beginning, e.g., *ne hon-e se-sen-a* (or *seen-a*) 'this child begins to walk' (H. 03; 182 f.). Hoffmann quite correctly distinguished between forms with and without reduplication. He calls the former formation 'indeterminative tense', the latter 'simple future' (H. 03; 134 f.). This distinction was also known to Nottrott; he, however, related both formations to the future tense (N. 04; 49 f.). In Mundari both reduplication and lengthening of the vowel also sometimes occur, e.g., *ma-maaʔ hoŋo-ko* 'people who will beat or chop' (to *maʔ*; cf. N. 04; 50).

**2.3.3** In Kurku reduplicated forms are also frequently found, such as *bi*, *bi-bi* 'to fill', e.g., *laʔ bi-bi-ba* 'to fill stomach'; *jom*, *ju-jum* (*jom-e-ba*, *jo-jom-ba*) 'to eat', *kul*, *ku-kul* 'to send'; *biʔd*, *bi-biʔd* (*bid-e-ba*) 'to rise' (cf. L. 06; 172).

**2.3.4** In Kharia the function of reduplication in verbs seems to be limited to a few petrified formations, such as *bha-bhru* 'to bark', *dhe-dhrel* 'to thunder' and to the so-called participial constructions, e.g., *suʔd suʔd lutui* 'wet cloth', *loŋ loŋ churi* 'sharp knife', *bor bor lebu* 'beggar', literally 'ask ask man' (Ban. 94; 24). Here we are dealing not so much with complete reduplication as with repetition of the root; cf. the 'repetitive base' in Santali (2.3.1). In Kharia, there frequently occurs a repetition of roots to which affixes are already attached, e.g., *iskulia gam-oʔ*, *eʔb eʔb poŋoʔb noʔ-ta noʔ-ta* 'the pupil talked while continuing to eat (*noʔ-ta noʔ-ta*) boiled (*eʔb eʔb*) sweet tubers (*poŋoʔb*)'. Bodding calls such forms 'constructed repetitive' (B. 29a; 180 f.). Here the original function of repetition or reduplication obviously was the designation of duration, habit, repetition; *bor bor lebu* 'beggar' is someone whose habit it is to ask, to ask constantly, or to beg.

**2.3.5** In Juang we find partial reduplication in forms with the past progressive ending *-nɔman*, e.g., *aiŋ jo-jo-nɔman* 'I saw, was seeing', *arɔ-ki ur-u-nɔman-ki* (from *\*ur-ur-nɔman-ki*) 'they were drinking', *aiŋ jeʔg-jeʔg-nɔman* 'I was weeping, wept constantly'. Here, too, duration or repeated action is indicated by reduplication.

**2.3.6** Reduplication also plays an important role in Sora. Some roots are always reduplicated, e.g., *mel-mel* 'to inspect', *di-di* 'to count'; others can be reduplicated to denote intensity, duration or repetition,

e.g., *tid-tid* 'to beat frequently'. In several instances monosyllabic roots are reduplicated, as for instance in forming the causative, e.g., *gu* 'to call', *ab-gu-guu-t-aa* 'I shall cause someone to call', or optionally in the absolutive, e.g. *jum-le*, *jum-jum-le*, *jum-le jum-le* 'having eaten' etc. (R. 31; 29, 51 f.).

**2.3.7** From the above we may deduce with reasonable certainty that reduplication of the root was made use of in Proto-Munda or could be employed in order to express habitual, repeated, constant, or intensive action. This was done either by partial reduplication of the root or by complete reduplication to stress meaning as still occurs in Santali and Mundari. Initial vowels were doubled. The doubling of medial vowels, on the other hand, was of a secondary character.

Proto-Munda:

Base or root : *\*dal* 'to beat', *\*ud* 'to drink'

Performative (Intensive I): *\*da-dal* 'to beat violently, to be in the habit of beating', *\*u-ud (uud)* 'to drink much'

Repetitive (Intensive II) : *\*dal-dal* 'to beat violently, to beat repeatedly', *\*ud-ud* 'to drink much, to drink repeatedly'.

**2.4** The compounding of several bases is found in all the Munda languages, the compounding of two bases indicating an action, event, etc. (i.e., verbal bases) being frequent. Combinations with other words, however, are also possible; cf. Sa. *əgu-ruər* 'to bring back' (literally 'to bring – to return'), *əgu-dara-ko-m* 'bring them along with you' (literally 'bring-with-them-you'), *lai-həd-me* 'tell it quickly' (literally 'speak-quickly-you'). Cf. B. 29a; 273 ff.; 29b; 81 ff. Mu. *bul-durum-oʔ* 'to fall asleep on account of being drunk' (*bul-oʔ* 'to be drunk', *durum* 'to sleep'), *lel-aiar* 'to look ahead', *nir-parom* 'to run across'. The meaning is often considerably modified and distinguished by such composition. In this way, the inception and completion of an action can also be expressed, e.g., Mu. *ol-eʔeʔ* 'to commence writing' (*eʔeʔ* 'to begin'), *ol-caba* 'to finish writing'. Further information can be had from Hoffmann (H. 03; 188 f.) and Nottrott (N. 04; 78 ff.). Here are some examples from Kharia: *ol-dhab-e* 'bring at once' (*ol* 'to bring', *dhab*, *dabe* 'quickly'), *oʔj-phekae* 'to drive off, to do away with', literally 'to drive away – to throw away'. The words *goʔd*, *kan*, *san*, and *tu* are used to express a – usually weakened – intensive or frequentative sense, e.g. *goʔj-goʔd-ki* 'he did die, he is dead', *io-kan-e-m* 'thou shalt see indeed', *col-kan-ki* 'he went away (for a long time)', *doʔd-san-ij* 'I take away now to keep', *ol-san-e-m* 'you will bring (along with you)', *u-jeʔ ol-tu-siʔd-ij* 'I brought

him'. Sometimes *kan*, *san* and *tu* indicate motion (going or coming), e.g. *do'd-kan-e* 'take and go', *ol-san-e* 'bring and come', *qo'd-tu-e* 'take, go and keep' (Ban. 94; 22). *kai*, when affixed to a verb, indicates that the action concerns or benefits another person than the subject (benefactive, cf. the original meaning of the parasmaipada in Sk.); e.g. *jhintu-ki jo tonme ga bel-kai-o-p-ki* 'they were even spreading out new mats for him'. Because of its meaning *kai* occurs only with transitive verbs (cf. Ban. 94; 21). Banerjee's interpretation of *kai* as an intensifier (Ban. 94; 20) is incorrect. The morpheme *moi*, which is perhaps connected with the numeral *moj* 'one', indicates that the action is repeated or continued till completion, e.g., *jo-p-moi-j* (for *\*jo-p-moi-e-ij*) 'I will eat up (one after another); *tar-moi-j* 'I will slaughter (one after another)', *col-moi-na-moi* 'they will go (one after another)' (German: 'sie werden – einer nach dem anderen – hingehen'), *u'd-moi-te-ki* 'they (all) drink up'. Instead of *moi*, dialectically *mai* is used, e.g., *sob konsel kopru-p bul-mai-ta-ki* 'all young women and men get drunk'. Completives are formed by adding the morpheme *pal* 'to finish' or the auxiliary verb *tu* to the root of the verb, e.g., *ba-p sae-si-p-d-e-m no?* – *Sae-pal-o-j* 'have you cut the paddy? – I have finished cutting', *la'd-pal-kon cah sobre-io-p-ki* 'after having finished baking, they at once prepared tea', *ij jo-p-tu-o-j* 'I have done eating' (cf. FGD. 34; 106; Ban. 94; 22). The morpheme *lo* is used with tenses ending in *te* or *ta*. The root of the verb then is repeated to mark continuation or repetition, e.g., *jo-p-jo-p-lo-ta* 'he is eating continually' (LH. 29; 15). For *jom* cf. 3.1.6 f., for *si-p* (*-si-p-d-*) cf. 3.2.7. These compositional elements could be regarded as primary affixes, for they no longer commonly occur independently, cf. 3.1.1 ff. A compound with the so-called 'infinitive' is employed instead of the simpler compound with the root or base form in some special cases. Here we distinguish:

a) permissive, with *ter* 'to give', e.g., *ij-te co-na ter-e* 'let me go', *co-na ter-gor-e* 'allow him to go' (*gor* = *go'd*);

b) inceptive, with *ma-re* or *a'bsi'b* 'to begin', e.g., *la'd-na ma-re-io-p-ki* 'they began to bake', *u'd-na a'bsi'b-te-ki* 'they begin to drink';

c) completive, with *cuki* 'to finish', e.g., *jo-p-na cuki-k-ij* 'I have finished eating' (LH. 29; 16). According to Ban. 94; 22, *cuki* is added to the root form of the verb, e.g., *ij jo-p-cuki-k-ij* 'I finished eating';

d) desiderative, with *bor* 'to want' or *lam* 'to want, to wish, to seek, to search', e.g., *qoko-na bor-t-ij* 'I want to sit', *qiar-na lam-t-ij* 'I wish to enter'. *lam* with verbal form ending in *-na* and negation means 'to refuse', e.g., *qiar-na um lam-o-p* 'he refused to enter' (cf. LH. 29; 16; FGD. 34; 93);



e) potential, with *pal* 'can, to be able', e.g., *ij kamu-na pal-ij* 'I can work', *kamu-na um-ij pal-te* 'I can't work'. *pal* often precedes the infinitive, e.g., *um-le pal-o<sup>2</sup> tar-na* 'we could not kill', cf. LH. 29; 16; FGD. 34; 105). *pal* 'can' should not be confused with *pal* 'to finish', see above;

f) compulsive, with *hoi*, *hoe* 'to be' (expresses obligation), e.g., *am-te co-na hoi-na* 'thou shalt have to go, you must go', cf. Ban. 94; 21; LH. 29; 16.

g) Combinations with *la<sup>2</sup>* 'to feel' are used impersonally and are syntactical constructions rather than compounds, e.g., *leme<sup>2</sup>q la<sup>2</sup>-ta* 'he feels sleepy', *raŋga la<sup>2</sup>-ta* 'it is cold, I feel cold' (cf. LH. 29; 16; FGD. 34; 93; Ban. 94; 21).

h) For *la<sup>2</sup>* in *-na-la<sup>2</sup>* or *-na la<sup>2</sup>-* cf. 3.2.7.

In Juang, *gɔ<sup>2</sup>q* is used as *go<sup>2</sup>q* in Kharia, e.g., *ɔn-a* 'to go', root *ɔn*, intensive *ɔn-gɔ<sup>2</sup>q*, *qu<sup>2</sup>b* 'to pick up', intensive *qu<sup>2</sup>b-gɔ<sup>2</sup>-* (*gɔ<sup>2</sup>-* = *gɔ<sup>2</sup>q*). In Sora the compound of two verbs often has a distinctive and slightly deviant conjugation (R. 31; 35, 37), e.g., *iy-tem-aa* 'go and sell', *raptiy-jɔm* 'can eat' (R. 31; 37).<sup>2</sup> Apart from such composition an object can be incorporated directly into the verb in Sora, e.g. *paŋ-ti<sup>2</sup>-daar-ij-teen* 'he brought and gave me cooked rice' (lit. 'bring-give-cooked-rice-me-did'), *booten poo-kun-pvŋ-am-teen* 'who has stabbed you in the belly with a knife?' (lit. 'who stab-knife-belly-you-did?'), cf. R. 31; 25, 43 ff. The remnants of such combinations are found in Juang and Kharia – among other languages –, e.g., Ju. *gu<sup>2</sup>j-ti* 'to wash the hands' (*ti* 'hand'), *gu<sup>2</sup>j-qa<sup>2</sup>g-jij* 'to wash the feet with water' (literally 'to wash-water-foot'); Kh. *gu<sup>2</sup>j-qa<sup>2</sup>* 'to wash (with water)', *gujuŋ* (from \**gu<sup>2</sup>j-juŋ*) 'to wash feet', *gu<sup>2</sup>j-te* 'to wash hands'. In Sora the origin of the action (subject) can stand as a compositional element in place of the aim of the action (object), e.g. *nam-kid-t-am* 'you will be seized by the tiger' (literally 'seize-tiger-(will-) thee'), in contrast to *am-ɔn nam-kid-ten* 'you will catch a tiger' or *nam-kid-ten-aa<sup>2</sup>* 'I shall catch the tiger'. Detailed information on this interesting formation can be found with Ramamurti (R. 31; 40 ff.) and Maspero (M. 52; 638 f.).

**2.4.1** Frequently used compositional elements which are closely joined to their bases can easily worn down, shortened, or in some way altered by sandhi (cf. the so-called compound forms (CF.) in Sora), whereby they practically become affixes. Often it is not at all easy to distinguish affixes from compositional elements. Historically, many if not all affixes in the Munda languages were originally compound structures; certainly,

<sup>2</sup> Cf. 3.2.9.

for instance, the whole complex of pronominal affixes, whose connection with the independent pronouns is beyond question, was of this type. The affix *si'd* (*siʔ*, *siʔd*, etc.) for the perfect in Kharia and Juang is also an old independent morpheme, as will be discussed below (3.2.12.10). Nevertheless, in Proto-Munda several compositional elements had already lost their function as free forms and had been changed and shortened to such an extent that they can properly be called affixes.

**2.4.2** The conditions to which we have alluded permit us to conclude that extensive use was made in Proto-Munda of compound formation. We cannot prove, however, that incorporation of object and subject nouns (these terms being used only for lack of more suitable ones) which, for example, in the case of Sora led to the formation of so-called word-sentences (*mot-phrases*) such as *nam-kid-t-am* (cf. 2.4), also took place in Proto-Munda, as Maspero was inclined to think (M. 52; 639 f.). At any rate, such formations are not limited to Sora, as Kharia and Juang show, and it is most likely that in Proto-Munda incorporation of object nouns was already practiced to some slight degree and was probably restricted to particularly important and frequent events (such as 'to wash feet, hands', etc.). On the other hand compounds such as Ju. *agila dɪn*- 'to order, to give a command', *anɔndo ki'b*- 'to be joyful, to cause joy' are no doubt of a recent date and go back to Indo-Aryan influences.

**2.5.1** Morphophonemic changes (sandhi) in the base are relatively rare in the Munda languages. More common are morphophonemic changes at points of contact between affixes, such as, for instance, the combination of the aspect suffixes with the object suffixes in Mundari (see 3.2.4.1). Only in Kurku and Sora are such changes in base forms somewhat more frequent, e.g., So. *gad-jɪŋ* 'cut weeds' > *gaj-jɪŋ*, etc. (R. 31; 10). In Kharia, *-l* belonging to a root is omitted before *-na*, e.g., *dɛl* 'come', *col* 'go', infinitive *dɛ-na*, *co-na*. Omission of a root vowel occurs in Juang: *ɔn*- 'to go', *ba-n-a* from *\*ba-ɔn-na* 'we both shall go'. Some such rules are to be found in operation in all languages. The only matter of importance here is the treatment of roots with final *-ʔb*, *-ʔd* (*-ʔd*), *-ʔj*, *-ʔ* (*-ʔg*), sounds which, in the event of the addition of a suffix with an initial vowel, are in some cases replaced by the corresponding voiced stops, viz. *-b*-, *-d*- (*-d*-), *-j*-, *-g*- (in the case of *-ʔ* also by *-g*-), e.g., in Mu. *uiuʔ* 'to cut down', *uiug-oʔ* 'to fall', but *uiuʔ-akan-a-iŋ* 'I have cut down', in Kh. *piʔj* 'to break', in the imperative *pij-e* 'break', etc. The plosive sounds are the older. The reason for keeping the plosive stop, or for substitution by the corresponding implosive sound, or by a glottal stop, respectively, is to be found in the more or less loose or tight bond between base and

affix: in the tighter connections the explosive sound remains; in looser connections (before phonemic juncture /-/) it is replaced by an implosive sound. The velar implosive  $-ʔ$  remains only in Juang; in the other languages a glottal stop  $[ʔ]$  is used instead of  $-ʔ$ . In Kharia we have an exception. In this language final  $-b$ ,  $-d$ ,  $-j$ ,  $-ʔ$  before  $-oʔ$ , the suffix of the definite preterite, becomes  $-ph-$  ( $-f-$ ),  $-th-$  (now usually replaced by  $-th-$ ),  $-ch-$ , and  $-kh-$ , e.g., *keʔj* 'to pluck', *kech-oʔ* 'plucked', *remaʔ* 'to call', *remakh-oʔ* 'called'. Compare P. 59; 217 f., 261, 302 f., 378 f. A satisfactory explanation for this phenomenon has not yet been found. One could assume that  $-oʔ$  formerly possessed an initial  $*h$  or  $*k$ , such as  $*hoʔ$  or  $*koʔ$ , etc., from which the present conditions might have developed. However, this remains problematical, for it should then be possible to find traces of this  $h$  or  $k$  in connection with roots with final consonants other than  $-b$ ,  $-d$ ,  $-j$  and  $-ʔ$ . This, however, is not the case in such forms as *ter-oʔ* 'he gave' instead of the expected form  $*terhoʔ$ , which is not found. (Cf. P. 59; 238 f.) In Mundari before the corresponding morpheme *akaʔd*, *akan*, the terminating  $-b$ ,  $-d$ ,  $-j$ ,  $-ʔ$  belonging to the preceding verbal root remains intact, as for example *hijuʔ-akan-a-in* 'I have come'. Such forms as Kh. *uthoʔ* or older, but also documented, *uthoʔ* 'he drank' as against *uq-e* 'drink' (to *uʔd* 'to drink') suggest that a secondary development has taken place from  $*uʔd-oʔ$ , for the sequence of implosive plus vowel does not otherwise occur. Forms such as *eʔb eʔb* 'cooked' are to be considered as two words. According to this, the affix  $-oʔ$  would have long remained – to some extent – an independent particle and would only later have coalesced with the root, while the affix  $-e$  (future, present indefinite, imperative) had already fused with the root at an earlier period. Independent  $-oʔ$  therefore must still have been in existence after implosives had already developed. For this period one would have to assume the existence of  $*-ʔ$  instead of  $-ʔ$  – similar to Juang –, since the glottal stop  $[ʔ]$  plus vowel could never have developed into *kh* plus vowel: a development

$$*remaʔ + oʔ > remakhoʔ \text{ 'he called'}$$

seems to be unlikely. The likelihood is greater that  $*-ʔ$  plus  $-oʔ$  could have developed into  $-khoʔ$ , because the implosives are not voiced, but are *lenis*:

$$*remaʔg + oʔg > remakhoʔ \text{ 'he called'}$$

Pronunciations such as *remaʔkhoʔ* for *remakhoʔ* 'he called', *aʔbsiʔbphoʔ* for *aʔbsiphoʔ* 'he began' are caused by an analogous insertion of  $ʔ$ ,  $b$

etc., the analogy being from the infinitive (*rema<sup>2</sup>-na*, *a'bsi'b-na*), and other forms. In Santali there is even a difference in meaning secondarily connected with the difference 'd : d, 'j : j etc., cf. *bere'd-me* 'stand up' (intransitive), but *bered-me* 'put something on end' (transitive), *bered-e-me* 'raise him up'; *giti'j-me* 'lie down', *gitij-me* 'lay something down'. Here the preservation of the plosive has probably been caused by a relatively late disappearance of a succeeding vowel indicating an inanimate object (cf. B. 22; 79 ff., P. 59; 303 f.).

**2.5.2** Although a common basic tendency, especially towards implosives, is unmistakable, all of these morphophonemic rules show traits peculiar to the individual languages. These occurrences can all be explained in the individual languages and therefore do not date back to Proto-Munda. For Proto-Munda we thus have no reason to assume such morphophonemic rules for the verb; rather it is to be assumed that individual morphemes were added to the respective roots without causing any noticeable phonetic changes. The bond, it appears, was rather loose, of the type that occurs sometimes when suffixes are added, but more often in compound formations: this is one more reason to assume that affixes of the Munda languages go back to independent elements.

### 3. THE AFFIXES AND PARTICLES

**3.0** For general information on the affix complex and the particles, see 1.1 B, C. On changes in affixes occurring on application of morphophonemic rules (sandhi), refer to the individual formations (3.1 ff.). These changes pertain – in most cases – only to the individual languages just as they do in the case of roots or bases (see 2.5) and rarely date back to Proto-Munda.

#### 3.1 *Primary and Tertiary Affixes*

**3.1.1** The *tertiary suffixes* we are dealing with, viz. *-(e)d*, *-(e)n*, *-u<sup>2</sup>* (*-o<sup>2</sup>*), and *-joŋ*, are semantically related to the primary affixes but belong formally with the secondary affixes after which they are placed. It is thus advisable to treat them under both headings. – To the *primary affixes* belong two prefixes (*ab-* and *kol-* with their corresponding variants), two infixes (*-p-* and *-b-*) and several suffixes (*-dom*, *jim*, *-oco* and others). Some of them are actually old compositional elements (such as *jim*, *oco*).

The tertiary suffix *-uP* (*-oP*) sometimes takes the place of a primary affix. The infixes undoubtedly developed out of older prefixes, as can be demonstrated in the case of *-b-* (see 3.1.9).

**3.1.2** The primary and tertiary affixes serve to express the various interrelationships between an action or event and its point of origin, or the actor (agent, subject) and the goal (object) of an action. We have the *transitive* (also called active) if an action proceeds or could proceed from a point of origin to a goal; the actor performs an action upon a goal or causes a goal to undergo a process. When an action, event, or a condition is not referred to an aim, we have the *intransitive* (also called middle or neuter). The *passive* results when the grammatical subject (or topic) is the logical aim of the action, where the point of origin of the action (agent) may or may not be indicated. In the Munda languages, the passive exhibits a close affinity to the intransitive or middle, since no (grammatical) object can exist alongside the passive verbal expression. When subject and object are identical, i.e., if the originator of the action is also its goal (actor performs action upon self), we are dealing with the *reflexive* (also called medio-passive). If several persons participate in an action directed towards each other, then we have the *reciprocal*. Finally, where the grammatical object is induced into action, or is placed in a certain condition, we have the *causative*. A variation of this form is the *permissive* wherein sufferance or permission takes the place of causation. These six categories are found, at least vestigially, in all Munda languages. It should be noticed, however, that intransitive, passive and reflexive frequently blend one into the other or are not clearly distinguished. In Santali we find the *indirect middle* (cf. Sk. *ātmanepada*), wherein an action is completed in the interest of the actor; and in Kurku the *benefactive*, which indicates that the action concerns or benefits another person than the subject (cf. Sk. *parasmaipada*; cf. Sk. *yajate* 'he sacrifices for himself' with *yajati* 'he sacrifices for someone else'). See also Kh. *kai* (2.4).

**3.1.3** The *transitive* is not marked by a primary affix. It is recognizable by its lack of a marker ("zero affix"), by the use of a pronominal affix to express the object of the action, or by differential use of secondary affixes (e.g., Kh. *-oP* (transitive), *-ki* (intransitive), suffix of the past definite). In the Kherwari languages there exists a tertiary suffix *-ʼd* (*-d*), in Ho *-ʼd* (*-d*), which specifically indicates the transitive. The corresponding suffix in Kurku is *-èP* (final), *-è* (preconsonantal), and *-èn* (prevocalic). It developed from *\*-ed* through *\*-eʼd* and *\*[eʼd]* and *\*[eʼdʱ]* respectively. It is used only in the preterite forms (factive). In the present-future

-è(ɖ) / -èn is lacking. Traces of this old transitive affix perhaps still exist in other languages: the Gutob suffix *-eeɖ* (cf. 3.2.11) may be such a vestige; however this is uncertain owing to our insufficient information concerning this language. For further information see 3.1.10, 3.2.12.10.

**3.1.4** The *middle* or more precisely the *intransitive* is expressed in various ways. Either it is conveyed by the different usages of secondary affixes (see 3.1.3), a relatively recent means of making the distinction, or, more frequently, through the tertiary affix *-(e)n* which occurs in all the Munda languages (except perhaps Pareng) and is so closely fused to the secondary affixes that we shall treat it with them (cf. 3.2). In the Kherwari languages there exists besides *-(e)n* also the tertiary affix *-uɖ* (*-oɖ*), by sandhi also *-ɖ*, and by addition of further affixes *-ug-*, *-og-*, in Kurku *-ùɖ*, in preconsonantal position *-ù*. The suffix *-uɖ* (*-oɖ*, etc.) normally is used only with those aspects and tenses which are not marked by affixes, as well as in certain forms of the so-called 'subjunctive' or 'potential'. In Santali, for instance, *-oɖ* (*-uɖ*) is used with the indeterminate future, the present definite and the imperfect, the imperative, the prohibitive, and the intentional. For further information see 3.2.3. Other forms express the intransitive with *-n*. In Mundari *-oɖ* (*-uɖ*) is kept throughout in all aspects (tenses) or is omitted entirely. An example of the former is found in *hijuɖ* 'to come', compared to Sa. *he'j*, *hijuɖ*; cf. Mu. *hijuɖ-len-a-in* 'I have come' instead of \**he'j-len-a-in*. Omission of the affix occurs, for instance, in *biri'd-a-in* 'I shall get up', *sen-a-ko* 'they will go' (cf. M. 48; 177.). By this usage the suffix *-oɖ* (*-uɖ*) comes close to being a primary affix. That this was not originally so, however, can be seen from the fact that in the "subjunctive" it stands after the aspect suffix, e.g. in the so-called anterior future: *-koɖ* from \**ke-uɖ* (\**ke-oɖ*). The *-uɖ* (*-oɖ*) following the root thus is to be considered  $\emptyset$  ("zero") plus *-uɖ* (*-oɖ*). This interpretation is corroborated by the form *-iùɖ* which occurs alongside *-ùɖ* in Kurku. Here *-i-* constitutes the remnant of the old infective-indeterminate affix *-e*, or of the durative suffix *-ia*, which still exists in the transitive in Kurku and in the same sense in Kharia and Juang (*-e*), while *-e* generally has disappeared in Kherwari. For further details see 3.2.12.1, 3.1.5. The main difference between *-n* and *-uɖ* (*-oɖ*) is that *-n* was used mostly in forms of the "indicative" while *-uɖ* was used in those of the "subjunctive". Statements made with the infective, indefinite, and progressive or 'specific' aspects (see 3.2.1 C.) were considered non-factual and only potential and were therefore marked with the ending *-uɖ* (*-oɖ*), cf. 3.2.1 B. This distinction, however, is not common to all Munda languages. It appears only in Kherwari and Kurku.

The other Munda languages do not possess the suffix *-uʔ*; only Juang, Pareng, and Gutob may have kept vestiges of it, as in Ju. *-ɔg-*, e.g., *ɔʔɛ-na* 'to come down', *ɔʔɔg-* (from *\*ɔʔɛ-ɔg-*) 'to fall down', *ciŋɔg-* 'to fry, to cook' (intransitive), probably from *\*cin-ɔg-*, cf. Mu. *isin* 'to cook'. However this interpretation is uncertain. For Pa. *tu* (from *\*ta-ug*), *ru* (from *\*le-ug*), Gu. *too* (from *\*ta-ug*) see 3.2.12.9.

**3.1.5** An *indirect middle* has more recently developed in Santali by secondary internal transformation of *-oʔ* augmented by *-i-* or *-e-* (from the aspect suffix *-e*, cf. 3.1.4), i.e., *\*-ioʔ* / *\*-ioʔg*, cf. Ku. *-iüʔ* : Sa. *joy*, with a shift *i/j* or *e/j* and *ʔ/ŋ* or *ʔg/ŋ*, which is quite common. For example, *jəm-joy-a-e* 'he will eat for himself', *ŋel-joy-kan-a-e* 'he is having a look for himself', *sen-joy-me* 'take yourself away'. The use of *joy* or more precisely *jŋ* is even more restricted than that of *-oʔ*. – Concerning the so-called benefactive in Kurku, which is of secondary origin, cf. 3.2.6, No. 6.

**3.1.6** There is no special affix for the *passive* in Kherwari, Kurku and in the Southern group of languages. It is replaced by the affix of the intransitive, viz., Kherwari *-oʔ* (*-uʔ*), *-n*, Kurku *-üʔ*, *-ü*, *-en*. In Kherwari, Santali and Mundari agree in the formation of the passive in contrast to the intransitive where the situation in Mundari differs somewhat from that in Santali. In the passive, both languages employ *-oʔ* only when the intransitive or the passive is not marked by the tertiary ending *-n*, i.e. in all non-factual forms, e.g., Mu. *abuŋ-oʔ-tan-a-iŋ* 'I am being washed', but *abuŋ-aka-n-a-iŋ* 'I have been washed'. *-oʔ* is missing in the latter form because the *-n* in *-aka-n* expresses the intransitive or the passive, this contrasting with the transitive *-aka-d*. *-tan-* is not an aspect suffix, but a particle designating tense which follows the tertiary affix. It is possible and even likely that the suffix *-uʔ* (*-oʔ*) was originally a suffix for the passive and that the present usage in Kherwari and Kurku is of more recent date. Cf. 3.1.10. The opinion that *-oʔ* and *-joy* are really tense or aspect suffixes since their usage is limited to certain tenses or aspects appears to be basically wrong (cf. B. 29a; 195 f., esp. 198). – In Kharia there is a special suffix for the passive, *-dom*, which is kept throughout the conjugation, e.g., *gil-na* 'to beat', *gil-dom-na* 'to be beaten'; *ighae baʔ oʔb-soŋ-dom-te* 'how is paddy sold?', *ma-dom-boŋ kunduʔ oʔb-joʔ-dom-ki* 'the boy was fed by his mother'. Rarely *-jom* is used in place of *-dom*, e.g., *io-jom-ta* 'it is seen' (L. 06; 195) and is matched in Juang by the passive suffix *-jim*, e.g., *aip maʔd-jim-seke* 'I am beaten', *aip maʔd-jim-sero* 'I was beaten'. However, both of these morphemes have the meaning 'to eat' and it is questionable whether *-dom* is derived from it, especially

since *-ɖɔm* or *-rɔm* in Juang and *-dəm* in Sora also occur, though as affixes for the reflexive only. For details see 3.1.7.

**3.1.7** The *reflexive* is indicated in Mundari, Ho and in the other Kherwari languages by the suffix *-en*, after vowels *-n*, e.g. Mu. *dal-en-tan-a-iŋ* 'I am beating myself', *duku-n-tan-a-iŋ* 'I am causing myself pain' (N. 04; 71), Ho *jir* 'to fan', *jir-en* 'to fan oneself' (Bur. 15; 73). Hoffmann (H. 03; 156) infers that this affix stems from the demonstrative pronoun *ne*, which however is unlikely. The affix *-en* is rather composed of the secondary affix *-e* for the indeterminate inflective, of which otherwise only vestiges are found in Mundari, e.g. *kuɔ-e-a-iŋ* 'I shall cough' (cf. *-i-*, *-e* 3.1.4, 3.1.5), and of the tertiary affix *-n* for the intransitive as mentioned in 3.1.4. However, it is possible that this *-en* represents the old purely tertiary affix *-en* (cf. Ku. *-en*), which appears otherwise only as *-n* in Mundari. Compare also 3.2.12.1. This derivation follows from the fact that *-en* exists only in the indeterminate and in the tenses derived from it; otherwise the intransitive is employed. In Santali the intentional forms of the (indirect) medium are used to express the reflexive. In Kharia a special form for the reflexive no longer exists: Kharia speakers either say *iŋ iŋ-te gil-t-iŋ* 'I am beating myself', literally 'I me beat-I', or else use the passive construction, e.g. *iŋ-ga gil-ɖom-t-iŋ*, literally 'myself am being beaten' (Ban. 94; 10). In Juang the normal reflexive forms are those with *-ɖɔm*, after vowels *-rɔm*, in Sora those with *-dəm*, e.g., Ju. *aɪŋ aɪŋ-ɖɛɔ rusi-rɔm-ɖɛ* 'I wash myself', *arɔ-ki arɔ-ki-ɖɛɔ rusi-rɔm-ɖɛ-ki* 'they wash themselves', literally 'they they-selves wash-themselves-they', So. *tɪd-dəm-ten* 'he beats himself' (R. 31; 26). Since in Kharia *-ɖom* also exists as a possessive pronoun of the third person, e.g. *ma-ɖom* 'his mother', more literally 'his own' (cf. Lat. *suus*, Sk. *sva-*, Polish *swój*), one can assume that *-ɖom* (*-ɖɔm*), *-rɔm* and *-dəm* originally had a reflexive meaning, which in Kharia was secondarily used to denote the passive. The above (3.1.6) mentioned sentence *ma-ɖom-boŋ kunɖuɔ o'b-ɲoɔ-ɖom-ki* 'the boy was fed by his mother' is literally to be understood as 'mother-own-by son to-cause-to-eat-self-was', i.e., 'the son let his own mother feed him'. Sometimes *-jom* is used in place of *-ɖom* in the reflexive sense, too, e.g., *aɖi-ga ɖam-jom-ki* 'she herself reached' (LH. 29; 15), *ɖoko-jom-siɔ-ta* 'he (himself) has sat down'. The meaning of *-ɖom* in Pareng is not clear (cf. Bh. 54; 61).

