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Himalayan Linguistics

Old Tibetan verb morphology and semantics: An attempt at a reconstruction

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ABSTRACT

The paper presents the first complete reconstruction of the Old Tibetan (OT) verb morphology and semantics. Old Tibetan had a productive verb inflection with meaningful inflectional affixes *b-*, *g-*, *γ-*, *d-*, *-d*, and *-s*. The distribution of the prefixes was asymmetric and closely related to transitivity of a verb. Verbs of highest transitivity formed four distinct stems, whereas intransitive verbs inflected for one or two stems only. Grammatical voice is the only category that can explain the disproportion in the markings of transitive and intransitive verbs. Because the basic opposition was that between active and passive voice, intransitive verbs could only form active forms, whereas both active and passive forms were available for the majority of transitive verbs. In addition, both groups of verbs inflected for aspect, distinguishing between perfective and imperfective aspect. The OT inflectional system seems to have been a local innovation, only marginally related to verb morphology of other Trans-Himalayan languages.

KEYWORDS

Old Tibetan, Tibetic languages, verb morphology, verb semantics, historical linguistics

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*Old Tibetan verb morphology and semantics: An attempt at a reconstruction**

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Introduction

§ 1. The fundamental premise of the paper is that Old Tibetan (OT) had a productive verb inflection. This can be assumed from the fact that the usage of analytical constructions was very limited in OT texts.¹ They started occurring in written sources at the beginning of the 9th century but even then the vast majority of clauses ended with a simple verb.² From this we can infer that a simple verb contained enough information to feed the clause. Another hint at the productivity of

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¹ The Tibetan script is transliterated according to the principles put forward in Bialek (2020 Forthcoming). Special letters used in the transliteration include: *n* [ŋ], *č* [tɕ], *čh* [tɕʰ], *j* [dʒ], *ñ* [ɲ], *c* [tɕ], *ch* [tɕʰ], *ʃ* [ʃ], *z* [z], *y* [y], *ś* [ɕ]. The pronunciation of the remaining letters roughly corresponds to their English pronunciation (see Hill 2010b for details on OT phonology). Tibetan proper names are hyphenated in order to enhance their readability in the text flow. Only the first letter (even if not the root consonant) is capitalised. If not otherwise stated, passages quoted from OT sources have been transliterated by myself on the basis of scans made available on the IDP and Gallica. The OT orthography is strictly followed. The ‘reversed *gi gu*’ is transliterated as *ī*. No distinction is made between a single and a double *cheg* in the transliteration. Reconstructed verb roots (√) are quoted in IPA transcription. The passages from Tibetan texts have been translated by myself. Throughout the paper I transliterate in ordinary typeface verb stems that are not attested in OT but supplemented from Classical Tibetan (CT) sources; e.g., *zad* is an OT stem, whereas *yjad* is one known from later sources only.

The term ‘Tibetic’ is used to denote the group of *all* historically attested Tibetan languages. That is, ‘Tibetic’ is a more encompassing term than ‘Tibetan’. The latter is used only to refer to a concrete historical language, like Old Tibetan, Lhasa Tibetan, or Balti Tibetan, etc. Tibetic languages can be reconstructed to a common ancestor language that is called ‘Proto-Tibetic’. The oldest historically attested Tibetic language is Old Tibetan. The labels ‘Early Old Tibetan’ (EOT), ‘Middle Old Tibetan’ (MOT), and ‘Late Old Tibetan’ (LOT) are used in accordance with the periodisation put forward in Bialek (2018b: 33ff.).

I treat all modern vernaculars as belonging to one taxonomic level and therefore call these ‘dialects’. This approach is motivated by the fact that so far no shared innovations have been disclosed that would allow us to group certain dialects together and speak of languages (i.e. groups of dialects) instead of dialects. If not otherwise remarked, all dialectal forms are quoted after CDTD.

² The *Old Tibetan Annals* (OTA) do not attest to any use of analytical constructions, which fact could be also related to the specificity of the genre. However, analytical constructions in Central Tibetan inscriptions occur only in *Žwa: bžag pa yin* (W 28, E 41). The text uses the phrase side by side with the simple verb *bžag* in identical contexts.

the inflectional system is that many so-called ‘conjugations’ were incomplete. Thus, the forms must have been produced as they were needed but nothing like precast conjugational patterns seem to have existed. This also accounts for the sporadically encountered variations in verb stems which are not attested in later sources.

The productivity of the verbal affixation has one important implication for the study of the OT verb morphology: the affixes can be deemed meaningful. In other words, grammatical meaning had a concrete morphological expression and the relation between the meaning and the form was not arbitrary.³ Accordingly, I presume that a large part of the OT inflectional verb morphology can be explained. The precondition is that we look at the right data.⁴

§ 2. An important methodological premise underlying the present examination is that OT verb morphology must not be studied independently of the verb meaning. This is a logical consequence of the realisation that the OT inflectional system was productive. As it seems, the inflectional affixes were either inherited from the common Trans-Himalayan (TH) stock or grammaticalised from (mostly unknown) lexical sources in Proto-Tibetic (PT) but retained their meanings and functions at least until LOT. The inflection started to lose its productivity with the rise of analytical constructions that heavily contributed to the reorganisation of the morphosemantics of the verb system.

This study differs from the majority of previous studies devoted to Tibetan verb morphology in treating its subject as a system of interdependent elements whose characteristics, and relative position in the system, can be described in terms of oppositions. The meaning and the function of an element – i.e. a verb stem or an inflectional affix – can be unravelled and properly described only if it is conceived of as a part of the system and as operating in relation to other elements.

Some of the arguments presented in the paper have already been considered by other scholars and I certainly do not claim their authorship for myself. On the contrary, my research has been heavily influenced by works of many Tibetologists who tackled verb morphology before me.⁵ In this paper I present several new insights but also new interpretations of some well-known facts. My research is based solely on OT material. I have surveyed only verb forms that are attested in OT texts without supplementing the conjugations with forms from later sources.⁶

§ 3. Besides the Introduction and Conclusions, the paper consists of four main parts. In Part 1 four types of verb-families are introduced, into which OT verbs can be divided. Part 2

³ On the correlation between verb morphology and semantics see the seminal study of Bybee (1985) that has formed the conceptual basis for several important conclusions presented in the paper.

⁴ ‘Looking at the right data’ means that I first of all examine verbs in their textual context. I reject the popular approach of analysing verb inflection on the basis of precast verb conjugations as found in dictionaries, diverse lexicographical sources, or in native Tibetan grammatical treatises.

⁵ Because I am currently preparing for publication a book on OT grammar, I will restrict my presentation in this paper to the analysis of the OT inflectional system. The book will deal in greater detail with the history of the morphological studies and prevailing interpretations of Tibetan verbs. Although excluding these topics from the paper, I absolutely do not want to lessen their impact on the formation of my own concepts. They will be paid due respect in the forthcoming publication (see Bialek, In Preparation a).

⁶ It is not the purpose of the present study to trace the development of the forms and their meanings through later stages of the language. Neither do I aim to explain the reasons for which much later Tibetan native grammatical tradition decided to combine certain forms together in conjugations and labelled the single forms of a conjugation as ‘present’ (*byed chig / da lta bayi chig*), ‘past’ (*ydas payi chig*), ‘future’ (*ma yons payi chig*), and ‘command’ (*(b)skul chig*).

discusses grammatical properties that were expressed by stems of simple verbs: these were valence and transitivity (2.1), voice (2.2), and aspect (2.3). Part 3 is devoted to inflectional affixes that were still productively used in OT: *b-*, *g-*, *γ-*, *d-*, *-d*, and *-s*. In Part 4 verb inflection is presented in diachronic perspective from the stage of PT to the last processes that might have taken place as late as in LOT. In addition, three appendices exemplify and summarise the main thoughts of the paper: Appendix A illustrates internal structures of a few OT verb-families; Appendix B contains an analysis of the usage of different stems of two verbs in a longer text passage; and Appendix C diagrams the development of the inflectional system in a diachronic perspective. The following overview shall facilitate the orientation in the paper:

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1 Part 1: Verb-families

§ 4. The aim of this part is to deliver a structured overview of verb paradigms of OT verbs. To this end I have grouped all OT verbs into verb-families. ‘Verb-family’ are those verbs that can be shown to have been etymologically cognate and each formed a separate inflectional paradigm.⁷ To this effect it is crucial to distinguish between derivational and inflectional affixes that OT verbs could take:⁸

| | <i>s-</i> | <i>r-</i> | <i>y-</i> | <i>b-</i> | <i>g-</i> | <i>d-</i> | <i>-s</i> | <i>-d</i> |
|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Derivation | + | + | + | | | | | + |
| Inflection | | | + | + | + | + | + | + |

As we see, two of the derivational affixes were also used as inflectional affixes: the prefix *y-* and the suffix *-d*. Their double function is one of the reasons why it has sometimes been difficult to define a verb conjugation and to decide which stems belonged to one conjugation and which formed a distinct conjugation. Historically the derivational markers might have developed towards the inflectional ones but not the other way round. This is implied by the fact that derivational meaning has more semantic content, whereas inflectional meaning is more general and abstract (Bybee 1985: 99). In addition, ‘[t]he diachronic progression [...] in the development of grammatical meaning is from the more specific meaning to the more general’ (ibid., p. 143). This unidirectionality constitutes an important hint in reconstructing the meanings of the affixes *y-* and *-d*.

§ 5. Based on the distinction between derivational and inflectional affixes, I differentiate between ‘primary’ and ‘secondary’ verb-families. ‘Primary’ verb-families are those in which none of the members was derived by a derivational affix (*s-*, *r-*, *y-*, *-d*). ‘Secondary’ verb-families include those families that also had members derived by the derivational affixes. The distinction between primary and secondary verb-families is not only heuristic. Namely, we may expect that the introduction of new derivatives into a verb-family caused semantic changes in other members of the family as well. Therefore the analysis of such verb-families has to take more factors into account.⁹

⁷ I accept Bybee’s most general definition of paradigm as ‘a group of inflectionally related words with a common lexical stem’ (1985: 49).