**3.1.8** In Kherwari and Kurku the *reciprocal* is indicated by infixed *-p-* with the root vowel, e.g. Mu. *nel* 'to see', *ne-pe-l* (or *n-ep-el*) 'to see each other', *om* 'to give', *o-po-m* (or *op-om*) 'to give each other' (H. 03; 157), Ku. *araŋ* 'to abuse', *a-pa-raŋ* (*ap-araŋ*) 'to quarrel'. The Central



and Southern groups of languages (i.e., Kharia, Juang; Sora etc.) deviate in deriving this form by prefixing *kol-* in Kh., *ko-*, *ku-* (from *\*kol-*) in Ju. and *al-* in Sora (with phonetically regular loss of *\*k-* (PM. *\*q-*)); for instance, Kh. *kol-leʹj* 'to scold one another', Ju. *ku-leʹj* 'id.', *ko-gata* 'to converse', *ku-rim* 'to beat one another', So. *al-kaṇ-ten-ji* 'they are abusing one another'. Secondly, So. *al-* can also be infix, cf. R. 31; 47.

**3.1.9** The causative is most frequently formed with such prefixes as *aʹb-*, *oʹb-* or their derivate infix *-ʹb-*. The final *-ʹb* could easily be assimilated to the succeeding consonants and could then completely disappear, e.g. *ʹb-j* becomes *ʹj-j*, *j-j* and finally *j*, so that only the vowels remained as prefixes, e.g., *a-*, *o-*, and *u-*. In Kharia we find *oʹb-*, *o-*, *u-*, and the infix *-ʹb-*; in Juang we have *aʹb-*, *oʹb-*, *o-*, *u-*, and the infix *-ʹb-*, in Sora *ab-*, and the infix *-b-*, in Pareng *ab-*, *aav-*, and the infix *-b-*, in Gutob *-ob*; in Kherwari and Kurku (only in vestiges) *a-*, in Santali also *a-*. We find in Kharia, for example, *noʹ* 'to eat', *oʹb-noʹ* 'to feed', *ḍam* 'to arrive', *o-ḍam* 'cause to arrive', *gur* 'to fall', *o-gur*, *u-gur* 'to cause to fall', *kosor* 'to be dry', *ko-ʹb-sor* 'to dry'; in Juang we have *səŋ* 'to buy', *aʹb-səŋ* 'to sell', *goʹj* 'to die', *oʹb-goʹj* 'to kill', *ḍaʹg* 'water', *o-ḍaʹg* 'to moisten, to irrigate', *jim* 'to eat', *u-jim* 'to feed', *kəsor* 'to be dry', *kə-ʹb-sor* 'to dry'; in Sora there is *jum* 'to eat', *ab-jum*, *aj-jum* 'to feed'; in Pareng *gaaʹ* 'to drink', *ab-gaaʹ* 'to give to drink'; in Gutob *soom* 'to eat', *ob-soom* 'to feed'; Ku. *nu* 'to drink', *a-nu* (*annu*) 'to let drink'; Sa. *ṇū* 'to drink', *a-ṇū* 'to give to drink', *jom* 'to eat', *a-jo* (from *\*a-jom*) 'to feed'. In Kherwari *a-*, which was possibly not distinctive enough, was replaced as a productive formation by suffix formations such as Sa. *-oco*, Mahle *-so*, and Mu. *-ici*, *-ci* and *-iri*. These affixes are old compositional elements. In Mundari a compound formation with *rika* 'to make' is frequently found. The morphemes *ici* and *iri* serve to express the *permissive*, e.g., *koṛa hon oṛaʹ-te sen-ici-me*, *hasu-tan-a-e* 'let the boy go home, he is sick'; *tingu-akan-le taeken-a*, *mendo gomke duʹb-rika-keʹd-le-a-e* 'we stood, but the gentleman urged us to sit down' (N. 04; 79 f.). In Santali the difference between causative and permissive is expressed by the use of the direct object for the former and of the indirect object for the latter, e.g., *kirij oco-ked-e-a-n* 'I made him buy it (e.g. the bullock)', but *kirij oco-ad-e-a-n* 'I let him buy' (B. 29b; 54). The causative suffixes *-ge* in Asuri and *-ki* in Kurku are perhaps connected with Mu. *rika*, e.g., in As. *jom-ge* 'to feed', *nire-ge* 'to cause to run' (Ha. 01; 166, unjustifiedly questioned by Konow, L. 06; 139), Ku. *biʹd* 'to rise', *biʹd-ki* 'to raise'. Isolated, however, are the causative prefixes *li-* and *ta-* in Pareng (Bh. 54; 59). Irregular formations are in Kharia *i-iam* or *iʹb-iam*

'to cause to weep' (*iam*, *iiam* 'to weep') instead of *\*o-iam*, *\*o'b-iam*, and *qi²bhar* 'to drive in, like cattle; to cause to enter' (*qiar* 'to enter') instead of *\*qi-'b-iar*.

**3.1.10** A summary is given in the following table:

	<i>Kherwari</i>		<i>Kurku</i>		<i>Kharia</i>		<i>Juang</i>		<i>Sora</i>	
	Pr.	Te.	Pr.	Te.	Pr.	Te.	Pr.	Te.	Pr.	Te.
Transitive		-d		-è(ρ) -èn						
Intransitive		-n -oρ, -uρ		-en -ù(ρ)		-n-		-n-		-n
Indirect Middle (Sa.)		-joŋ								
Passive		-n -oρ, -uρ		-en -ù(ρ)		-dom		-jim		
Reflexive		-(e)n		-èn		-dom		-dom -rom		-dam -n
Reciprocal		-p-		-p-		kol-		ko-		al-
Causative		a- -oco, etc.		a- -ki		o'b- -'b-		ɔ'b -'b-		ab- -b-

Key: Pr. = Primary affix, Te. = Tertiary affix, Sa. = (only) Santali

The variants of the causative are not indicated. From these data the situation in Proto-Munda can be reconstructed. For the *transitive* there existed the tertiary ending *\*-ed*, the use of which was probably optional. That *e* was the vowel of the suffix is evident from Kurku (cf. 3.2.6). The juncture of *\*-ed* with the secondary suffixes, all of which terminated in a vowel, was close, whereby one vowel was always suppressed. In Kherwari the *e* in *\*-ed* was usually dropped; in Kurku, on the other hand, the vowel of the secondary ending was lost. That *\*-ed* was present in PM. is indicated by the vowel in the suffix *-ta*, which usually appears as *-te* in the Southern group (cf. 3.2.12.9–10). This *a/e* alternation can best be explained by assuming a development of *\*-ta-ed* to *-te* through the intermediate forms *\*te-ed* and *\*ted*. The *intransitive* (*middle*) is indicated in all instances by the tertiary affix *\*-en* (*\*-n*), and the *causative* by a prefix *\*ab-*, *\*ab-*.<sup>3</sup> For the *reciprocal* we have two types of formation, with *\*-p-*

<sup>3</sup> As for the phonemes of PM., cf. P. 59. For quick reference the reader is advised to refer to pages 193 ff. and 418 ff.

(with repetition of the root vowel) and with the prefix *\*qəl-*. Both affixes go back to the time of Proto-Munda, since parallels are found in the Eastern Austroasian languages as well, e.g. in Khmer the infix *-p-*, in Palaung the prefix *kər-*. In PM. the infix *\*-p-* may have had a function other than the formation of reciprocal verbs. However, *\*qəl-* probably did not, because *kər-* in Palaung serves the same purpose. The *reflexive* can be given as *\*-dəm*, which was lost in Kherwari and Kurku and was replaced by the affix of the intransitive. In the passive, *-qom*, *-jom*, and *-jim* are secondary. Difficulties are encountered only with the affix *-uʔ* (*-oʔ*), which developed from an older *\*-ug*. The frequent *u/o* vowel alternation is explicable as the result of the assimilation of the secondary affix *-e*, which in some cases preceded *\*-ug*, with the following vowel. Thus *\*e + \*ug* becomes *\*eug* and finally *\*og*, cf. the development of Old-Indo-Aryan *o* from IE. *\*eu*. Cf. 3.2.12.1.6, 3.2.12.6. There are two reasons to assume the priority of *-u-* (in *\*-ug*): first, *-u-* appears regularly in Kurku; secondly, in several instances root vowels in Kurku and Kherwari are assimilated in tongue-height to the following suffix *-uʔ*. The vowels in Sa. *həʔj – hij-uʔ*, Mu. *hij-uʔ* 'to come' can only be explained as a development of *\*həj-uʔ*, not of *\*həj-oʔ*. For Kurku, cf. *goʔj* 'to kill', *guj-uʔ* 'to die', *doʔ* 'to see', *dug-uʔ* 'to appear'. (According to Kuiper. According to Zide, however, the *o* in *goʔj* is retained, e.g. *goʔj-iüʔ* (which becomes *goʔiʔ*) 'may die'). The form *aium-oʔ* (from *aium* 'to hear'), exhibiting the *-oʔ* which frequently occurs, even after *u*, in Mundari and the other Kherwari languages, suggests an older *\*aium-e-ug*, in which the process of assimilation affected only the affixes. The present semantic differentiation between *-(e)n* and *-uʔ* (*-oʔ*) is probably of recent origin, for the distinction between 'indicative' and 'subjunctive' is secondary (cf. 3.2.12.11). It is thus possible and even probable that *\*-ug* was the ancient suffix for the *passive*. More than fifty years ago, W. Schmidt (Sch. 06; 63) contrasted the affix *-oʔ* with Nancauri-Nicobarese *-a* (really *-ə*), a suffix used in the formation of intransitive and passive verbs. In Car Nicobarese the suffix appears as *-ö* (a sound between an [ə] and an [ɔ], a slightly rounded ə), e.g., *mük* (*meuk*) 'to see' (*ü*, a slightly rounded [ɪ], which lies between [ɣ] and [u])<sup>4</sup> *müük-ö* (*meū-kö*) 'to be seen, to see', *fēel* (*fēl*) 'to beat, to kill', *fēel-ö* (*fē-lö*) 'to be killed, to kill' (Wh. 25; XLIV). – The suffix *-joŋ* in Santali is, as has already been mentioned, of recent origin. The suffix *\*-ug* was replaced by the reflexive affix *-qom* in Kharia and by the verb *jim* 'to eat' in Juang. Morphemes with the

<sup>4</sup> These phonetic data are based on tape recordings of six Car-Nicobarese studying at the S.P.G. Mission in Ranchi (January 1959).

meaning 'to eat' are frequently used elsewhere to form the passive, cf. Hindi and other Indo-Aryan languages. The causative suffixes *-oco*, *-iri*, etc. in Sa., Mu. and the other Kherwari languages are of a secondary nature.

**3.1.11** For Proto-Munda the situation is as follows:

Transitive : -, <i>-ed</i>	} Tertiary affixes (suffixes)	Reflexive : <i>-dām</i>	suffix	} Prima-ry affixes
Intransitive: <i>-en</i>		Reciprocal: <i>qəl-</i> , <i>-p-</i>	prefixes,	
Passive : <i>-ug</i> (?)		Causative : <i>əb-</i> , <i>ab-</i>	infixes	

**3.1.12** The development from PM. took the form of a bifurcation: on the one hand Kherwari and Kurku and on the other hand Kharia, Juang, Sora, Pareng, etc. Kherwari and Kurku may be designated as the Northern group, the other languages as the Southern group. In the North *\*-p-* won out over *\*qəl-*, and *\*-dām* was displaced by the spread of *\*-en* and *\*-ug*. In the South, on the other hand, *\*-ug* was almost entirely lost. Maspero's conjecture that the suffix *-uɽ*, denoting the intransitive, is identical with the Kharia suffix *-oɽ*, denoting the past definite, is not tenable. (Cf. M. 48; 183). Compare:

	<i>Causative</i>	<i>Intransitive</i>	<i>Transitive</i>	<i>Reciprocal</i>	<i>Passive/Reflexive</i>
North:	<i>əb-</i>	<i>-en</i>	<i>-ed</i> , -	<i>-p-</i>	<i>-ug</i>
South:	<i>əb-</i>	<i>-en</i>	-, ( <i>-ed</i> )	<i>qəl-</i>	<i>-dām</i> , ( <i>-ug</i> )

**3.1.13** The situation in Kherwari tempts us to set up for Proto-Munda the following system of relations between transitive and intransitive, and indicative and subjunctive:

Indicative	: transitive : <i>-ed</i>	intransitive : <i>-en</i>
Subjunctive	: transitive : -	intransitive : <i>-ug</i>

However, conditions found in the individual languages do not support such a scheme for Proto-Munda, cf. 3.2.12.3 f.

### 3.2 Secondary and tertiary affixes

**3.2.1** Concerning the inclusion of tertiary affixes into this group, see 3.1.1. To the secondary affixes belong a considerable number of morphemes, all of these being suffixes, i.e., they are attached to the root or base. The original independence of these affixes cannot be easily demonstrated. They certainly were, by an early period, true affixes which no longer occurred independently. For practical reasons we shall treat here a

few particles along with the tertiary affixes. The functions of these affixes and particles are as follows:

A) Relation to an object, or the absence of such relation, in other words, characterization of transitive and intransitive, the latter with extension into passive and reflexive, is indicated by the tertiary affixes *-ed*, *-*; *-en*, *-uP* (*-oP*), *-joŋ*, as well as by certain particularities of secondary affixes (see 3.1 ff.). These peculiarities can be explained in terms of disruption of the ancient system; see the discussion below, especially 3.2.12.8 ff.

B) Designation of relationships with regard to the kind of action or event (mood). These actions or events can be imagined either as real (*indicative*), as intended (*intentional* or *reservative*), as desired or simply possible (*optative*), as possible or conditional (*subjunctive* or *conditional*), as demanded or advisable (*imperative*), and finally as continuing (*continuative*), the last of these leads into C). These moods, except for the indicative and the continuative, can be subsumed under the heading *subjunctive*, which, however, is used here only as a collective term and for practical reasons. The various meanings are often quite fluid and vague and in many instances actually convergent.

C) Designation of relations regarding the course and the result of an action or event (*aspect* or *type of action*). Here we must distinguish an incomplete action or one thought to be incomplete (*infective* or *fiens*) from the completed action or that thought to be completed (*perfect* or *factum*). Furthermore, we can distinguish whether an action is indeterminate or general (*indeterminative*) or whether it is determinate or specific (*determinative*). The infective results in the first instance in a general and habitual statement (e.g., 'the cat does not stop catching mice' etc.), which we may call *habitual* for want of a better expression, or one could call it the *aorist of the infective*. The perfective then denotes a general concluded action (*aorist* or *aorist of the perfect*, often called 'simple past'). The determinative has two subgroups each, which makes possible four types of statement. In the infective one distinguishes between an action taking place at a definite time, or a progressive or a momentaneous action (*definite*, *progressive*, *momentaneous*, 'specific'), and an action which does not occur at a specific time or continue (*indefinite*, *durative*). Finally, in the perfect, we must distinguish whether or not the result of an action carries over into the present. If the former is the case, we are dealing with the *resultative*, otherwise with the *non-resultative*, cf. Mu. *hijuP-akan-a-e* 'he has come (and is still there)', with *hijuP-len-a-e* 'he has come (but has left again)' (N. 04; 42), Ju. *ɖɔkɔ-seɖe*

'he has sat down (and is now sitting)', and *qəko-seran* 'he has sat down (but has already gotten up)'. For greater clarity we offer the following table:

Inflective – Indeterminative – habitual	: I am accustomed to do, I do, I shall do
„ – Determinative – progressive (specific)	: I am just doing, I am in the act of doing
„ – „ – durative	: I am continuously doing, I do, I can do
Perfect – Indeterminative – aorist	: I did (in general)
„ – Determinative – resultative	: I sat down and am now sitting
„ – „ – non-resultative	: I sat down but have got- ten up again

D) Designation of situations regarding time (*tense*), i.e., the present (*present tense*), the past (*preterite*) and the future (*future tense*), often already contained in C) by implication as, for instance, the past tense in the aorist and the non-resultative, the future in the inflective-indeterminative (habitual), and often the present tense in the inflective. Special affixes for the tenses usually do not exist. In their place we have, as a rule, periphrastic constructions (mentioned here for practical reasons) or else tense is not indicated.

E) In certain cases the direction of an action (the so-called *directional*) can be indicated. In such cases we distinguish between the direction *away from the speaker* and the direction *towards the speaker*, as against the direct transition toward an object (*direct object*) or the indirect transition toward it (*indirect object*). Finally proprietary relationships toward an object can also be expressed (*possessive*). The suffixes here employed are tertiary affixes.

*Note:* The classification given by N. H. Zide for Kurku differs considerably from this scheme. For Kurku he posits the following: moods – tentative or incomplete, translocative or affirmative, intensive, benefactive, cislocative, probabilative, imperative; tense – past, present-future, imperfect, pluperfect. For further details see 3.2.6.

**3.2.2** We have now discussed just about all existing distinctions. Naturally, not all of these possibilities are ever employed in any one of the individual languages. Convergence, secondary semantic changes, sandhi, etc. have partially confused the picture in the individual languages; however, the ancient structure of secondary and tertiary suffixes,

which in a sense represent the most important part of the verb in the Munda languages, is still easily extractable. Compare here also H. Maspero's valuable observations (M. 48; 176 ff.; M. 52; 628 ff.). Our task now is to present the secondary and tertiary affixes of the individual languages to compare them one with the other and to deduce from them the system of Proto-Munda.

**3.2.3** In Santali the following secondary and tertiary affixes exist:

1) *-d* (*-ʼd*) (tertiary) which indicates the transitive, is attached to the affixes of group C (cf. 3.2.1), producing *-ed*, *-ked*, *-led*, *-ad*, *-kad*, *-akad*, *-akawad* (or *-eʼd* etc. respectively).

2) *-n* (tertiary) denoting the intransitive and passive employed as *-d* (No. 1), producing *-en*, *-ken*, *-len*, *-an*, *-kan*, *-akan*, *-akawan*.

2a) *-oʔ* (*-uʔ*, *-og-*) (tertiary), used to express the intransitive and passive, and occurs with  $\emptyset$ , *ka-*, *ke-* (= *koʔ*), see 3.1.4.

2b) *-joŋ* (*-jɔŋ*) (tertiary) indicates the indirect middle and appears after  $\emptyset$ , cf. 3.1.5.

3) *-ka* (secondary) intentional or reservative (for its meaning see B. 29a; 234 ff.), which is used along with several affixes denoting different aspects, wherein the rules of sandhi are observed, e.g., *ka* + *oʔ* > *koʔ*, *ka* + *ked* > *kad*, *ka* + *en* > *kan*.

4) *-e* (secondary) used with the durative in the transitive (suffix *-ed*), in the intransitive secondarily shifted to the ending of the aorist (simple past), and also in the intentional and directional forms (in connection with an indirect object): *-en*, *-kan* from *\*ka-en*, *-an* from *\*a-en*. *-kan* and *-an* may have a double origin, namely, besides the one already mentioned, possibly also another from *\*ka-ken* and *\*a-ken*; cf. *kad* from *\*ka-ked*.

5) *-ke* (secondary) denotes the aorist, i.e., the perfect indeterminative in the transitive mood: *-ked*; intentional *-kad* from *\*ka-ked*; directional (with an indirect object) *-ad* (from *\*a-ked*). In the intransitive a change in meaning occurred, as with *-e*. Because the aorist had been preempted by *-en* etc., *-ken* came to denote the so-called 'accidental past', a subsidiary form of the aorist. *-ke* without the addition of *-d* or *-n* indicates the optative ('hypothetic tense'), and in the intransitive we have *-koʔ* from *\*ke-oʔ*. It should be noted here that the *-k-* of the affix tends to disappear. Perhaps we are dealing here with an alternation with *-h-*, e.g. *-ad* from *\*a-hed* from *\*a-ked*.

6) *-aka* (secondary) perfect resultative; in the transitive *-akad*, in the intransitive *-akan*, in the directional (with an indirect object) transitive *-akawad*, intransitive *-akawan*. The continuative is indicated without *-d*

or *-n* respectively, but rather by combination with *tahen* 'to stay'.

7) *-le* (secondary) non-resultative perfect (anterior past), transitive *-led*, intransitive *-len*. Without *-d* it expresses the conditional mood (the so-called anterior). The form *laʔ* developed from *\*led-aʔ* (with inanimate indirect object).

8) *kan* (particle) denotes the present tense. It is not an affix, but an independent morpheme, as indicated by several factors, especially by the position of the object *before kan*. *Kan* developed from *\*ta*, Sa. *\*ka*, the old affix for progressive action, in combination with the *-n* mentioned under 2), and properly constitutes an intransitive form 'being' or something of that sort; it is a substitute for the missing progressive aspect.

9) *tahēkan* (particle) denotes the preterite (or past tense) and is, like *kan*, an independent conjugated word, consisting of *tahen* 'to stay' and of *-kan* (aorist, intentional, intransitive). By composition of *kan* and *tahēkan* another nuance of tense is expressed which in connection with *-ed* (i.e., *-ed kan tahēkan*) is designated as the definite imperfect.

10) *Ø* (zero, absence of affix) occurs with the indeterminate infective (habitual) and the imperative. The latter is distinguished by the special use of personal pronouns and further by the absence of the categorical *-a* (cf. 2.4.7).

11) *-a-* (tertiary) affix designating the indirect object (the so-called directional form), probably a preposition which sometimes – irregularly – stands before the aspect suffix (*\*a-ked*, which becomes *-ad*; in Ho still documented as *-aked*), occasionally infixed, e.g., *-aka-w-a-d* and *-aka-w-a-n* instead of *\*-aka-d-a* and *\*-aka-n-a*.

12) *-ta-* (tertiary) possibly from *-t-a-*, serves to denote the infixed possessive pronouns, e.g. *ənjəm-ta-ko-m* 'listen to what they have to say' (approximate literal translation 'listen to theirs'), *həpən-ɪn-e dal-ke'd-ta-ko-t-ɪn-a* 'my son who belongs to me struck theirs', literally, 'son-my-he struck-theirs-mine' (B. 29a; 102, 112 f.; L. 06; 42, 46).

The situation can be seen most clearly from a table (see p. 122-123). Cf. also the tables in L. 06; 50, 53; B. 29a; 285 ff.; B. 29b; 86 ff.; M. 48; 180.

**3.2.4** In Mundari the situation is similar to that in Santali. Here we find the following secondary and tertiary affixes, as well as certain closely connected particles:

1) *-d* (*-ʔd*) (tertiary) transitive, as in Santali, appears in *-jad*, *-ked*, *-led*, *-ad*, *-tad*, *-akad* (and *-jaʔd*, *-keʔd*, etc.).

2) *-n* (tertiary) intransitive and passive, as in Sa., appears in *-jan*, *-ken*, *-len*, *-akan*.

2a) *-oʔ* (*-uʔ*) (tertiary) intransitive and passive; similar to Sa., *-oʔ*



## A. Transitive

<i>Aspect/tense</i>	<i>with dir. obj.</i>	<i>with ind. obj.</i>	<i>mood</i>	<i>meaning of mood</i>
Inflective-indet.-habitual (= indeterminate future)	Ø A	Ø a AI	Ø A ka AI	imperative intentional
Inflective-determ.- progressive (definite present)	ed A kan	Ø a AI kan	ka AI kan	intentional
definite imperfect	ed A kan tahēkan	Ø a AI kan tahēkan	ka AI kan tahēkan	intentional
Inflective-determ.-dura- tive (indefinite present)	ed A	—	—	—
indefinite imperfect	ed A tahēkan	—	—	—
Perfect-indet.-aorist (simple past)	ked A	ad A	ke A kad A	optative intentional
accidental past	—	—	—	—
Perfect-determ.-resulta- tive (perfect)	akad A	akawad A	aka A(d) akawa A(i)	continuative
pluperfect	akad A tahēkan	akawad A tahēkan	—	—
Perfect-determ. - non- resultative (anterior past)	led A	(laʔ)	le	conditional
anterior pluperfect	led A tahēkan	ad A tahēkan	kad A tahēkan	intentional

appears with Ø and *ke*.  $ke + oʔ > koʔ$ . For details see 3.1.4.

3) *-taʔ* (secondary), intentional or reservative; for meaning cf. H. 03; 132 f., e.g. *duar-iŋ niʔ-taʔ* (really *-taaʔ*) 'I shall open the door and want it to remain open' or 'I will open the door, happen what may, i.e., contrary to anybody's order or desire'. In Mu. used only with the indeterminate as *static future* and with the simple past as *static past*: *-ta* and *-tad* from *\*-ta-ked*. Missing in the intransitive. (Corresponds to Sa. *-ka*.)

4) *-ja*, older *-ia*, secondarily also *-na* (from *\*-na* in alternation with *-ja*) and *-la* (in alternation with *-na*) (secondary), durative (indefinite present) in the transitive with *-d* (*-ʔd*). In the intransitive it is secondarily shifted to the ending of the indefinite past (cf. table): *-jan*, *-ian*. (Corresponds to Sa. *-ed*, *-en*.)

5) *-ke* (secondary) aorist (simple past) exists as *-ked* (*-keʔd*) and *-ken*; as in Santali, but here only with partial shift in the intransitive. There is an intentional *-tad* from *\*-ta-ked*, and a directional *-ad* (with indirect object) from *\*-aked*. *-ke* without addition of *-d* or *-n* denotes a mood,

## B. Intransitive - Passive

<i>Aspect/tense</i>	<i>Direct Middle, Passive</i>	<i>Indirect Middle</i>	<i>mood: middle, Passive, reflexive</i>	<i>meaning of mood</i>
Infective-indet. - habitual (= indeterminate future)	<i>oʔ</i>	<i>joŋ</i>	<i>oʔ koʔ</i>	imperative intentional
Infective-determ. - progressive (definite present)	<i>oʔ kan</i>	<i>joŋ kan</i>	<i>koʔ kan</i>	intentional
definite imperfect	<i>oʔ kan tahēkan</i>	<i>joŋ kan tahēkan</i>	<i>koʔ kan tahēkan</i>	intentional
Infective-determ. - dura- tive (indefinite present)	<i>oʔ kan</i>	—	—	—
indefinite imperfect	<i>oʔ kan tahēkan</i>	—	—	—
Perfect-indet. - aorist (simple past)	<i>en</i>	<i>an</i>	<i>koʔ kan</i>	optative intentional
accidental past	<i>ken</i>	—	—	—
Perfect-determ. - resultative (perfect)	<i>akan</i>	<i>akawan</i>	—	—
pluperfect	<i>akan tahēkan</i>	<i>akawan tahēkan</i>	—	—
Perfect-determ. - non- resultative (anterior past)	<i>len</i>	—	<i>len</i>	conditional
anterior pluperfect	<i>len tahēkan</i>	<i>an tahēkan</i>	—	—

Key: Ø = zero, A = animate object, I = inanimate object, AI = either animate or inanimate object, d = direct object, i = indirect object; A, AI, I, A(d), A(i) indicate the position of an object. Under certain conditions (cf. 2.5.1) *-d* occurs instead of *-d*.  
 – The intentional forms of the intransitive – passive are also employed as reflexive forms. – For the meaning of the modal forms, cf. B. 29a; 192 ff.

which can be called subjunctive, e.g. *Asam-te idi-ke-me-a-ko* ‘they might possibly take you off to Assam’ (L. 06; 86), according to Soy (S. II; 54, table g) this is the imperative (*ancu uduʔb*) of the aorist (*purajan beṛa*), also written *-ki*. In the intransitive *-koʔ* occurs with an altered meaning: i.e., to signify the imperative of the anterior future (*sida purao hijuʔ beṛa*). The subjunctive of the intransitive is indicated by *-len*, cf. 7 infra.

5a) *-k* (tertiary) optative (also precative and concessive) (cf. H. 03; 168 ff.), probably only an abbreviation of *-ke*, but according to Konow (L. 06; 86) to be separated from it. Cf. *sen-k-a-e* ‘he may go’, *lel-ko-k-a-e*

'let him see them'. It is to be noted that the object stands *before* *-k*, making a tertiary ending of an old secondary ending.

6) *-aka* (secondary), perfect resultative, transitive *-akad* (*-aka'd*), intransitive *-akan*. One would expect *-aka* as the form of the continuative by analogy to Santali; however, in Mundari this became a new mode of action, which maintains *-aka* only in the optative and as an imperative. Otherwise we find *-akad* and *-akan*, respectively, usually with the intensifying particle *-ge* for differentiation from the perfect resultative.

7) *-le* (secondary), perfect non-resultative (anterior past), transitive *-led* (*-le'd*), intransitive *-len*. Without *-d* it indicates the anterior future and is also used as imperative. The corresponding intransitive form is *-koʔ*, cf. No. 5. *-len* is also used to designate the subjunctive of the intransitive. Concerning the meaning of the anterior future see H. 03; 137 ff. : "It ... denotes the priority of one future action over another future action." For example, *om-le-ko-a-iŋ* 'I shall first give them away to someone'.

8) *tan* (particle) designates the present tense and, like *kan* in Sa., is not a true affix. For further details on this particle see 3.2.3.8.

9) *taeken* (or *taiken*) (particle) denotes the preterite corresponding to Sa. *tahēkan*. It is composed of *taen*, *tain* 'to stay' and *ken* (aorist, intransitive). *taeken* can be attached to most modes of action, cf. they key to table 3.2.4.2.

10)  $\emptyset$  (zero, absence of affix), with the indeterminate infective (the habitual) and the imperative. Cf. Santali.

10a) *-e* (secondary), rarely used instead of  $\emptyset$  (see 10 supra). Cf. 3.1.7, 3.2.12.1.6.

11) *-a-* (tertiary), affix for the designation of the indirect object. As in Santali it is really a preposition and in one case stands irregularly before the aspect affix; *-ad* from *\*-aked*. Otherwise it is more rarely used than in Santali; employed only for the indeterminate, the definite present, and the simple past (*-ad*).

12) The words *sida* or *sidae*, *lek* and *aiar*, are on occasion used as aspect affixes. As they are of a secondary nature, they will not be considered here. Cf. H. 03; 145.

3.2.4.1 A few important rules of sandhi must be taken into account in reference to the juncture of aspect suffixes with following objects and apply especially to the assimilation of a vowel and the omission of intervocalic *-d-* (or *-ʔd-* respectively), whereby the glottal element is retained, e.g. *le-i* becomes *lii*, *ja'd-iŋ* becomes *jaʔiŋ*, *ke'd-iʔ* becomes *kiʔ* etc. See

the following table. These changes are all of a more recent date and can be explained from Mundari data alone.

3.2.4.2 Although the separate formative elements in Mundari are almost the same as those in Santali, their use differs in many instances and the table diverges in several points from the one for Santali.

Aspect/tense	Indicative		Subjunctive		Meaning of Subjunctive
	transitive	intransitive and passive	transitive	intransit., passive	
Inf.-ind.-habit. (indeterminate, future) <sup>1</sup>	ØD/aI (e)	Ø; oP (intr.) (e) oP (pas.)	Ø D/aI (e) ta <sup>8</sup>	oP (ta)	imperative intentional (static future)
Inf.-det.-pro- gressive (definite present)	Ø D/aI tan (e...)	(oP) tan (intr.) oP tan (pas.)	—	—	—
Inf.-det.-dura- tive (indefinite present)	iad D/I (jad...)	(iad, jad) <sup>2</sup> (intr.) — (pas.)	—	—	—
Perf.-ind. - aorist (simple past)	ked D ad <sup>3</sup> I	ken (intr., pas.)	ke tad <sup>9</sup>	len —	subjunctive (anterior past) intentional (static past)
accidental past <sup>4</sup> (incomplete past)	(ken)	(ken) (intr.) — (pas.)	—	—	—
indefinite past <sup>5</sup>	(ian)	ian (intr., pas.)	—	—	—
Perf. -det. - resultative (perfect indefinite)	akad <sup>6</sup> D/I	akan (intr., pas.)	aka, <sup>10</sup> akad(ge)	akad(ge) <sup>11</sup> akan(ge)	continuative (continuative present)
Perf. -det. - non- resultative (an- terior past, per- fect definite)	led <sup>7</sup> D/I	len (intr., pas.)	le <sup>12</sup> (ke)	koP <sup>13</sup>	anterior future (corresponds to the conditional in Sa.)

Key: intr. = intransitive; pas. = passive; Ø = zero; D = direct object; I = indirect object; a with I (i.e., aI) points to the use of -a-, see No. 11. — Under certain conditions (cf. 2.5.1.) -'d occurs instead of -d.

1) Reduplication or lengthening of the vowel in the indeterminate, not in the future, see 2.3.2. — 2) Formerly only transitive. *ja'd-i* becomes *jaPi*. — 3) *ke'd-i* becomes *kiPi*, *a'd-i* becomes *aPi*. — 4) Meaning: 'to have been busy doing...'. — 5) Meaning: beginning of an action is to be indicated. — 6) *aka'd-i* becomes *akaPi*. — 7) *le'd-i* becomes *liPi*, *le'd-a* becomes *laP*, *le'd-a-m* becomes *laP-m*. — 8) *ta-a* becomes *taP*. — 9) *ta'd-i* becomes *taPi*. — 10) In connection with the optative *aka*. — 11) Only in the intransitive, for the passive only *akan(ge)*. — 12) *le-i* becomes *lii*. Instead of *le* also *sida(e)* 'first', *lek* 'to try'. — 13) One expects \**loP* or *len* here; *koP* actually belongs to the anterior past, where *len* occurs in secondary use.

The word *taeken* (*taiken*) to denote the preterite (imperfect) can be used with verb morphemes to which the following affixes are attached:  $\emptyset$  – *oP* (rare; cf. H. 03; 153); *tan* – *oP tan*; *jad*; *ked* – *ken*; *ken*; *ian* (*jan*); *akad* – *akan*; *led* – *len*; *tad*; *akad* – *akan*, e.g., *tan taeken*, *oP tan taeken*, etc.

Imperatives and optatives occur with the following aspects:

Aspect/tense mood	imperative		optative	
	transitive	intr.-passive	transitive	intr.-passive
indeterminate, future	$\emptyset$	$\emptyset$ ; <i>oP</i>	$\emptyset$ D/aI k	$\emptyset$ k
static future	<i>ta</i>	—	<i>ta</i> D k	<i>ta</i> k
anterior past	<i>ke</i>	<i>len</i>	—	—
continuative present	<i>aka</i>	<i>akan</i> ( <i>aka</i> )	<i>aka</i> D k	<i>akan</i> k
anterior future	<i>le</i>	<i>koP</i>	<i>le</i> D k	<i>koP</i> k

The imperatives are distinguished from the other forms by the absence of the categorical *a* (3.4.7). The optative adds *-k-* (from *-ke*) to the aspect suffix, which may or may not have a direct or indirect object, e.g. *tol-ta-i-me* 'tie him down!', *hijuP-koP-me* 'first come here (thou)!', *sen-k-a-iŋ* 'may I go', *tol-ta-ko-k-a-iŋ* 'let me tie them (and leave them tied)'. Details are to be found in Hoffmann, Nottrott and Soy (see H. 03; 166 ff.; N. 04; 48 f.; S. I, II). The information given by Soy deviates in several points from the information given here. Several aspects distinguished here and also recognized by Hoffmann are subsumed by Soy under a single label. For example, he treats *tan* and *jad* together under *hali bePa* or 'present tense'; cf. Soy's tables (S. II, at the end of the book). Since the information obtained from Hoffmann reflects an older linguistic period, as the comparison with Santali shows, it is his material that we are chiefly considering here.

**3.2.5** The remaining Kherwari languages or dialects cannot be treated here as extensively as Santali and Mundari. This is not possible because many of the dialects concerned have not been sufficiently studied. Moreover, detailed treatment is not necessary here, as these languages offer basically the same picture as the two important languages mentioned above. Often the deviations are slight and in part purely phonetic; e.g., in Kolhe *nen* is used instead of *len* (Mu., Sa.) (L. 06; 71), sometimes certain elements are missing, have converged, or have taken on a modified meaning. Therefore, only a few remarks will be devoted to these other languages, especially in instances which shed light on the development of affixes.

**3.2.5.1** Ho is structurally very similar to Mundari. Only the retroflex pronunciation of *-ʔ* (instead of Mu., Sa. *-ʔd*) and *t* in *taiken* (instead of

Mu. *taeken*, Sa. *tahēkan*) is worth noting here. But *tan*, however, does have a dental *t* in Ho. Final *-ʔ* changes before *i* into *ʔ* as in Mundari. Most important is the morphem *akeʔ* which proves that Sa. and Mu. *-aʔ* (*-ad*) in fact developed from *\*aked*. Cf. Bur. 15; Bak. 45/46; L. 06; 116 ff.

3.2.5.2 Birhor also does not deviate substantially from Santali and Mundari. The alternation *t/k* (with *t* in Mu. and *k* in Sa.) is found within Birhor. The particle for the present is *tan* or *kan* in the Ranchi district and *kan* in the Santal Parganas. The indefinite present is *iaʔ*, just as in Mundari. Besides, the preterite is marked by *eʔ*, *aʔ*, and in the intransitive by *en*, *an*, proof of the fact that *-ia-* and *-e-* are two different affixes. In other cases there is agreement with Santali or Mundari, thus e.g., *keʔ* followed by *i* becomes *kiʔi* or *kii*; *taʔ* + *i* becomes *taʔi*. The endings *akaʔ*, *akan*, *len* and *koʔ* (*kooʔ*) are also documented. The Mu. particle *taeken* corresponds to *tahiken*, *tahēkin*. Concerning this, cf. L. 06; 102 ff.

3.2.5.3 In Asuri, the following affixes, largely coinciding with those of Mundari, have been verified:

Aspect/tense	transitive	intransitive
indeterminate (future)	Ø	<i>oʔ</i> ( <i>wa ʔ</i> ), ( <i>na ʔ</i> )
present definite	<i>tan</i>	( <i>oʔ ʔ</i> ) <i>tan</i>
present indefinite	<i>taʔ</i> ( <i>tad</i> )	<i>ian</i>
preterite (simple past)	<i>keʔ</i> ( <i>ked</i> )	<i>ken</i> , <i>kan</i> (the perfect, according to Hahn)
	<i>ovaʔ</i> (= Mu. <i>ad</i> )	<i>ian</i>
preterite indefinite	?	<i>ian</i>
anterior past	<i>liʔ</i> , <i>leʔ</i> ( <i>led</i> )	<i>len</i> , <i>nen</i> , <i>nan</i> (simple past, according to Hahn)

Especially important here is the present indefinite. If the data are accurate, they show that *ian* is truly an old present indefinite form (durative) which has been shifted in meaning in Mundari (as also secondarily in Asuri). The place of the affix *taʔ* is uncertain. It can hardly indicate the transitive form of *tan*, since the historical development shown in 3.2.12.11 points in another direction. In analogy to *keʔ* : *ken* the morphem *taʔ* may have been secondarily formed to *tan*; or perhaps *taʔ* corresponds also to Mu. *tad* which developed from *\*taked*; then a change in meaning would have to be assumed. *taʔ* could also be a contamination form of *tan* and *iaʔ*. As the materials on Asuri are too unreliable, this question must for the time being remain unanswered. Here are a few examples for comparison: *sen-tad-a* 'I go', *jom-tad-a* 'I eat' (in Mu. we have in its stead *-iad*). As in Mundari, *k* (*ke*) indicates the subjunc-

tive-potential (optative). Objects are incorporated similarly as in Mundari, e.g., *-lid-i*, (Mu. *-liʔi-*) etc. For further information see Ha. 01; 149 ff., L. 06; 135 ff.

3.2.5.4 Regarding Koroa (Korwa) it is important to note that beside *tan*, the affix for the present, *ta* (perhaps from *\*tad*) also occurs. The reservative form of the perfect (static past) is reported (L. 06; 147 ff.) as *ted*, *teḍ*, *teṛ*, *te*, i.e. probably phonemically */te'd/*. One should not give too much weight to this, since the available material is not sufficiently reliable.

3.2.6 The extensive agreement between the Kherwari languages and Kurku in the area of aspect and tense-indicating affixes clearly shows the latter's close relationship to Kherwari. However a sharply diverging use of the affixes clearly indicates the independence of Kurku. According to Zide the following secondary and tertiary affixes occur:

1) *-èʔ* (final), *-è-* (preconsonantal), *-èn* (prevocalic) – (tertiary) denoting the transitive (active) in the factive (indicative), according to Zide the preterite. Corresponds to Sa., Mu. *-d*. The vowels of the preceding secondary affix are lost before the suffix *-è(ʔ)/-èn*, e.g. *thèʔ* (*thè*, *thèn*), *yèʔ* (or *ièʔ*; *yè*, *yèn*), *khèʔ*, *vèʔ*, *lèʔ* (with the corresponding allomorphs, e.g. *kul* 'send', *kul-yè-ku* 'sent them', *kul-yèn-e*'j' 'sent him').

2) *-en* (secondary) denoting the intransitive-passive in the factive. Corresponds to Sa., Mu. *-n*. Morphophonemic rules operate as in 1): *yen*, *ken*, *ven*; according to L. 06, also *len*, e.g. *kul-yen* 'was sent'.

2a) *-ùʔ*, preconsonantal *-ù* (tertiary) denoting the passive in the non-factive (subjunctive, imperative), according to Zide present-future. Corresponds to Sa., Mu. *-oʔ*, *-uʔ*. Occurs only together with Ø, *ya* (which becomes *y* or *i*), and *ki* (which becomes *kh*): *ùʔ*, *yùʔ*, *khùʔ* (or *ù*, *yù*, *khù* respectively). According to Zide, *-ùʔ* also conveys potential or – together with *ki* – durative sense (to be translated in Hindi with *rāhna*).

3) *-thà* (secondary), according to Zide 'tentative or incomplete'. Corresponds to the 'intentional' or 'reservative' of Sa. and Mu. (Mu. *ta*). Rare, lacking in the passive. E.g. *ghata-thè-ku* 'sought them', *ghata-thèn-e*'j' 'sought him'. *thè* from *\*thà-è(ʔ)*, *thèn* from *\*thà-èn*.

4) *-ya* (or *-ia*), according to Zide 'translocative, affirmative'. Corresponds to Mu. *-ia*. The affix has numerous allomorphs:

*ya* after *l*;

*ja* after *b*, *d*;

*na* after *m*, *n*, *ɲ*, *ŋ*;

*a* after *ʔ*, *j* (i.e. 'j'), whereby 'j' becomes *ʔ* (*-j + ya > -ʔa*).

*y-* (of *ya*) after *r*, *ɾ* is, by metathesis, incorporated into the verbal root: *-r + ya > -yra*, *-ɾ + ya > -yɾa*. *y* then is assimilated to the root vowel in the case of monosyllabic verbal roots and of polysyllabic roots with *e* or *i*. In polysyllabic verb roots with *a* or *o*, the affix *-y-* appears as *e*, and in polysyllabic roots with *u*, *-y-* is changed to *i*. The *-a* in the morpheme is lost before vowels. Examples: *kul-yen* 'was sent' (*-ya-en*); *lad-jen* 'kneaded' (*-ya-en*); *rim-ŋa-bà* 'will pick up' (*-ya-bà*); *goɽ-en* 'died' (from *goʔj-ya-en*); *niɾ* 'to glee' with *-ya-en* becomes \**ni-y-ɾ-a-en* and *niɾen*; *er* 'to sew' with *-ya-bà* becomes \**e-y-r-a-bà* and *eerabà*; *uyar* 'to swim' with *-ya* becomes *uyaera-*; *solor* 'to slip, push (in causatives)' with *-ya* becomes *soloera-*; *namur* 'to sink, set' with *-ya-ùɽ-ba* becomes *namuirùba*. After a final vowel, *y-* is lost and is replaced by *v* between final *-o*, *-u* and following *e*. The *-a* in *-ya* is also lost here before a vowel, e.g. *nu-ya-en* becomes *nu-yen*, *nu-en* (both forms in Dahenda Kurku), and *nu-v-en* 'drank'. Finally, *-ɽ-ya-ù(ɽ)* or *-ʔj-ya-ù(ɽ)* becomes *-ɽyù(ɽ)* and, dialectically in Dahenda Kurku, *-ɽi(ɽ)*, e.g. *goʔj-ya-ùɽ* 'may (subjunctive) die' becomes *goʔjyùɽ*, *goɽyùɽ*, *goɽùɽ* and *goɽiɽ*. These and several other morphophonemic rules were worked out by N. H. Zide.

5) *-ki* (secondary), according to Zide 'intensive'. Corresponds to Sa., Mu. *ke*. *-ki* is present in *khè(ɽ)*, *khèn* (from *ki-èɽ*, etc.), *ken*, *ki*, *khù(ɽ)* (from *ki-ùɽ* by morphophonemic change).

5a) *-ki* (tertiary), according to Zide 'probabilitative'. It is added to the factive (preterite) form and followed by *-bà* (see No. 8 infra), e.g. *diʔj ol-en-ki-bà* = H. 'vəh gəya hoga'; *diʔj kul-khèn-eʔj-ki-ba* = H. 'vs ne bheja hoga'. If neither an object nor *-ù(ɽ)* follows, *-ki* may also be added to nonfactive (present-future) forms, not however with the secondary suffixes *ki*, *va*, and *li*. This *-ki* corresponds to the *-k-* of the optative in Mundari.

6) *-va* [*wa*] (secondary), according to Zide 'benefactive', e.g. *kul-ven* from *kul-va-en* 'sent for the benefit of someone else'. Probably corresponds to Sa., Mu. *aka* (affix for the resultative); however owing to its meaning it should perhaps be classified with the Sa. and Mu. forms with the affix *-a-* (marker for the indirect object), cf. Sa. *aka-w-ad*, *aka-w-an*, etc.; see 3.2.3, No. 11. Cf. also Asuri *ova'd* = Mu. *ad*. The exact line of development is unclear.

7) *-li* (secondary), according to Zide 'cislocative'. Corresponds to Sa., Mu. *le*. According to Zide it does not occur in the passive, according to L. 06 *-len* and *-lan* also occur.

8) *-bà* (in the Lahi dialect *-òin*; according to L. 06 Hoshangabad *wa*, *wo*, *o*, Muwasi *wa*) (tertiary or more properly a particle). Denotes the



present-future, e.g. *rim-ja-bà* 'will pick up'. Semantically corresponds approximately to Mu. *tan*.

9) *-dàn* (tertiary, actually a particle). Indicates a 'pluperfect' when combined with preterite forms and an 'imperfect' when combined with the participle. *-dàn* corresponds approximately to Mu. *taeken* and, like *taeken*, serves to denote the past, e.g. *kul-ken-dàn* 'had been sent', *kul-lè-pij-dan* 'had sent you both', *ku-kul-dàn* 'sent', *kul-ij-dàn* 'sent me'. Cf. As. *idan* 'is'.

10) *Ø* (zero, affix wanting) or, in the indeterminative, *-e*. Occurs in the factive, e.g. in *ol-en* 'went' (= *ol-Ø-en*; *-en* see 2 supra) and in the present-future (non-factive), e.g. in *kul-ù-ba* (= *kul-Ø-ù-ba*) 'is sent'. *-e* is used with intransitive verbs in the (positive) imperative, e.g. *bid* (i.e. *bi'd*) 'to awaken', imperative *bid-e*; *od* (*o'd*) 'to come out', imperative *od-e*. According to Zide, this is not an aspect suffix but the object suffix *-e* 'it'. Its use with intransitive verbs, however, suggests that its interpretation as an old aspect suffix *-e* is more plausible.

11) *-a*, only in *-an* (from *-a-en*) in *mhen-an* 'said'. Vestige of a tertiary affix *-a-* denoting the indirect object, cf. Sa., Mu. *-a-*. The most proper translation of *mhen-an* is thus 'said to ...'. Cf. also No. 6.

The table on p. 131 summarizes the situation.

**3.2.7** In Kharia the picture differs considerably. In some ways, however, the situation is simpler. There is, for instance, no incorporation of objects and a number of other characteristics are also eliminated. On the other hand, the inventory of forms has been enlarged by some formations unknown to the Kherwari languages. In Kharia the following secondary and tertiary affixes exist:

A) Position 1:

1) *Ø* (zero) indicates the inflective. 2) *-si<sup>2</sup>* (allomorphs: *sig-*, *si<sup>2</sup>q-*, *sikh-*) denoting the perfective. 3) *-na-la<sup>2</sup>* indicates the past continuative (past progressive). *-na-* represents the suffix for the infinitive.

B) Position 2:

- 4) *-e* (transitive), 5) *-na* (intransitive). Indeterminative, habitual, future, present indefinite. *-n-* in *-na* is properly a tertiary ending which became a secondary ending with *-a* (3.2.12.8 and 3.2.12.10).
- 6) *-te* (transitive), 7) *-ta* (intransitive). Present and perfect definite ('specific', resultative).
- 8) *-o<sup>2</sup>* (transitive), 9) *-ki* (intransitive). Past definite and pluperfect (non-resultative). Before *-o<sup>2</sup>* final *-'b*, *-'q*, *-'j*, *-<sup>2</sup>* become *-ph-* (*-f-*), *-th-* (more recently *-th-*), *-ch-*, *-kh-*; e.g. *-si<sup>2</sup>* plus *-o<sup>2</sup>* becomes *sikho<sup>2</sup>*. Instead of *-sikho<sup>2</sup>*, secondarily also *si<sup>2</sup>kho<sup>2</sup>* is used.

<i>Aspect/mood</i>	<i>factive (indicative)</i>		<i>non-factive (subjunctive, imperative)</i>	
	N. H. Zide: past		N. H. Zide: present-future	
	<i>transitive</i>	<i>intransitive, passive</i>	<i>transitive</i>	<i>intransitive, passive</i>
Indeterminative	—	<i>en, an</i>	$\emptyset, e$	<i>ù(P)</i>
Tentative, Incomplete	<i>thè(P), thèn</i>	—	<i>thà</i>	—
Translocative, Affirmative (simple past I)	<i>yè(P), yèn</i>	<i>yen (ian)</i>	<i>ya</i>	<i>yù(P)</i>
Intensive (simple past II)	<i>khè(P), khèn (khan)</i>	<i>ken (kan, kin)</i>	<i>ki</i>	<i>khù(P)</i>
Benefactive (?? Perfect)	<i>vè(P), vèn</i>	<i>ven</i>	<i>va</i>	—
Cislocative (anterior past)	<i>lè(P), lèn</i>	<i>(len, lan)</i>	<i>li (le)</i>	—
Indicative:	factive = past		non-factive + <i>bà</i> = present-future	
Probabilitative:	factive + <i>ki-bà</i>		non-factive + <i>ki-bà</i>	
Imperfect (preterite):	factive + <i>dàn</i> = pluperfect		participle + <i>dàn</i> = imperfect	

*Remarks and Peculiarities:* Concerning the allomorphs cf. the above list of morphemes, especially No. 4. The forms in parentheses are quoted from L. 06 and are not given by Zide. – The positive imperative never was *ùP*, always having *yùP* instead. – According to Zide (y)ù(P) is passive and potential, *khù(P)* durative. – In the present-future *-kh-* is inserted between *ya* and an object affix with initial vowel (*in, e'j*), e.g. *kul-ya-kh-e'j-bà* 'will send him', but *kul-ya-ku-bà* 'will send them'. According to Zide this *-kh-* is the morpheme *ki* of the intensive; the first form is developed from *kul-ya-ki-e'j-bà*. – Concerning the participle forms, see 3.4.9, e.g. *dì'j bi-bi'd-dàn* 'he has rising'. For the negative forms, which deviate considerably, see 3.4.1 f. – In L. 06; 171 ff. several further forms are given, particularly compounds with *tì'j-ka, ta-ka, ka* 'is', e.g. *dì'j bi'd-ken ka* 'he has risen'. According to L. 06 *ja* also occurs instead of *dàn*, e.g. *goj-ian-ja* 'had died'. In the Muwasi dialect *takhane* occurs alongside *ka* 'is'. This form is compared by Konow with Sa. *tahēkan* 'was' (cf. L. 06; 182). For more general information cf. L. 06; 167 ff., espec. 171 ff.

### C) Position 3:

- 10)  $\emptyset$  (zero) without ending of position 2 marks the aorist (past indefinite).
- 11) *-'jq-* (in position before consonant or open juncture allomorph *-'j* is used) indicates present or perfect continuative. The situation may be summarized in table form as follows:

<i>Aspect/tense</i>	<i>transitive</i> morpheme Sg.1-2-3		<i>intransitive</i> morpheme Sg.1-2-3		<i>meaning</i>
A) Inflective (morpheme Ø)					
1. Indeterm., habitual, future I	<i>e</i>	<i>iŋ</i> <i>em</i> <i>e</i>	<i>na</i>	<i>naŋ</i> <i>nam</i> <i>na</i>	'I shall do' etc.
2. Durative, present indefinite	<i>e</i>	<i>iŋ</i> <i>em</i> <i>e</i>	<i>na</i>	<i>naŋ</i> <i>nam</i> <i>na</i>	'I do' etc.
3. Determinat., specific, present definite	<i>te</i>	<i>tiŋ</i> <i>tem</i> <i>te</i>	<i>ta</i>	<i>taŋ</i> <i>tam</i> <i>ta</i>	'I do' etc.
4. Determinat., progressive, Present continuative	<i>te'j(q)</i>	<i>te'jdiŋ</i> <i>te'jdem</i> <i>te'j</i>	<i>ta'j(q)</i>	<i>ta'jdiŋ</i> <i>ta'jdem</i> <i>ta'j</i>	'I am doing' etc.
5. Determinat. past, past definite	<i>oʔ</i>	<i>o'j</i> <i>o'b</i> <i>oʔ</i>	<i>ki</i>	<i>kiŋ</i> <i>kim</i> <i>ki</i>	'I did' etc.
6. Past progressive, past continuative, imperfect	instead of <i>na-lakhoʔ</i> the form <i>na-laʔki</i> is used, see intrans.		<i>na-laʔki</i>	<i>na-laʔkiŋ</i> <i>na-laʔkim</i> <i>na-laʔki</i>	'I was doing' etc.
B) Perfective (morphem <i>siʔ</i> )					
1. Indeterm., habitual, future II	<i>sig-e</i>	<i>sig-iŋ</i> <i>sig-em</i> <i>sig-e</i>	<i>siʔ-na</i>	<i>siʔnaiŋ</i> <i>siʔnam</i> <i>siʔna</i>	'I shall have done' etc.
2. Indeterm., aorist, past indefinite	<i>siʔ(q)</i>	<i>siʔdiŋ</i> <i>siʔdem</i> <i>siʔ</i>	<i>siʔ(q)</i>	<i>siʔdiŋ</i> etc., same as trans.	'I have done' etc.
2.a. Aorist continuative (progressive)	<i>na-laʔ-siʔ(q)</i>	<i>na-laʔ-siʔdiŋ</i> etc.	<i>na-laʔ-siʔ(q)</i>	same as trans.	'I have been doing' (?) etc.
3. Determinat. resultative, perfect definite	<i>siʔ-te</i>	<i>siʔ-tiŋ</i> <i>siʔ-tem</i> <i>siʔ-te</i>	<i>siʔta</i>	<i>siʔtaiŋ</i> <i>siʔtam</i> <i>siʔta</i>	'I have done' etc.
4. Det. resultative, progressive, continuative	<i>siʔ-te'j(q)</i>	<i>siʔte'jdiŋ</i> <i>siʔte'jdem</i> <i>siʔte'j</i>	<i>siʔta'j(q)</i>	<i>siʔta'jdiŋ</i> <i>siʔta'jdem</i> <i>siʔta'j</i>	'I have been doing' etc.
5. Determin. non-resultative, pluperfect	<i>sikhoʔ</i>	<i>sikho'j</i> <i>sikho'b</i> <i>sikhoʔ</i>	<i>siʔ-ki</i>	<i>siʔkiŋ</i> <i>siʔkim</i> <i>siʔki</i>	'I had done' etc.
6. Past progressive, past continuative (perfect)	<i>na-laʔsikhoʔ</i> , mostly substituted by <i>na-laʔsiʔki</i> , see intransitive		<i>na-laʔ-siʔki</i>	<i>na-laʔ-siʔkiŋ</i> <i>na-laʔ-siʔkim</i> <i>na-laʔ-siʔki</i>	'I had been doing' etc.
6a. idem	<i>siʔ-na-laʔki</i> (= intrans.)		<i>siʔ-na-laʔki</i>	<i>siʔ-na-laʔkiŋ</i> ...-kim, ...-ki	idem

-oʹj, -oʹb are used instead of \*-oʹŋ, \*-oʹm. – The passive is formed by -qom (primary suffix) with a following intransitive ending (cf. 3.1.6). The imperative and future are alike. The optative and the third persons of the imperative are formed with the morpheme *guḍuʹ*; e.g., *ḍel-guḍuʹ* 'he shall come, he may come', *kui-guḍuʹ-le* 'we may find' (A.G. 109). Compare this also with Ban. 94; 13 ff. – The perfective forms are only rarely used, e.g. *jepuŋ oʹb-bel-sig-e* 'one will have spread out straw', *koroʹb-siʹ-na* 'keep quiet' (lit. 'be muted', imperative). Secondly, *sig-e* and *siʹ-na* express continuation of action in future tense and imperative mood (cf. Ban. 94; 20): *am ḍoko-siʹ-na-m* 'thou wilt remain in a sitting posture'. – *gitaʹ-siʹ* 'he has lain down'; *soʹto gam-na-laʹ-siʹ-ḍiŋ no seŋ patar-aʹ jaruri-te bes-boʹ um-iŋ koŋ-na-laʹ-ki* 'I tell the truth (lit. 'I have been telling...'), that in the past times (*seŋ*) I did not well realize the necessity of light'; *alam-ḍaʹ gur-siʹ-ta* 'dew has fallen (and is still lying)', 'dew is falling', *enem bokob-aʹ lebu dura boʹ-te ḍoko-siʹ-ta. I heke?* – *khākhṭa* 'a headless man squats at the door. – What is that? – A crab'. (riddle, B.A. 29); *bae-siʹ-te-ki* 'they have made'.

3.2.8 Juang, as is to be expected, is closely related to Kharia. However, it contains more archaisms than Kharia does, e.g., vestiges of object incorporation. The following table illustrates the situation:

Aspect/tense	transitive	intransitive	peculiarities
Habitual and durative, present-future, indefinite	ε (e, i)	na (a)	-a after nasal; sometimes Ø instead of ε or na.
Progressive, present definite	ke (ke, ki, kiε)	ḍe (ḍe, ḍi)/ re (re, ri)	ḍ- after consonant, r- after vowel.
Aorist and Past definite	ɔ (ɔ)	an	subsidiary forms to an: an-ɔ, an-a.
Perfect-resultative, past indefinite	seke (siki)	seḍe (seṛe, siri, ciri)	subsidiary form to seḍe: sḍe.
Perfect-non-resultative, pluperfect	seɔ (seɔ)	seran	subsidiary form to seɔ: seɔ. Subsidiary forms to seran: seɔran, serana
Past progressive, imperfect	nəman (with reduplication of base)	nəman (without reduplication of base)	subsidiary form: nana.

-n- in -na and -an is properly speaking a tertiary ending, cf. 3.2.12.8 and 3.2.12.10. The use of the vowels ε, e, i depends on the enclosing vowels;

after a consonant there is usually *c* instead of *s*; however, deviations are frequent. It appears that the affixes for the transitive and intransitive bases are frequently interchanged in modern speech, e.g. *səb-ɔ* or *səb-an* 'he grabbed', *ɛlaŋ-q-a juŋta-rɔ ɔiŋ-ɔ* 'the hair of the tongue dropped'<sup>5</sup> (*ɔiŋ-ɔ* intransitive, with the transitive affix). Compare this with *phɔlɔ-mulɔ jim-ɔ-kia* 'the two ate fruits and roots'. Some examples: *gam-ɛ* 'to say', *lɔŋ-ɛ* 'to see', *jib-ɛ* 'to touch' (transitive); *lēber-ɛ* 'to sleep' (intransitive); *baŋ-a* 'to forget', *qɔkɔ-na* 'to sit', *buli-na* 'to walk, to wander' (intr.); *ɔ'b-gɔ'j-na* (alongside *ɔ'b-gɔ'j-ɛ*) 'to kill' (tr.); *jɔ-ke* 'he sees', *ki'b-ki* 'he makes' (tr.); *asi-ke* 'he is' (intr.); *qen-qe* 'he comes', *hari-re* 'rises' (intr.); *qin-qe* 'he gives' (tr.); *qai-ɔ* 'he sent', *jim-ɔ* 'he ate', *ɔ'b-gɔ'j-ɔ* 'he killed' (tr.); *gɔ'j-ɔ* 'he died' (intr.); *asi-an* 'he was', *hari-an* 'rose', *rɔe-an* 'lived' (intr.); *kui-an* 'found' (tr.); *gata-seke* 'he has said', *aiŋ jim-siki* 'I have eaten', *aiŋ kiŋ'ɔ'g-te ɔ'b-gɔ'j-seke* 'I have killed the tiger' (tr.); *kɔnte'q-qɔ-ki uqi-siri-ki* 'birds have flown up', *kuŋia qen-ciri-ki* 'guests have come (and are still here)' (intr.); *qin-cerɔ* 'he had given', *aiŋ jim-serɔ* 'I had eaten'<sup>6</sup> (tr.); *qɔkɔ-seran* 'he had sat down (but got up again)', *ɛtaju rusi-r-a ɛlaŋ-q-ate juŋta-rɔ hari-seran* 'then the hair came out of Rusi's tongue (but did not remain out)' (intr.); *aiŋ jɔ-jɔ-nɔman* 'I saw, was seeing', *aiŋ kaka'g tuŋ-nɔman* 'I was occupied shooting arrows' (tr.); *aiŋ ɔn-gɔ-nɔman* (\**ɔn-gɔ'q-nɔman*) 'I went, was going' (intr.).

The imperative is identical with the habitual. It is, however, frequently augmented by particles, such as *-qe*, *-qu*, *-re*, *-lɔ*, *-lo*, e.g. *qin-ɛ* 'give', *kij-ɛ-qe* 'do dance', *arɔ-te qio sendra a'b-su-i-ɛ-qe* 'dress him in good clothes'. For the first persons the particle *ku* (*kuu*) is used, e.g. *ku-in qɔkɔ-na* 'let me sit'. A second imperative (imperative II), similar to an optative, is formed by the use of the imperative I plus *-rɔ-* plus *-ku*, *-qe*, *-qu* or *-ua*, e.g. *sɛŋ-a-rɔ-ku* 'thou mayest go ahead', *qan-a-rɔ-qe* 'thou mayest climb up'. Forms with *-seke-rɔ-ku* and *-qe-rɔ-ku* (with the resultative or progressive as a starting point) also exist, e.g. *lɔŋ-seke-rɔ-ku* 'thou mayest look at (really, have looked at)'. Other formations, such as the optative, subjunctive, etc., are periphrastic and will be treated later on (3.4 ff.).

3.2.9 Sora diverges not only considerably from the Kherwari languages and from Kurku, but also from Kharia and Juang. The stock of secondary affixes in Sora is much smaller than in these languages. Yet the con-

<sup>5</sup> Cf. Verrier Elwin, "Notes on the Juang", *Man in India* (1948), 133.

<sup>6</sup> The difference between *jim-siki* and *jim-serɔ* is typical. *aiŋ jim-siki* means 'I have eaten (and am now full)'; *aiŋ jim-serɔ*, however, means 'I have eaten, but have already become hungry again; I had eaten'.

jugation in Sora is not simpler than that in Kharia, for instance, because (a) the syntax of the forms presents difficulties, (b) here more morpho-phonemic peculiarities are to be considered, and (c) there are a number of oddities; these we shall not treat in detail here, however, because they are not essential to the aims of this paper. Further information is to be found in Ramamurti (R. 31; 25 ff.). In Sora the aspects have been reduced to only two, the *inflective* (with the affix *-te*) and the *perfect* (with the affix *-le*) which Ramamurti calls the present-future or the non-past and the past, respectively. The *transitive* (or active) and the *intransitive* (or medium) (called reflexive or class II by Ramamurti)<sup>7</sup> are indicated by the affixes  $\emptyset$  (zero) and *-n* respectively. New is the distinction made concerning the direction of an action which is not found in the languages hitherto discussed,<sup>8</sup> it either proceeds in the direction *away from the speaker* (which takes no affix) or that *towards the speaker* (affix *-aai*), e.g. *yer-aa* 'go' (or 'go thither, go away'), *yer-aai* 'come' (actually, 'go hither, come hither'. - *-aa* in *yer-aa* being the ending for the imperative and being omitted before *-aai*.); *yer-eeteen* 'he went', *yer-aai-teen* 'he came' (actually, 'he went hither'), see R. 31; 27. Verbs which do not make this distinction employ the form with *-aai* in the first person singular and the first person plural exclusive but omit the suffix *-aai* for the other persons. Another important point is that the negative, which is formed by the prefixing of *ad-* (*a'd-*) (with the customary assimilation of *-d-* to the following consonant, before vowels *ann-* from *\*a'd-n-*), has for the inflective another suffix, namely, *-e* in the active and *-ne* in the middle. Ramamurti sees this as an omission of the characteristic *-t-* in the inflective (R. 31; 27) which the occasional lack of the characteristic *-l-* in the perfect seems to bear out.<sup>9</sup> It remains obscure why the *-e-*, which obviously is a part of the affix, is not likewise omitted; the statement R. 31; 30 that it is an independent element is certainly inapplicable. Besides, the form of the medium, *-ne*, would then remain unexplained: *t-e-n* minus *t-* would lead one to expect *-en*, rather than *-ne*. There is thus a greater likelihood that the interpretation that we are here dealing with a distinct series of affixes is correct; the assumption of influence by the Dravidian zero-negative, though striking, remains questionable (cf. Alfred Master, *The Zero Negative in Dravidian*, TPS, 1946, 137 ff.).