In order to avoid terminological misunderstandings I will use labels ‘v1’, ‘v2’, ‘v3’, and ‘v4’ to refer to inflected verb stems usually termed ‘present’, ‘past’, ‘future’, and ‘imperative’ in literature.

⁸ For the purpose of this paper I restrict the understanding of derivational affixes to those morphemes that were used to form verbs from other verbs. Affixes that formed verbs from nominal roots are deemed irrelevant to the topic.

Because in PT pre-consonantal *d-* merged with *g-*, the underlying forms of the prefixes cannot be established through internal reconstruction. In § 59 I argue that one particular OT conjugation suggests that the original form of the v1 prefix was *d-*. Accordingly, I will use ‘*g-*’ for the inflectional prefix of v3-stems and ‘*d-*’ for the prefix of v1-stems. The formally identical denominal derivational prefix (like in *dgoṅs*, *gnañ* etc.) will be referred to as ‘*d-/g-*’ and the nominalising reflex of Proto-Trans-Himalayan (PTH) **gV* as ‘*g-/d-*’ (cf. § 55). This convention is introduced with the sole aim of facilitating the presentation.

⁹ Secondary verb-families are subsumed under Type 4 of OT verb-families. They are treated in some detail in §§ 27–28.

The following types of primary verb-families can be discerned:¹⁰

1. Verb-families with one INTR verb: *na* ‘be ill’, *bzugs* ‘stay’, *lus* ‘remain’;
2. Verb-families with one TR verb: *thos* ‘hear’, *mjal/mjald* ‘meet’, *byed/byas/byal/byos* ‘do’;
3. Verb-families with both INTR and TR verbs:
 - a. With consonant alternation within the TR conjugation; e.g., INTR *ybye/bye* ‘open’ and TR *ybyed/phye/dbye/phyes* ‘open’;
 - b. With consonant alternation between the conjugations: e.g., INTR *zad* ‘decline’ and TR *gsod/bsad/gsad/sod* ‘kill’;
 - c. With no consonant alternation; e.g., INTR *yčhag/čhag* ‘break’ and TR *gčog/bčag/gčag/čhogs* ‘break’.¹¹

Internal structure of verb-families depended on verb semantics. In many cases events that differ from each other only in the number of actors are coded lexically, i.e. as distinct verbs (with one or two, seldom three, arguments). Compare Eng. INTR *to go* vs TR *to send* or INTR *to die* vs TR *to kill*. Most of the OT verbs did not have any etymologically related counterpart with a complementary value, and formed verb-families with one member only (Types 1 & 2). However, in OT there was a group of etymologically related verbs that coded these different types of events by morphological means. These verbs used the alternation between voiced and voiceless root consonants to express intransitive or transitive meaning respectively:

voiced (‘G’) = INTR
voiceless (‘K’) = TR¹²

¹⁰ The survey is based on my database that contains over four hundred verb-families extracted from OT texts. Copulas, modal verbs, and auxiliaries are excluded from the discussion. Of course, the number of the members of one verb-family can be established only on the grounds of the available OT data. Some of the verb-families might have been defective already in OT and so their attested stems might in fact be remnants of a different pattern. Therefore, it is crucial in the first step to look for similarities and convergent development of greater groups of verbs rather than to concentrate on exceptions.

¹¹ The subdivision of Type 3 is based on the relationship between the root consonants of two verbs that formed one verb-family. As opposed to that, subdivisions of Types 1 (section 1.1) and 2 (section 1.2), as well as a further subdivision of Type 3 (section 1.3), are based on other criteria, partly related to the semantics of the verbs and paradigmatic patterns according to which a single verb inflected.

¹² This observation goes back to Conrady (1896). Because a similar morphological alternation is encountered in the most conservative Tibetan dialects (WAT) and in other TH languages, Bielmeier reconstructed it to PT (1988: 18). This, however, does not mean that the alternation of root consonants is the older derivation pattern than that by means of derivational affixes as assumed by Bielmeier (*ibid.*, p. 19). Languages typically have alternative means of expressing valence-changing on verbs. Compare, for instance, the coexistence of the productive prefix *s-* and the auxiliary *yjug* as causative markers in OT. I deem it possible that the alternation TR K ~ INTR G was brought about in PT by a prefix historically related to Old Chinese *N-. The latter derived stative intransitive verbs from transitive ones and caused voicing of the root consonant (Baxter/Sagart 2014: 54). The creation of voiced variants in PT may be sketched as follows: TR K > INTR *N+K > INTR G. This hypothesis was first proposed by Jacques who juxtaposed the Old Chinese *N- with Rgyalrong anticausative prenasalisation (2012: 215f.). The alternative hypothesis saying that transitive verbs are derived from intransitive ones by means of the causative prefix *s-* (cf. Shefts Chang 1971) runs counter dialectal data which shows that voicing of the root consonant spreads to the *s-* prefix and not the other way round (cf. Bialek 2018b: 2ff.). The question of which roots, transitive K or intransitive G, were primary and which derivational, cannot be answered on the grounds of Tibetan data only. For this reason both types of roots should be reconstructed into PT.

The distinction between lexically and derivationally encoded transitivity can be demonstrated with two pairs of OT verbs:

| | | |
|---------------------|--------------------------|---|
| | INTR | TR |
| Lexical coding | <i>śi</i> ‘to die’ | <i>gsod/bsad/gsad/sod</i> ‘to kill’ ¹³ |
| Derivational coding | <i>ygum/gum</i> ‘to die’ | <i>ygums/bkum/dgum/khums</i> ‘to kill’ |

Types 3a and 3b of verb-families used the voiced~voiceless alternation to form their paradigms. Because voice alternation was intrinsic to certain verbs and was marked directly on the verb root in OT, this must have been one of the oldest and most primary morphological marking in Tibetic. Secondary verb-families (Type 4) were by definition most complex and, depending on the internal developments within a particular secondary verb-family, might have included various formative aspects of the primary verb-families as well.

In the following sections I will discuss the single types of the verb-families in more detail.

1.1 *Type 1*

§ 6. Type 1 includes, by definition, only those verbs that formed verb-families with one intransitive member. These verbs had one or two stems and therefore the following subgrouping can be proposed.

1.1.1 *Type 1a: Verbs with one stem*

§ 7. This type includes attributive verbs (left column) and event verbs (right column). Prototypical verbs of the latter group expressed events without an endpoint (i.e. atelic). Another common trait of these verbs is that they all seem to have been non-controllable.

| | |
|-----------------------|-----------------------|
| <i>ñe</i> ‘be close’ | <i>khyab</i> ‘spread’ |
| <i>ñes</i> ‘be wrong’ | <i>chig</i> ‘burn’ |
| <i>na</i> ‘be ill’ | <i>lus</i> ‘remain’ |

1.1.2 *Type 1b: Verbs with two stems*

§ 8. This type had two subtypes: Type 1b1 and Type 1b2. In Type 1b1 one of the stems had the suffix *-s* (allomorph: *-d*):

| | | | |
|------------|-----------------------|------------|----------------------------|
| √ | √+s | √ | √+s |
| <i>čha</i> | <i>čas</i> ‘depart’ | <i>če</i> | <i>čes</i> ‘be great’ |
| <i>mol</i> | <i>mold</i> ‘consult’ | <i>dar</i> | <i>dard</i> ‘be prevalent’ |
| <i>yon</i> | <i>yons</i> ‘come’ | <i>čan</i> | <i>čans</i> ‘be complete’ |

¹³ OT had a few distinct verbs with the meaning ‘to kill’ and any of them could be quoted as a lexical counterpart of *śi*, also TR *ygums* from the following line.

Likewise this type included event (left column) and attributive verbs (right column). It is conspicuous that all event verbs of this group were controllable as opposed to verbs of Type 1a. This implies that the suffix *-s* was compatible only with controllable verbs. Concerning the meaning of the suffix, we acquire an important hint from one lexicalised verb: *mčhis* ‘stay’. It apparently originated from the *-s*-form of the verb *mčhi/mčhis* ‘come, go’. Accordingly, *mčhis* must have denoted the accomplishment of the action of going that resulted in an arrival at a certain place. One can compare *mčhi* > *mčhis* with the Ger. (*an*)*kommen* ‘arrive’ > (*an*)*gekommen sein*, lit. ‘be arrived’. The latter meaning implies that someone *ist irgendwo* ‘is somewhere’. Hence, I interpret the suffix *-s* here as expressing a result of a completed action.¹⁴

When applied to attributive verbs the same suffix situated the respective feature in the past, cf.:

- (1)
- | | | | |
|-------------------|------------------------|-----------------------------|---|
| <i>yar+mo-ni</i> | <i>čhu</i> | <i>thuñs-kyis</i> // | As for Yar-mo, because [its] rivers were short , |
| Yar+mo-FOC | river(ABS) | be_short:PST-ERG | |
| <i>mdo-nas-nī</i> | <i>rcañ-du</i> / (267) | <i>bsriñ</i> / | [It] was extended from Mdo[-smad] to Rcañ. |
| Mdo-ELA-FOC | Rcañ-TERM | DPASS:extend | |
| <i>yar+mo-ni</i> | <i>žen</i> | <i>čuñs-kyis</i> / | As for Yar-mo, because [its] area was small , |
| Yar+mo-FOC | extent(ABS) | be_small:PST-ERG | |
| <i>lho-nas-nī</i> | <i>byañ-du</i> | <i>bskyed</i> / (Pt 1287) | [It] was enlarged from south to north. |
| south-ELA-FOC | north-TERM | DPASS:increase | |

In this passage the suffix *-s* of the attributive verbs *thuñs* (< *thuñ* ‘be short’) and *čuñs* (< *čuñ* ‘be small’) marks the fact that these descriptions belong to the past. They do not apply anymore because the respective object (in this case the Yar-mo region) has changed its characteristics. The change did not result from a particular action. Because attributive verbs do not express any event or process, the suffix *-s* marked the past character of the feature.