<sup>7</sup> R. 31; 25: "Class II consists of reflexive verbs which denote action the result of which accrues to the agent. Ex. *ber* 'talk', *der* 'believe'."

<sup>8</sup> Compare Sa. and Mu. *-a-* for designation of the indirect object, cf. 3.2.1 E.

<sup>9</sup> Cf. R. 31; 27. Unfortunately, Ramamurti expresses himself here in a manner liable to misinterpretation, since he is not in agreement here with the tables and other statements in his book, cf. pp. 31 ff.

However, the morphemes *-e/-ne* are not restricted to the inflective. There are special forms of the third person singular of the perfect which are produced by attaching the affixes *-eeteen*, *-eeteed*, *-eetēē* (*-een* in the dialect of Jirang) to the above mentioned morphemes (R. 31; 30). The following table shows the actual situation:

Aspect (or mood)	direction: away from speaker		direction: toward speaker		direction: neutral		imper- sonal
	trans.	intrans.	trans.	intrans.	trans.	intrans.	
Inflective	<i>te</i>	<i>ten</i> ( <i>te-n</i> )	<i>taai</i> ( <i>te-aa</i> )	<i>tenaai</i> ( <i>te-n-aa</i> )	<i>taai, te</i>	<i>tenaai, ten</i>	<i>t, te, tə</i>
Perfective	<i>le</i>	<i>len</i> ( <i>le-n</i> )	<i>laai</i> ( <i>le-aa</i> )	<i>lenaai</i> ( <i>le-n-aa</i> )	<i>laai, le</i>	<i>lenaai, len</i>	<i>l, le, lə</i>
Neutral	<i>e</i>	<i>ne</i> ( <i>n-e</i> instead of <i>e-n</i> )	<i>aai</i> ( <i>e-aa</i> )	<i>naai</i> ( <i>n-aa</i> )	<i>aai, e</i>	<i>naai, ne</i>	—
Imperative (affirmative)	<i>aa</i>	<i>naa</i> ( <i>n-aa</i> )	<i>aai</i> ( <i>aa-aa</i> )	<i>naai</i> ( <i>n-aa</i> )	<i>aa</i>	<i>naa</i>	<i>te</i>
Imperative (negative) = prohibitive	<i>doon</i>	<i>doon-ne</i>	<i>doon-aa</i>	<i>doon-aa</i> (instead of <i>doon-naai</i> )	<i>doon</i>	<i>doon-ne</i>	<i>doon ...te</i>

*e* is lost before *aai*. When there is no indication of direction (neutral), the respective first endings are used for the first person singular and plural exclusive (*taai*, etc.), otherwise the respective second endings (*te* etc.). The 'neutral' aspect occurs with the negative inflective (rarely with the negative perfective), with the second member of a conjugated composite, and in conjunction with the deviant form of the third person singular in the perfect where the initial *ee-* is omitted after *aai*, but forms *ee* with an antecedent *e*:

*eeteen neeteen aaiteen naaiteen eeteen neeteen*

Otherwise the third person singular is without an ending. In impersonal constructions the vowel *e* is usually omitted or becomes *ə*, e.g. *am-ən vron-l-ij* 'thou tookest me'. The conjugation proceeds as follows:

Sg. 1st *-l-ij*, 2nd *-l-am*, 3rd *-le*

Pl. 1st (excl.) *-lə-len*, 1st (incl.) *-l-aa*, 2nd *-lə-ben*, 3rd *-lə-ji*, similarly *-t-ij*, *-t-am*, *-te*, etc.

Composite verbs, both of whose parts are conjugated, use in the second element only the affixes of the neutral aspect, in the same manner as

verbs which make no distinction in the indication of direction, so that the first person singular and plural exclusive are *-aai*, *-naai*, but otherwise *-e*, *-ne*. The transitive with the direction away from the speaker is anomalous, the first person singular and plural exclusive being *-naai*, instead of *-aai* as we would expect. As a rule, such composite verbs indicate direction in the first member, the distinction transitive/intransitive (reflexive) in the second member.

The imperative, which is also the optative, is conjugated throughout with the exception of the first person singular and shows many deviations. The third person singular has the ending *-eete* dropping antecedent *aa* and *e*, while *-eete* loses *-ee-* before *aai*. The endings of the first and second person of the plural (*be* and *ben*, respectively) become *-b-* before *-aa*; in the intransitive *ne* becomes *nə* when it precedes *b*. The first person of the dual is formed with the endings of the neutral aspect, *-e* and *-ne*. The following table will outline the scheme:

Person	direction away from the speaker				direction toward the speaker	
	transitive		intransitive		transitive	
	affirm.	negative	affirm.	negative	affirm.	negative
Sg. 1	—	—	—	—	—	—
2	<i>-aa</i>	<i>-doon</i>	<i>-naa</i>	<i>-doon-ne</i>	<i>-aai</i>	<i>-doon-aai</i>
3	<i>-eete</i>	<i>-doon-eete</i>	<i>-neete</i>	<i>-doon-neete</i>	<i>-aaite</i>	<i>-doon-aai-te</i>
Dl. 1	<i>ə . . e</i>	—	<i>ə . . ne</i>	—	<i>ə . . aai</i>	—
2, 3	—	—	—	—	—	—
Pl. 1	<i>ə . . baa</i>	<i>ad . . be</i>	<i>ə . . nəbaa</i>	<i>ad . . nəbe</i>	<i>ə . . aaibaa</i>	<i>ad . . aaibe</i>
2	<i>-baa</i>	<i>ə . . doon</i>	<i>-nəbaa</i>	<i>ə . . doon-ne</i>	<i>-aaibaa</i>	<i>ə . . doon-aai</i>
3	<i>-eeteji</i>	<i>-doon-eeteji</i>	<i>-neeteji</i>	<i>-doon-neeteji</i>	<i>-aaiteji</i>	<i>-doon-aai-teji</i>

*ə-* is a prefixed pronoun designating the plural (cf. 3.3.3.7). The suffix *-ji* indicates the third person of the plural. *ad-* (*a'd-*) is the prefix of the negative. The imperative of the impersonally formed verbs is expressed, as noted, by *-te* or *-doon-...-te* respectively, e.g. *batoon-ijn-te* 'may I be afraid', *batoon-doon-ijn-te* 'may I not be afraid'. Composite verbs, both of whose parts are conjugated, also form their imperative in a peculiar way, cf. R. 31; 37. Important is here only that the ending *-e* of the neutral aspect occurs frequently in the second member; this is so in the second person singular and plural in the negative, e.g. *ə-id-doon-tem-e* 'do not go to sell' (plural), as well as in the third person singular and plural, both affirmative and negative. Particulars will be found in R. 31; 37.

Further distinctions are expressed either by particles, by composites,



or by compositional elements which have become primary affixes; thus the *present* is formed with the adverb *nam* 'now', the *distant future* by attaching *-teen* to the inflective or imperative, e.g. *jum-aa-teen* 'eat by and by'. *Compleatives* are formed by adding *-aaj*<sup>10</sup> to the base, as for instance *jum-aaj-aa* 'eat up', *continuative* verbs by *-loo*,<sup>11</sup> as for instance *anin gu-guu-loo-ten* 'he calls (me) frequently'. Forms of the *reservative* or *intentional*, as well as *habitual* categories are made using *-lan*,<sup>12</sup> as in *anin kan-kan-lan-ten* 'he abuses (all people)', literally 'it is his habit or nature to abuse' (R. 31; 27 f.). Concerning the *augmented imperative* with *-doo* etc., specific information is given in 3.4.

Despite the complex situation in Sora, it is possible to reduce all the elements which are of importance here, i.e. the secondary and tertiary affixes (but excluding the particles and pronominal affixes) to seven morphemes:

- |                |                               |               |                                       |
|----------------|-------------------------------|---------------|---------------------------------------|
| A) Aspect-mood | 1) <i>te</i> – inflective     | B) Verb class | 6) <i>n</i> – intransitive, reflexive |
| (secondary)    | 2) <i>le</i> – perfective     | (genus verbi) | (tertiary)                            |
|                | 3) <i>e</i> – neutral         | C) Direction  | 7) <i>aai</i> – 'hither'              |
|                | 4) <i>aa</i> – imperative     | (tertiary)    | (toward the speaker)                  |
|                | 5) <i>doonj</i> – prohibitive |               |                                       |

In connection with this discussion L. 06; 217 ff., and especially 220 f. should be compared. The data given there are quite imprecise, full of errors, and insufficient.

**3.2.10** The structure of the verb in Pareng shows its close relationship to Sora. Unfortunately, the data available for this language are anything but exhaustive. Bhattacharya's material (Bh. 54; 45 ff.), for instance, does not indicate whether the distinction transitive/intransitive is expressed in any way. It may be contained in such forms as *laba-*, *laban-*, which would then be *laba-n*, 'to press' (Bh. 54; 57). There are a few more aspect affixes than there are in Sora, but Bhattacharya does not show us that these permit any finer nuances of meaning than we find in Sora. The following affixes must be considered:

- A) Inflective (present-future): 1) *te*, *t*, *tu*  
 B) Perfective (preterite): 2) *re*, *r*, *ru*  
 3) *u*

<sup>10</sup> Cf. Kh. *-kai* (benefactive) from PM. *\*qai/\*qaj*. PM. *\*q* > So. Ø. – (Cf. 2.4).

<sup>11</sup> Cf. Kh. *-lo* (continuative, repetitive). (Cf. 2.4).

<sup>12</sup> Cf. Kh. *-laʔ* in *-na-laʔ* (past continuative). (Cf. 3.2.7.3).

- 4) *i* (probably from \**qi*)
- 5)  $\emptyset$  (zero)

According to Bh. 54; 57, *u* in the ending B 3 resulted simply from the loss of *r* (B 2), which is improbable. It might better be likened to Gutob -*u*, -*o*, Kh. -*oʔ*. It is not clear to which types of verbs the various affixes of the perfect are attached.<sup>13</sup> We are probably dealing with the petrified forms of an older, more highly developed system. As in Sora, it is possible to express *direction toward the speaker* and to do so in a somewhat similar manner by -*ai*, e.g. *i* 'to go', *i-ai* (*iyai*) 'to come'. The aspects are formed by -*tai* for the infictive, -*ai* for the perfective, endings which are attached to the affix of direction; thus, for instance, infictive *le-i-ai-tai* 'I come', and perfective *le-i-ai-ai* (*leyai-ai*) 'I came'. The affix of direction is thereby used twice; in the perfective without affix (affix  $\emptyset$ , see B 5). – The *imperative* is formed with the suffixes

$\emptyset$ , -*aa*, -*oo*, -*taa*, -*naa*;

-*naa* probably originally being applied for intransitive verbs as in Sora. Some aspect and tense differences can be designated through periphrastic constructions, as, for instance, a *progressive present* by verb plus -*u* or -*nu* with *loru*, *luru* 'is', e.g. *miij don-u le-luru* 'I am taking' (*le-* pronominal prefix, 1st person sg., see 3.3.3.8). A *progressive preterite* is formed by composition with *leku* 'to stay', e.g. *miij le-dorai leku* 'I was bringing'; a *perfect II* (differing from the above!) with *quku*, *qukai* 'to be', etc. The particle of negation (*ar-*, *r-*) is prefixed as in Sora (cf. 3.4.1).

**3.2.11** Even sparser is the known material concerning *Gutob*. It is limited to what is offered in L. 06; 229 ff., and particularly 231 ff. The affixes are as follows:

- |                                |  |
|--------------------------------|--|
| A) Infictive (present-future): | 1) - <i>too</i> , - <i>tu</i> , - <i>tun</i>                                       |
|                                | 2) ? - <i>eed</i> , - <i>ii</i> (unclear, compared by Konow with Sa. - <i>ed</i> ) |
|                                | 3) ? - <i>niij</i> (probably incorrectly analyzed)                                 |
| B) Perfective (preterite):     | 4) - <i>u</i> , - <i>o</i>   |
|                                | 5) - <i>ii</i> (most likely from * <i>qi</i> , cf. Pa.)                            |
| C) Imperative:                 | 6) - <i>neen</i> (e.g. <i>tool-neen</i> 'bind')                                    |
|                                | 7) - <i>bee</i> (- <i>be</i> )   |

In addition, -*be(e)* may be attached to the infictive in order to designate the *future* and the *subjunctive*, e.g. *bug-tu-bee* 'I shall strike'. Periphrastic

<sup>13</sup> For the difference *te* : *tu* and *re* : *ru* see 3.2.12.9.

constructions are made with *qu-tu*, most likely from or instead of *\*dug-tu* 'being, is', and with *dug-u* 'been, was'; thus, for instance, *uu-i qu-tu* 'he is coming' (progressive present), *nin bug qu-tu* 'I am beating' (progr. present), *nin bug-bug dug-u* 'I was beating' (progressive of the preterite). Gutob, similar to Sora and Pareng, expresses negation by *aar* or *uraa*.

**3.2.12** The material given in the preceding paragraphs permits reconstruction of the old common-Munda or Proto-Munda system. It seems advisable to trace the individual languages directly to Proto-Munda and not first to the intermediate stages which preceded the individual languages, such as Proto-Kherwari, etc., since the latter already frequently reflect many changes and could probably not be correctly reconstructed without drawing on less closely related languages. This is especially true of the parent language of the Southern group, where the various aspects, which have now converged to two, could not be differentiated on the basis of the individual languages of this group. Neither can the relationships in Proto-Kharia-Juang be elucidated by simple comparison of the two languages; the actual interrelationships can be found only by a comparative treatment of all the Munda languages. The knowledge of reconstructed Proto-Munda and of the individual languages will thus facilitate the reconstruction of the intermediate stages which preceded the individual languages, cf. 1.2.

**3.2.12.1** First we shall deal with the aspects or modes of actions. Comparison of all the material shows clearly that a division into six aspects is applicable to nearly all the languages, and hence is to be considered old. That the Southern group (Sora, etc.) knows only two aspects is not significant since even there vestiges of all six types can be shown. The denotative burden of the six aspects was in all probability the same as or similar to that existing in Kherwari and Kharia-Juang even today:

- |   |                                   |
|---|-----------------------------------|
| A) Inflective                               | B) Perfective                     |
| 1. Indeterminative: Habitual                | 4. Indeterminative: Aorist        |
| 2. Determinative: Progressive<br>(Specific) | 5. Determinative: Resultative     |
| 3. Determinative: Durative                  | 6. Determinative: Non-resultative |

This scheme cannot, of course, account for nuances and minor variations. Affixes for these six aspects may be reconstructed without difficulty, especially for the perfective, which will therefore be discussed first.

**3.2.12.1.1** Kherwari, Kurku, and Kharia<sup>14</sup> yield *\*ki* for the aorist,

<sup>14</sup> Here in the meaning 'past definite'.

which is paralleled by Pareng and Gutob *i* (ii), which may be traced to *\*qi* (*\*qii*).<sup>15</sup> A shift *\*k/q* is easily possible, as is one from *i* to *e*<sup>16</sup> which may be explained either as assimilation by the base vowel or as the result of the influence of the following *e* in *-ed* or *-en* (*\*-ki-ed* becomes *\*-ke-ed*, etc.). Juang *-kε* (with assimilated *ε/e* vowel) having progressive or 'specific' meaning thus proves a secondary deviation which will be explained later (3.2.12.10).

3.2.12.1.2 For the non-resultative perfective Kherwari and Kurku yield *\*le* or *\*li*, which cannot be separated from Sora *le* and Pareng *re*. Kharia lacks *le*, while Juang has *rε* (with shift to *dε* after consonant), again with progressive or specific significance which must be of secondary origin. It seems likely that the original vowel in this affix was *e*, not *i*, which appears only in Kurku and which was probably introduced by analogy with the affix *-ki*.

3.2.12.1.3 For the resultative perfective, Kherwari offers *aka* (in the forms *-akad/-akan*). Kharia and Juang have forms with *siʔ-te*, *siʔ-ta*, or *seʔε*, *seʔε* respectively, stemming from an original *\*cegiq* to which affixes such as *-te*, *-ta*, and *-dε*, *-kε* could be attached. That we are dealing here with a secondary compositional structure in Kharia and Juang follows not only from this peculiarity, but also from comparison with Sa. *si'd* 'to finish, run out', e.g. in *jəm-si'd-ked-a-ko* 'they ate up all' (lit. 'eat-finish-ed-they'), already cited by Konow (L. 06; 195). The old compositional member *siʔ*, *siʔd*, etc. is used also for the non-resultative perfective and the aorist. For comparison with *aka* there remains only Kh. *-oʔ*, Ju. *-ɔ* (*-ɔɔ*), which however designates the past definite; nevertheless the juxtaposition of *-oʔ* (transitive) and *-ki* (intransitive) proves that *one* affix must have undergone a semantic change: Since the suffixes *-oʔ* and *-ki* are phonemically completely different, it is impossible to assume that they once served to denote the same aspect. The morpheme *-ki* demonstrably retains its old place (as Kherwari proves),<sup>17</sup> so that it must have been *-oʔ* that experienced the semantic shift: it may easily be placed alongside Kherwari *-aka*. The situation in Juang fits in with this. Here *-ɔ* (*-ɔɔ*), corresponding to Kh. *-oʔ*, contrasts with *-an* in the intransitive, which parallels *-akan* in Kherwari. The bisyllabic affixes *-aka* and, in the intransitive, *-akan* have been shortened in Kharia and in Juang; in one instance through loss of the terminal *-a*, in the other

<sup>15</sup> No effort is made here to differentiate the vowel quantities for the deduced forms of Proto-Munda.

<sup>16</sup> Kharia has *ki*, Kherwari *ke*.

<sup>17</sup> The past definite meaning developed from an old aorist.

through omission of the superfluous first syllable, since the mode of action was best designated by *-an*. Both Kh. and Ju. have an *o*-vowel and it is therefore probable that the old ending was *\*-oka*, which, by assimilation, became *-aka* in Kherwari. In Kh. *\*-oka* first became *\*-ok*, then *\*-og* and *-oɽ*, in Ju. *-ɔɔ* and *-ɔ*. This *-oɽ*, *-ɔ* clearly corresponds to Gutob *-u*, *-o* and Pareng *-u*, i.e. vestiges of the resultative perfective. As for the morpheme *-va* in Kurku cf. 3.2.6, No. 6; 3.2.12.12.

3.2.12.1.4 The situation is somewhat more complicated concerning the infective, because here Kherwari has not preserved the old situation as faithfully as it has in the perfective. The progressive or specific infective originally had the ending *\*-ta*: this follows from Kharia and Mundari as well as, secondarily, from Kurku and Sora. *\*-te* instead of *\*-ta* results from the assimilation of the *a* with the following *-e* in *\*-ed*, *\*-en*: *\*-ta-en* becomes *\*te-en*, *ten*, cf. 3.2.12.1.1. In Kherwari the relationships are disturbed, since *tan*, Sa. *kan*, assumes a different position within the system. For particulars see 3.2.12.11 ff. Pareng *-te*, *-t*, *-tu*, and Gutob *-too*, *-tu*, *-tun* belong in this category.

3.2.12.1.5 The durative has in Mundari *-jad*, older *-iad*. These forms indicate an old affix *\*-ia* which became *-e* in Santali and which, with the addition of *kan*, is also used for the progressive ('specific') infective. That *-ian* in the intransitive, Sa. *-en*, underwent a secondary shift is confirmed not only by the individual languages Sa. and Mu., but also by Asuri, which has preserved *-ian* as the affix for the durative. In Sora and Pareng *-aa*, the ending of the imperative, is probably a reflex of the old *-ia*, which thus also experienced a shift in meaning.

3.2.12.1.6 Finally, for the indeterminative infective (habitual), we have the ending *-e* from Kharia, *-ε* (*-e*) from Juang, which correspond to the *-e* of the neutral aspect in Sora and to the ending of the infective *-ii*, *-eeɟ* in Gutob. The affix *-e* is also documented as ending of the indeterminative infective in Kurku, where it chiefly appears, however, as an aorist affix which has developed out of *-ia*, having passed through the same change to the aorist as Mu. *-ian*. In Kherwari *-e* has almost uniformly disappeared ("substitution by Ø"). Traces of the old *-e* are found in Mundari, for instance in the so-called 'euphonic' *-e* of the indeterminative, e.g. *kuɽ-e-a-iŋ* 'I shall cough' in place of *kuɽ-a-iŋ*, and *dub-e-a-le* 'we shall sit down' in place of *dub-a-le* (H. 03; 134; N. 04; 46; see also 45). Further, *-e* appears in the reflexive *-en*, which may be suspected of being a composite of *-e* and *-n*, because it occurs only in the indeterminative infective and the tenses derived therefrom, though it also shows up in connection with *-jan* (cf. 3.1.7 and H. 03; 155). This *-e* is also to be

considered the source of the *j* in *joŋ* in Santali (cf. 3.1.5). On the other hand it is possible, but not likely, that Sa. *-e* (affix of the durative) did not derive from *-ia*, but reflects an old *-e* of the indeterminative inflective with secondary semantic shift; these are, perhaps, contaminated forms. – Additional aspects, such as those found in Kherwari and Kharia, are certainly secondary and do not go back to Proto-Munda.

3.2.12.2 Maspero correctly observed (M. 48; 181) that it is impossible to demonstrate the formation of tenses for Proto-Munda, insofar as they are not closely bound up with the aspects. Where tenses exist they are secondary and are formed with particles such as So. *nam* 'now' or with the aid of aspect affixes, which have begun to function as independent words, e.g. Mu. *tan*, Sa. *kan*. That this must, as Maspero assumed (M. 48; 181), be attributed to the influence of Dravidian or Indo-Aryan languages is not certain.

3.2.12.3 An extremely important distinction, which must date back to very early times, is made between actions or events devolving on or directed toward an object (transitive, also "active"), and actions or events not doing so (intransitive, also called "medium" or "neuter"). The intransitive is and was designated by the ending *-(e)n*, added as a rule to the affix of the aspect. This formation occurs not only in Kherwari, Kurku, and Sora, but also in Juang (with the morphemes *-na* and *-an*, and with *-seran*), in Kharia (affix *-na*) and in Gutob (*-tun*, *-neen*, the latter from *\*-le-n*). Only Pareng seems to lack this *-(e)n*, perhaps having a substitute in the contrast *-e/-u* (in *-te/-tu*; *-re/-ru*), whereby the *-u* probably reflects the old passive suffix *\*-ug*. The transitive marker *\*-(e)d* is restricted to Kherwari and Kurku. In Kurku *\*-ed* became *-èp*, *-è*, and *-èn*. Since alternation of the vowels in the secondary affixes can best be explained as the result of partial assimilation with the *-e-* of the affix *\*-ed* (cf. supra 3.2.12.1.1, 3.2.12.1.4), and since the Central and Southern groups possibly have some forms preserving vestiges of *-d*, it appears likely that *\*-ed* was used optionally in Proto-Munda to designate the transitive. A further suffix, *\*-ug*, which is known from Kherwari, Kurku, and probably Pareng, and may have vestigially survived in Juang, probably was originally an old suffix for the passive. Details about this and about the reflexive suffixes *-qom*, etc. will be found in 3.1.3 to 3.1.10.

3.2.12.4 Differentiation of moods (indicative, optative, etc.) cannot be demonstrated for Proto-Munda. The imperative, which is nowhere lacking in the modern languages, is as a rule formally expressed by the inflective indeterminative aspect or (in Sora, Pareng) by the old

durative, which has there lost its original meaning; now and then the imperative is indicated by the lack of any affix. The imperative may also be marked by a partially different form or position of the personal pronoun, or secondarily – not in Proto-Munda – by special particles or other words, such as for instance Kh. *guḍu?*, etc. Proto-Kherwari-Kurku compensated for this deficiency in differentiation in mood by creating a new series of conjugations (cf. 3.2.12.11).

3.2.12.5 Designation of the direction in which an action proceeds as well as a special designation of the indirect object pronoun or of the possessive (as in Santali) is limited to a few individual languages and can therefore probably not be ascribed to Proto-Munda.

3.2.12.6 The use of these suffixes in Proto-Munda is summarized in the following table:<sup>18</sup>

<i>Aspect</i>	<i>affix</i>	<i>transitive</i>	<i>intran- sitive</i>	<i>passive</i>
A) Inflective				
1. Indeterminative-Habitual	<i>e</i>	plus	plus	plus
2. Determinative-Progressive	<i>ta</i>	Ø (zero)	- <i>en</i>	- <i>ug</i>
3. Determinative-Durative	<i>ia</i>	or - <i>ed</i>		
B) Perfective				
4. Indeterminative-Aorist	<i>ki (qi)</i>			
5. Determinative-Resultative	<i>oka</i>			
6. Determinative-Non-resultative	<i>le</i>			

The imperative was marked by *-e*, *-ia*, or Ø (zero); followed in the intransitive by *-en*, in the passive by *-ug*.

Contractions of contiguous vowels probably occurred from a very early date, producing forms which were optionally used:

<i>Aspect</i>	<i>transitive I</i>	<i>transitive II</i>	<i>intransitive</i>	<i>passive</i>
Habitual	<i>e</i>	<i>ed</i>	<i>en</i>	<i>eog, og, ug</i>
Progressive	<i>ta</i>	<i>tad, ted</i>	<i>tan, ten</i>	<i>tog, tug</i>
Durative	<i>ia</i>	<i>iad, ied</i>	<i>ian, ien</i>	<i>iog, iug</i>
Aorist	{ <i>ki</i> <i>(qi)</i>	<i>kid, ked</i> <i>(qid, qed)</i>	<i>kin, ken</i> <i>(qin, qen)</i>	<i>kog, kug</i> <i>(qog, qug)</i>
Resultative	<i>oka</i>	<i>okad, oked</i>	<i>okan, oken</i>	<i>okog, okug</i>
Non-resultative	<i>le</i>	<i>led</i>	<i>len</i>	<i>log, lug</i>

<sup>18</sup> The asterisk (\*) to mark inferred forms has been omitted here and in the following passages as long as the context makes it clear that inferred forms are under discussion. Documented forms can, of course, be adduced only from the contemporary individual Munda languages.

When *-e-* followed, either the first or the second vowel could predominate; when *-u-* followed, either *u* or *o* from *a + u* and *e + u*. The morphemes *ki + ug* should have produced *\*kug*; the form *\*kog* is to be explained as an analogy to *\*tog*, etc. The *-e-* in *\*eog*, alongside *\*og*, became non-syllabic and practically identical with *\*iog*. There is no evidence for the existence of the affixes *\*okog*, *\*okug*; they may have become confused with *\*kog*, *\*kug* at an early date. *\*log*, *\*lug* is present in Pareng *-ru*. The forms of the passive were in all likelihood relatively rarely used.

3.2.12.7 The development of the Proto-Munda forms schematically summarized above in the proto-stages of the various groups of individual languages and finally in the individual languages can be reconstructed as in the following paragraphs. From practical considerations we begin with the Central and Southern groups, which evidently initially underwent a common development. This stage is to be designated Proto-Kharia-Sora or Proto-Southern Munda.

3.2.12.8 The changes found in Proto-Kharia-Sora are the following: *-ia* lost its *i* and became *a*; *-oka* became *-og*; *-d* (of transitive II) was lost (with the possible exception of a few vestiges); *-en* and *-an* (from *-ian*) were transformed into *-ne* and *-na*, respectively. *-okan* became *-an*. *-oked*, *-oken*, and some forms of the passive were lost.

3.2.12.9 In Proto-Sora-Gutob (or Proto-Southeastern Munda) *-ta*, *-tan*, *-ki*, *-kin*, *-ke*, and *-ken* were lost; *-qi*, *-qin* became *-i*, *-in*. The *-g* of *-og*, *-ug*, *-tug*, *-lug* was eliminated, possibly by way of *-ʔ*. New affixes *-ai* (*-aai*) appeared to indicate direction toward the speaker. – In Sora the aspects converged to two (inflective and perfective, designated by *-te(n)*, *-le(n)*); furthermore, only a neutral form remained, designated by *-e* or *-ne*, respectively. The series *-a*, *-na* (originally durative) was used for the imperative. The series *-i(n)*, *-o*, *-an* and the forms of the passive vanished. – In Pareng, the distinction transitive/intransitive was probably lost (with the exception of *-a*, *-na*; here, too, with an imperative meaning), but this may have been compensated for by the old endings for the passive in the case of *-te/-tu*; *-re/-ru*. There was convergence of aspects as in Sora, but the morphemes *-i*, *-u*, and *-re* from *-le* were preserved. – Similar changes in Gutob: Here the affix of the indeterminative inflective *-e* was retained in the form *-eed* (*-d* unclear, possibly equivalent to Kherwari *-d*), and *-i*; also preservation of the affixes *-i*, *-o* as *-ii*, *-u*, *-o*, and of the affix *-len* as *-neen* (in Gutob the affix of the imperative). In table form (see p. 146):



Aspect	Proto-Munda	Proto-Kharia-Sora	Proto-Soro-Gutob	Sora	Pareng	Gutob
Habit.	e	e ne {og, ug ta, tan, tug te ten	e ne ?	e ne neutral	—	ii, eed
Progr.	ta	{ta, tan, tug te ten	te ten tu	te ten infect	te tu	— tu(n) too
Durat.	ia	a na ?	a na ?	aa naa imperative	aa naa	—
Aorist	ki (qi) ug	{ki, kin, ? ke, ken, qi qin	i in ?	—	i	ii
Result.	oka	og an —	o an —	—	u	o, u
Non-resultat.	le	le len lug	le len lu	le len perfect	re ru	— neen imperative
Newly added:			ai 'hither'	aa 'hither' doog (prohibitive)	ai 'hither'	?

3.2.12.10 In Proto-Kharia-Juang (Proto-Central Munda) habitual and durative formally coincided and these forms also served as imperatives. *-e* and *-na* became the habitual affixes for this; thus one affix has survived from each group. *-ta(n)* and *-qi(n)* were lost. The most important phonetic change found in the Central group was the peculiar shift of the phoneme group */en/* to */e/*, i.e. the dropping of *-n* after *-e-* (but not after *-a-*). *Why* this happened is unexplained and remains remarkable; that it *did* happen, however, cannot very well be denied in view of the facts of the situation. By the loss of *-n* the differentiation between transitive and intransitive forms was neutralized in three aspects, and this became the cause of later, far-reaching changes. First a new independent base was introduced into the conjugation system: *\*cegid* 'to complete', altered also to *\*cigid*, *\*cigd*, *\*cig*, *\*cid*, *\*ced* (and *\*sigd* etc.),<sup>19</sup> which is related to Sa. *si'd* 'to finish', and which served to indicate the perfective aspects. The two languages Kharia and Juang now went separate ways. To mark the difference between transitive and intransitive verb forms of the progressive or specific aspect Kharia made shift by analogous introduction of an *-a* into the affix *-te*, so that, according to the analogy of *-e* and *-na*, now *-te* was paralleled by *-ta*. Thus, the *-ta* of Kharia does probably not go directly back to the *-ta* from which Mu. *tan* stems. By the introduction of *\*cegid* (*\*cigd*, *\*cig*) into the conjugational system, the suffixes *-ki/-ki* (from *-ki/-kin*), *-og/-an*, *-le/-le* (from *-le/-len*) lost their old functions and assumed new ones.

The *-ki/-ki* and *-og/-an* categories merged in a single class which was marked by *-og/-ki*, whereby it again became possible to distinguish between transitive and intransitive verbs. The suffixes *-og/-ki* now indicated an inflective (or neutral) definite past. To mark the various perfective aspects more exactly, the remaining suffixes (with the exception of *-le*) were added to the morpheme *\*cigd/cig*, Kh. *-siṽd-*, *-siṽ* : *-e/-na* (perfect habitual), *-te/-ta* (perfect resultative), *-oṽ* (from *\*-og*)/*-ki* (perfect non-resultative). The perfect habitual aspect (future II) is new both in respect to its formation and to the sense that it conveys. Kharia also possesses special new continuative forms created by adding *-ʽjḍ* (before pronominal suffixes with an initial vowel) or *-ʽj* (in all other cases) to the suffixes *-te* and *-ta*, both in the inflective and in the perfect. *-ʽj(d)* is perhaps identical with the verb *aʽj(d)* 'to be', *aʽjḍiṽ* 'I am', *aʽjḍem* 'thou art', *aʽj* 'he is'. As continuative forms of the past definite and the pluperfect, the infinitive (ending in *-na*) plus *laṽ* (older *\*lag*) plus *oṽ* (older *\*og*)/*ki* was used, whereby *siṽ* was infix after *laṽ* in the pluperfect. These forms

<sup>19</sup> Cf. Kh. *-siṽd-iṽ*, *-siṽd-em*, *-siṽ*; Ju. *-ser-ṽ*, *-ser-an* from *\*-ced-ṽ*, *\*-ced-an*.

developed into the modern Kharia forms which are given in the table. *-le* is no longer used in Kh. It is not likely that the old affix *-le* reappears in the *laP* which occurs in *-na-laP-ki*, *na-laP-siP-ki* and is used to mark the past continuative, since vowel and final sound do not fit the pattern. Furthermore *laP* – unlike secondary affixes – always occurs after the infinitive ending *-na*. It seems then that *laP* has other antecedents (cf. Sora *lan*, 3.2.9). In contrast to Kharia, Juang dropped the *-te* of the progressive or specific aspect completely and introduced the two “free” affixes *-ke* and *-le* (which had lost their effective function) to designate the progressive aspect (transitive and intransitive, respectively). It is conceivable that Juang *-dε/-rε* does not derive directly from *-le* but results from a contamination with *-te*; contamination of *-te* and *-le* could well have produced *-dε* or *-rε* (after vowels). Since the endings *-og/-an*, which had originally designated the perfect resultative, had become superfluous for this purpose on account of the introduction of the morpheme *ciq*, etc. for the perfect, they were free to be used for the aorist and later on also for the definite past, whose ending *-ki* (*-ke*) failed to differentiate between intransitive and transitive verbs. The endings *-kε/-dε*, *-rε*, as well as *-o* (from *\*-og*)/*-an* were in turn appended to *-ciq* or *-siq* to designate the perfect resultative and perfect non-resultative, respectively; cf. Kharia. *-siq-kε*, *-siq-dε*, *-siq-o* and *-siq-an* then appeared, in accordance with the phonetic laws of Juang, as *-seke*, *-sedε* (*-siri*), *-sero* and *-seran*. A new imperfect (continuative) *-noman* was introduced in Juang. The old passive forms in *-ug*, etc. disappeared entirely in Kh. and were retained only in a few vestiges in Ju. The table on page 149 traces this development.

3.2.12.11 The most important feature to be noted in the transition from Proto-Munda to Proto-Kherwari-Kurku (Proto-Northern Munda) is the following: a deficiency which arose due to the absence of differentiating mood forms was corrected by the institution of two clearly distinguished series. The first series was formed by the transitive II (with morpheme */ed/*) and the forms of the intransitive (with morpheme */en/*). In the second series the forms of the transitive I (without */ed/*) and the forms of the old passive (with morpheme */ug/*) were used. This innovation produced a juxtaposition of forms designating actual occurrence (*indicative*) = series I, and of forms designating non-actual or possible occurrence (*subjunctive*, sometimes also called *potential*) = series II. The two categories may also be called *factual* (*factive*) and *non-factual* (*non-factive*) or *reservative*, respectively. This distinction permitted the expression of various kinds of imperative, as well as optative, intentional and conditional meaning. It is important to note that the intransitive

Aspect	Proto-Munda	Proto-Kharia-Sora	Proto-Kharia-Juang	Kharia	Juang
Habit.	$e \left\{ \begin{array}{l} + \\ \emptyset, \\ ed, \\ en, \\ ug \end{array} \right.$	$e \left\{ \begin{array}{l} ne \\ \{ta, tan, \\ te ten \\ a na\} \end{array} \right. \left\{ \begin{array}{l} og, \\ ug \\ tug \end{array} \right.$	$e \left\{ \begin{array}{l} na \\ te \\ e \\ na \end{array} \right.$	$e \left\{ \begin{array}{l} na \\ ta \\ na \\ ki \end{array} \right.$	$\varepsilon \left\{ \begin{array}{l} na \\ d\varepsilon/\varepsilon \\ na \\ an \end{array} \right.$
Progr.					
Durat.					
Aorist	$ki \left\{ \begin{array}{l} (qi) \\ oka \end{array} \right.$	$\left\{ \begin{array}{l} ki, kin, ? \\ ke, ken, \\ qi qin \end{array} \right. \left\{ \begin{array}{l} ki, ki, \\ ke ke \\ og an \end{array} \right.$	$ki, ki, \\ ke ke \\ og an$	$siP \left\{ \begin{array}{l} siP \\ siPta \\ siPki \end{array} \right.$	$\varepsilon \left\{ \begin{array}{l} an \\ seke \\ s\varepsilon\varepsilon \\ siri \\ s\varepsilon\varepsilon \\ s\varepsilon\varepsilon \end{array} \right.$
Result.					
Non-resultat.					
Newly added:			$cegid$ 'to complete', imperative = habitual	$\left\{ \begin{array}{l} sige \\ te'j \\ siPte'j \\ na-la- \\ khoP \\ na-laP- \\ sikhoP \end{array} \right. \left\{ \begin{array}{l} siPna \\ ta'j \\ siPta'j \\ na-laP- \\ ki \\ na-laP- \\ siPki \end{array} \right.$ (future II) (contin., infect) (continuative, perfect) (imperfect) (pluperfect) imperative, optative	$noman$ <i>noman</i> (continuative, 'imperfect') for allo- morphs see 3.2.8

and passive formally came to coincide as a result of these semantic changes. There gradually arose a tendency which led to considerable changes in Kurku and Kherwari. The indicative (factive) came to be used only for events which had already taken place, while events which had not yet occurred or which were incomplete or in the process of happening came to be regarded as only possible and were depicted with the subjunctive (non-factive). It was possible to conceive of actions which had already happened and were completed either as real or as possible (i.e. imagined). The inflective indicative aspects thus faced the prospect either of dying out or of assuming a perfect meaning. Both these possibilities are exhibited in Kurku and Kherwari. Other changes in Proto-Kherwari-Kurku were: loss of the forms with *q-* (*-qid*, *-qin*, etc.); loss of the forms *-okog*, *-okug*, *-log*, and *-lug*; and the loss, to a large extent, of the morpheme *-e* for the habitual. It is uncertain whether the *-e* which still occasionally occurs is semantically significant; however this seems rather unlikely. The disappearance of *-ed* (from *-e-ed*), suffix for the habitual, transitive, probably also dates from this period.

3.2.12.12 The following developments marked the transition of Proto-Kherwari-Kurku to Proto-Kurku and finally to Kurku: 1. The *-e-* forms (i.e., *-t(h)ed*, *-ied*, *-ien*, etc.) predominate, while *-tad*, *-iad*, etc. do not occur. According to L. 06, however, *-ian* is occasionally found instead of *-ien*. 2. *-oked*, *-oken* become *-oed*, *-oen* (= *-wed*, *-wen*). 3. *-le* becomes *li* by the analogy *-ked* : *-ki* = *-led* : *X*. 4. In the old passive the *-u-* forms (i.e., *-ug*, *-iug*) win out and *-tug* disappears. Later, final *-d* becomes *-ɖ* over the intervening stages *-ʼd* and *-ɖd*. This final *-ɖ* disappears before consonants. Similarly, final *-g* becomes *-ʼg* and finally *-ɖ*, which likewise is lost before consonants. Prevocalic *-ʼd* becomes *-ʼd<sup>n</sup>* and finally *-n*. When glottalized consonants (*ʼd*, *ʼd<sup>n</sup>*) or glottal stop (*ɖ*) follow, *t* and *k* become *th* and *kh*. These aspirated consonants *th* and *kh* are retained even when *ʼd*, *ʼd<sup>n</sup>* and *ɖ* disappear. The *th* (instead of *t*) in *tha* must have originated by analogy with *theɖ*. The semantic change is significant: all the indicative forms were understood as forms of the past, and the old aspects were in part given new meanings (cf. 3.2.6). The subjunctive forms received a present-future meaning. A new indicative was formed for them with the particle *-bà* (cf. Gutob *-bee*, Juang *-ua* in *-ε-rɔ-ua*). Special preterite forms to indicate the 'imperfect' were formed with the particle *-dàn*. Similarly, a probabilitive was formed with the morpheme *ki*, which corresponds to the *-k-* of the Mundari optative. Finally, *-a-*, which is common as an indicator for the indirect object in Kherwari, is occasionally incorporated into the verb in Kurku. – It is unlikely that *-ki* (probabilitive) was used

	Proto-Munda	Proto-Kherwari-Kurku		Proto-Kurku		Kurku	
Aspect		indicative (factive)	Subjunctive (non-factive)	factive	non-factive	factive	non-factive
Habit.	$e$	$\left\{ \begin{array}{l} - \\ (ed) \end{array} \right.$	$\left\{ \begin{array}{l} e, \\ \emptyset \end{array} \right.$	$eog, ug$	—	—	$uP$
Progr.	$\left. \begin{array}{l} ta \\ ta \end{array} \right\} +$	$\left. \begin{array}{l} tan, ten \\ ian, ien \end{array} \right\}$	$\left. \begin{array}{l} ta \\ ta \end{array} \right\}$	$\left. \begin{array}{l} tog, tug \\ iog, iug \end{array} \right\}$	$\left. \begin{array}{l} ted \\ ted \end{array} \right\}$	$\left. \begin{array}{l} theP \\ yeP \end{array} \right\}$	—
Durat.	$ed,$						$yuP$
Aorist	$\left\{ \begin{array}{l} ki, \\ qi \end{array} \right\}$	$kin, ken$	$ki$	$kog, kug$	$ked$	$khèP$	$khùP$
Result.	$oka$	$okan,$ $oken$	$oka$	—	$oed$	$veP$	—
Non-result.	$le$	$len$	$le$	—	$led$	$lèP$	—
Newly added:			present-future: imperfect: probabilitative: indirect object:	$ba$ $dan$ $ki$ $a$		$bà$ $dàn$ $ki$ ( $a$ only in vestiges)	

Note: Ku.  $P$  becomes  $\emptyset$  before consonants and, in the factive,  $n$  before vowels. — According to L. 06,  $ka$  also occurs secondarily as a particle for the present.

as early as in the Proto-Kherwari-Kurku period, since its position following the aspect suffixes suggests that it is of secondary origin. The question must remain open whether *-a-* (indicator for the indirect object) was incorporated in the verb in the older period. The table on p. 151 indicates the course of development.

3.2.12.13 The following changes occur in the development of Proto-Kherwari-Kurku to Proto-Kherwari: 1. In contrast to Kurku, the vowel *a* predominated over *e*, and the vowel *e* predominated over *i*. Thus the forms *tad*, *iad*, *ian*, *ked*, *ken*, etc. were preserved, while *ied*, *kid*, *oked*, etc. were lost. 2. *ki* became *ke* by the analogy *-led* : *-le* = *ked* : *X*. In Kurku, on the other hand, *-le* became *-li* by the reverse analogy. 3. *-oka* became *-aka*. 4. In the old passive, the forms with the vowel *o* predominated, although the old suffix *-ug* still occurs. 5. *-ia* and *-iog* (durative, subjunctive) were lost. 6. The missing forms *-okog*, *-log* were replaced (however probably not completely) by the indicative forms *-akan* and *-len*. 7. The most important development concerns the habitual and progressive (or 'specific') aspects, both inflective and indicative. In the course of time, both of them were considered to be subjunctive, since the corresponding actions, being considered future or general, were treated as conceptual, desired, or expected, or else just about to be performed. Therefore, *-ed*, *-en*, *-tad*, *-tan* vanished from the conjugation. This lack of forms for the indicative inflective (fiens) later on was largely compensated by the new introduction of *tan*, now used as a free morpheme indicating the present tense. To designate the imperfect or past tense, a periphrastic formation with *\*takenken* 'was, remained' came into use. This parallels the situation in Kurku, where *dân* was used. 8. *-en*, which like *-tan* was replaced in the overall conjugational scheme, was retained to indicate the reflexive. *-ed* and *-tad* were lost. However it is possible that *-tad* still appears in Asuri (cf. 3.2.5.3). 9. The functions of the various aspect affixes in the subjunctive were in part changed and in part became more rigidly determined. Thus (a) the habitual and the imperative, (b) the progressive and the intentional, (c) the aorist and the optative, (d) the resultative and the continuative, and (e) the non-resultative and the conditional were linked with each other. The continuing dearth of syntactical studies makes it impossible at this time to understand the principles which guided the distribution of the non-factual (subjunctive) forms, each of whose categories appears coupled with an old aspect. Cf. also the deviating situation in Kurku. 10. The forms ending in *-ta* and *-tog*, which marked the intentional (regarding its meaning cf. 3.2.4.3), were inflective. In order to gain perfective designa-

	Proto-Munda		Proto-Kherwari-Kurku		Proto-Kherwari		
Aspect			indicative (factive)	subjunctive (non-factive)	indicative (factive)	subjunctive (non-factive)	meaning of subjunctive
Habitual	<i>e</i>	<i>+</i>	<i>en</i>	<i>eog, ug</i>	—	<i>Ø, e</i>	{ indefinite, imperative intentional —
Progressive	<i>ta</i>	<i>Ø</i>	<i>tan, ten</i>	<i>og, tog, tug</i>	—	<i>ta</i>	
Durative	<i>ia</i>	<i>ed, en</i>	<i>ian, ien</i>	<i>iog, iug</i>	<i>iad</i>	—	
Aorist	<i>ki, qi</i>	<i>ug</i>	<i>kin, ken</i>	<i>kog, kug</i>	<i>ked</i>	<i>ke</i>	optative
Resultative	<i>oka</i>		<i>okan, oken</i>	—	<i>akad</i>	<i>aka</i>	continuative
Non-resultative	<i>le</i>		<i>len</i>	—	<i>led</i>	<i>le</i>	conditional (subjunctive)
Deviant or newly added: reflexive: present: past (imperfect):							
			<i>en</i>	—	<i>tan</i>	—	{ intentional of perfect —
			<i>tahenken</i>	—	<i>tahenken</i>	<i>taken, tad</i>	
			thus:		<i>og tan</i>	<i>ta tan</i>	intentional of present
					<i>Ø tan</i>	<i>og tan</i>	
					<i>tahenken</i>	<i>tahenken</i>	
? -a- indirect object:			-a-				



tions, too, the affixes *-ked* or *-ken* were added on to *-ta*, serving here only to mark the perfect and transitive, or intransitive, respectively. *-ta-ked* and *-ta-ken* later became *-tad* and *-tan*. Both of these forms correspond only superficially to *-ta* according to the pattern *ked – ke – ken – kog* (also *tad – ta – tan – tog*), since *ked* and *ken* are indicatives, while all *-ta* forms are subjunctive. *tan*, stemming from *\*ta-ken*, must not be confused with the morpheme *tan*, indicating the present, which goes back to an older *ta-n*. The present particle *tan* could also align itself with the forms of the intentional, *-ta* and *-tog* : *-ta tan*, *-tog tan*. It turned out that *tan* and *tahen-ken* could be employed not only with a single aspect, although they did occur most frequently with the habitual. Thus, the past perfect (pluperfect), for instance, was *-akad tahen-ken*, or *-akan tahen-ken*, respectively, etc. 11. *-a-* took on the designation of the object, which was now frequently incorporated into the verb, being actually a preposition, which, however, did not appear in all cases. The position of *-a-* varied; in the instance of *-ked* and *-ken* it preceded the aspect affix: *-a-ked*, *-a-ken*. *-a-* was perhaps used in this function in Proto-Kherwari-Kurku, cf. 3.2.12.13. – The scheme is given in the table on page 153:

3.2.12.14 It is not possible here to deal in detail with all the changes from Proto-Kherwari to the individual languages or dialects; they may be derived without difficulty from the material adduced for Santali and Mundari here (3.2.12.11, 3.2.12.13) and previously (3.2.3, 3.2.4). Only a few particularly important details will once more be briefly noted: final *-g* and *-d* became *-ʔ* and *-ʔd*, respectively, before *Ø* (zero) and consonant, as well as in accordance with other specific rules; in Sa. and Mu. *-aked* became *-ad*; *-aken* does not occur in Mu.; in Sa. it became *-an*, where *-a-en* also became *-an*. In conjunction with the directional *-a-* the morphemes *-akad* and *-akan* became *-akawad* and *-akawan* in Sa.; *-iad* and *-ian* became *-ed* and *-en* in Sa.; in Mu. they remained as they were or became *-jad* and *-jan*, secondarily also *-nad*, *-lad*. From *-eog*, Sa. formed *-joŋ* by secondary internal transformation. Missing forms of the non-factual category of the intransitive (*\*okog*, *\*log*) are replaced by *-akan* and *-len*, insofar as this has not already taken place in Proto-Kherwari. In Mu. *-ʔd* before *-i* became *-ʔ* in most instances, e.g. *-aʔd-i* > *-aʔi*, etc. The form *tahen-ken* became *taeken* (or *taiken*) in Mu., *tahēkan* in Sa. Of great importance, finally, is the shift from an old *t* to *k* in Santali in the morphemes Mu. *tan*, Sa. *kan*, Proto-Kherwari *\*tog* (not attested for Mu.), Sa. *-koʔ*. In both instances this resulted in a convergence with other forms, namely with *kan* from *\*ta-ken* and *koʔ* from *\*ke-og*. That the older sound is *t* and not *k* is clearly evident from the

Aspect	Proto-Kherwari				Santali		Mundari			
	indicative	subjunctive	meaning of subj.		indicative	subjunctive	indicative	subjunctive	meaning of subj.	
Habit.	—	$\emptyset, e$	{ indef., imper. intent. —	—	—	$\emptyset$	—	(e), $\emptyset$	{ indef., imper. intent. —	Secondary optative
Progr.	—	ia	—	—	—	ka	—	ta	—	with -k:
Durat.	iad	—	—	ed	—	—	iad, jad	—	—	ta k-
Aorist Result.	ked akad	ken akan	optat. contin.	{ ked, ad akad, akawad led, la <sup>20</sup>	{ en, ken an, kan akan, akawan len	ke aka(wa) le	ked, ad akad	ken akan aka(d)	optat. contin.	aka k-
Non-res.	led	len	condit.	—	—	—	led, la <sup>21</sup>	len	condit.	le k-
Reflex.	—	—	—	—	—	—	—	—	—	akan k-
—	—	—	intent. perf.	—	—	kad	—	tad	—	ko <sup>2</sup> k-
Present	tan	og tan	int. pres.	(ed) kan	o <sup>2</sup> kan	ka kan	$\emptyset$ tan	(o <sup>2</sup> ) tan	—	Note the interchange of len and ko <sup>2</sup> .
Past	= present + taken-ken				= present + tahēkan				= present + taeken (taiken)	
Indirect object	-a-				-a-				-a-	

<sup>20</sup> From \*le'd-a<sup>2</sup>.

<sup>21</sup> From \*le'd-a.

remaining languages, such as Kharia, Sora, Pareng, and Gutob. This remarkable transformation, which is probably limited to this one instance, must remain unexplained for the present. It is hardly imaginable that in this case, where we are dealing with an affix which would itself hardly be capable of incorporating another affix, to postulate an old consonant cluster, such as *\*kt* or *\*tk*. – For such not excessively rare shifts of meaning we refer to the data in 3.3.3 and 3.2.4. The changes may be put in table form as shown on p. 155.

### 3.3 *Quarternary affixes (pronominal affixes)*

**3.3.1** The *pronominal affixes* were formed partly from shortened and partly from normal personal pronouns which may also incorporate certain elements of a demonstrative character or with other meanings. These affixes are usually closely tied to the verb complex – they may not only be prefixed or suffixed, but now and then even occur as infixes – and must therefore be considered in any discussion of the verb. The discussion of personal pronouns will, however, extend no farther than their significance within the verb complex. Examples demonstrating their position and usage will here be largely dispensed with; appropriate references are given in the bibliography.

**3.3.2** For personal pronouns there are the following semantic discriminations: 1. *Person* (first, second, third, as well as exclusive and inclusive forms of the first person dual and plural); 2. *Number* (singular, dual, plural); 3. (rare) *class* (comparable with genus), differentiating between animate and inanimate. There are no reflexive or reciprocal pronouns unless one wishes to refer to *kol-* in Kharia, for instance, as a pronoun or pronominal prefix, respectively. Regarding their application in the verb complex, pronouns are categorized as follows: 1. *Subject pronoun* (point of origin of an action), wherein particular attention must be devoted to certain peculiarities of the imperative and, on occasion, of negation; 2. *Object pronoun*, including indirect and direct object as well as the object in impersonal verbal constructions; 3. *Possessive pronouns* (rare with verbs; only in Santali). According to form and position one distinguishes 1. *Non-attached pronouns* (free morphemes), 2. *Pronominal affixes* (bound morphemes), and among these a) suffixes, and b) prefixes, which are considerably rarer than suffixes; c) infixes (only in Juang). The incorporated object pronouns in Santali, Mundari, etc. are not properly infixes, but suffixes.

### 3.3.3 The situation in the individual languages is, briefly, as follows:<sup>22</sup>

#### 3.3.3.1 Santali

	<i>absolute</i>	<i>subjective</i>	<i>dir. object</i>	<i>indir. object</i>	<i>possessive</i>
Sg. 1.	<i>iŋ</i>	-( <i>i</i> ) <i>ŋ</i>	-( <i>i</i> ) <i>ŋ</i>	- <i>əŋ</i>	- <i>tiŋ</i> , (- <i>iŋ</i> )
2.	<i>am</i>	-( <i>e</i> ) <i>m</i> , - <i>me</i>	- <i>me</i>	- <i>am</i>	- <i>tam</i> , (- <i>m</i> )
3.a.	<i>a'j, uni</i>	- <i>e</i> , - <i>i</i>	- <i>e</i> , - <i>i</i>	- <i>ae</i>	- <i>tae</i> , (- <i>t</i> )
3.i.	<i>ona</i>	(- <i>e</i> )	(- <i>e</i> , - <i>i</i> )	- <i>aʔ</i>	—
Dl. 1. excl.	<i>əliŋ</i>	- <i>liŋ</i>	- <i>liŋ</i>	- <i>əliŋ</i>	- <i>təliŋ</i>
1. incl.	<i>alaŋ</i>	- <i>laŋ</i>	- <i>laŋ</i>	- <i>alaŋ</i>	- <i>talaŋ</i>
2.	<i>aben</i>	- <i>ben</i>	- <i>ben</i>	- <i>aben</i>	- <i>taben</i>
3.a	<i>əkin, unkin</i>	- <i>kin</i>	- <i>kin</i>	- <i>əkin</i>	- <i>təkin</i>
3.i.	<i>onakin</i>	—	—	—	—
Pl. 1. excl.	<i>ale(n)</i>	- <i>le</i>	- <i>le</i>	- <i>ale</i>	- <i>tale</i>
1. incl.	<i>abo(n)</i>	- <i>bo(n)</i>	- <i>bo(n)</i>	- <i>abo(n)</i>	- <i>tabo(n)</i>
2.	<i>ape(n)</i>	- <i>pe</i>	- <i>pe</i>	- <i>ape</i>	- <i>tape</i>
3.a.	<i>ako, onko</i>	- <i>ko</i>	- <i>ko</i>	- <i>ako</i>	- <i>tako</i>
3.i.	<i>onako</i>	—	—	—	—

Third person sg. a. *i'j* in *bənug-i'j-a* 'he is not', etc. – The absolute pronouns (whenever they occur) precede the verb complex; the subjective ones follow the verb complex or are enclitically appended to the word preceding the verb, especially in negation; the remaining forms are incorporated, usually after secondary or tertiary affixes, but before the particle of the present tense, *kan*. In the imperative the second person sg. has *me*, not *em*. In the possessive, *iŋ*, *m*, and *t* are not used with the verb.

#### 3.3.3.2 Mundari

	<i>absolute</i>	<i>subjective</i>	<i>dir. object</i>	<i>indir. object</i>	<i>possessive</i>
Sg. 1.	( <i>a</i> ) <i>iŋ</i>	- <i>iŋ</i>	- <i>iŋ</i>	- <i>aiŋ</i>	-( <i>ta</i> ) <i>iŋ</i>
2.	<i>am</i>	-( <i>a</i> ) <i>m</i> , - <i>me</i>	- <i>m</i> , - <i>me</i>	- <i>am</i>	-( <i>ta</i> ) <i>m</i> , - <i>me</i>
3.a.	<i>ae'j, aeʔ, iniʔ</i>	- <i>e</i> , - <i>i</i>	- <i>i</i>	- <i>ae</i>	- <i>te</i> , - <i>tae</i>
3.i.	<i>enaʔ, neaʔ</i>	—	- <i>e</i>	—	—
Dl. 1. excl.	<i>aliŋ</i>	- <i>liŋ</i>	- <i>liŋ</i>	- <i>aliŋ</i>	- <i>taliŋ</i>
1. incl.	<i>alaŋ</i>	- <i>laŋ</i>	- <i>laŋ</i>	- <i>alaŋ</i>	- <i>talaŋ</i>
2.	<i>aben</i>	- <i>ben</i>	- <i>ben</i>	- <i>aben</i>	- <i>taben</i>
3.a.	<i>akin, akiŋ</i>	- <i>kin</i> , - <i>kiŋ</i>	- <i>kin</i> , <i>kiŋ</i>	- <i>akin</i> , - <i>akiŋ</i>	- <i>takin</i> , - <i>takiŋ</i>
Pl. 1. excl.	<i>ale</i>	- <i>le</i>	- <i>le</i>	- <i>ale</i>	- <i>tale</i>
1. incl.	<i>abu</i>	- <i>bu</i>	- <i>bu</i>	- <i>abu</i>	- <i>tabu</i>
2.	<i>ape</i>	- <i>pe</i>	- <i>pe</i>	- <i>ape</i>	- <i>tape</i>
3.a.	<i>ako, aku</i>	- <i>ko</i>	- <i>ko</i>	- <i>ako</i>	- <i>tako</i> , - <i>tete-ko</i>
3.i.	<i>enko, enaʔ</i>	—	—	—	—

<sup>22</sup> Abbreviations: Sg. = singular, Dl. = dual, Pl. = plural, a. = animate, i. = inanimate, excl. = exclusive, incl. = inclusive, D. = direct, I. = indirect, Ps. = person.

The Hasada<sup>2</sup> dialect has *ae<sup>2</sup>*, *aki<sup>2</sup>*, *ki<sup>2</sup>*, the Naguri dialect *ae'<sup>j</sup>*, *aki<sup>n</sup>*, *ki<sup>n</sup>*. In phrases like *Urað-tan-i<sup>2</sup>* 'he is an Uraon', for instance, the third person sg. a. has *-i<sup>2</sup>* (limited usage, cf. H. 03; 15). For the third person sg. i., properly *a<sup>2</sup>* (H. 03; 12, 48), compare *oko-e* 'some one', *oko-a<sup>2</sup>* 'something'. *ena<sup>2</sup>*, *nea<sup>2</sup>* also probably occurs without the glottal stop (*-<sup>2</sup>*), i.e. as *ena*, *nea*. *-me* (subjective) is used, particularly in the imperative. The indirect object often has the same form as the direct object has: *ai<sup>n</sup>*, *i<sup>n</sup>*, *ali<sup>n</sup>*, *li<sup>n</sup>*, etc. Unlike Sa., possessives are *not* incorporated into the verb in Mu. The position of the pronouns is similar to that in Sa. (cf. 3.3.3.1). When the subject is inanimate, there is no affix for the third person, e.g. *baria o<sup>a2</sup> lo<sup>2</sup>-jan-a* 'two houses burned down'. *-a*, however, perhaps developed from *-a* (so-called categorical *a*) and *-a* (= *a<sup>2</sup>*, third person sg. i.). As object, *i* is animate, *e* is inanimate, e.g. *abu<sup>n</sup>-i-me* 'wash him', *abu<sup>n</sup>-e-me* 'wash it'. Reflexive pronouns are formed by affixation of *-ge*, e.g. *ai<sup>n</sup>-ge*, *am-ge*, etc.

3.3.3.3 The other Kherwari languages may be left out of consideration here; they offer no particularly remarkable divergences.

#### 3.3.3.4 Kurku

	abso- lute	affixed		abso- lute	affixed		abso- lute	affix- ed
Sg. 1.	<i>i<sup>n</sup></i>	<i>-i<sup>n</sup></i>	Dl. 1. excl.	<i>ali<sup>n</sup></i>	<i>-li<sup>n</sup></i>	Pl. 1. excl.	<i>ale</i>	<i>-le</i>
2.	<i>am</i>	<i>-mi</i> , <i>-mi<sup>n</sup></i>	1. incl.	<i>ala<sup>n</sup></i>	<i>-lom</i> ( <i>-la<sup>n</sup></i> )	1. incl.	<i>abu<sup>n</sup></i>	<i>-bu<sup>n</sup></i>
3.	<i>di'<sup>j</sup></i>	<i>-e'<sup>j</sup></i> (a.)	2.	<i>api<sup>n</sup></i>	<i>-pi<sup>n</sup></i>	2.	<i>ape</i>	<i>-pe</i>
			3.	<i>diki<sup>n</sup></i>	<i>ki<sup>n</sup></i> (a.)	3.	<i>diku</i>	<i>-ku</i> (a.)

L. 06 always gives *ŋ* instead of *n*; however Zide gives *n*. Zide has *lom*, L. 06 *la<sup>n</sup>*. Zide writes *li<sup>n</sup>* as *li<sup>m̃</sup>*. *-n-* from older *\*-<sup>2</sup>d<sup>n</sup>* precedes *-i<sup>n</sup>* and *-e'<sup>j</sup>* (affixed forms). According to L. 06 these forms are given as *ni<sup>n</sup>* and *ne'<sup>j</sup>*. *de'<sup>j</sup>*, which preserves the old tertiary suffix *-d*, also occurs instead of *ne'<sup>j</sup>*. According to Zide, there also exists an object suffix *-e*, which occurs only after verbal stems in the non-factive. This indicates that *-e* is probably actually the aspect suffix *-e* (cf. 3.2.6), which coalesced with an object suffix *-e*, cf. Sa., Mu. *-e*. – The affixed forms are used to indicate the direct and indirect object, and in Lahi-Kurku also occasionally to denote the subject, but only in the 1<sup>st</sup> pl. excl. and the 2<sup>nd</sup> pl. in the factive, e.g., *bid-khè-le* 'we sowed (grain)', 2<sup>nd</sup> pl. *bid-khè-pe* 'you sowed (grain)'. These forms also mean 'woke us' and 'woke you', respectively, since *bid* (= *bi<sup>2</sup>d*) means both 'to wake' and 'to sow'. Cf. also L. 06 *i<sup>n</sup> ti'<sup>j</sup>-ka-n-i<sup>n</sup>* 'I am'. – Inanimate objects are not indicated by an affix incorporated into the verb. (These data according to Zide.)

## 3.3.3.5 Kharia

	abso- lute	sub- ject.	pos- sessive		abso- lute	sub- ject.		abso- lute	sub- ject.
Sg. 1.	<i>ij</i> , <i>ijn</i>	<i>-ij</i> , <i>-ijn, -'j</i>	<i>-naij</i> , <i>-naijn</i> , <i>-ij, -ijn</i>	Dl. 1. excl.	<i>ijjar</i>	<i>-jar</i>	Pl. 1. excl.	<i>ele</i>	<i>-le</i>
2.	<i>am</i>	<i>-(e)m</i> , <i>-'b</i>	<i>-nom</i>	1. incl.	<i>anan</i>	<i>-nan</i>	1. incl.	<i>aniṇ</i> , <i>aniṇ</i>	<i>-niṇ</i> , <i>-niṇ</i>
3.	<i>aḍi</i> , <i>ukaṭ</i>	<i>-(Ø)</i>	<i>-ḍom</i>	2.	<i>ambar</i> ( <i>am-</i> ( <i>h</i> ) <i>ar</i> )	<i>-bar</i>	2.	<i>ampe</i>	<i>-pe</i>
				3.	<i>aṛkiar</i> , <i>ukiṭ</i>	<i>-kiar</i>	3.	<i>aṛki</i> , <i>uki</i>	<i>-ki</i> , <i>-moi</i> , <i>-mai</i> , ( <i>-me</i> )

Possessives are not used with verbs; objective pronouns are not incorporated in the verb. In the sg. the imperative has no personal-pronominal affix; *guḍuṇ* is a tertiary suffix. *-'j* and *-'b* occur only after *-oṇ* (secondary suffix); *-oṇ* plus *-n* (*-ṇ*) from *ijn* (*ij*) becomes *-o'j*; *-oṇ* plus *-m* becomes *-o'b*, e.g. *ter-o'j* 'I gave', *ter-o'b* 'thou gavest', *ter-oṇ* 'he gave', *ter-oṇ-jar* 'both of us (excl.) gave', etc. The third person has *-moi* (or *-mai*, *-me*; dialect differences) after the secondary affixes *-ki* (also *-siṇki*, *-na laṇki*, *-na laṇsiṇki*) and *-siṇ*, though otherwise we find *-ki* occurring, viz. after *-e*, *-na*, *-te*, *-ta*, *-oṇ* (also *-sikhoṇ*). The subject pronoun comes after the verb, in negation also before the verb, immediately after *um* 'not', e.g. *ij um ol-ij* = *ij um-ij ol-e* = *um-ij ol-e* 'I shall not bring'. *um-moi* becomes *umoi*. Reflexive pronouns are missing, e.g. *ij ij-te gil-t-ij* 'I am beating myself', lit. 'I me beating-am-I'. The prefix *kol-* indicates reciprocity, cf. 3.1.8. Impersonal verbal constructions have no personal-pronominal affixes since pronouns denoting objects are not incorporated, e.g. *ij-te urumḍaṇ laṇ-ta* 'I sweat', literally 'me (indir. object) sweat feels', *am-te kenhel laṇ-ta* 'thou art feeling heavy' (Ban. 94; 25 f.). Alongside *u-kaṭ*, etc. there are also *ho-kaṭ*, *han-kaṭ*, properly speaking demonstrative pronouns.