§ 9. In Type 1b2 one of the stems has the prefix *γ*-:

- | | |
|-------------|---------------------|
| √ | <i>γ</i> +√ |
| <i>doñ</i> | <i>γdoñ</i> ‘go’ |
| <i>broś</i> | <i>γbroś</i> ‘flee’ |
| <i>śi</i> | <i>γčhi</i> ‘die’ |

This is the least numerous group of intransitive verbs in my OT data. As a matter of fact, it is very difficult to find a pair of such verbs in complete clauses in OT texts. Usually the *γ*-stems are used either in nominalised forms or in clauses without a subject. Compare the following clauses with *broś* and *γbroś*:

- (2)
- | | | |
|-----------------------------|----------------------|--|
| <i>mañ+po+rje+sum+bu-nī</i> | <i>dru+gu+yul-du</i> | <i>broś-so</i> / (Pt 1287: 183) |
| Mañ+po+rje+sum+bu-FOC | Dru+gu+land-TERM | flee(ACT.PFV)-FNL |
- Regarding Mañ-po-rje Sum-bu, [he] **fled** to the land of Dru-gu.

¹⁴ For a detailed discussion of the perfective suffix *-s* see § 47.

| | | | |
|----------------------|-----------|-----------------------|---------------------------------------|
| (3) | | | |
| <i>khyod-dañ</i> | <i>ña</i> | <i>gñis-kyis-kyañ</i> | You and I, both [of us], |
| you-COM | I | two-ERG-ADD | |
| <i>sñ{e}g-na-ni</i> | | <i>myi-sl{e}bs</i> | When pursuing, will not have reached, |
| (IMPR)pursue-INE-FOC | | NEG.NPST-reach:PFV | |
| <i>ybro-s-na-ni</i> | | <i>myi-thar</i> | When fleeing, will not escape, |
| IMPR:flee-INE-FOC | | NEG.NPST-get_free | |
| <i>rgal-na-ni</i> | | <i>myi-thub</i> [...] | When fighting, will not succeed. |
| fight-INE-FOC | | NEG.NPST-succeed | (ITJ 731: r82; <i>apud</i> OTDO) |

As I have demonstrated in Bialek (2018a: 1.316), *śi* was originally the basic form of the verb from which *γ̣chi* was later derived. It follows that the prefix did not belong to the primary paradigm. I argue that the prefix *γ-* was introduced into intransitive conjugations in order to express the newly established opposition perfective–imperfective (see § 47).

1.2 Type 2

§ 10. Type 2 encompasses verb-families with one transitive member. Verb-families of Type 2 can be further subdivided depending on the number of stems attested for each verb. Verbs of this group could have from one to four distinct stems. In the following I will discuss each subgroup separately.

1.2.1 Type 2a: Verbs with one stem

§ 11. Verb of Type 2a include:

| | | | |
|--------------------|---------------------|------------------------|--------------------|
| <i>gyon</i> ‘wear’ | <i>žen</i> ‘desire’ | <i>thob</i> ‘obtain’ | <i>zer</i> ‘speak’ |
| <i>thos</i> ‘hear’ | <i>re</i> ‘hope’ | <i>dran</i> ‘consider’ | <i>śes</i> ‘know’ |

Already this set demonstrates that verbs of this type were located on the lower end of the transitivity scale.¹⁵ They might be controllable (e.g., *gyon*, *zer*) or non-controllable (e.g., *thos*, *dran*), but for one reason or another they were treated in OT as non-prototypical transitive verbs. In most cases their patient-arguments were either not fully affected by the action (e.g., *gyon*) or could not be clearly distinguished from the agent (e.g., *re*, *śes*). I relate the ‘reduced’ morphology of these verbs to their lower transitivity. In other words, I assume that they were not eligible to take inflectional affixes due to their lower transitivity.

A distinct group within 2a is formed by verbs with a prefix:

¹⁵ For a discussion of transitivity as a continuum, see Hopper/Thompson (1980). For the purpose of this paper I adapt Widmer’s definition of a prototypically transitive verb: ‘[T]he prototype transitive event involves a volitionally acting and instigating agent that acts on a specific and fully affected patient, with agent and patient representing clearly distinguishable participants.’ (2018: 83).

| | | | |
|---|-------------------------|------------------------|---------------------|
| <i>b-/m-</i> | <i>d-/g-</i> | <i>m-</i> | <i>s-</i> |
| <i>bkur</i> ‘honour’ | <i>dgoñs</i> ‘consider’ | <i>mkhyen</i> ‘know’ | <i>sñam</i> ‘think’ |
| <i>bkyon</i> ‘scold’ | <i>gday</i> ‘say’ | <i>mčhid</i> ‘say’ | |
| <i>bsgyud</i> ‘trick’ ¹⁶ | <i>gnañ</i> ‘grant’ | <i>mčhod</i> ‘worship’ | |
| <i>brjod</i> ‘promulgate’ ¹⁷ | <i>gzigs</i> ‘regard’ | <i>mthoñ</i> ‘see’ | |
| <i>bnal</i> ‘sleep’ | | | |
| <i>mnard</i> ‘suffer’ | | | |
| <i>blod</i> ‘discuss’ | | | |
| <i>bžes</i> ‘take’ | | | |

I consider them to be derivatives from non-verbal roots. They did not participate in transitive paradigms because of their non-verbal origins.

1.2.2 Type 2b: Verbs with two stems

§ 12. Verb of Type 2b include:

| | | | |
|--------------|---------------------------|------------|--------------------|
| √ | √+s | √ | <i>b</i> +√ |
| <i>mjal</i> | <i>mjal</i> ‘meet’ | <i>žon</i> | <i>bžon</i> ‘ride’ |
| <i>ythuñ</i> | <i>ythuñs</i> ‘drink’ | | |
| <i>bcay</i> | <i>bcas</i> ‘watch’ | | |
| <i>gsuñ</i> | <i>gsuñs</i> ‘speak’ | | |
| <i>yday</i> | <i>ydas</i> ‘pass (over)’ | | |

Verbs in the left column inflected like the intransitive Type 1b1.¹⁸ They were all controllable and so fulfil the main condition of Type 1b1 for acquiring the suffix *-s*. Although being transitive on the surface (they required an object), their transitivity was rather low; either their arguments were not distinct (e.g., *gsuñ*), or the patient not fully affected by the action (e.g., *mjal*, *bcay*, *yday*).

The verb *žon/bžon* is a distinct case. It acquired the prefix *b-* and thus partly inflected like a transitive verb. I assume that it was not able to form passive (by taking the prefix *g-*; see § 38) due to its original argument structure: X_{ERG} Y_{ALL} *bžon* ‘X rides on Y’ (cf. ITJ 731: v35 & v49; *apud* OTDO). The patient argument in allative could not be turned into a subject of a passive verb ‘!Y was ridden on.’ Moreover, dialectal data suggests that the verb was originally intransitive and was made transitive by the addition of the prefix *b-*. The development of its argument structure can be sketched as:

¹⁶ I assume *bsgyud* in Pt 1287: 24 to be a denominal from *sgyu* ‘trick’ derived with the agentive suffix *-d* (cf. fn. 136). It seems to be a *hapax legomenon*; *bsgyud* in Pt 1039: 23 & 27 seems to be a different verb, possibly a distorted variant of *brgyud*.

¹⁷ This verb is given v1 *rjod* in CT sources, but the latter form is not attested in OT and could be a back formation from *brjod*. For an alternative explanation see fn. 19.

¹⁸ Already Shafer noticed the existence of transitive verbs in CT that inflected in accordance with an intransitive conjugation. He called them ‘transitives in intransitive form’ (1950a: 706).

cA/cE ‘to ride’ > cAD/cED ‘to ride on_{ALL} (a horse)’ > cEA ‘to ride (a horse)’

All the patterns are attested in modern dialects (cf. CDTD.V: 1090).¹⁹ That the verb was perceived to be of lower transitivity is also confirmed by the fact that the verb root $\sqrt{\text{zon}}$ was identical with one of the ‘inflected’ stems, i.e. v1 *zon*. Transitive verbs with one or two stems (Types 2a & 2b) were the only transitive verbs that involved the verb root (marked with the zero morpheme) in their conjugations. Other transitive verbs didn’t make use of the zero marker and therefore had only marked forms.²⁰

We may also remark that transitive verbs with two stems did not take the prefix *γ-* in any conjugation. This appears obvious if we consider that *γ-* was primarily an intransitive prefix (see § 56).

1.2.3 Type 2c: Verbs with three stems

§ 13. These are the only verbs in my data of which one could with certainty state that they had only three distinct forms:

γčhad/bśad/śod ‘explain’
γčhos/bčos/čhos ‘prepare’
γdrub/drubs/drub ‘sew’

The scarcity of such verbs conjugations suggests that they constituted rather an exception in the system. Each of the conjugations exhibits a different motivation for the ‘lack’ of the fourth form:

- Although the verb *γčhad/bśad/śod* is regularly provided with these stems (cf. Hill 2010a: 88), Jäschke lists *gśad* as an equivalent of *γčhad* (p. 565, s.v. *gśad*).²¹ On the other hand, one particular OT phrase suggests that also *bśad* could have been used as v3: *bśad du gsol* (Pt 1283: 14) ‘asked to explain’. ‘*V_{TERM} gsol*’ is prototypically used with v3 stems but exceptions with v2 can likewise be encountered. Thus, data on this verb is inconclusive; *gśad* might have been the original v3 or a later analogous formation.
- As I explain in Ex.1 (see Appendix A), *γčhos/bčos/čhos* was formed from the noun *čhos* ‘custom’ (itself derived from v4 of $\sqrt{\text{tea}}$) and therefore the final *-s* belonged to the root. Apparently denominal verbs could not take the prefix *g-* (or, more general, form v3-stems), otherwise *!gčos* would not have been blocked.

¹⁹ The verb *brjod* included in Type 2a above could be an analogous case. CT sources give *rjod* as its v1. In Kar [3ot] is attested as an intransitive cE verb with the meaning ‘to brag about one’s generosity’ (CDTD.V: 431, s.v. *rjod*). Thus, the development of the verb could be sketched as: **zod* (cf. Kar [3ot]) cE ‘to brag’ > *rjod* cED ‘to brag about’ > cEA *brjod* ‘to utter’. This would be another example of a verb with the causative prefix *r-* (see § 67.I). There are also examples suggesting a ‘verbalising’ function of the prefix *b-*; cf. *čha* ‘piece’ > *γčhay/bčhay* ‘to chew’ (see fn. 32), *cha* ‘descendant’ > *bcaγ* ‘to bring forth’, and *zur* ‘corner’ > *bzur* ‘*to corner’ (see fn. 109).

²⁰ The only exception in my data is the verb *za* ‘eat’ with its v1-stem being identical with the verb root $\sqrt{\text{za}}$ (see § 20).

²¹ According to BCRD, *gśad* is attested a few times in the Buddhist canon, but at least in some cases it is certainly a misspelling for another syllable.

- The case of $\sqrt{\text{drub}}$ is more straightforward: in OT the onset *dr-* did not allow for the prefix *b-* ($!b\text{drubs}$ & $!b\text{drub}$). The onset $*b\text{dr-}$ might have been allowed in PT but was simplified to *dr-* in EOT.²²

1.2.4 Type 2d: Verbs with four stems

§ 14. Verbs of this type retained their root consonant throughout their conjugation. Basically one can distinguish between two sub-types within Type 2d: 2d1. verbs with *b-* and *g-* forms; and 2d2. verbs with two *b-* forms within the conjugation. I will treat these sub-types separately.

§ 15. Type 2d1: Verbs with *b-* and *g-* forms. The only complete conjugations of this sub-type in my OT data are:²³

| | <i>g-</i> | <i>b-</i> | <i>g-</i> | <i>-o-</i> | |
|---------------------|-------------|-------------|-------------|-------------|----------|
| $\sqrt{\text{taŋ}}$ | <i>gtoñ</i> | <i>btañ</i> | <i>gtañ</i> | <i>thoñ</i> | ‘give’ |
| $\sqrt{\text{lan}}$ | <i>glon</i> | <i>blan</i> | <i>glan</i> | <i>lon</i> | ‘answer’ |

Important features of the paradigm were:

1. v1 did not acquire the suffix *-d* (allomorph: *-s*; cf. Type 3a);
2. v1 had the vowel *-o-* if the vowel of the root was *-a-*.

As I argue in § 67.XII, the lack of the suffix *-s* in v4-stems was a secondary development and should not be made a defining feature of a paradigm.

§ 16. Type 2d2: Verbs with two *b-* forms:

| | v1 | <i>b—s</i> | <i>b-</i> | $\emptyset—^{(o)}s$ | | |
|---|-----------------------|--------------|----------------|---------------------|------------------|------------------------|
| a | $\sqrt{\text{skjaŋ}}$ | <i>skyoñ</i> | <i>bskyañs</i> | <i>bskyañ</i> | <i>skyoñs</i> | ‘guard’ |
| b | $\sqrt{\text{tea}}$ | <i>yčhaγ</i> | <i>bčas</i> | <i>bčaγ</i> | <i>čhos</i> | ‘make’ |
| | $\sqrt{\text{pand}}$ | <i>ñan*d</i> | <i>mñand</i> | <i>mñan*d</i> | <i>ñon*d</i> | ‘listen’ ²⁴ |
| | $\sqrt{\text{ri}}$ | <i>ydri</i> | <i>bris</i> | <i>bri</i> | <i>ris</i> | ‘write’ ²⁵ |
| | $\sqrt{\text{rim}}$ | <i>ydrim</i> | <i>brims</i> | <i>brim</i> | <i>rims</i> | ‘disband’ |
| | $\sqrt{\text{la}}$ | <i>lta</i> | <i>bltas</i> | <i>blta</i> | <i>lhos/ltos</i> | ‘look’ |
| c | $\sqrt{\text{bgi}}$ | <i>bgvid</i> | <i>bgvis</i> | <i>bgvi</i> | <i>gvis</i> | ‘make’ |
| | $\sqrt{\text{no}}$ | <i>nod</i> | <i>mnos</i> | <i>mno</i> | <i>nos</i> | ‘receive’ |
| | $\sqrt{\text{bja}}$ | <i>byed</i> | <i>byas</i> | <i>bya</i> | <i>byos</i> | ‘do’ |
| | $\sqrt{\text{lan}}$ | <i>lend</i> | <i>blan*d</i> | <i>blan</i> | <i>lond</i> | ‘take’ |
| d | $\sqrt{\text{za}}$ | <i>za</i> | <i>bzas</i> | <i>bzaγ</i> | <i>zos</i> | ‘eat’ |

²² As I argue below (see § 16), this verb should be classed as Type 2d2.

²³ I omit from the discussion the verb $\sqrt{\text{zuŋ}}$ due to its complicated relation with other presumably cognate verbs. This group of verbs needs a separate study that would scrutinise their usage in OT texts.

²⁴ The spelling convention $\langle *d \rangle$ indicates that the post-consonantal *-d* was not written but can be inferred from assimilated forms of the following clitics.

²⁵ *ris* as the original v4 of the OT verb *ydri* was reconstructed by Hill (2005).

To these we shall add:

| | | | | | | |
|---|-------|--------------|--------------|-------------|--------------|-------|
| b | √dra | <i>ydra</i> | <i>dras</i> | <i>dra</i> | <i>dros</i> | ‘cut’ |
| | √drub | <i>ydrub</i> | <i>drubs</i> | <i>drub</i> | <i>drubs</i> | ‘sew’ |

In OT the prefix *b-* was blocked before the complex onset *dr-*. I repeat the verb √drub here (cf. § 13) because this is its proper paradigm. The convergence of v2 and v4 (both = *drubs*) is accidental and resulted from the fact that, on the one hand, in OT the verb could not take the prefix *b-* (v2 !*bdrubs* vs v3 !*bdrub*)²⁶ and, on the other hand, *-u-* could not be replaced by *-o-* in v4 (v4 !*dros*; cf. *dros*).

The common feature of the verbs of the sub-type 2d2 is that their v2-stems differed from v3-stems only in having the additional suffix *-s*. This was a general characteristic of all the verbs which had the prefix *b-* in v2 and v3. They were also the only type of verbs that had the prefix *b-* in v3. Ergo: if a verb had the prefix *b-* in v3, it had the prefix *b-* and the suffix *-s* in v2. Even more important is the observation that transitive verbs could take the suffix *-s* in v2 only if they had the prefix *b-* in v3.²⁷ Therefore, the question arises whether the suffix *-s* did not serve just to differentiate the two stems from each other. With other words, did *-s* in v2 of transitive verbs have any grammatical meaning? My answer is no: *-s* in v2 of transitive verbs was a dummy suffix. I will elucidate my position in § 65. Furthermore, verbs of type 2d2 formed their v4 stems by adding the suffix *-s* to the root and changing the root vowel *-a-* to *-o-*.

These features being alike, verbs of Type 2d2 differed significantly from each other in forming v1-stems. One can differentiate between four main patterns: groups a–d.

§ 17. Group a changed the root vowel *-a-* to *-o-*. Because of its complex onset (*sky-*) *skyon* could take neither *y-* nor *d-* in OT. However, this restriction might have been originally caused by the conflicting semantics of the prefix *s-* and *y-* or *d-*.

§ 18. v1-stems in group b took the prefix *y-*, but did not change their *-a-* vowel to either *-e-* or *-o-*. On the basis of the OT form *lhos* I have reconstructed the root of *lta* as √la (see Bialek In Preparation b): *y+√la* > **yDl-* > **Dl-* > *lt-*. This would suggest that *bltas* and *blta* were secondary or analogous formations.²⁸ I have included √ñan in this group because nasals were not allowed to take the prefix *y-* (but they could take *d-*). We can conclude that group b formed its v1 only by adding *y-*.

§ 19. Verbs of group c added the suffix *-d* in v1. √bgʲi has the pre-consonantal *b-* in v1, v2, and v3. I reconstruct the root as √bgʲi and assume that in PT v4 !*bgyis* was blocked (and

²⁶ According to available indices of OT texts, the onset *bdr-* is attested three times: *bdrab* (Pt 37: 7v3), *bdrog* (Pt 1052: v10), *bdra* (Or.15000/480: r4). *bdrab* is a scribal error for *gdab*. Whether *bdrog* should be considered a reflex of earlier rules of inflection, a scribal error, or a mere misreading, cannot be decided yet. Or.15000/480: r4 clearly reads *bdra*. The syllable is written as the last one in the line and it is not clear whether this is the whole syllable or its final is missing. I may mention that *bdris* on OTDO (Pt 1287: 410) is, in fact, a misreading for *ydris* of the manuscript. Jäschke quotes also *bdral* as a frequent v2 of *ydral* in *Mjañs blun* (271b). Beyer interprets the form however as a hypercorrection (1993: 168, fn. 5). The onset **bdr-* might have still been allowed in MOT, since The seems to have preserved its reflexes in a few verb forms: [ptʃwa] WT *dral* (CDTD.V: 651) < **bdral*; [ptʃwan] WT *drañs* (CDTD.V: 660) < **bdrañs*; [ptʃwi] WT *dras* (CDTD.V: 649) < **bdras*; [ptʃwi] WT *dris* (CDTD.V: 652) < **bdris*.

²⁷ Except for cases like √dra and √drub in which the prefix *b-* was blocked due to phonotactic constraints.

²⁸ Compare, e.g., OT *bl dug* vs CT *blug*.

consequently replaced by *gyis*) due to its homonymy with v2 *bgvis*.²⁹ \sqrt{no} , \sqrt{bja} , and \sqrt{lan} formed their v1 by adding the suffix *-d* to the root, which caused the vowel change *-a- > -e-*.