## 3.3.3.6 Juang (see table on p. 160)

Now and then *e* is used as an allophone in place of *ε*, e.g. *ape*, *ape*; *he-*, *he-*. *-ḍo-* occurs after consonants, *-ro-* after vowels. *aro* is separable into *a-* and *-ro*, wherein *-ro* is the so-called 'article' of Juang; the pronoun is really *a*, although only *-ḍo*, *-ro* are used in the possessive to express the third person. Exclusive and inclusive forms are no longer distinguished, but *ninba banɔ'g* 'we two' and *nin saabren* 'we all' can be used as inclusive forms. Pronouns expressing the subject are *prefixed*, in contradistinction

	<i>absolute</i>	<i>subjective</i>	<i>objective</i>	<i>possessive</i>
Sg. 1.	<i>aiŋ</i>	Ø	-iŋ, -ŋ	-iŋ, -ŋ
2.	<i>am</i>	<i>mε-, m-</i>	-ɔm, -m	-nɔm, -ɔm, -m
3.	<i>arɔ</i>	Ø, <i>mε-, -m-</i> , <i>r-, -r-</i>	—	-dɔ, -rɔ
Dl. 1. excl.	<i>nɪŋba</i>	<i>ba-, b-</i>	- <i>nɪŋba</i>	- <i>ɪŋba</i> , - <i>ŋba</i>
1. incl.	<i>nɪŋba</i> , <i>nɪŋba baŋɔ'g</i>	<i>ba-, b-</i>	- <i>nɪŋba</i>	- <i>ɪŋba</i> , - <i>ŋba</i>
2.	<i>apa</i>	<i>ha-, h-</i>	- <i>pa</i>	- <i>pa</i>
3.	<i>arɔ-kia</i>	Ø, <i>mε-, -m-. -kia</i>	—, (- <i>kia</i> )	- <i>dɔ-kia</i> , - <i>rɔ-kia</i>
Pl. 1. excl.	<i>nɪŋ</i>	<i>nε-, n-</i>	- <i>neniŋ</i> , - <i>niniŋ</i>	- <i>neniŋ</i> , - <i>niniŋ</i>
1. incl.	<i>nɪŋ</i> , <i>nɪŋ saabrɛn</i>	<i>nε-, n-</i>	- <i>neniŋ</i> , - <i>niniŋ</i>	- <i>neniŋ</i> , - <i>niniŋ</i>
2.	<i>apɛ</i>	<i>hε-, h-</i>	- <i>pɛ</i>	- <i>pɛ</i>
3.	<i>arɔki</i>	Ø, <i>mε-, -m-. -ki</i>	—, (- <i>ki</i> )	- <i>dɔ-ki</i> , - <i>rɔ-ki</i>

to Sa., Mu., Kh.; only *-kia* and *-ki* are suffixed, e.g. *aiŋ ʝɔ-kɛ* 'I see', *am mɛ-ʝɔ-kɛ* 'thou seest', *arɔ ʝɔ-kɛ* 'he sees', *nɪŋba ba-ʝɔ-kɛ* 'we both see', *apa ha-ʝɔ-kɛ* 'you both see', *arɔ-kia ʝɔ-kɛ-kia* 'they both see' (*ke* = *kɛ*), *nɪŋ nɛ-ʝɔ-kɛ* 'we see', *apɛ hɛ-ʝɔ-kɛ* 'you (pl.) see', *arɔ-ki ʝɔ-kɛ-ki* 'they see'. In complete contrast to the other Munda languages is the infixing of the pronominal affix of the third person *-m-*, where the vowel of the infix is the same as the root vowel, e.g. *aiŋ leber-ɛ* 'I sleep, I shall sleep', 2<sup>nd</sup> ps. sg. *am mɛ-leber-ɛ*, 3<sup>rd</sup> ps. sg. *arɔ le-mɛ-ber-ɛ* 'he will sleep', 3<sup>rd</sup> ps. dl. *arɔ-kia le-mɛ-ber-ɛ-kia*, 3<sup>rd</sup> ps.pl. *arɔ-ki le-mɛ-ber-ɛ-ki* 'they will sleep'; *aiŋ buŋu-na* 'I shall get up', *arɔ bu-mu-ŋu-na* 'he will get up', 3<sup>rd</sup> ps. pl. *arɔ-ki bu-mu-ŋu-na-ki* 'they will get up'. The rules according to which Ø, *mɛ-, m-* (the vowelless form before a vowel) or *-m-* or *r-, -r-* are employed, are as follows: In the *indeterminative inflective*, in verbal roots with an initial vowel, *m-* is used; in loan words from Oriya, etc., *mɛ-*; otherwise infixed *-m-* or more rarely *-r-*; in the dual and plural the same forms are used in connection with suffixed *-kia* and *-ki*, respectively, but dual and plural have no infixed *-r-*, using *-m-* instead, e.g. *arɔ tɔ-rɔ-m-ɛ* 'he will throw', dl. *arɔ-kia tɔ-mɔ-m-ɛ-kia*, pl. *arɔ-ki tɔ-mɔ-m-ɛ-ki*, verb root *tɔm*; cf. Kh. *thom* 'to smash'. In the other aspects prefixes and infixes are lacking in the third persons, only *-kia* and *-ki* are used here to designate the dual and plural, respectively. Prefixed *r-* (according to the available material) occurs only in negation, e.g. *arɔ ma-r-asi-an* 'he was not', pl. *arɔ-ki ma-r-asi-an-ki* 'they were not'. An interpretation *m-ar-asi-an* with prefix *m-* and *-ar-* as negative marker is not to be assumed because of the other forms *aiŋ am-asi-an* 'I was not', *am m-am-asi-an* 'thou wert not', *nɪŋba b-am-asi-an* 'we both were not'. The negative marker here is

*am/ma*, properly *ama*. Objective affixes are used but rarely, possessive affixes to the verb not at all, e.g. *arɔ aɪn-tɛ ɖi-mi-n-ɪn* 'he will give me' (lit. 'he me give/he-will-me'), *aɪn am-tɛ ɖɪn-ɔm* 'I shall give thee', verb root *ɖɪn*. There are no personal affixes in the imperative singular. Object suffixes are used with impersonal verbal constructions, e.g. *giaŋ-k-ɪn* 'I am ashamed', *tila'j-k-ɔm* 'thou art thirsty' (literally 'thirsts thee'). Reflexive pronouns are given by suffixation of *-ɖɛɾɔ*, e.g. *aɪn-ɖɛɾɔ*, *am-ɖɛɾɔ*, etc., reciprocal verb forms by prefixing *ko-*, *ku-*, cf. 3.1.8.

### 3.3.3.7 Sora

	<i>absolute</i>	<i>subjective</i>	<i>subj. imperative</i>	<i>objective</i>	<i>possessive</i>
Sg. 1.	<i>nɛn, ɪnɛn</i>	—	—	<i>-ɪn</i>	<i>-nɛn</i>
2.	<i>amən</i>	—	—	<i>-am</i>	<i>-nam</i>
3.	<i>anin</i>	—, <i>-eeteen</i>	<i>-eete</i>	—	<i>ə-..(-n)</i>
Dl. 1.	—	—	<i>ə-</i>	—	—
2., 3.	—	—	—	—	—
Pl. 1. excl.	<i>elleen, əllen</i>	<i>ə-</i>	<i>ə-..-b-</i>	<i>-len</i>	<i>-leen</i>
1. incl.	<i>elleen, əllen</i>	<i>-be</i>	<i>ə-..-b-</i>	<i>(-aai)</i>	<i>-leen</i>
2.	<i>əmbeen</i>	<i>ə-</i>	<i>..-b-; ə-</i>	<i>-ben</i>	<i>-been</i>
3.	<i>anin-ji</i>	<i>-ji</i>	<i>-eete-ji</i>	<i>-ji</i>	<i>{ə-..- [-(n)-ji]</i>

Some subject affixes are prefixed, some are suffixed. The prefix *ə-* is dropped after the negative affix *ad-*. In the imperative *-aa* etc. are secondary affixes, as may be seen in 3.2.9, especially in the second table. The second ps. pl. shows *-b-* (with secondary affix = *-baa*) in the imperative, *ə-..* in the prohibitive. The ending *-aai* for the first ps. pl. incl. actually is the affix of direction *-aai* (3.2.9), here finding a secondary application as a personal affix. In impersonal verbal constructions the object affixes are used as in Juang, e.g. *argal-daa-t-ɪn* 'I am thirsty', literally 'thirsts me'. Reflexive pronouns are lacking; reciprocal pronouns are replaced by *al-*, the reflexive by *-dam*, cf. 3.1.7 f.; R. 31; 23).

### 3.3.3.8 Pareng

	<i>absolute</i>	<i>subjective</i>	<i>imperative</i>	<i>objective</i>	<i>oblique</i>
Sg. 1.	<i>miŋ (miɪŋ)</i>	<i>le-, ne-</i>	—	<i>-iŋ</i>	<i>niŋ</i>
2.	<i>maan</i>	<i>mo-</i>	—	<i>-om</i>	<i>nom</i>
3.	<i>noon(u)</i>	—	—	—	
Pl. 1.	<i>bilon, bilen</i>	<i>le-, ne-</i>	—		
2.	<i>be(n)</i>	<i>be-, (mo-)</i>	<i>-gi</i>		
3.	<i>nongi, nongɪ</i>	<i>-..-gi</i>	—		

As in Juang, prefixes designate the subject, only the third ps. pl. has suffixed *-gi*, where Ju. has *-ki*. The prefixes are placed before the negative



particle *-r-*, e.g. *miij le-r-dar-ru* 'I did not laugh'. The prohibitive second person sg. is *mo-r-*, e.g. *mo-r-yi* 'do not go'. The oblique is used with pre- and postpositions, but not with verbs, e.g. *e-nij* 'me' (direct object), *nij-ba* 'at my place' (German 'bei mir'). In impersonal verbal constructions object affixes are used as in Sora, e.g. *e-nij aqaaʔ-r-ij* 'I was thirsty', literally 'me thirsted-me' (Bh. 54; 53).

### 3.3.3.9 Gutob

	<i>absolute</i>	<i>oblique</i>		<i>absolute</i>	<i>oblique</i>
Sg. 1.	<i>nij, niij</i>	<i>niij</i>	Pl. 1.	<i>neeij, nēēi</i>	?
2.	<i>noom</i>	<i>noom</i>	2.	<i>peen (ca)</i> (i.e. <i>peɲ</i> ?)	?
3.	<i>maai</i>	<i>maai</i>	3.	<i>maai-neen</i> ( <i>maai-neen</i> )	?

The first person sg. is also given as *nīī*. The oblique is used in Gutob in the same sense as in Pareng, e.g. *oo-niij* 'me' (dir. obj., indir. obj.). For the missing forms there is no documentation.

**3.3.4** Compilation of the pronominal forms points to a rather extensive uniformity among the Munda languages, especially, of course, between Kherwari and Kurku, but also between Kharia and Juang. For the latter two languages we need to stress the common shift of *nij* and *nij*, respectively from the first ps. dl. excl. to the first ps. pl. incl., which is remarkable and semantico-historically unexplained, but a fact nevertheless;<sup>23</sup> further, there is the substitution of *injar* and *inba*, respectively, (literally translated 'I-two') for the first ps. of the dual (exclusive). No closer connection between Kharia-Juang on the one hand and the South-eastern group on the other is clearly evident here. – The basic forms of the pronouns and their affix derivatives are perceptible in almost every instance. Deviations are conditioned chiefly by certain, usually demonstrative, elements which are, however, easily recognizable as such and can be isolated without difficulty. The unattached, pure pronouns in the separate groups and individual languages are given in the table on p. 163. A demonstrative *a-*, which is perhaps identical in origin with the *a* of the third person, is often prefixed to designate absolute forms, e.g. *aij*, *aij*, *ale*, *abu* etc. This is accompanied by some changes, *\*a-me* is mostly shortened to *am*, *a-le* becomes *e-le* in Kh. (assimilation of the *a* to the following *e*), *\*a-eʔj* becomes *aeʔj*, *aʔj*; from *a-pe* in Kh. comes *am-pe* by popular etymology (modeled on *am* 'thou' and *uʔphe*, *uʔpe* 'three'). It is likely that *\*a-a* became *aʔ*, so that *aʔ* would drop out as an

<sup>23</sup> However, cf. 3.3.6.

	<i>Kherwari</i>	<i>Kurku</i>	<i>Kharia</i>	<i>Juang</i>	<i>Sora</i>	<i>Pareng</i>	<i>Gutob</i>
Sg. 1.	<i>ij, in</i>	<i>in</i>	<i>ij, in</i>	<i>in</i>	<i>in</i>	<i>in</i>	<i>ij</i>
2.	<i>me</i>	<i>mi</i>	<i>em, *me</i>	<i>mε</i>	<i>am, m</i>	<i>mo</i>	<i>om</i>
3.a.	<i>e'j, e</i>	<i>e'j</i>	<i>a(-ḍi)</i>	<i>a(-rə), -m-</i>	<i>ə, a</i>	<i>(noonu)</i>	<i>maai</i>
3.i.	<i>aʔ, a</i>		<i>a(-ḍi)</i>	<i>a(-rə)</i>	<i>ə, a</i>	—	—
Pl. 1. excl.	<i>liṇ</i>	<i>liṇ</i>	<i>(injar)</i>	<i>(inba)</i>	—	—	—
1. incl.	<i>laṇ</i>	<i>laṇ</i>	<i>naṇ</i>	—	—	—	—
2.	<i>ben</i>	<i>piṇ</i>	<i>(bar)</i>	<i>(pa)</i>	<i>ben</i>	<i>be</i>	—
3.	<i>kin</i>	<i>kiṇ</i>	<i>kiar</i>	<i>kia</i>	—	—	—
Pl. 1. excl.	<i>le(n)</i>	<i>le</i>	<i>le</i>	<i>nε</i>	<i>len, ə</i>	<i>le, ne</i>	<i>nee(iṇ)</i>
1. incl.	<i>bu(n)</i>	<i>bup</i>	<i>niṇ, niṇ</i>	<i>niṇ</i>	<i>be</i>	<i>biloṇ, (bileṇ)</i>	—
2.	<i>pe</i>	<i>pe</i>	<i>pe</i>	<i>pε</i>	<i>ə</i>	<i>be</i>	<i>pee(n)</i>
3.	<i>ku, ko</i>	<i>ku</i>	<i>ki, mai</i>	<i>ki</i>	<i>ji</i>	<i>gi</i>	?

original pronoun. Whether or not this demonstrative *a-* is identical with the *a-* which occurs with the indirect object pronouns in Kherwari must remain undecided for the present. Sa. *uni*, Kh. *ho-kaṭ*, etc. are demonstrative pronouns. The possessives are formed by anteposing the preposition *ta-* in Kherwari, *na-*, *no-*, or *ne-* in Kh., Ju., So. and Pa.; whether *ta-* and *na-*, *no-*, *ne-* are further divisible into *t-* plus *a-*, or *n-* plus *a-*, *o-*, or *e-*, respectively, is unclear, as is the vowel alternation *-a/-o/-e-*; cf. Kh. *-naiṇ* with *a*, but *-nom* (from *\*-no-me*) with *o*, Ju. *-ne-niṇ* with *e*. The Kh. form *-ḍom* 'his' may be disregarded here, since it originally meant 'own', cf. 3.1.7. In Gutob the possessives were partly generalized, for instance *niṇ*, *noom*. For the direct object (except Pa. and Gu.) a special demonstrative element is lacking, however it is possible and even probable that the tertiary affix *\*-ed*, which was or could be added to denote transitive verb forms, was originally a demonstrative element or a preposition which indicated the object (primarily the direct object) and which thus, in respect to its origin, should be grouped with the directional affixes such as Sa., Mu. *-a-* (indicating the indirect object) and Sora *aai*, Pareng *ai* 'in the direction of the speaker'. This supposition is supported by Kurky *di'j* 'he', whose *d-* is identical with the *-d* in Mu. *-aka-d*, *-ke-d*, etc., as Konow has noted (L. 06; 171). Possibly the inference may be extended so as to include Sora *doon*, *dpoon* (particle for the accusative), e.g. in *dpoon-pen* 'me', derived – according to Ramamurti (R. 38; 81) – from *dpoon-an* 'body'. Ku. *di'j* would then be a generalized form of the accusative (more particularly: a form for the direct object). The connection with So. *doon* remains unproven.

3.3.5 Other deviations are secondary and to be explained in the individual languages. Sa. *alen* instead of *ale* follows *abon*, *bo* (So. *allen*

is to be explained differently; see *infra*), Mu. *bu* instead of \**bun* follows *le. iʹj* in Sa., and *iʹ* in Mu. grew from *eʹj*. Mu. *kin* (in Hasadaʔ dialect) instead of *kin* (Naguri dialect) probably follows *in*, *lin*, *lan* (all having -*ŋ*). The Kurku forms with -*n* are paralleled by earlier attested forms with -*ŋ*. *apin*, *pin* (*apiŋ*, *piŋ*) instead of *ben* agreeing with *pe*, and *lin* (*liŋ*), *lan*, etc.; and in the same way *kin* (*kiŋ*) and *bun* (*buŋ*) instead of *kin* and *bun*. The form *lom* (according to Zide) instead of *lan* (according to L. 06) is unclear. Kharia *adi* consists of *a-* (Ju. *a-*, Sa. *aʔ*, etc.) and *-di* (Ju. *-dɛ*, *-rɛ* 'article', used like Ju. *-dɔ*, *-rɔ*). The distinction animate – inanimate is here neutralized. The old dual forms are partly lost in Kharia and Juang, for instance *ben* and *kin* and also the plural form *bon* which has been replaced by *niŋ* (originally first ps. dl. excl.). The missing forms (first ps. dl. excl., second ps. dl., third ps. dl.) are now replaced by secondary formations from the singular (first ps. dl. excl., second ps. dl.), or from the plural (third ps. dl.) with the partially shortened word for 'two', *bar*, *ubar*, which – by way of \**uwar* and \**uar* – could have become *ar*, or with the usual *w/y-* shift could have developed into \**uyar* or \**uiar*, *iar* and *jar*. Thus originated *in-jar* 'I – two' = first ps. dl. excl., *am-bar* 'thou – two' = second ps. dl., also *am-ar* (= *ambar*), and further *aŋ-ki-ar* (or *aŋ-ki-yar*, *aŋ-ki-iar*) 'they – two'<sup>24</sup> = third ps. dl. Konow's assumption (L. 06; 193) that *b* in the numeral for 'two' is a prefix and does not belong to the stem is not tenable despite such forms as Palaung *aar* in which the initial *b-* has probably also disappeared by way of \**w* (P. 59; 357). Kh., Ju. *-ki*, So. *-ji*, and Pa. *-gi* with the vowel *i* are perhaps contaminated forms corresponding to Kherwari *kin* and *ko*, *ku* (P. 59; 84); more probably, however, *ki* is directly related to *ku*, and the Proto-Munda morpheme is then to be reconstructed as \**ki* (P. 59; 140 f.); then, of course, *kin* with *i* instead of *u* remains obscure. The pronoun *moi*, *mai* in Kh. (from which *me*) is in agreement with the prefix *mɛ-*, *m-* or the infix *-m-* (from *-mɛ-*) in Ju., and also with Korwa *māi*, *wae*, Gu. *maai* (*mai*) 'he' (P. 59; 398) and proves the existence of a further pronoun of the third ps. in an earlier epoch. The change of number (Kharia plural, Juang, Gutob, Korwa singular) points perhaps to an old indeterminate pronoun comparable to the German 'man'. In Juang the "article" *-rɔ* was attached to the pronoun *a* (3rd ps.). The development of *nin* and *kia* (from *kiaŋ*, documented in Kh.) is as in Kharia. The form *inba* (first ps. dl. excl.) proves the existence of the old initial *b-* of the numeral for 'two' for Juang, *inba* stemming from \**in-bar* (in accordance with phonetic

<sup>24</sup> *adi* 'he', *aŋ-ki* (< *adi-ki*) 'they', *aŋ-ki-ar* lit. 'he-they-two'.

law *r* disappears in final position). The form *pa* (second ps. dl.) comes from \**pε-bar* by way of \**pε-war*, \**pεar*, \**par*, and actually means 'you (pl.) – two' (in contrast to Kh., where *ambar* 'thou (sg.) – two' occurs, cf. above). From this it is evident that Proto-Kharia-Juang possessed no such forms since, otherwise, the divergences between Kh. and Ju. could not have taken place. This implies that both languages independently replaced the missing forms. – The development of prefix forms to denote pronominal subjects was favored by the originally comparatively free position of the pronominal affixes which had this function. For instance Kherwari pronouns designating the subject could also be attached to the preceding word, e.g. Mu. *gapa senoʔ-a-iŋ* 'tomorrow I shall go' or also *gapa-iŋ senoʔ-a*. The comparative antiquity of the advance position of the pronominal subject is confirmed by the fact that in Juang the prefixed pronoun of the third person *mε-* has in many cases become an infix, i.e., *mε-* has moved into the root in a manner similar to the causative constructions with *aʔb-*, *oʔb-*, and *-ʔb-* (3.1.9). Infixation is, however, certainly a very old process, since it is characteristic not only of the Munda languages but of the entire Austroasian language area (P. 59; 14 f.). A suffix could have developed into an infix only with difficulty, all the more so because aspect affixes are still used between the verb root and the pronominal suffix in the Munda languages. Pronominal prefixes as subject designations are otherwise found chiefly in the Southern group, in Pareng and less frequently, in Sora too. This formation, then, goes back at least to the time of Proto-Kharia-Sora, if not to the Proto-Munda period. To be sure, not all forms in these categories can stem from the time of Proto-Kharia-Sora; thus, the formations with *ba-*, *ha-*, and *r-*, *-r-* are of more recent date. The forms of the prefixes in Juang present no difficulties. *ba-* derives from *-iŋba*; *ha-* and *hε-* come from *apa* and *ape*, respectively, whereby according to phonetic law initial *p-* became *h-*, cf. Kh. *poʔoŋ* 'hare', Ju. *hɔʔɔŋ*. *nε-* belongs to the *le* which has otherwise been lost in Ju., cf. Kh. *ele* 'we' (excl.); the non-prefixed form *nɪŋ* corresponds to Kh. *aniŋ* 'we' (incl.). Inclusive and exclusive forms are no longer differentiated in Juang. *r-* or *-r-* is secondary and comes from the *r* of *a-rɔ*. The prefix *mε-*, identical with the infix *-m-*, stands alongside Kh. *-moi*, *-mai*, *-me* (cf. above). – In Sora, *jen* 'I' comes from *iŋen* (documentated!) and \**iŋ-ən* (with the "article" *-ən*), cf. also *am-ən* 'thou'. *anin* 'he' also probably contains an *-ən* (which in this instance became *-in*). One actually expects \**a-n*; *-n-* seems to step into a hiatus here as elsewhere, e.g. in the case of an initial vowel in a verb before *ad-* 'not', where *ad-* (*aʔd-*) plus *-n-* becomes *ann-* (3.2.9). In the form *anin* it is

possible that, as occasionally happens, the article is repeated: in this case *anin* should be properly analyzed as *\*a-n-ən*. In any event, the root is here a simple *a* as in Kh. *a-qi*, Ju. *a-rɔ*, which also appears in Sora as *ə-* in the prefixed forms of the possessive. *əllen/elleen* 'we' probably likewise contains the "article" *-ən*, after vowels *-n*. The doubling of the *-l-* is probably secondary; consequently the old form can be reconstructed as *\*ele*, a morpheme which is still found in Kharia. The form *əmbeen* originally marked the second person of the dual but was later, when the dual had largely disappeared, used as a designation of the second person of the plural. *ji* (Pa. *gi*) came from *ki*. *ki* first became voiced (cf. Pa. *gi*) and was then further palatalized to *ji*. In *eete*, *eeteen*, *ee-* would seem to agree with Sa., Mu. *e* (third ps. sg.); *-te*, *-teen* is not clear. The first person pl. incl. *be* (Pa. *bi-loŋ*), is to be grouped with Mu. *bu*, as the third ps. pl. *ki* is with Mu. *ko*, *ku*. The prefix *ə-* (second ps. pl.) comes from *\*pe-* by loss of the *p-*, through the intermediate stages *\*ph* and *\*h*, as in So. *vn-ji* 'four', Mu. *upun*, Kh. *iʔphon*. The prefix *ə-* (first ps. pl. excl.) is obscure; the form to be expected, *\*le-*, perhaps became confused with *\*pe-* (second ps. pl.) since only the initial sound was different: *ə-* from *\*pe-* (second ps. pl.) and from *\*le-* (first ps. pl. excl.). Secondarily, *ə-* could be taken to be a mere plural prefix. – In Pareng, the *m-* in *miŋ* 'I' and in *maŋ* 'thou' probably belongs to Khasi *ma-* in *ma-ŋa* 'I' (emphatic form of *ŋa*), *ma-me* 'thou' (emphatic form of *me*). *ma-* in Khasi corresponds to the *a-* in *a-iŋ*, *a-le*, etc. in the Munda languages. Pa. *maŋ* in analogy to *miŋ* from *\*ma-m*, *\*ma-me*. *noonu* is demonstrative pronoun. *bi-loŋ*, *bi-leŋ* 'we' is composed of *bi-* (cf. So. *be*, Mu. *bu*) and *-loŋ*, *-leŋ*, which is to be equated with Mu. *laŋ* and *liŋ*, respectively (first ps. dl. incl. and excl., respectively). *bi-loŋ* is therefore originally inclusive, *bileŋ* exclusive; its literal meaning is 'we, thou and I' and 'we, he and I', respectively. *be* and *ben* originally are dual forms as in Sora. *gi* is voiced, again as in Sora, and comes from *ki*. The prefix *le-* = *ne-*, originally only a plural affix of the first person, has been secondarily extended to the singular. – In Gutob, *neeŋ* seems to have originated either in *\*le-iŋ* 'we (and) I', or in *niŋ*, *liŋ* (first ps. dl. excl.). *peen* (? *pen*) is likely to be a contaminated form of *been* and *pe*.

**3.3.6** The material given permits the reconstruction of the personal pronoun system as it was in Proto-Munda and in the 'proto-phases' of the various individual languages. This system is presented in the following table:

	Proto-Kherwari	Proto-Kurku	Proto-Kharia-Juang	Proto-Sora-Gutob	Proto-North Munda	Proto-South Munda	Proto-Munda
Sg. 1.	<i>iŋ</i>	<i>iŋ</i>	<i>iŋ</i>	<i>iŋ</i>	<i>iŋ</i>	<i>iŋ</i>	<i>iŋ</i>
2.	<i>me</i>	<i>mi</i>	<i>me</i>	<i>me</i>	<i>me</i>	<i>me</i>	<i>me</i>
3.a.	<i>ej, e</i>	<i>ej</i>	—	—	<i>ej</i>	—	<i>ej</i>
3.i.	<i>a</i>	?	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>
3.g.	<i>mai</i>	?	<i>mai</i>	<i>mai</i>	<i>mai</i>	<i>mai</i>	<i>mai</i>
Dl. 1. excl.	<i>liŋ</i>	<i>liŋ</i>	( <i>iŋbar</i> )	<i>leŋ</i>	<i>liŋ</i>	<i>liŋ</i>	<i>liŋ</i>
1. incl.	<i>laŋ</i>	<i>laŋ</i>	<i>naŋ</i>	<i>loŋ</i>	<i>laŋ</i>	<i>laŋ</i>	<i>laŋ</i>
2.	<i>ben</i>	<i>piŋ</i>	( <i>mebar, pebar</i> )	<i>ben</i>	<i>ben</i>	<i>ben</i>	<i>ben</i>
3.	<i>kin</i>	<i>kiŋ</i>	( <i>kibar</i> )	?	<i>kin</i>	?	<i>kin, kin</i>
Pl. 1. excl.	<i>le</i>	<i>le</i>	<i>le</i>	<i>le</i>	<i>le</i>	<i>le</i>	<i>le</i>
1. incl.	<i>bu(n)</i>	<i>buŋ</i>	→ <i>niŋ</i>	<i>bi</i>	<i>bu(n)</i>	<i>bi</i>	<i>bi(n)</i>
2.	<i>pe</i>	<i>pe</i>	<i>pe</i>	<i>pe</i>	<i>pe</i>	<i>pe</i>	<i>pe</i>
3.	<i>ku</i>	<i>ku</i>	<i>ki</i>	<i>ki</i>	<i>ku</i>	<i>ki</i>	<i>ki</i>

Abbr.: a. = animate, i. = inanimate, g. = generalized

Forms in parentheses are new. According to the phonetic laws the third ps. pl. *ki* produced Kherwari *ku*, Kh., Ju., So., etc. *ki*, e.g. Mu. *kula* 'tiger', Kh. *kiŋoʔ*, Ju. *kiŋoʔg* (from \**kil-doʔg*), So. *kid-*. In the dual – if the same basic form is in evidence – one would rather expect Kherwari, Kurku \**kun* (P. 59; 140 f., 84). – On the basis of Mundari alone, Hoffmann (H. 03; 12 ff., especially 21 ff.) has attempted to analyze several forms even further and derived, for instance, *ben* from *me* 'thou' and *en* 'that one' (H. 03; 23). These attempts are, however, not at all convincing. It is possible that, for instance, *liŋ* and *laŋ* are composed of *le* + *e(j)* + *iŋ*, i.e. originally 'we – he (and) I', and *le* + *a-me* + *iŋ*, originally 'we – thou (and) I', respectively. Cf. here Gu. *neeŋ*. Under this assumption it would also be possible to explain the remarkable transition of *niŋ* from the first ps. dl. excl. to the first ps. pl. incl. Accordingly, \**bi(n)* of Proto-Munda would have been lost in Proto-Kharia-Juang as the designation for the first ps. of the plural (incl.) to be supplanted by \**le-pe-iŋ* 'we – you (and) I' (Gu. *neeŋ*), a form which became *liŋ* and *niŋ*, and then converged with *liŋ*, *niŋ* which came from \**le-ej-iŋ* 'we – he (and) I' (first ps. dl. excl.), henceforth to be used only in the inclusive plural meaning. PM. *bi(n)* can hardly be derived from \**le-pe-iŋ* 'we – you (and) I': \**le-pe-iŋ* could be expected to produce \**biŋ* or \**piŋ* (\**lp* can produce *b*), but not \**bin*. To be sure, *piŋ* does occur in Kurku, but as the second ps. dl., not as the first ps. pl. incl. – The *-n* of the second and third ps. dl. seems to be identical (*be-n*, *ki-n*), but the shift *p/b* in *pe* to *be-n*, and the shift *i/i* in *ki* to *ki-n* create difficulties. It is therefore

advisable to refrain for the time being from further analysis designed to prove the forms of the dual and the distinction exclusive – inclusive to be secondary.

**3.3.7** Demonstrative or possessive morphemes which precede the pronouns may be reconstructed as in the table:

	<i>Proto-Kherwari</i>	<i>Proto-Kurku</i>	<i>Proto-Kh.-Ju.</i>	<i>Proto-Sora-Gu.</i>	<i>Proto-North M.</i>	<i>Proto-South M.</i>	<i>Proto-Munda</i>
Absolute, demonstrative	<i>a-</i>	<i>a-</i>	<i>a-</i>	<i>a-, ma-</i>	<i>a-</i>	<i>a-, ma-</i>	<i>a-, ma-</i>
Indirect object	$\emptyset$ , <i>a-</i>	$\emptyset$ , ( <i>a-</i> )	$\emptyset$	<i>e-, o-</i>	<i>a-, \emptyset</i>	<i>e-, o-, \emptyset</i>	$\emptyset$ , ? <i>a-</i>
Direct object	( <i>e</i> ) <i>d-</i> , $\emptyset$	<i>ed</i> , $\emptyset$	$\emptyset$	$\emptyset$ , ? <i>d-</i>	<i>ed-</i> , $\emptyset$	$\emptyset$ , ? <i>d-</i>	$\emptyset$ , <i>ed-</i>
Possessive	<i>ta-</i>	?	<i>na-, no-, ne-</i>	<i>na-, n-</i>	<i>ta-</i>	<i>na-, nā-</i>	<i>ta-, na-, nā-</i>

It is of importance here that all of these prefixes, although old, were – with the exception of *ed* – not incorporated into the verb in Proto-Munda. This happened only later and even then only partially; thus, for instance, it was not before Proto-Kherwari-Kurku (Proto-Northern-Munda) that *a-* was absorbed into the conjugation (cf. 3.2.12.13).

### 3.4 Other affixes and particles

**3.4.0** The fifth and last group of affixes can be distinguished formally from the loosely connected particles; however it is impossible or difficult to make this differentiation on semantic grounds. For this reason, both groups will be treated jointly here. The formations which have been discussed up to this point have exhibited corresponding features in the individual languages. These common features have made it possible to reconstruct the Proto-Munda system. Such a reconstruction is possible only to a limited extent for the affixes and particles here under consideration. In most cases we are now dealing with formations of a more recent date which are therefore not generally shared. Several categories are found only in a few languages. Often, affixes and particles used to designate particular relationships differ greatly from each other. Numerous conceptual categories are expressed in this manner: *negation*, *prohibition*, *interrogation*, *the conditional*, *participial constructions*, *absolutives*, *agent nouns*, etc. With non-finite verb forms nominal affixes (such as *-te*, etc.) are not rare. The various formations are very numerous and extraordinarily diversified in the individual languages. They can, there-

fore, not all be discussed here; the following discussion must be restricted to the more important categories.

**3.4.1** Several particles are used to express *negation*, so Mu., Ho, As., Bh. *ka*, Sa. *ba* 'not', cf. also Sa., Ku. *baŋ* 'no', Mu. *baŋ* 'nothing'; Ku. *atika*(ʔ), *atikà*(ʔ) (from *ati-ka*) indicating negation in the factive (past) in combination with the participle, e.g. *atikà kukul* 'did not send'; *ban*, *baŋ* indicating negation in the non-factive (present-future), also in combination with the participle. In negation, the passive participle has the verb root plus *-ù*(ʔ), not *-yù*(ʔ), e.g. *dij-aten ban tul-uʔ*, *ij̄ tul-ya-ba* 'he can't lift (it), I can'. (This information according to Zide). Other particles expressing negation are Kh. *um*, *om*, Ju. *ama*, *am*, *ma* 'not'. Through Mon *hwō* (*huʔ*) 'not' we arrive at a basic form *\*kwam* or *\*kwom* from which these words may have sprung by diverse secondary internal transformation (P. 59; 368, No. 507; 376, No. 514). See also 3.4.2. – Another word is present in Ju. *arɔ*, *rɔ*, *an(d)rɔ*, which is related to So. *ad-* (*a'd-*) (prefixed), *er-*, Pa. *ar-*, *r-*, Gu. *ar*, *uraa*. So. *ad-* before a vowel becomes *ann-* by insertion of an *-n-*. See also 3.4.2. In the past forms Kurku can also express negation with *-dùn* instead of *atikà*(ʔ). The particle *-dùn* is attached to the verb stem, whereby aspect and object affixes are not used, e.g. *he'j-dùn* 'did not come' (according to Zide). It is unclear whether *-dùn* is connected with So. *ad-/ann-* (from *ad-n-*). – Ju. *jena* 'not' is probably at least in part Indo-Aryan (*-na*).

**3.4.2** To express the *prohibitive*, Kherwari employs *alo*, Ju. in part *arɔ*, *rɔ*, *an(d)rɔ*, Pa. *-r-*. It is the same word as in 3.4.1: So. *ad-*, Ju. *arɔ*, etc. The oldest form is perhaps *\*adro*, with considerable secondary internal transformation. – Kh., like Ju., has *abu*; Kh. in the plural has *aʔpe*, *aʔphe* (*aʔfe*), probably from *\*abu-pe*, *\*a'b-pe*. Whether *abu* has any connection with *\*kwam/kwom* (3.4.1) has not been proven, though Khmer *bū* (*pūm*) would point in that direction (P. 59; 368). It is then a case of extensive secondary internal transformation. – Ku. *baki* from *ban-ki* (3.4.1); *-ki* is an imperative affix (intensive), see 3.2.6, No. 5; cf. also the table. – So. *doon*, e.g. in *yr̄r-doon* 'do not go', dialectically also *goon*, is an isolated case. Despite its contrary meaning *doon* cannot be separated from *-doo*, *-doo'ŋ* (see 3.4.3).

**3.4.3** The *intensified imperative* is expressed in Sora by *-doo*, *-doo'ŋ* (cf. 3.4.2), e.g. *iraa-doo'ŋ* 'do go'. Regarding this cf. also Ju. *-qu* in *pij-ε-qu* 'let go' (German: 'lass los'), Kh. *guḍuʔ* in *qel-guḍuʔ* 'he shall come', *ter-guḍuʔ* 'he shall give'. Further Juang imperatives are formed with *kuu*, *ku*, *-ku*, *-ua*, *-qε*, *-ɾε*, *-lɔ*, *-lo*, e.g. *ku-ij̄ qɔkɔ-na* 'let me sit', *hua-hua-ɾε* 'do come' (cf. 3.2.8); */hua/* is phonetically [ʷ], i.e. a glottalized voiceless *w*.



**3.4.4** An *interrogative* is formed in Kharia by the particles *no*, *nu*, in Sora by *paa*, e.g. Kh. *daʔ ter-e-m no?* 'wilt thou give water?', So. *yir-te paa* 'will you go?'. *paa* is related to *poon*, which expresses doubt, e.g. *nen iyaai poon* 'may I come (in)?' (dubitative). Mundari and Ho use *ci*, which is connected with *cikan* 'what kind', *cimin* 'how many', etc., e.g. Mu. *horo-ko hijuʔ-tan-a-ko ci?* 'are the men coming?' (H. 03; 11). See also Sa. *ce'd*, Ku. *co'j* 'what'.

**3.4.5** The *conditional* is formed in Mundari, Ho, Asuri, etc., by appending *-re*, literally 'in' (H. 03; 204) or *-re-do* (*-do* intensifying particle), which can be attached to various aspects, e.g. Mu. *sen-re-iŋ* 'if I go', *raʔ-ke'd-ko-re-m* 'if thou hadst called them'. In Santali *-re* is employed in a different sense; it may be translated as 'when, during, in case'. For the conditional Sa. uses the secondary affix *-le*, intransitive *-len*, also referred to as 'anterior' (cf. 3.2.3.7) in conjunction with the postposition *khan*, e.g. *am alo-m he'j-len-khan iŋ do-ko hoe-kin-a honaŋ* 'if you had not come they would have done for me' (B. 29a; 270. See also 215 f., 263 f., 265 f.). Kharia uses *laʔ* to express the conditional; this particle follows the hypothetical clause. The front position of *agar*, which occurs frequently, is obviously based on Indo-Aryan models. *agar* and *laʔ*, like the German *wenn*, are used in a temporal sense, too, e.g. *agar ciŋra daru-te de'b-na-laʔ-ki laʔ bandra jo de'b-na-laʔ-ki* 'when the squirrel climbed up a tree, then the monkey also climbed up'. In unreal conditional clauses (*irrealis*) the consequential clause has *haniʔ* or *haʔniŋ*, e.g. *iða daʔ um de-na laʔ co-na-iŋ haʔniŋ* 'if it had not rained yesterday, I would have gone' (Ban. 94; 15). *haʔniŋ*, *haniʔ* corresponds exactly to Sa., Mu. *honaŋ*, e.g. Mu. *Ranci-te sen-re-ŋ honaŋ lijaʔ-iŋ au-ame-a* 'if I were to go to Ranchi (which, under the circumstances, I cannot or will not do), I would bring a cloth for thee' (H. 03; 205; cf. also B. 29a; 270). In Sora *-en* or *-deen* is used, in Pareng *-den*, in Remo and Gutob *-deŋ*. In unreal conditions (*irrealis*), *-baðiŋ* is appended in Sora, e.g. *nen tiʔ-taai-baðiŋ* 'I would have given' (R. 31; 28). Whether the particles *re*, *le*, *laʔ*, *deen*, *den*, *deŋ* are related remains uncertain. Only the connection between the three last named is clear; the other particles, however, are better kept apart; hence a further development of a conditional existing already in Proto-Munda should not be assumed. Also, whether or not the particle of *concession* *jənaaŋ(-deen)* 'though, even if, however' (alongside of *jaa*) has any connection with Sa., Mu. *honaŋ*, is still in question. In Juang *nice* or *nicen* are used to designate the subjunctive and *irrealis* ('non-real') in conjunction with the indefinite inflective, e.g. *aip nice abhaj-e* 'I should beat'.

**3.4.6** An *optative* is formed in Juang by *rima* in connection with the verb stem or the indefinite inflective, e.g. *aiŋ rima ɔn-gɔ'd* 'I may go'. Here also belongs Sa. *ma* 'a particle conveying an optative, benedictive, precative, cohortative or admmissive sense', e.g. *iŋ hɔ̃-n ɲel-ko ma* 'let me also have a look at them' (B. 29a; 256 f.). Whether *ri-* in *rima* is related to Mu. *re* is not clear (3.4.5). In Mu. the optative is formed by the tertiary affix *-k* (cf. 3.2.4; 5a).

**3.4.7** A very important and characteristic configuration is found in the Kherwari languages, where an *a* is attached to the verb form (*before* appendage of the suffixed personal pronoun) to indicate that an action is actually taking place or will take place, or is considered to be taking place or going to take place – i.e. not merely possible, conditional, or expected – and, furthermore, that this action or event is not subordinate to any other action or event, e.g. Mu. *hiju<sup>2</sup>-tan* 'coming', but *hiju<sup>2</sup>-tan-a-e* 'he comes'. Regarding the use of this so-called *categorical a*, cf. B. 29a; 248 ff., 164 f.; H. 03; XLIV, 125 ff. Konow also sums up the most important information, L. 06; 45 f.: "...Such a compound consisting of the root and a tense-suffix cannot as such be used in the function of a verb in an independent sentence, because it only gives the idea of an action in such and such time without adding whether this action really takes place. It is therefore necessary to assert the reality of the action and this is done by means of a suffixed *a* which at once changes the inflexional base to a finite tense. Thus, *dal-ke'd-a*,<sup>25</sup> somebody struck. This *a* has been called by Mr. Boxwell 'the categorical' *a*, and it is of the greatest importance in Santālī grammar. By simply adding this *a* any word can be turned into a verb. The use of the categorical *a* is not regulated according to the principles of Indo-European languages, though it corresponds, to a certain extent, to the indicative mood of Latin, etc. It is not used in subjunctive and relative clauses, and on the whole its use is restricted to those sentences in which the action indicated by the verb has independent reality..." The use and the meaning of the categorical *a* are furthermore very distinct from that of the mood markers *ta*, *le*, *koʔ*, etc. (cf. 3.2.3 ff.), which already follows from the fact that this *a* can be attached to verbs formed with *ta*, *koʔ*, etc., e.g. Mu. *piŋ-te-lay sen-koʔ-a* 'let us (thee and me) go first to the market' (H. 03; 138), *uriʔ-ko-iŋ ader-ta-ko-a* 'I shall drive the cattle in and shut them up' or 'I will drive the cattle in now, though it is not yet time to do so, or though I have been told not to' (H. 03; 133). Sa., however, has *calaʔ-pe* 'go ye',

<sup>25</sup> Transcription altered.

*jāhānaʔ-ε met-apε* 'whatever he may tell you' (L. 06; 46). Cf. also 3.2.1 B, 3.2.12.13. This categorical *a*, which might also be called finite *a*, seems originally to have been a demonstrative particle meaning 'that, that is' or something to that effect (B. 29a; 248). It is likely that this *a*, which Hoffmann calls a 'copula', is identical with the personal pronoun third person singular inanimate *a* (cf. 3.3.4) as Hoffmann surmised (H. 03; XLIV, 125 f.): "...*hijuʔ-tan* means coming now. Hence *hijuʔ-tan-a-ko* literally means: A coming-now-something-they...",<sup>26</sup> in the same sense *ne kagaj punḍi-a* 'this paper is white', literally 'this paper a white-something'. Since the use of the categorical *a* is limited to the Kherwari languages, and since nothing indicates that it was ever used in this or any similar manner in any of the other languages, it is to be assumed that we are probably dealing here with an innovation of the Kherwari languages. That Kurku, too, shows no traces of the categorical *a* (cf. L. 06; 171) is evidence that Kherwari and Kurku constitute two different, though closely related, groups, which cannot be linked together into one. In place of the categorical *a*, Santali sometimes uses other particles, such as *an*, *anaŋ*, *aneʔj*, *ena*, *eneʔj*, and others, at times with divergent meaning, cf. *menaʔ-anaŋ*, *menaʔ-a*, *menaʔ-aneʔj* 'it exists'. (See also B. 29a; 259 ff.). In the negative *baŋ* or the Indo-Aryan *nāhī* are used (B. 29a; 257 f.). The high productivity of this kind of formation in Santali, which is otherwise lacking in the Kherwari languages, also indicates that this type of formation is of relatively recent date and is still in a formative stage.

**3.4.8** The originally purely emphatic particles *ge* and *ga* can be used either to *emphasize* the entire verbal expression, to emphasize individual particles or affixes, or to carry out other functions, e.g. to form participles. In emphatic meaning, Sa. *ge* either precedes the categorical *a* or takes its place (B. 29a; 253 ff.). In Mu. *ge* is used for the continuative, among other things, in order to distinguish this form from the resultative perfect (*-akaʔd-ge* : *-akaʔd*), cf. 3.2.4, No. 6. In Kh. *ga* is used for emphasis, e.g. *Isuar aniŋ-te ter-e-ga* 'The Lord will, indeed, give unto us'. Cf. also 3.4.9 and 3.4.10.

**3.4.9** *Participle formation*, or more precisely stated, equivalents for the participle formation of Indo-European languages, does not require special affixes in the Kherwari languages; this function is served by the forms which are not augmented by the categorical *a* (cf. 3.4.7), e.g. Mu. *hijuʔ-tan* 'coming', *sen-jaʔd* 'going', *kumbuʔu-tan imta saʔb-keʔd-ko-a-le*

<sup>26</sup> Transcription altered.

'we caught them while they were stealing', *duray-tan duray-tan-loʔ aiuʔb-jan-a* 'during the singing it grew dark', *goj-akan hoʔmo* 'the dead body' (N. 04; 163, 164), Sa. *dal-keʔd-ko* 'those who struck', *dal-keʔd haʔ* 'the man who struck', literally 'struck having man'. In those languages which have no categorical *a* as a marker, the equivalents of participial constructions must be expressed in other ways. In Kharia the reduplicated stem is often used as perfect participle; the verb (mostly in reduplication) with added *-ta* is used as participle of the inflective, e.g. *ij-aʔ soj soj rumkuʔb* 'the rice bought by me', literally 'my bought rice', *loku-ta daru* 'fruit-bearing tree' (Ban. 94; 24). *ga*, too, is used for this purpose, with adverbial function, e.g. *iam-ga toroʔ-ga muʔsiŋ-tiʔj col-ki* 'weeping and crying she went east'. In Juang the respective structures are quite analogous, e.g. reduplication in *qen-qen* 'coming' (final *-l* becomes *-n* in Ju., cf. Kh. *qel* 'to come, coming'), formation with *-ta* (does not exist as aspect suffix in Ju.) in *loŋ-ta loŋ-ta* 'seeing, looking again and again', corresponding also *-taa* in Sora, e.g. *yer-aa-taa yer-aa-taa-n* 'while going', *naa-n-aa-taa naa-n-aa-taa-n* 'while walking'. Simultaneity of action or event is expressed in Ju. by *-gi*, e.g. *jim-ɔ-gi komɔ-gi* (instead of *\*komɔ-ɔ-gi*) *arɔ-kia rɔe-an-kia* 'eating and working the two lived'. Though *ge*, *ga*, *gi* and *-ta* (*-taa*) are old – *-ta* originally was a secondary affix which served to designate the progressive or 'specific' aspect, cf. 3.2.12.1.4, – the constructions are nevertheless quite different in part, and the meaning often varies; cf., for instance, the dissimilar constructions in Sora, such as *ə-yir-te-n-ə-mandraa* 'the man that is going', literally 'that-goes-that-man', where the subordinate portion of the clause is characterized by the affixes *ə-...-(ə)n-ə* (R. 31; 49 ff.). According to Zide, the following types of participle formation occur in Kurku: 1. verb stem alone or with *-e* (for intransitive verbs); 2. reduplicated verb stem (for transitive verbs), e.g. *ku-kul* 'sending' (*kul* 'to send'); 3. verb stem plus *-uʔ* (for passive verbs); 4. verb stem plus *-yüʔ* (for all verbs); 5. verb stem with infix *-p-* (for reciprocal verbs), e.g. *go-poʔ-j* 'killing each other', from *goʔj*.

**3.4.10 Absolutives** occur in all Munda languages; the diverse formal types, however, can usually be recognized as younger forms. The affixes employed include Mu. *-te* and *-ci*, appended to different aspects, e.g. *-akan-te*, *-keʔd-te*, *-keʔd-ci*, the latter in *jom-keʔd-ci-ko senoʔ-jan-a* 'they went away as soon as they had eaten their meal'; similarly in the other Kherwari languages, e.g. Birhor *-akaʔd-ci*, Asuri *-keʔd-te*, *-len-te*, etc. In Kharia *-kon* is used, e.g. *kiʔoʔ hakŋe-kon gam-oʔ* 'the tiger, having roared, said', i.e. 'the tiger roared and said'. *-ke* or *-kar*, *-kor* in place of

*-kon* are rare in Kharia and are borrowed from Hindi and/or Sadani. Juang uses *jɔ*, *io*, *biri*, *gɛ*, *kuri*, *kiri* to designate antecedence, *io* also for simultaneity with the main action. In contrast to Kharia, however, Juang forms containing the particle *biri* or *jɔ*, etc., are conjugated according to person, number, and aspect, e.g. *kɔmɔ ɔn-a biri aɪn leber-ɛ* 'after I shall have worked, I shall sleep', *kɔmɔ m-ɔn-a biri am mɛ-leber-ɛ* 'after thou wilt have worked, thou wilt sleep', *kib-an-kia biri arɔ-kia rɔɛ-an-kia* 'after they both had built, they lived (there)', *arɔ-ki m-ur-ɛ-ki jɔ m-ɔn-a-ki* 'after they will have eaten, they will go', *jim-ɔ jɔ* 'after he had eaten'. Pareng uses *ɖu*, e.g. *dɔs baras le-leku-ɖu le-yai-ai* 'having stayed there myself for ten years I came back'. This *ɖu* corresponds to Ku. *ɖo* (used in exactly the same way there), originally meaning 'and' (Kh. *oɖoʔ*, Mu. *oɖoʔ*); thus this construction is properly speaking not an absolutive, but rather two co-ordinate clauses connected with 'and'. Similarly in Juang, we are, strictly speaking, dealing with subordinate clause constructions. Sora uses as affixes *-le* for the absolutive transitive, *-len* for the intransitive, e.g. *jɔm-le* 'having eaten', *umaa-len* 'having bathed'. Besides *jɔm-le* there is also *jɔm-le jɔm-le* and *jɔm-jɔm-le*. The corresponding negative is *er-jɔm-le-be* 'without having eaten', *er-umaa-len-be* 'without having bathed'. More about this in R. 31; 29.

The etymology of the affixes mentioned is obscure in many cases. Whether Mu. *-ci* in *-ke'd-ci* etc. is identical with the interrogative particle *ci* is doubtful. Hoffmann (H. 30/50, III; 840 ff., cf. 03; 209) groups both words together. *-te*, which appears in Mu. with various meanings (cf. H. 03; 209 ff.), probably originated as an affix used in noun inflection: *-te* 'from, to, by, with', cf. Kh. *-te*, Ju. *-te*, *-te*, a suffix designating the object, Ju. *-te*, *-te*, a suffix designating the infinitive (3.4.12). To be sure, *-te* may also be an old aspect affix for the progressive or specific infective (*-te*, *-ta*) cf. 3.2.12.1.4. Kh. *-kon* may perhaps be placed alongside Sa. *-khɔn* 'from, away from, since, than'. Possible, though not likely, would be a connection with the old aspect affix *-ken* (aorist, intransitive). The vowel shift, however, would then remain unexplained. Ju. *jɔ/io* is probably an old pronoun, cf. Sa. *io* 'so, such'; *-gɛ* is an emphatic particle; see 3.4.8, 3.4.9. The particle *biri* is probably not to be associated with *biri* 'what', but rather, perhaps, with Kh. *bhere* 'time, as, during', Ju. *bɛla* 'time'. *kuri* and *kiri* are of Indo-Aryan origin, cf. Kh. *-kar*, *-kor*. Sora *-le*, *-len* are certainly the aspect suffixes for the perfective (3.2.9). One should not expect these formations, or at least most of them, to go back to Proto-Munda, though the affixes utilized may be old. The specific usage is probably of more recent date. Further intensive research

is, however, needed to clarify the origin of the individual forms serving in the formation of the absolutes.

**3.4.11** *Agent nouns* likewise are in most instances comparatively recent formations in the Munda languages; however their formation exhibits certain similarities which indicate that Proto-Munda possessed agent nouns in one form or another. To the frequently reduplicated root a demonstrative pronoun (animate) or a personal pronoun (third person animate) is attached, in Kharia also the word for 'human being', *lebu*, e.g. *bor bor lebu* 'beggar'. In Kharia the infinitive often takes the place of the root (3.4.12), e.g. *co-na lebu* 'goer', literally 'to go human being', *o'b-soŋ-na lebu* 'vendor', literally 'to sell human being'. Instead of *lebu*, *-kaŋ* frequently occurs, now a demonstrative pronoun in *u-kaŋ*, *ho-kaŋ*, etc., but properly also 'human being', and related to Sa. *həŋ*, Mu. *hoŋo* 'human being'; plural *-ki*, dual *-kiar* (pronouns), e.g. *ka'bti'b-kaŋ* 'collector', plural *ka'bti'b-ki*, dual *ka'bti'b-kiar*; *on-oton-kaŋ* 'printer' (with partial reduplication), *o'j-o'j-kaŋ* 'publisher' (with full reduplication). In Sa. the personal pronoun *-i'j* is used, corresponding to Mu. *-iʔ* (after *n*), otherwise *-niʔ*, dual *-kin*, plural *-ko*, e.g. *hijuʔ-niʔ* 'who will come' (also *hijuʔ-niʔ*), dual *hijuʔ-kin*, plural *hijuʔ-ko*; *hijuʔ-tan-iʔ* 'the coming one', *ool-niʔ* 'the writer' (*ol* 'to write'; reduplicated *o-ol*). *niʔ* is to be explained as a compound of *-n-* (cf. *ne* 'this') and *iʔ* (Proto-Kherwari \**ej*). Cf. also Sa. *dal-ked-ey-i'j* 'the one who struck him', *bebenao-i'j* 'the maker', As. *jo-jom-ae* (i.e. probably *jo-jom-ae'j*) 'eater'. In Sora, *-mar-ən* 'human being' is used, in a manner similar to Kh. *lebu*; e.g. *gad-sar-mar-ən* 'one who reaps paddy' (R. 31; 30).

**3.4.12** *Action nouns (nomina actionis)* and forms which may be called *infinitives* are also formed with the aid of different affixes which are often not related to each other. In Sora, verbal nouns are formed by using the "article" *-ən*, *-n* affixed to the variously treated root, e.g. from *gad* 'to cut': *gad-ən*, *gad-gad-ən*, *g-ən-ad-ən*, *g-ən-ad-gad-ən*, etc., negative *ad-gad-ən*, *er-g-ən-ad-ən*, etc. (R. 31; 30). An infinitive is formed by *ə-...-been*, e.g. *ə-jom-been* 'to eat', *ə-umaa-na-been* 'to bathe' (R. 31; 29). In Kharia the infinitive ends in *-na*, e.g. *ol-na* 'to bring', *gitaʔ-na* 'to lie down', *gil-qom-na* 'to be beaten', i.e. without discrimination between transitive and intransitive verb forms. For this reason, the thought of any connection with the aspect suffix *-na* (indefinite inflective, intransitive) can hardly be entertained. Perhaps it is a borrowing of the Hindi infinitive suffix *-na*, e.g. *bol-na* 'to speak'. In Juang the infinitive ends in *-tɛ*, *-te*, *-ate* or *-a*, e.g. *ur-u'q-tɛ* 'to drink' (reduplicated; cf. *ur-ɛ* 'drink', root *u'q-|ur-*), *ur-u'q-tɛ qin-ɛ* 'give to drink'; *bisu-a* 'in order to fill'. These are old

suffixes which are used in noun flexion (cf. 3.4.10), e.g. *-te* as suffix for the direct or indirect objects, e.g. *aiŋ kiɽɔ'g-te ɔ'b-gɔ'j-sekε* 'I have killed the tiger', *selɔ'g-te da'g dɪŋ-ε* 'give the dog water'. In Kherwari action nouns, analogously to agent nouns, are formed with *-aɽ* in place of *-i'j* (*-iɽ*), e.g. Sa. *kharap-aɽ* 'what is bad', 'the bad', *hijuɽ-aɽ* 'what will come' (B. 29a; 43 f.); Mu. *jome-aɽ* 'food'. Besides forms that ends in *-aɽ* there are many forms ending in *-teaɽ*, As. *-taɽ*, e.g. Mu. *jome-teaɽ* 'food', and also 'that with which one eats, the spoon', *bai-teaɽ* 'instrument', *bai-aka'd-teaɽ* 'that which has been made', *idi-teaɽ* 'vessel, basket' (belongs to *idi* 'to take, to take away'), cf. N. 04; 120 f. Thus, words ending in *-teaɽ* are chiefly *instrumental nouns*, cf. also Ho *idi-tan-teaɽ* 'a thing by means of which carrying is being done', *idi-teaɽ* 'a thing by means of which carrying will be done or is usually done, e.g. a basket' (Bur. 15; 67 f.). Corresponding to the already cited Sora form *g-ən-ad-ən*, with infixed *-n-* (*-ən-*), Mu., Sa. and Kh. also have *n*-infixation in the formation of verbal nouns, e.g. Mu. *go'd* 'to pluck', *go-no'd* (or *g-on-o'd*) 'the plucking', *ol* 'to write', *o-no-l* (or *on-ol*) 'the writing', *du'b* 'to sit', *du-nu'b* 'the act of sitting', 'a seat, a throne', 'session' (N. 04; 122); Sa. *ra-na-ka'b* (or *r-an-aka'b*) 'ascent' (to *raka'b*). Besides the *-n-* infix there is also a *-t-* infix, e.g. Sa. *ε-tɔ-hɔ'b* 'beginning' (to *εhɔ'b*) etc. (B. 29a; 46). Formations with the infixed *-n-* are, in contrast to the others mentioned here, exceedingly old, since they are found not only in all the Munda languages, but are common Austroasian, e.g. Sa., Mu., Kh. *ɔɽ* (*joɽ*), So. *joo* 'to sweep', Sa., Mu., Kh. *ɔnoɽ* (*jonoɽ*), Ju. *jenɔ'g*, *janɔ'g*, So. *ɔnoo-n* 'broom'. This may also be compared to Mon *pvt* 'to chisel', *p-n-vt* 'a chisel' (P. 59; 15).

**3.4.13** Several formations in all Munda languages are *periphrastic*; i.e. several roots or stems with or without affixes are used in combination to designate a certain tense, a mood of action, etc., whereby one of the stems conveys only the formal relationship. These periphrastic formations appear in great diversity but probably do not go back to the period of Proto-Munda, though possibly to the period of the proto-forms of the individual languages; thus, for instance, the formation of the imperfect with Mu. *taeken* (*taiken*), Sa. *tahēkan*, Bh. *tahēkin*, etc., and also the precipitation of Mu. *tan*, Sa. *kan* out of the category of secondary affixes (cf. 3.2.12.13). Also to be mentioned here are the several verbs that express 'to be', 'to exist', or 'not to be', respectively, such as Pa. *loru*, *ɖuku*, *leku*; Gu. *ɖug-*; Kh. *hoi*, *hoe* 'to be', neg. *anɖi'j*, *aŋi'j*; further, Kh. *ao* 'to exist', neg. *um-bode'j*; then Ju. *asi*, Mu. *menaɽ* 'to be', neg. Mu. *banoɽ*; As. *idan*, neg. *kon(oɽ)*; Ku. *ti'j-ka* 'is', *dàn* 'was', neg. *dùn*,

and others. Frequently these words exhibit peculiarities of flexion which cannot here be treated in greater detail. Further research is needed to determine whether these words – or some of them – date from the Proto-Munda period. Sa. *mena*(*ʔ*), Mu. *mena*<sup>ʔ</sup> ‘to be’ is shown to be old by Khmer *man* (*méan*) ‘avoir, être’. For the purposes of this paper it is sufficient to state that in this respect there is no far-reaching agreement among the individual languages. Nor is there agreement with respect to some other verbal formations which will be mentioned only briefly since they concern particular languages only, thus, for instance the Santali inchoative formations with *lɔgi'd* (B. 29a; 184 f.), the Juang denominatives with *ki'b* ‘to do, to make’ which are modeled after Indo-Aryan forms, e.g. *kɔli ki'b*- ‘to quarrel’, and finally the Kharia continuatives with *co-na* ‘to go’ in conjunction with the participle in *-ga*, e.g. *toroʔ-ga col-ta* ‘he yells continuously, without let-up’.

**3.4.14** As noted above, many of the formations discussed in 3.4.1-13 are of secondary origin: few of them can be traced back to Proto-Munda. However it is very difficult to say which of the formations are old and which are innovations. Many of them may bear only a superficial resemblance to old Proto-Munda formations. Others which are seemingly of recent origin may be survivals of old forms which have generally disappeared and whose age is hence no longer apparent. Only the following features can be conjecturally posited for Proto-Munda:

- 1) *Negation* with *\*kwam* or *\*kwom*, and a *prohibitive* with *\*adro*, both particles with extensive secondary internal transformation, perhaps an *intensive imperative* formed with *\*dug*, *\*duŋ*, *emphatic particles* *\*ga* and *\*ge*, possibly an *optative form* with *\*rema* (or *\*rima*), perhaps *conditional forms* with *\*re/le/de*.
- 2) Lack of the *categorical a* and of *absolute forms*.
- 3) Probable formation of *participial forms* by reduplication, which could be transformed into *agent nouns* by affixation of a personal or demonstrative pronoun and demonstrable formation of *action nouns* and *instrumental nouns* by *-n-* infixation.
- 4) Occurrence of *\*mena* ‘to be’.

#### 4. THE POSITION OF AFFIXES AND PARTICLES

**4.1** The position of affixes and particles within the structure of the Munda verb complex is as a rule not variable, but quite rigidly determined. Even the position of the pronouns, especially that of the object



pronouns, is usually fixed. Only the subject pronouns enjoy somewhat greater positional freedom.

**4.2** Regarding the position of pronouns and pronominal affixes within the verb complex we may state the following:

1) In Proto-Munda the pronominal subject was placed *before* the verb, loosely connected with it; later it was frequently either enclitically appended to the preceding word or prefixed to the verb. The latter was possible only in the Southern group (Proto-Kharia-Sora). Suffixation to the preceding word produced the general suffix form of the pronoun. If no word preceded this suffix could secondarily be also attached to the verb. There may have been a transitional period with both front placement and simultaneous suffixation of the pronoun.

2) The direct and indirect object at first were loosely connected with the verb and were placed *after* the aspect affix in Proto-Munda, though it was possible to attach only a single pronoun – as in all the modern descendant languages today. Later, the union between aspect affix and pronoun became firmer. *ed*, which was at first in some cases used as a preposition to denote the (direct) object pronoun, later became generalized as the affix designating transitive verbs. Intransitive and reflexive verbs had *-en* in place of the object, the *-en* perhaps having originally been a reflexive pronoun (similar to the primary suffix *\*dam*).

3) Possessive pronouns were originally not incorporated; this feature is restricted to Santali.

**4.3** The order of the various other elements emerges from all that has been said so far. It is, of course, not always the same in the different languages; but there is agreement in the main features. The presence of one factor sometimes precludes the presence of another. It results in roughly the scheme given on p. 179.

Regarding the 'hierarchical structure' implied by the boxes at the right, cf. Ho. 58; 148 ff. – Items 7, 10, 12-14 are inapplicable to Proto-Munda. – Proto-Munda, synoptically presented, appears as follows.<sup>27</sup>

1. Negation: *kwam*, *kwom*; *adro*.

2. Personal pronouns (subject): Sg. 1st ps. *ij*, 2nd ps. *me*, 3rd ps. animate *ej*, 3rd ps. inanimate *a*, 3rd ps. generalized *mai*; Pl. 1st ps. excl. *liŋ*, 1st ps. incl. *laŋ*, 2nd ps. *ben*, 3rd ps. *kin*, *kin*; Pl. 1st ps. excl. *le*, 1st ps. incl. *bi(n)*, 2nd ps. *pe*, 3rd ps. *ki*.

(Demonstrative-absolute also with prefixed *a-* (*ma-*).)

3. Primary affix: *qal-* reciprocal, *ab-*, *ab-* causative.

<sup>27</sup> The asterisk (\*) for the undocumented forms has here been omitted.