§ 20. Group d has only one member: \sqrt{za} . It took neither the prefix *γ-* (!*yjay*) nor the suffix *-d* (!*zed*) in v1. Verbs of eating often don't behave like prototypical transitive verbs³⁰ and this fact could explain the multitude of inflectional forms of the verb attested in Tibetan lexicographical sources (see Hill 2010a: 257). The use of a verb root with a zero marker (v1 *za* = \sqrt{za}) is characteristic of intransitive verbs (see §12). It is therefore probable that \sqrt{za} was originally an ambitransitive root (cf. $\sqrt{draŋ}$ discussed in § 26). The attested forms might go back to two distinct conjugations: an intransitive (*v1 *za*, v2 *zas*) and a transitive one (*v1 *yjay*³¹, v2 *zas*, v3 *bzay*, v4 *zos*).³²

1.3 Type 3

§ 21. Type 3 includes primary verb-families with attested intransitive and transitive core members. We observe that some inflected forms gave rise to new verbs but their creation was marginal and had no influence on the structure of the primary conjugations. The basic opposition

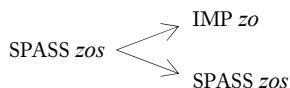
²⁹ This again supports the above reconstruction of PT v2 **bdruvs* < \sqrt{drub} . The homonymy of v2 *drubs* with v4 *drubs* was secondary and would have been blocked in PT as was the case with v4 !*bgvis*.

³⁰ Cf. Valin/LaPolla (1998: 148ff.) & Zeisler (2015: 52f.).

³¹ The form *yjay* is not attested in OT and in CT it occurs only in the phrase *čhud yjay* 'to be expended in vain' (J: 463b) that alternates with *čhud za*.

³² For different explanations of the irregularities in the conjugation of \sqrt{za} see Jacques (2010), Zeisler (2015), Hill (2015), and Zeisler's response to Jacques and Hill in (2017). Hill noticed that the alternation *-a- ~ -o-* between v1 and v2 (cf. CT *za/zos/bzay/zo*) is attested in other CT verbs: *ydeñ/doñ* 'disappear', *yčhay/yčhos/yčhay/yčho* 'chew, gnaw', and *lañ/loñs/lañ* 'finish' (Hill 2015: 165). The data however comes from later native verb lists. As opposed to the given conjugations, the OT v2-stem of the verb 'chew' is attested as *bčhay* in Pt 1287: 411, proving once more how unreliable the later verb lists are. It is possible that the verb was originally derived from *ča* 'part, portion, share' (J: 150b; < * 'bit?'); cf. Eng. *bit ~ bite*, Ger. *beißen ~ bisschen*. In OT the verb might have theoretically conjugated as *yčhay/bčhay/*gčhay/*čhos* (?) but on account of its semantics v3 and v4 were never used or didn't even exist. The whole conjugation was coined later to fulfil the wish of Tibetan grammarians to have a standardised list of inflected verbs. It would certainly be relevant to trace the change within the conjugation, but we see that the quoted forms are a later invention and *yčhos* was a secondary derivation from v4, a suggestion supported by its co-occurrence with *zos* in Mvy: 7005 where it translates Skt. *khādīta*. (By the way, it is often forgotten that Mvy, even though composed in the 9th century, was redacted and re-edited in later times just as any other canonical work was.) None of the conjugations quoted by Hill to support his hypothesis of the sound change **-as > -os* is attested in OT and I deem them to be suppletive and thus secondary. The OT v2-stem *bčhay* (overlooked heretofore by all the authors) actually makes the whole discussion on conjugations 'parallel' to that of the CT *za/zos/bzay/zo* futile.

Jacques and Zeisler based their analyses on the stem *zo* which, however, is not attested in OT and is most probably a later innovation:



For the split of the original stative passive (SPASS) suffix **-(o)s* see §§ 64 & 67.XII. Later, stative passive *zos* was generalised as a v2-stem after constructions like 'X_{ABS} zos' 'X was eaten' had been re-interpreted as '[Y] ate X' which was facilitated by the fact that, on the one hand, Tibetic languages can easily omit agent arguments and, on the other hand, verbs of eating and drinking are not prototypical agentive verbs. The proposed hypothesis also explains the 'derivation' of v2-stems from v4-stems objected to by Hill (2015: 168).

between the intransitive and transitive conjugations of etymologically related roots was preserved within the families.

1.3.1 Type 3a

§ 22. Type 3a encompasses only verb-families with a ‘mixed’ transitive conjugation. The alternation of the root consonants within this paradigm followed one pattern: v1/v3 = G, v2/v4 = K³³. But there are more morphological features shared by the verb-families of this type. Tab. 1 presents the most complete OT conjugations:³⁴

| | | | | Intransitive | | | Transitive | | | |
|---------------------|-------------|-------------------|-------------------------|--------------|-------------|--------------|--------------|--------------|--------------|--------------------|
| | | | | √ | v2 | v1 | v1 | v2 | v3 | v4 |
| Intransitive | Bal | Transitive | Bal | | -s | y- | y—d | b- | g- | -(^o)s |
| √gum ‘die’ | | √kum ‘kill’ | | <i>gum</i> | | <i>ygum</i> | | <i>bkum</i> | <i>dgum</i> | <i>khums</i> |
| √g'e ‘disperse’ | <i>ges</i> | √k'e ‘spread’ | | | <i>gyes</i> | | <i>ygyed</i> | <i>bkye</i> | <i>dgye</i> | |
| √grol ‘become free’ | | √krol ‘release’ | <i>k^hsol</i> | <i>grol</i> | | | | <i>bkrol</i> | <i>dgrol</i> | <i>khrol</i> |
| √dzug ‘enter’ | <i>züks</i> | √teug ‘put in’ | <i>tfuk</i> | | <i>žugs</i> | | <i>yžug</i> | <i>bčug</i> | <i>gžug</i> | <i>čhug</i> |
| √dab ‘fall down’ | | √tab ‘throw’ | <i>tab</i> | | | <i>ydab</i> | <i>ydebs</i> | <i>btab</i> | <i>gdab</i> | <i>thob</i> |
| √bab ‘fall’ | <i>babs</i> | √pab ‘throw down’ | <i>p^hab</i> | <i>bab</i> | <i>babs</i> | <i>ybab</i> | <i>ybebs</i> | <i>phab</i> | <i>dbab</i> | <i>phob</i> |
| √bud ‘get free’ | <i>but</i> | √pud ‘set free’ | <i>p^hut</i> | <i>bud</i> | | | <i>ybud</i> | <i>phud</i> | <i>dbud</i> | |
| √bjun ‘come out’ | <i>bjun</i> | √pjun ‘take out’ | <i>p^hjun</i> | <i>byuñ</i> | | <i>ybyuñ</i> | <i>ybyuñ</i> | <i>pyuñ</i> | <i>dbyuñ</i> | |
| √b'e ‘open’ | <i>be</i> | √p'e ‘open’ | <i>p^he</i> | <i>bye</i> | | <i>ybye</i> | <i>ybyed</i> | <i>phye</i> | <i>dbye</i> | |
| √zig ‘collapse’ | <i>bzik</i> | √eig ‘destroy’ | <i>p^hjik</i> | <i>žig</i> | | <i>yžig</i> | | <i>bšig</i> | <i>gžig</i> | |

Table 1: Type 3a

The following observations can be made:

1. Whereas intransitive conjugations without exception had voiced root consonants, transitive conjugations had both voiced and voiceless root consonants.³⁵

³³ As the first scholar, Li connected stems with voiced consonants (v1 & v3) to voiced (i.e. intransitive) roots, and stems with voiceless consonants (v2 & v4) to voiceless (i.e. transitive) roots. He did not comment on this assumption but it is clearly demonstrated in his reconstructions of some exemplary word families (1933: 153ff.). In particular, his Type I and II include verb-families of my ‘mixed’ type. Li accepted Francke’s and Simon’s view that transitive roots with voiced consonants were durative and those with voiceless root consonants active (ibid., p. 152). This view was later endorsed by Benedict (1972: 124) and LaPolla (2003: 23). It should be emphasised that this is not the explanation followed in this paper.

³⁴ A gap means that the respective form is not attested in OT.

³⁵ The alternation G = INTR ~ K = TR is in accordance with the pattern known from the WAT dialects (columns 2 & 4 of Tab. 1), but the latter is a secondary development. It has resulted from generalisation of the original v2 forms as basic stems. This is the only hypothesis that can explain why the WAT dialects have preserved the full conjugation of the verb *byed* but not of other verbs; cf. Bal *bet/bjas/bja/bjos* (CDTD.V: 842). The complete conjugation of this verb has been preserved due to its high frequency, omnipresence and diversity of functions, from a simple verb to light verb to auxiliary.

2. Transitive verbs in γ - were derived from intransitive verbs in γ - by the suffix $-d$: $*\gamma dab+d > \gamma debs$; $*\gamma bab+d > \gamma bebs$; $*\gamma bye+d > \gamma byed$.³⁶ It has long been acknowledged that the suffix $-d$ caused the sound change $-a- > -e-$. In general, in OT only very few verb pairs in γ - are attested within one verb-family. Usually only one member of a verb-family has a stem in γ -. If two such verbs are used, then, with the exception of $\gamma byuñ$,³⁷ they differed from each other in so far as the γ -stem of the transitive conjugation had the suffix $-d$.
3. Transitive v2 were formed from transitive roots by means of the prefix b -.
4. v3 were formed from intransitive roots by means of the prefix g - (allomorph: d -).
5. v4 were formed from transitive roots by means of the suffix $-s$.³⁸ If the root vowel was $-a-$ it was changed to $-o-$.
6. Intransitive \surd is identical with the intransitive root that can be reconstructed not only from the intransitive forms but also by comparison with the transitive roots.³⁹
7. Intransitive v1 were formed from \surd by adding the prefix γ -.
8. Intransitive v2 were formed from \surd by adding of the suffix $-s$.⁴⁰

The intransitive verbs inflected in accordance with one of the conjugation patterns described for the verb-families of Type 1. Namely, in Type 3a, stems in $-s$ inflected according to Type 1b1, whereas those in γ - according to Type 1b2. Moreover, just like in Type 1b1, in Type 3a, stems in $-s$ were possible only with controllable verbs. On the other hand, in Type 3a, all intransitive verbs in γ - were non-controllable verbs.

The transitive verbs inflected according to a paradigm characteristic of Type 3a not shared by any other type of the verb-families. The fact that the prefix g - belonged to the transitive paradigm is confirmed by its exclusive occurrence with transitive stems in Types 2d1, 3b, and 3c. Likewise the suffix $-d$ is known only from transitive conjugations; it occurs in 2d2c. Thus, the

³⁶ The hypothesis that v1 of transitive verbs were derived from γ -stems of intransitive verbs was first put forward in Conrady (1896: 12–3 & 27). Shafer proposed reconstructing verbs like $\gamma gags$ as either $*\gamma gags$ or $*\gamma gages$ but he did not state explicitly that the latter forms were based on intransitive verbs (1950b: 1024). Zeisler observed that the derivation happened by means of ‘an agentive (?) suffix $-d$ ’ (2004: 875). The hypothesis was also accepted by Hill (2014b: 2).

³⁷ As I have demonstrated in Bialek (2018a: 2.352ff.), $\gamma byuñ$ was the original v1 of the transitive conjugation. The CT v1 $\gamma byin$ was not an assimilated form of $*\gamma byuñ+d$, in which $-ñ$ and $-u-$ assimilated to $-d$ becoming $\gamma byin$, as is commonly assumed. Two arguments speak against this reconstruction: 1. The OT compound $\gamma byuñ \gamma jug$ in which $\gamma byuñ$ is the v1-stem of a transitive verb (ibid.); and 2. The suffix $-d$ had an allomorph $-s$ which could have easily been applied to form $*\gamma byuñs$; compare $thens < v1 *thend$ or TR v1 $\gamma gens < INTR v1 \gamma gañ$. The latter argument speaks also against the hypothesis that $\gamma dren$ comes from $*\gamma+drañ+d$. Instead, the OT v1 was $\gamma drañ$. Concluding, the CT conjugation of $\gamma byin$ is suppletive as already argued by Bielmeier (2004: 408). We observe that all verbs with the postulated changes $*-uñd > -in$ ($\gamma jin, \gamma byin$) and $*-and > -en$ ($\gamma dren, len, \gamma phen$) in v1 count among the most frequently used verbs in OT. High-frequency of usage contributes or even triggers the creation of suppletive paradigms (Bybee 1985: 91ff. & 209). Therefore, Bielmeier’s assumption on the suppletive character of the conjugations is strengthened by cross-linguistic studies.

³⁸ Zero suffix could be presumed in $\check{c}hug, thob$, or $phob$. As I argue in § 67.XII, the suffix $-s$ was dropped after the re-interpretation of the stems as imperative forms.

³⁹ I have reconstructed the roots $\surd dzug$ and $\surd teug$ by comparing the attested stems with those of the verb-family $\surd zig \sim \surd eig$. $[dz]$ and $[z]$ occur in the conjugations of both verb-families, but in the latter $[z]$ clearly alternates with $[e]$. Therefore I have assumed that in the former the root consonants must have been affricates, otherwise one would have expected the transitive conjugation to have been $! \gamma jug/bśug/gźug/śug$.

⁴⁰ The special case of $\gamma bab/bab/babs$ will be discussed in § 33.

presence of voiced root consonants within the transitive paradigm has one origin: they were ‘borrowed’ from the intransitive paradigm. The question is: Why?

§ 23. Uray was possibly the first scholar to draw our attention to the ‘threefold system of voices’ (1953: 50) characteristic of verbs of my Type 3a.⁴¹ Tab. 2 presents one such verb-family.

| Bialek | Type 4 | | | | | | | | |
|--------------|----------|-------|-------|------|---------|------|------|-----|-----|
| | Type 1b2 | | | | Type 3a | | | | |
| Uray (1953) | I | | | | II | | | | III |
| Hill (2014b) | C | | | | B | | | | A |
| | γkhebs | khebs | γgebs | bkab | dgab | khob | γgab | gab | |

Table 2

If we treat such verb-families synchronically, then of course we would have to reckon with some sort of threefold split at the base (Uray’s classes I, II, and III or Hill’s C, B, and A). However, this picture is deceptive for it neglects the time depth of single formations and the secondary character of the conjugations of Type 1b2 (cf. §§ 67.XIII & XIV). Verb conjugations classed under I by Uray (see his Table I) had varying origins and only the pairs that inflected according to the pattern $v1 = \gamma + \sqrt{s}$, $v2 = \sqrt{s}$ are relevant to the topic.⁴² Those are:

| | | | | | |
|---------------------|---------------|----|--------------------|------------------|-------------------------------|
| $\gamma + \sqrt{s}$ | \sqrt{s} | | | | |
| | <i>khugs</i> | NC | ‘be bent’ | < \sqrt{kugs} | < \sqrt{kug} |
| <i>γkhegs</i> | <i>khegs</i> | NC | ‘get stuck’ | < \sqrt{kegs} | < \sqrt{kag} |
| <i>γkheñs</i> | <i>kheñs</i> | NC | ‘be full’ | < $\sqrt{keñs}$ | < $\sqrt{kəñ}$ |
| <i>γkhebs</i> | <i>khebs</i> | NC | ‘be spread’ | < \sqrt{kebs} | < \sqrt{kab} |
| <i>γkhel</i> | <i>khel</i> | NC | ‘arrive at’ | < \sqrt{keld} | < $\sqrt{kəl}$ |
| <i>γkhyed</i> | | NC | ‘be distributed’ | < $\sqrt{kʰed}$ | < $\sqrt{kʰe}$ |
| | <i>khrems</i> | NC | ‘get absorbed’ | < \sqrt{krems} | < \sqrt{kram} |
| <i>γkhrol</i> | <i>khrol</i> | NC | ‘be released’ | < \sqrt{krol} | < \sqrt{krol} |
| <i>γčhun</i> | <i>čhun</i> | NC | ‘be tamed’ | < \sqrt{teund} | < \sqrt{teun} |
| | <i>thul</i> | NC | ‘be tamed’ | < \sqrt{tul} | < \sqrt{tul} |
| <i>γthegs</i> | <i>thegs</i> | NC | ‘be able to carry’ | < \sqrt{tegs} | < \sqrt{teg} |
| <i>γthebs</i> | <i>thebs</i> | NC | ‘be hit’ | < \sqrt{tebs} | < \sqrt{tab} |
| <i>γthon</i> | <i>thon</i> | NC | ‘be finished’ | < \sqrt{tond} | < \sqrt{ton} |
| <i>γchugs</i> | <i>chugs</i> | NC | ‘be established’ | < \sqrt{tsugs} | < \sqrt{tsug} ⁴³ |

They share not only their forms but also the grammatical feature of non-controllability (NC) and the resultative meaning. Regarding their forms we observe the following similarities:

⁴¹ See also Hill (2014b) and Jacques (2016: 211f.) who refer to the triplet conjugations of Uray as A, B, and C. I reject this terminology and the analysis as based on the synchronic state of CT but overlooking the historical origins of this state that can be traced in OT (see below and §§ 67.XIII & XIV for the emergence of Uray’s class I termed C by Hill and Jacques).

⁴² The remaining verbs can be shown to have been secondary.

⁴³ I have supplemented Uray’s list on the basis of Jäschke, CDTD and Hill (2019b: 273ff.).

- They were based on transitive roots with a voiceless root consonant;
- Their post-consonantal *-d* (allomorph: *-s*) belonged to the root;
- They were prefixed with *γ-* in v1.

From this description a clear picture of their origins emerges. These conjugations were formed in two steps:

1. *-d* suffixation. $\sqrt{+d}$ were originally formed as v1 of the transitive conjugations. Analogous inflectional forms occurred in Type 2d2c: v1 were formed from a transitive root by adding the suffix *-d* (allomorph: *-s*) which caused the vowel change *-a- > -e-* (cf. *byed < \sqrt{bja}*).⁴⁴ After the post-consonantal *-d* had merged with the post-consonantal *-s*, the stems in *-d* became morphologically identical with stative passive forms in *-s* (see § 64). Consequently, they acquired the stative passive interpretation. Their identification could have been facilitated in the syntax by the fact that OT frequently left out agent arguments of transitive verbs and so the clause ‘X_{ABS} $\sqrt{+s}$ (underlying $^*\sqrt{+d}$)’ could have been re-interpreted as ‘X is done $\sqrt{}$ ’ instead of the original ‘[Sb.] did $\sqrt{}$ to X’.
2. *γ-* prefixation. After the merger of the post-consonantal *-d* with *-s* the resulting forms were re-interpreted as stative passive, i.e. monovalent verbs (see § 67.XIII), and inflected according to the intransitive paradigm in *γ-*.