Position	Designation	Hierarchical Structure
1	Negation	
2	Personal pronoun (subject)	
3	Primary affix (causative; reciprocal)	
4	Root (now and then with infix: reciprocal) simple / half- / full reduplication (performative, repetitive)	
5	Compositional member (second root)	
6	Primary suffix (reflexive, passive, e.g. <i>-dam</i> ; causative, e.g. <i>-oco</i> )	
7	Object (only in Sora as a compositional member), excludes No. 11	
8	Aspect affix	
9	Verb class (transitive, intransitive, reflexive, passive)	
10	Directional affix ('hither'); designation of indirect, direct object (cf. 9)	
11	Object, excludes No. 7	
12	Tense affix (Kherwari and Kurku only)	
13	Categorical <i>a</i> (Kherwari only)	
14	Personal pronoun (subject)	

4. Root (simple; half, full reduplication), e.g. *dal*, *ol* (base form), *dadal*, *ool* (performative), *daldal*, *olol* (repetitive); infixed *-p-* reciprocal, e.g. *dapal*.
5. Compositional element: (verb, noun).
6. Primary suffix: *-dam* reflexive.
7. (8.) Aspect affix (secondary): Inflective: habitual *-e*, progressive *-ta*, durative *-ia*; Perfective: aorist *-ki* (*-qi*), resultative *-oka*, non-resultative *-le*.
8. (9.) Verb class (tertiary): transitive  $\emptyset$ , *-ed*, intransitive *-en*, passive *-ug*.
9. (11.) Object: personal pronoun, see No. 2.

**4.4** The foregoing analysis indicates that the position of the various morphemes that make up a verb was not free, but rigidly fixed. Initially this also applied to the pronouns, which could function either as subjects or as objects. The subject came *before*, the object *after* the verb. Their

function was thus distinguishable by position only: In Proto-Munda the order *Subject-Predicate-Object* was the rule. To be sure, the position of the non-pronominal object, which in all likelihood was not closely allied to the verb complex, has not been completely clarified; the entire basic conception, however, permits the conclusion that the non-pronominal object did not, in principle, occupy a position different from that of the pronominal object. The front position of the non-pronominal object – and of the pronominal object in Kharia as well – certainly goes back to Indo-Aryan and/or Dravidian influences. It remains obscure, whether or not Proto-Munda already made use of the double designation of the object (once by the word in question, then again by the applicable pronoun, e.g. either ‘I see *them*, *the people*’ or ‘I see *the people*’). The order, however, which the parts of the sentence assumed with respect to each other was surely always *subject-predicate-(pronominal and) non-pronominal object*, i.e. ‘I see them, the people’ or ‘I see the people’, but not as in Mundari today *aiŋ hoŋo-ko-ke nel-ko-tan-a-iŋ* ‘I the people see-them-I’. The view that the sequence predicate – object is quite old is further substantiated by the presence of prepositions such as *a-*, *ta-*, *na-*, *no-*, *ne-*, *e-*, *ma-*, *ed-*, cf. 3.3.7. Had the object previously preceded the verb complex, we should expect postpositions, as are now found in most of the Munda languages, e.g. Mu. *-re* ‘in’, *-aʔ* ‘of’, etc.

4.5 The mutual adhesions among the various elements of the verb complex, whose order was rather strictly determined, were of varying strength. The pronouns – subjective as well as objective – surely were only loosely connected to the verb, as discussed in 4.2.1, 4.2.2. The aspect affixes stood in close relationship to those of the verb classes (*-ed*, *-en*, *-ug*) and were loosely connected to the verb stem, which formed a tight unit with its primary affixes. This may be presented schematically:

1 /// 2 // 3-4-5 – 6 / 7-8 // 9

For significance of the numbers cf. 4.3, table 2.

Since morphophonemic laws were not operative at all or only to a very limited extend between 1 and 2, 2 and 3-6, 3-6 and 7-8, and 7-8 and 9, and since 1, 2, and 9 were also used as free forms (negation and pronouns!), only the simple or compound verb stem with the primary affixes (3-6), and with the aspect affixes partly expanded by *-ed*, *-en*, *-ug* (7-8), can be considered an old and genuine verb complex. A close and indissoluble union between aspect affixes and verb stem is not proven since no potent sandhi laws are to be observed. The sole argument which bespeaks a close connection is the firm position immediately following the verb

stem. Therefore the possibility must be recognized that the aspect-affixes, too, originally were independent, isolable particles (free morphemes) or adverbs as, for example, *nam* 'now' in Sora.

## 5. GROUPING OF THE MUNDA LANGUAGES

**5.1** The preceding inquiry leaves no doubt that the verb systems of all the Munda languages – in their underlying principles as well as in many important details – go back to an older, common system, viz. that of Proto-Munda. Though the verb system of Proto-Munda has, in the course of time, undergone many changes in the various individual languages, sometimes undergoing further elaboration (as in Kherwari), sometimes gradual decay (as in Sora), it is still clearly recognizable and reconstructible.

**5.2** Proof of a common, inherited verb system – more even than historical researches into the phonemic systems – has confirmed the fact that the Munda languages do indeed form a delimited unit within the Austroasian linguistic stock. Were we dealing with two mutually independent branches of Austroasian by, for instance, regarding the Southern group as an autonomous branch, then we could hardly explain the old common verb system, since nothing of that type is to be found in the other Austroasian languages. Any explanation of the common properties as derived from a superordinate unity of Proto-Austroasian, which has been preserved nowhere else but in these two groups, would carry little probability.

**5.3** Besides the unity of the Munda languages demonstrated in this way, investigation of the verb system also results in a wider, historically significant grouping of the Munda languages, admitting a greater precision than one founded merely on historical phonetic and phonemic development. The table on p. 182 will serve to indicate the development of the Munda languages from the common language.

The division of the Proto-Southern group is more pronounced and hence surely older than that of the Proto-Northern group. According to Maspero (M. 52; 640) Kurku must be counted among the Kherwari languages. This grouping has something in its favor to the extent that Kherwari and Kurku are relatively close to each other and that, furthermore, the Kherwari languages actually are more dialects than independent languages. In any event, the distance between Santali and Mundari is already so great that Santali is unintelligible to a Mundari speaker, and vice

1. Proto-Munda					
2. Proto-North-Munda (Proto-Kherwari-Kurku)		Proto-South-Munda (Proto-Kharia-Sora)			
3. As above		Proto-Central-Munda (Proto-Kharia-Juang)		Proto-Southeast-Munda (Proto-Sora-Gutob)	
4. Proto-North-east-Munda  (Proto-Kherwari)	Proto-North-west-Munda (Proto-Kurku)	Proto-Kharia	Proto-Juang	Proto-Sora,	Proto-Gutob,
				Proto-Pareng,	Proto-Remo
5. Kherwari	Kurku	Kharia	Juang	Sora	Gutob
				Pareng	Remo
6. Santali, Mundari with dialects such as Ho, Birhor, Asuri, Korwa, etc. (with different sub-dialects of each)					
— different dialects of each —					

versa. Reasonably, one must then consider Mundari and Santali as dialects of a common language which have secondarily developed into proper languages. Ho, Birhor, etc. are hardly more than dialects of Mundari and Santali, respectively, and thus of Kherwari itself. Because Kurku differs from the Kherwari group in some significant details – lack of categorical *a*, substitution of Proto-Munda \**q* by *k* as in Kharia and Juang, contrasting with *h* in Kherwari and *Ø* in Sora, Gutob, and an extensive deviation from Kherwari in the meaning of aspect suffixes – because of such differences Kurku is better regarded a separate group. We must, however, keep in mind that the Northern group is far more closely knit than the Southern group and that the difference between Kherwari and Kurku is hardly greater than that between Kharia and Juang.

## 6. COMPARISON WITH THE KHMER-NICOBAR LANGUAGES

6.1 Historical investigation of the verb system of the Munda languages has led us a step further along the way to comparison with the other Austroasian languages. At first, a comparison of the verb systems of the

Munda and Khmer-Nicobar languages may seem unprofitable, for the differences in structure between these two branches of Austroasian are enormous: in Munda there is extensive synthesis with subordination of all verb components under the main idea, the verb root; in the Khmer-Nicobar languages there is extensive analysis with parallel ordering of most of the sentence components. Synthesis in Munda invites comparison with Turkish and Hungarian and surely has been the immediate stimulus for the untenable theory of W. von Hevesy, who claims that the Munda languages are relatives of Finno-Ugric (Hev. 32). The analytical structure of the Khmer-Nicobar languages suggests their relationship with Thai, Kadai, and Indonesian. This difference between the two branches, as has been noted elsewhere (P. 60), has its origin mainly in the fact that the two Austroasian groups belong to distinct linguistic leagues ("Sprachbünde"): The synthetic structure of Munda was strengthened by the proximity of Dravidian and Indo-Aryan languages, while the analytic structure of the Khmer-Nicobar languages was favored by the contiguity of the Thai, Kadai, Indonesian and also Burmese languages. These significant differences between the two groups are, however, further narrowed through the historical treatment of the verb systems of the Munda languages. The old position of the elements with respect to each other, expressed by the formula *Subject-Predicate-Object*, and the lack of a genuine verb – noun distinction, turns out to be the *same* in both groups. In both groups, a word may function as a verb in one situation, as a noun in another. *Not* significantly different is the bond between the separate elements: in Proto-Munda the verb complex proper was formed with the verb root only – sometimes extended by a primary affix –, and the aspect affixes (with designation of the transitive, intransitive, or passive, where applicable), while the pronouns properly were independent, isolable free forms. The affix character of the pronouns, which were incorporated into the verb complex as subject or object, respectively, is of more recent date, just as the entire far-reaching subordination in the Munda languages has been shown to be definitely secondary. Since, on the other hand, roots in the Khmer-Nicobar languages may be extended by means of affixes (prefixes and infixes; in the Nicobar languages also suffixes), there remains as the only weighty difference the attachment of the aspect affixes (with designation of the transitive, intransitive or passive, where applicable) in the Munda languages; this attachment, which is by the way rather loose, is unknown in the eastern Austroasian languages. Instead of aspect affixes, the Khmer-Nicobar languages use either special particles or certain

syntactic expressions which we would characterize as "circumlocutions".

**6.2** It must be the task of further investigation to compare the morphemes used in the formation of the verb complex – including the isolable pronouns – as reconstructed for Proto-Munda, with those of the Khmer-Nicobar languages. This can be accomplished with real success only when the relationships within the eastern languages have been better and more thoroughly investigated than they have been so far. But even now it may be remarked that a whole series of the elements in question do indeed lend themselves to comparison. For a brief compilation of the corresponding morphemes in Proto-Munda cf. 4.3. Most easily compared are the pronouns and some of the prefixes and infixes.

### 6.3.1 Pronouns:

- 1) PM. *ij*, Mu. *ij*, Sa. *in* 'I'; Khm. *ɔn* (*anh*), Bahn. *in*.
- 2) PM. *me*, Sa. *me* 'thou'; Khs., Nic. *me*, Sre *mi*, Pal. *mii*, Wah *mɛɛ*.
- 3) PM. *ej*, Ku. *eʹj*, Mu. *aeʹj* 'he' (animate); Bahn. *e*, *ei*, *li* 'celui-là'.
- 4) PM. *a*, Ju. *a*- 'it' (inanimate); Bahn. *o* 'ce', Pang. *ɔʔ* 'he', Nic. (Car) *an*, *a-na*, *ön* 'he, she, it'.
- 5) PM. *mai*, Ju. *mɛ-* 'he, one', Kh. *mai*, *moi*, *me* 'they'; Lawa, Sem. *mi*, Kerbat *moh*, Krau Ket. *imaʔ* 'he'.
- 6) PM., Mu. *liŋ* 'we two (excl.)', perhaps from \**le-ej-iŋ*; ? Bahn. *ni*.
- 7) PM., Mu. *laŋ* 'we two (incl.)', perhaps from \**le-am(e)-iŋ*; no counter-parts.
- 8) PM., Mu. *ben* 'you two'; Mon *beh*, *ʰɔ*, *ʰɔŋʃ* 'you'.
- 9) PM. *kin*, *kin*, Mu. *kin* 'they both', 'they two', cf. *ki* 'they' (No. 13); no counter-parts.
- 10) PM., Mu. *le* 'we (excl.)'; ? Lawa *e*.
- 11) PM. *bi*, *bin*, Sa. *bon*, Mu. *bu* 'we (incl.)'; Bahn. *bɣn* 'we (incl.)', Bol. *bɣn ai*.
- 12) PM., Mu. *pe* 'you' (2nd ps. pl.); Bol. *pɛ*, Pal. *pɛɛ*, Ri. *peʔ*, Khs. *phi*.
- 13) PM. *ki*, Kh., Ju. *-ki* 'they'; Wah *kiʔ*, Central Sakai *kɛ*, Khs. *ki* 'they', Theng *khi* 'ceci', Khm. *ge*, inscriptional *gr* (*ke*) 'on, quelqu'un'.

### 6.3.2 Primary Affixes:

- 14) PM. *qəl-*, Kh. *kol-* (reciprocal); Pal. *kər-*.
- 15) PM. *əb-*, *ab-*, So. *ab-*, Ju. *ɔʹb-* (causative); Khm. *pɔ-* (*bâ-*), Mon *pɔ-*, *bɔ-*, Bahn. *pɣ-*, Pal. *p-*.
- 16) PM., Sa. *-p-* (reciprocal); Khm. *-p-* infix for formation of abstract terms, pluralization, e.g. *rien* 'to learn', *rɔpien* 'study', *ray* 'to requisition', *rɔpay* 'requisitional goods'. Consequently, the reciprocal meaning in Kherwari seems to be of a secondary nature and to

appear as a substitute for the (here) missing prefix \**qəl-*, cf. the same infix *-p-* in Sa. *hən* 'child', *həpən* 'offspring'. Further details in W. Schmidt (Sch. 16).

- 17) PM., Mu. *-n-* infix for the formation of verbal nouns, action nouns and instrumental nouns, cf. 3.4.12; Khm., Mon *-n-*, e.g. Mon *pvt* 'to chisel', *pnvt* 'chisel', Khm. *kʏt* 'to be born', *khnyt* 'the waxing moon' (Sch. 06; 74 f.; P. 59; 14 f.).
- 18) PM., Sora *-dam*, Kh. *-qom* (reflexive); no parallels.

### 6.3.3 Secondary Affixes:

- 19) PM., Kh. *-e* infective, indefinite, habitual; no parallels.
- 20) PM. *-ta*, Kh. *-te*, *-ta* infective, definite, progressive; no parallels.
- 21) PM. *-ia*, Mu. *-ia(d)*, *-ia(n)* infective, definite, durative; Nic. (Nan.) *yən-de* particle marking the continuative.
- 22) PM. *-ki*, *-qi*, Mu. *-ke(d)*, *-ke(n)* perfective, aorist; ? Bahn. *klaih*.
- 23) PM. *-oka*, Mu. *-aka(d)*, *-aka(n)* perfective, resultative; no parallels.
- 24) PM. *-le*, Mu. *-le(d)*, *-le(n)* perfective, non-resultative; ? Khs., Central Sakai *la*, e.g. Khs. *ɲa la fim* 'I have taken', Sakai *ey la ntyiip* 'I have gone'; Mon *low (lɔ)*, Nic. (Nan.) *leet* (perfective; antepositional).

### 6.3.4 Tertiary Affixes:

- 25) PM. *-ed*, Mu. *-d* transitive; cf. *-t* in Nic. *leet*, see No. 24. Uncertain. Cf. No. 26.
- 26) PM. *-en*, Mu. *-n* intransitive; cf. *-n* in Nic. *yən-de* (? *yə-n-de*), see No. 21. Uncertain; no other parallels. However the Khmer-Nicobar languages make a difference between intransitive and transitive verbs and consider it important. Various affixes are used to indicate the distinction. Particulars are given in Sch. 01; 573 f.: "...The hinge on which all the form-building of the Mon-Khmer<sup>28</sup> languages turns seems to be the desire to express of whether a form is purely static or transitive. I do not believe that the prefixes and infixes had to serve any other function, that – according to Aymonier (*l.c.*, p. XIV) – the prefixes *kre* and *tre* had the meaning of extent and thickness, *sre* that of excitement, drunkenness, and others; at best, these meanings may be later, arbitrary and isolated developments. Excepted are only the two prefixes *tă* and *pă*, of which the first expresses reciprocity and mutuality, while the latter, derived from a verb *pa* (Mon), *pöm* (Bahnar) = 'to do', produces a sort of causative,<sup>29</sup> besides which both prefixes continue to function in the sense given

<sup>28</sup> I.e. Khmer-Nicobarese.

<sup>29</sup> Cf. No. 15 supra.



above. The difficulty in achieving clarity concerning the latter function lies in the fact that the various prefixes and infixes operate in opposed senses, according to circumstances; thus Azémar says of the prefix *a* that, if a verb is transitive, it will become intransitive by anteposition of *a*, but that the converse also occurs, while in some cases the sense remains unaltered. . . .”<sup>30</sup>

- 27) PM. *-ug*, Mu. *-oʔ* passive, intransitive; Nic. (Nan.) *-ə* (*-a*), Nic. (Car) *-ö*, cf. above 3.1.10.

### 6.3.5 Miscellaneous:

- 28) PM. *kwam*, *kwom*, Mu. *ka*, Sa. *ba*, Kh. *um* ‘not’ (cf. 3.4.1); Pal. *ka*, Mon *hwɔ̃* (*huʔ*), Khm. *kṵ* (*kōm*), Khs. *əm*.
- 29) PM. *adro*, Ju. *arɔ̃*, Mu. *alo* ‘not’ (prohibitive); Besis *ödö*, *ödöʔ*, *udöh* ‘do not’.
- 30) PM. *mena*, Mu. *menaʔ*, Sa. *mena*, *menaʔ* ‘to be’; Khm. *man* (*méan*) ‘avoir, être’, Lave *mian* ‘avoir’.
- 31) PM. *a-*, *ma-*, Mu. *a-*, Pa. *ma-* demonstrative element with pronoun, e.g. *a-iŋ*, *a-le*, *\*ma-iŋ*, Pa. *miŋ*, etc., cf. 3.3.4, 3.3.7; Khs. *ma-*, e.g. *ma-me* ‘thou’ (absolute).
- 32) PM. *ta-*, Sa., Mu. *ta-* prefix indicating the possessive in pronouns, e.g. Mu. *-ta-iŋ* ‘my’, *-ta-m* (from *\*ta-me*) ‘thy’; Nic. (Nan.) *tə* (*ta*), e.g. *tə-cüə* ‘my’, *tə-me* ‘thy’.

**6.3.6** The 32 morphemes compared here show 20 cases of correlation with the Khmer-Nicobar languages, 6 cases without such correlations, and 6 which are not clear, in any event a ratio of 20 to 12, if the obscure etymologies are counted as negative.

**6.4** The existing conditions suggest the question whether the Munda languages have retained the more ancient state, i.e., that aspect affixes go back to the Proto-Austroasian period while they were lost in the Khmer-Nicobar languages, or whether, conversely, Proto-Munda was first to develop the system described for indicating aspect. This question can be answered unambiguously only after a more thorough investigation of the Khmer-Nicobar languages; it is, however, to be assumed that it was the Munda languages that have preserved the older state. Essential assistance to a decision in this matter might be offered by Nahali, whose position, it is true, is still quite undecided. (Cf. Sh. 40; Sh. 54; Bh. 57; also L. 06; 185 ff.)

<sup>30</sup> Translated from the original German.

## 7. COMPARISON WITH NAHALI

**7.1** A comparison of the verb system of the Munda language with that of Nahali is more promising, to the extent that this language is – if not as synthetic as the Munda languages – also not as analytic as the Khmer-Nicobar languages. Pronouns, for instance, are not incorporated into the verb in Nahali. On the other hand, comparison is hindered by the still rudimentary state of investigation of this language. The whole of the existing material is not sufficiently trustworthy to permit reliable results from it. For instance, the data concerning tenses and aspects are still quite imprecise; analyses are, in part, dubious; often, important affixes may be lacking in the corpus so that the over-all picture may change considerably once they become known. It is an aggravating circumstance that there has been more borrowing here than elsewhere in the languages of India, and that it is usually impossible to decide before the historical phonetic laws have been worked out whether we are dealing with a word of long ancestry or a loanword.<sup>31</sup> Since many words cannot, at the present state of investigation, be related to any of the neighboring languages, the connection of Nahali with the Austroasian languages can by no means be considered unassailable. According to R. Shafer it is indeed totally isolated (Sh. 40; 54). The following attempt to sketch the verb system and to compare it with that of Proto-Munda can therefore be only very preliminary, tentative, and open to correction. It can, therefore, not in any way be put with the results which have so far been attained for the Munda languages; this must be expressly stressed. It may, nevertheless, be of use to later research, if a few important data and assumptions are assembled here. The material utilized rests on the data of Konow, Shafer, and Bhattacharya (L. 06; 185 ff., Sh. 40; Sh. 54; 8 ff., Bh. 57).

**7.2** Little can be said regarding the base or root. A different morpheme is sometimes used to designate transitive or causative verbs, e.g. *bii-* 'to rise', *ocol-* 'to lift'; otherwise the Indo-Aryan word *kama-* 'to do' is used, e.g. *aphir-* 'to fly', *aphir-kama-* 'to make fly'.

**7.3** Of the affix complex we know only paradigmatic affixes which can mostly be suffixed, more rarely prefixed. Verb infixes are not attested in the material hitherto accessible. Instead of prefixation, which occurs in negation, there may, however, be suffixing of the aspect (or tense) affixes to the particle of negation. Semantically, we are concerned here with designation for the aspects, and tenses, respectively, for the im-

<sup>31</sup> This does not apply to the Indo-Aryan loanwords.

perative and the prohibitive. Pronominal affixes are lacking. The aspect affixes are in a remarkable structural correlation to each other. The respective meanings are, however, unfortunately not quite clarified, cf. the following table:

Meaning (approx.):	affirmative				negative	
	simple		-n-extension		simple	-l-extension
Present-Future (inflective)	-ke habitual present, imperfect	-ka	-ken future	—	-k- inflective	-kil- inflective
Present-Preterite (neutral)	(-te) imperfect	-ta, -ta	— durative (progressive)	-dan, (-da)	-t-, -te- present-preterite (perfect)	-tel-
Preterite (perfect)	-ye, -e, -yi, -i, -y preterite	-ya, -ja	— preterite (intransitive?)	-jan	-j-, -ji prohibitive	—

Cf. *poyye aphir-ke* 'the bird is flying', *joo chokra tye-ka* 'I eat bread', *ara-ken* 'will see', *taakogaa-taa* 'he was filling', *ta* 'was', *harpil-daa* 'he was lost', *dan* 'was', *ara-ka-dan* 'was seeing' (past progressive), *ara-ka-dan-i* 'had seen' (past perfect), *ara-ye* 'saw', *tye-e* 'ate', *oola-yi* 'became wet', *paqa-i* 'killed', *ghata-ya* 'searched', *khijii-jaa* 'he got angry', *nangaay-jan* 'he became destitute'. For stronger differentiation several affixes may be combined, e.g. *ka-dan*, *ka-dan-i* see above, corresponding to L. 06; 186 *kaadinii*; *tee-ga-daa* 'eating were' (*ga* = *ka*); *taako-ga-taa* 'to satisfy wanted' (see above). *ka* also means simply 'is', 'are', 'to be', *dan*, *da*, *ta* 'was'. L. 06 also gives 'is' as *tan-ke*; 'was' as *o*, 3rd ps. sg. *ee-thee*. L. 06 gives *ge*, *ga*, *gen* as paralleling *ke*, *ka*, *ken*. The vowel is usually indicated as long: *kee*, *kaa*, *keen*, *yaa*, *ee*.

The particles of negation are *be*, *bi*, *ba*, *ho*; the affixes *-k-* and *-t-* attached thereto are subject to sandhi rules and can become *c*, *p*, and *k*, *c*, *p*, respectively, e.g. *be-k koor* 'will not take', *ba-c caavgo* 'will not be afraid', *bi-kil paqa* 'will not kill', *be-te*, *be-tel-a* 'it is not', *ho-t paqa* 'did not kill', *ho-k koor* 'did not take', *ho-c caavgo* 'was not afraid', *ho-p puru* 'did not send'. Through sandhi the distinction between *-k-* and *-t-* as designation of the aspects or tenses was largely lost, so that the two different particles of the negative were used for differentiation, in the present-future (inflective) *be*, *bi*, *ba*, in the preterite (perfect) *ho*. Since the corresponding affix for the perfect in the negative was lacking – perhaps through sandhi – the imperfect had to take on the function of the perfect in the negative, a proof that the differentiation of the tenses played a

bigger role in Nahali than in Munda, whereas the differentiation of aspects was less important in Nahali than in Munda. The affix *-j-*, *-ji* which may possibly belong to the perfect, forms – in conjunction with *bi* (instead of *be*) – the prohibitive, e.g. *bi-ji iyeer* ‘do not go’, *bi-j anci* ‘do not select’, *bi-c caavgo* ‘do not be afraid’. *kama* ‘to do’ is shortened to *ka* in the prohibitive. ‘no’ is *be-ko*. The imperative has the endings *-be*, *-e*, *-ye*, *-ke*, e.g. *bii-be* ‘rise’, *ed-e* ‘go’ (to *iyeer-*), *oola-ke* ‘be wet’, *ulta-ye* ‘fall’. *ki* takes the place of *\*kama-ke*, e.g. *deleŋ-ki* ‘make to drink’. These endings, with the exception of *-be*, are probably identical with the corresponding aspect suffixes. – The absolutive is formed by *-do*, e.g. *joo tyee-do paat-i* ‘having eaten I have come’. The proper meaning of *do* is ‘and’.

7.4 The pronouns, which are loosely anteposed as subjects, are *joo* ‘I’, oblique *eŋ*; *ne* ‘thou’; *ho*, *eŋey* ‘he’; *ittel* ‘they both’; *tye-ko* ‘we’; *nee-ko* ‘you (pl.)’; *eŋla* ‘they’.

7.5 These are, in brief, the most important facts. The material is very definitely comparable with that from the Munda languages, though there are some difficulties which place the validity of the comparison in doubt. *ka* and *qan* reappear in Kurku, again with the meaning ‘is’ and ‘was’, respectively. *ta* ‘was’ is very reminiscent of Hindi *tha* ‘was’, though also of the affix for the present tense *-ta* in Kharia, etc. The morphemes *-e*, *-ye*, *-ya* occur in Kurku, also as suffixes mostly for the preterite, and similarly *-ian*, *-ien* in the intransitive (corresponding to *-jan*). *-ken* occurs in Kurku but with another meaning: intensive (simple past II), intransitive; in the transitive *khè* (cf. 3.2.6), where Nahali *-ke* might also belong. The divergence in meaning, however, makes the connection appear problematical. The endings of the imperative *-be*, *-e*, *-ye*, *-ke* admit comparison with Ku. *-bà* (future), *-e* (indeterminative, imperative, cf. Kh. *-e*), Sa. *-ke* (optative). The form *tan-ke* agrees with Sa. *tahē-kan* (cf. Konow, L. 06; 186). The particles of negation show the shift labial/glottal (as in Munda labial/velar), a good match for Munda *ba/ka*. The *-l*-extensions have no parallel in Munda. *l* is perhaps nothing but a secondary internal transformation for *n*. The affix of the absolutive *-do* is identical with Kurku *-do*, where it has the same meaning. The verb *imni* ‘to be’ goes with Sa. *mena*, Mu. *mena?*. Among pronouns, *eŋ*, the oblique of *joo* ‘I’, is clearly related to Munda *iŋ*. The form *joo* is perhaps nothing more than an originally augmented form from which the pronoun proper has disappeared; i.e. an old *\*iŋ-joo* became *joo*, cf. Mu. *aiŋ-ge*. A similar development is known from Sora where *\*iŋ-ən* has become *iŋ-en* and *jen*. Nah. *joo* cannot easily be entirely separated from

*enj. ne* 'thou' has perhaps arisen from *\*me* in assimilation to Dravidian *nii*. The plural *nee-ko* with the plural suffix *-ko*, which is clearly Munda, makes this explanation appear possible. With *ho* one may compare Kh. *ho* in *ho-kaṛ* 'he, this'. For *eṭey* 'he' cf. Sa., Mu., Ho *eṭaṛ* 'another, different' (? = *eṭ-aṛ*) and Mu. *ae'j*, PM. *ej* 'he' (animate). *ittel* 'they both' may be derived from *\*it-keḷ*, *\*it-ken*, with the common *l/n*-shift. *it* = *eṭ*, cf. Nah. *eṭey*; for *\*kel*, *\*ken* cf. PM. *\*kin*, *\*kin*, Mu. *kin* 'they two'. *tye-ko* 'we' also contains the plural suffix *-ko*. With *tye* one may compare Nic. (Nan.) *cūa*, Nic. (Car) *cin*, *cu-ö* 'I', Nic. (Ter.) *cīaa*. DeRoepstorff (Ro. 84) gives *tiūe*, *tiē* 'I' for Nancowry. Nah. *tye-ko* thus probably is a form of the exclusive: 'I (and) they'. *eṭ-la* 'they' contains *eṭ*-, *it*-, cf. *eṭey*, *it-ṭel*; *-la* instead of the expected *-ko* remains unclear.

7.6 Though almost all of the occurring elements permit comparison with those from the Munda languages – some, due to strongly divergent meanings, with very great reservations – there remains the question of borrowing. The comparisons cited establish parallels chiefly with Kurku, which is indeed a neighbor of Nahali, but to which it stands in no particularly close relationship. Should it be part of Austroasian, comparison would have to be carried out by way of Proto-Munda. This is not so easy because of the extraordinarily great semantic shifts which would have to be taken into account:

<i>Nahali</i>		<i>Proto-Munda</i>	
morpheme	meaning	morpheme	meaning
<i>ke (ki)</i>	present-future (inflective)	<i>ki</i>	aorist (perfective)
<i>ka</i>	present-future (inflective)	<i>oka</i>	resultative (perfective)
<i>ken</i>	future (inflective)	<i>ken</i>	aorist (perfective), intransitive
<i>te, ta, ta</i>	imperfect (inflective or "neutral")	<i>ta</i>	progressive (inflective)
<i>ḍan</i>	durative (inflective or "neutral")	? <i>tan</i>	progressive (inflective), intransitive
<i>e, i, ye, yi</i>	preterite (perfective)	<i>e</i>	habitual (inflective)
<i>ya, ja</i>	preterite (perfective)	<i>ia</i>	durative (inflective)
<i>jan</i>	preterite (perfective)	<i>ian</i>	durative (inflective), intransitive

The forms match up quite well, the meanings only rarely. No semantic tie is discernible between *-n* in Nahali and Munda. The forms with *k* are perfective in Munda, inflective in Nahali, while, conversely, the forms with *e*, *ia*, etc. are inflective in Munda, but perfective in Nahali. The very fundamental change which would have to have taken place here, does

not seem quite plausible. In addition, the agreement with Ku. *ka* and *ḡan* would then have to be accidental, or else Kurku would have had to borrow the forms. It is, on the other hand, not very probable that the agreement is either one of chance or that Nahali has borrowed a great number of forms from Kurku. The relatively most attractive solution would be the assumption of a secondary levelling of already similar forms, whereby not only Kurku need have been the donor. *ḡan*, which also occurs, for instance, in Asuri as *idan*, possibly is an old Nahali word which has become 'naturalized' in Kurku, Asuri, etc. The details of this development are still lacking and it is very possible that intensive research and the accumulation of further material regarding Nahali will open entirely new perspectives.

7.7 For the present we may state that the verb system of Nahali resembles that of Proto-Munda in all its general features: the lack of incorporated pronouns, presence of a complex of aspect affixes (with great formal similarities), absence of the absolutive, secondary internal transformation in the particles of negation. The postposition of the aspect (as well as tense) affixes – after the particle of negation – in Nahali, exhibits a rather free and loose position of the aspect affixes. Originally they probably were not bound morphemes (affixes) at all, but rather were independent particles. If it were possible, at a future time, to offer proof for a relationship between the aspect affixes of Nahali with those of Proto-Munda – here we could only show a possibility – there would then follow that the aspect affixes of Proto-Munda also go back to independent words or particles; a further step would thus have been taken to bridge the gulf between the analytical Khmer-Nicobar and the synthetic Munda languages. From that achievement we are still separated by much necessary research and – above all – fieldwork.

#### TABLE OF ABBREVIATIONS

##### A. Languages

As.	Asuri	Kh.	Kharia	Mu.	Mundari
Bahn.	Bahnar	Kh.	Khmer	Nah.	Nahali
Bh.	Birhor	Khs.	Khasi	Nic. (Car.)	Nicobarese, Car
Bol.	Boloven	Ku.	Kurku	Nic. (Nan.)	Nicobarese, Nancowry
Gu.	Gutob	Kw.	Korwa	Nic. (Ter.)	Nicobarese, Teressa
H.	Hindi	Lat.	Latin	O.	Oriya
Ho	Ho	Lave	Lave		
IE.	Indo-European	Lawa	Lawa		
Ju.	Juang	Mon	Mon		

Pa.	Pareng	Ri.	Riang	So.	Sora
Pal.	Palaung	Sa.	Santali	Sre	Srê
Pang.	Pangan	Sem.	Semang	Theng	Theng
PM.	Proto-Munda	Sk.	Sanskrit	Wah	Wah
Re.	Remo				

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