Prior to the merger and the re-interpretation of the forms as stative passive, new transitive v1-stems of Type 3a were formed from v1 in *γ-* of the counterpart intransitive conjugations by adding the suffix *-d* which again caused the sound change *-a- > -e-*. New v1-stems in *γ-d* (with the imperfective prefix *γ-*) might have triggered or facilitated the re-interpretation of the original v1 (in $^*-d$) as stative passive. The single steps in the development of the v1 can be sketched as follows⁴⁵:

| | | | | |
|-------------------------|--|---------------------------------|-----------------------------|------------------------------------|
| | TR \sqrt{tab} | INTR \sqrt{dab} | INTR/NC | |
| | v1 | v1 | $\sqrt{}$ | v1 |
| Original stage: | $\sqrt{+d}$ (<i>*thebd</i>) | $\gamma\sqrt{}$ (<i>γdab</i>) | | |
| Borrowing + <i>-d</i> : | $\gamma\sqrt{+d}$ (<i>*γdebd</i>) | | | |
| Merger with <i>-s</i> : | $\sqrt{+d} > \sqrt{+s}$ (<i>thebs/γdebs</i>) | | | |
| Prefixation: | >>> | | \sqrt{s} (<i>thebs</i>) | $\gamma\sqrt{s}$ (<i>γthebs</i>) |

§ 24. The above discussion has demonstrated the suppletive character of the transitive conjugation of Type 3a. Because the suffix *-d* and the prefix *g-* belonged exclusively to transitive conjugations, we may expect that v3-stems of Type 3a were also based on voiced intransitive roots. The origins of voiced root consonants in v3 are explained in § 55.

⁴⁴ This parallelism in the formation of transitive v1-stem in *-d* with non-controllable resultatives from Uray’s class I was already observed by Beyer (1993: 113) and accepted by Hill (2014b: 2).

⁴⁵ Jacques was misled by the surface form of the suffix *-s* in the original v1-stems (i.e. *thebs* etc.) and identified the suffix with the Chinese middle voice suffix $^*-si$ (2016: 212). As I argue, in OT the only suffix that caused the vowel change *-a- > -e-* was *-d* that later merged with *-s*.

1.3.2 Type 3b

§ 25. Type 3b was an ideal extension of the voiced–voiceless alternation in verb roots: the intransitive paradigm always had a voiced, the transitive a voiceless root consonant. However, altogether very few verb-families seem to have belonged to this type. From my OT data only three verb families can be included here⁴⁶:

| | | | | Intransitive | | Transitive | | | |
|----------------|-----|----------------|------|--------------|--------|------------|--------|------|--------------------|
| | | | | √ | v1 | v1 | v2 | v3 | v4 |
| Intransitive | Bal | Transitive | Bal | | ɣ- | | | | -(^o)s |
| √groŋs ‘die’ | | √kroŋs ‘kill’ | | groŋs | ɣgroŋs | | bkroŋs | | |
| √dzag ‘drip’ | zaq | √tsag ‘strain’ | tsaq | zag | ɣjag | | | bcag | |
| √zad ‘decline’ | zat | √sad ‘kill’ | sat | zad | | gsod | bsad | gsad | sod |

Table 3

Their transitive conjugations differ among each other. That of √sad agrees with Type 2d1a, √tsag matches Type 2d2⁴⁷, whereas the conjugation of √kroŋs cannot be identified with any other so far discussed pattern due to the paucity of its forms. Concerning the intransitive conjugation of √zad, in OT ɣjad (known from CT) is not attested⁴⁸, but its CT form conformed to Type 1b2 just as that of ɣjag did. Both verbs were also non-controllable.

Among the verb-families of Type 4 (see section 1.4 below) we find √tu ~ √du that seem to have once formed conjugations of Type 3b:

⁴⁶ From CT one could add *ychir/bcir/gcir/chir* ‘to squeeze’ ~ *ɣjir* ‘to drop’. None of the forms seems to be attested in OT.

⁴⁷ It is not clear which subtype of Type 2d2 it matches, because its v1 does not seem to be attested in OT.

⁴⁸ *ɣjad* in Pt 37: 13r2 is a misspelling for *myad*. As far as I am aware √sad and √zad have not been related to each other thus far. One of the reviewers remarked that according to ‘Schiefner’s law’ (*dz- > z-; *dz- > z-; cf. Hill 2012: 5, 2014a: 171, and 2019b: 26ff.) there is no inherited [z]- and [z-] in Tibetic. It is apparent however that there are examples that contradict the proposed law. In particular, two OT verb conjugations quoted in the present paper are relevant here:

√zig ‘collapse’: *zig/-* ~ √eig ‘destroy’: *-/bšig/gzig/-* (cf. § 22 & fn. 39)
 √zad ‘decline’: *zad/-* ~ √sad ‘kill’: *gsod/bsad/gsad/sod*

On the other hand, a good candidate for ‘Schiefner’s law’ could be the form *zugs* of the verb-family

√dzug ‘enter’: *-/zugs* ~ √teug ‘put in’: *ɣjug/bčug/gzug/čhug* (see Tab. 1)

One has to consider its possible relationship to verbs like *ychugs*, *zug*, and *ɣjugs* but also maybe *ɣjud* and *ychud*. In the former, *zug* might be another case of ‘Schiefner’s law’. ‘Schiefner’s law’ might be valid, but we need more carefully selected examples which then have to be weighed against examples like √zig ~ √eig and potentially also √zad ~ √sad. Given the above ‘contradictory’ evidence, it seems more probable that two mergers occurred: dz > z / #_ and dz > z / #_. This argument is supported by the systemic consideration that for a language to have voiced affricates ([dz] and [dz̥]) without having voiced fricatives ([z], [z̥]) is not a plausible scenario.

In concluding remarks on ‘Schiefner’s law’, Hill stated that the change *dz- > z- occurred in Proto-Bodish (2019b: 28). It is therefore apparent that PT had [z]- and [z-] onsets. Kurtöp *zat* ‘to finish’ (Hyslop 2017: 117, Ex. (104)) is a clear cognate of OT *zad*, allowing for the reconstruction of Proto-Bodish √zad ‘finish’.

| | | | | Intransitive | | | Transitive | | | |
|--------------|-----|--------------|-----|--------------|----|----|------------|-------|-----|--------------------|
| | | | | √ | v2 | v1 | v1 | v2 | v3 | v4 |
| Intransitive | Bal | Transitive | Bal | | -s | γ- | γ- | b—s | b- | -(^o)s |
| √du ‘gather’ | | √tu ‘gather’ | | | | | γthu | bthus | btu | thus |

Table 4

Thus far I was able to ascertain only one member with the voiceless root consonant: *bthus*. It is apparent that the family was rearranged after the intransitive stem √du entered the new opposition: INTR γ+√du and TR s+√du. Subsequently the original intransitive conjugation sank into oblivion and the verb-family was reorganised.

We may assume that Type 3b was replaced by another type very early (maybe even in PT). This is suggested by the very limited number of its members.

1.3.3 Type 3c

§ 26. Type 3c includes word-families with no known consonant alternation. This type is only scarcely attested in OT. Its most prominent members are given in Tab. 5.

| | | | | Intransitive | | | Transitive | | | |
|----------------|-------------------|-----------------|-------------------|--------------|-------|-------|------------|-------|-------|--------------------|
| | | | | √ | v2 | v1 | v1 | v2 | v3 | v4 |
| Intransitive | Bal | Transitive | Bal | | -s | γ- | | b- | g- | -(^o)s |
| √teag ‘break’ | γ ^h aq | √teag ‘break’ | γ ^h aq | čhag | | γčhag | gčhog | bčhag | gčhag | čhogs |
| √tead ‘be cut’ | γ ^h at | √tead ‘cut off’ | γ ^h at | čhad | | γčhad | gčod | bčad | gčad | čhod |
| √draṅ ‘march’ | | √draṅ ‘lead’ | | draṅ | draṅs | | γdraṅ | draṅs | draṅ | droṅs |
| √so ‘live on’ | t ^h o | √so ‘nourish’ | t ^h o | | | γcho | γcho | bsō | gso | |

Table 5

It is conspicuous that the roots of transitive and intransitive verbs are the same.⁴⁹ They were inherently ambivalent and first the addition of the proper affixes established their valence. The fact that the stems *draṅ* and *draṅs* belonged to both intransitive and transitive conjugations suggests that PT allowed for the onset **bdr-* which was simplified in OT. Accordingly, one can reconstruct their PT conjugations as:

| | | | | |
|------|-------|---------|--------|-------|
| | v1 | v2 | v3 | v4 |
| TR | γdraṅ | *bdraṅs | *bdraṅ | droṅs |
| INTR | draṅ | draṅs | | |

Furthermore, Tab. 5 demonstrates that the paradigms of the single verbs differed and could be juxtaposed with the following types:

⁴⁹ If the reconstructed conjugations of √za are accepted (see § 20), this verb-family should also be included in Type 3c. The seeming alternation between aspirated and unaspirated root consonants in Balti reflexes is secondary and has resulted from the generalisation of v2 as the transitive stem.

| | | |
|---------------|------|--------------------|
| | INTR | TR |
| \sqrt{teag} | 1b2 | 2d1a ⁵⁰ |
| \sqrt{tead} | 1b2 | 2d1a |
| \sqrt{draj} | 1b1 | 2d2b |
| \sqrt{so} | 1b2 | 2d1b |

1.4 Type 4

§ 27. Apart from the root consonant alternation within verb-families of Type 3, OT had other means to form new verbs and to increase the number of members within one verb-family. The best-known ones were the valence-changing prefixes *s-* and *γ-*. The former was a causative, and the latter an autocausative morpheme. Less known and only seldom mentioned were the affixes *r-* (causative) and *-d* (agentive).

Secondary verb-families could be much more complex than the primary ones, e.g.:

| | | |
|---------------------------|--------------------------------------|--|
| | INTR \sqrt{du} | TR \sqrt{tu} |
| INTR $\gamma+\sqrt{du}$: | <i>ydu/ydus</i> ‘gather’ | TR \sqrt{tu} : <i>ythu/bthus/btu/thus</i> ‘gather’ |
| TR $\sqrt{du}+d$: | <i>dud</i> ‘tie’ | |
| TR $s+\sqrt{du}$: | <i>sdud/bsdus/bsdu/sdus</i> ‘gather’ | |

The valence-changing morphemes (marked in bold) could be attached to any member of the primary verb-family, increasing the number of its members. We may speculate that at some point this derivational pattern was generalised and applied to verb-families in which one member had either become obsolete or had undergone a considerable semantic change.

§ 28. The derivation of secondary members within a verb-family has puzzled many scholars.⁵¹ The main reason for the confusion is that the addition of the valence-changing affixes caused the shift of an originally intransitive root to transitive conjugations or vice versa. For example, in the above quoted secondary verb-family INTR \sqrt{du} ~ TR \sqrt{tu} the originally intransitive verb root \sqrt{du} formed the basis for the secondary transitive root $s+\sqrt{du}$. Moreover, because it was the intransitive root that was used in the secondary derivations (TR $s+\sqrt{du}$, INTR $\gamma+\sqrt{du}$), its own conjugation (v1 **du*, v2 **dus*) was dropped. In those few verb-families in which both original verbs have been preserved in OT in addition to the derived forms, a semantic shift between the forms can be observed.

The idiosyncrasy of the derivation by means of the valence-changing affixes makes it fruitless to attempt a more detailed classification of the verb-families of Type 4. Instead I sketch the structure of one such family in Appendix A, Ex.3.

⁵⁰ As a matter of fact, \sqrt{teag} formed a secondary verb-family, but its additional members did not influence the primary conjugations; the diagram of the whole verb-family is presented in Appendix A, Ex.3.

⁵¹ Shefts Chang (1971) and Conrady (1896: 71f.) even based their whole theories on falsely interpreted secondary members of a verb-family.

2 Part 2: Grammatical meaning

§ 29. In this part of the paper I try to determine the relation between grammatical meaning and its morphological expression in OT verbs. I attempt to reconstruct the verb system by establishing semantic oppositions in which particular verb forms functioned. To this end the analysis is applied to three levels of the language: 1. the structure of the inflectional system as a whole; 2. the inflectional affixes of verbs; and 3. the usage of forms in OT texts.

In selecting textual examples, I paid attention to two features: 1. an example should contain stems of different values that were contrasted in the text; and 2. ideally the stems should be of one verb. The presumption is that a passage that used stems of different values more clearly illustrates the grammatical opposition expressed by the stems. An even more direct proof for the reconstructed meanings can be obtained by comparing different stems of one verb as used within one text. Here however we are faced with the problem that most OT texts are too short to make an extensive use of various verb stems. Usually only two stems of one verb are encountered in a text. Another hindrance is our poor understanding of many OT texts. The texts with the richest vocabulary are the ritual ones and these are particularly difficult to interpret. Nevertheless, whenever possible I followed the two guidelines formulated above.

2.1 Valence and transitivity

§ 30. In OT every verb was either monovalent, divalent, or trivalent depending on the number of arguments it required in a clause. The language had a set of morphemes to increase or decrease the valence of a verb: *s-*, *r-*, *γ-*, and *-d*. Since these were primarily derivational affixes, as such they are not the focus of this paper.⁵² Of concern are only secondary functions of the affixes *γ-* and *-d* in the inflectional system, which will be more closely examined in Part 3: Inflectional affixes.

§ 31. Transitivity can be defined semantically and formally for OT.⁵³ Intransitive roots inflected according to one of the intransitive conjugational patterns and required only one argument. Transitive verbs, however, inflected in either an intransitive or a transitive paradigm depending on the 'strength' of their transitivity. Prototypical transitive verbs that denoted actions involving a volitionally acting agent on a specific and fully affected patient, distinct from the agent, had the highest transitivity and therefore inflected for four distinct stems. Other transitive verbs had varying degrees of lower transitivity. They did not inflect for four stems – sometimes they even inflected according to an intransitive conjugation – but they still required two arguments.⁵⁴

Moreover, transitive verbs could be partly recognised on their affixes. Namely, some affixes were used only with transitive verbs:

⁵² The derivational affixes will be thoroughly examined in Bialek (In Preparation a).

⁵³ According to Hopper and Thompson (1980), transitivity is a feature of a whole sentence or even a discourse, and not of a verb. However, because it is a verb that controls the sentence, its semantic and formal features are decisive for the interpretation of the sentence.

⁵⁴ In OT inflection was not the only outward expression of transitivity. Case patterns could likewise provide information on transitivity. For instance, verbs with an agent argument in ergative and a patient argument in absolutive were located higher on the transitivity scale than verbs with an ergative agent and an allative patient.

| | | |
|--------|------------------------|-----------|
| | TR | INTR/TR |
| Prefix | <i>d-</i> <i>b-</i> | <i>ɣ-</i> |
| Suffix | <i>g-</i> <i>-d</i> | <i>-s</i> |

It is worth noticing that intransitive verbs did not have exclusive affixes. Their affixes were likewise used in transitive inflections. One can therefore hypothesise that this situation was an outcome of a secondary development.

2.1.1 *Intransitive verbs*

§ 32. Intransitive verbs were monovalent, i.e. they were allowed to take only one argument. They inflected according to one of the following paradigms:

| | | | | | |
|-------------------|-----|-----|-------------------------|-------------|------------------|
| | v1 | v2 | | | |
| I | √ | – | Type 1a | attributive | durative, atelic |
| II ⁵⁵ | √ | √+s | Type 1b1 + 3a + 3c | attributive | controllable |
| III ⁵⁶ | ɣ+√ | √ | Type 1b2 + 3a + 3b + 3c | | non-controllable |

The only inflectional affixes intransitive verbs could take were the prefix *ɣ-* and the suffix *-s* (allomorph: *-d*). This is particularly clear in data on verb-families of Type 1. None of the verbs in this group takes either *b-*, *g-*, *d-*, or *-d*. The inflectional patterns of intransitive verbs were confirmed in verbs of Type 3. Verb-families of the latter type did not introduce any innovation to the intransitive patterns. It is also apparent that intransitive verbs that had both *ɣ-* and *-s* in their conjugations belonged to secondary verb-families and their roots were derived by means of the derivational prefix *ɣ-*. These verbs took only the inflectional suffix *-s*: √ > *ɣ+√* (derivation) > v1 *ɣ√*, v2 *ɣ√+s* (inflection), and so inflected according to paradigm II.⁵⁷ Another secondary derivation was shown to have turned original v1-stems of transitive verbs into intransitives (see § 23). However, in these cases the final *-s* belonged to the intransitive stem and the verbs inflected according to paradigm III.

The choice of the paradigm was not arbitrary, but seems to have been at least partially determined by verb semantics. One of the factors was controllability: only controllable verbs were allowed to take the suffix *-s*.⁵⁸ Intransitive verbs in verb-families of Type 3 generally followed either paradigm II or III. However, there are also some gaps in our OT data which might be accidental or systemic. In the latter case we would have to acknowledge that some intransitive verbs of Type 3 also inflected according to paradigm I.⁵⁹

⁵⁵ This paradigm corresponds to Shafer's Intransitive Type 2 (1950a: 705f.).

⁵⁶ This paradigm corresponds to Shafer's Intransitive Type 1 (1950a: 704f.).

⁵⁷ This paradigm corresponds to Shafer's Intransitive Type 1b1 (1950a: 705).

⁵⁸ If due to phonotactic constraints a controllable verb could not take the suffix *-s*, it inflected according to paradigm III. One such verb was √*bros*: *ɣbros/bros* 'to flee'.

⁵⁹ The paradigm *ɣ+√/√+s* falsely identified by Beyer as the only intransitive paradigm (1993: 164) is not encountered in my OT data.

§ 33. So far I have identified one OT intransitive verb with three inflectional forms:

| | | | |
|------|--------------------|-------------------|-------------------|
| √bab | IMPR <i>ybab</i> | PFV/NC <i>bab</i> | PFV/C <i>babs</i> |
| | ‘falls/comes down’ | ‘fell down’ | ‘came (down)’ |

This resembles a situation known from modern dialects (MT) where certain polysemous verbs can be either controllable or non-controllable depending on the meaning.⁶⁰ Apparently √bab was such a verb with two main meanings: 1. NC ‘fall down’; 2. C ‘come down’. Just like in modern dialects non-controllable verbs require different auxiliaries than controllable verbs, so in OT different meanings of a verb required distinct inflectional affixes in accordance with the general rules: *γ*- for non-controllable verbs and *-s* for controllable ones.⁶¹ Both systems, OT inflection and MT analytical constructions, focus the scope of control that an agent may exercise over an event. This is an important system-internal feature of Tibetic that stretches over centuries and relates various stages of Tibetic languages with each other. The stability of the feature allows us to classify Tibetic languages as Fluid-S languages in accordance with Dixon’s terminology (Dixon 2010–12: 1.124f.).

2.1.2 Transitive verbs

§ 34. Transitive verbs required either one or two objects. I treat these two groups together because the difference in their valence had no morphological expression; di- and trivalent verbs inflected alike. In terms of their morphology, transitive verbs differed from intransitive verbs in taking the prefixes *b-*, *g-*, and *d-* and the suffix *-d*. Among transitive verbs there was a great variety of inflection. Verbs on the lower end of the transitivity scale either didn’t inflect at all or took only one affix (Types 2a and 2b).⁶² Verbs on the higher end of the transitivity scale used the full potential of inflectional means. The collected data allows us to distinguish between the following transitive paradigms:

⁶⁰ Compare, for instance: *gñid sad* ¹C réveiller; ²NC se réveiller; *thon* (WT *γthon*) ¹C partir, produire; ²NC sortir, *char* ¹C finir, terminer; ²NC s’achever, se finir, *gzigs* ¹C acheter; regarder; ²NC voir’ (*apud* Tournadre/Dorje 1998).

⁶¹ Thus far I have not identified any OT transitive verb that would exhibit behaviour analogous to that of √bab. However, it seems probable that INTR √*dzug* ‘enter’ had two inflections analogously to √bab. Its only form attested in OT is *zugs*, which means that it acquired the ‘controllable’ suffix *-s*. At some point the *v1* *γjug* was coined that is not known in OT. It is, however, apparent that it must have been inflected from the basic form **zug*. The full conjugation of the verb would have been: IMPR *γjug*, PFV/NC **zug*, PFV/C *zugs*. This evolved from the original: IMPR **zug*, PFV *zugs*.

⁶² Compare hereto the statement by Hopper and Thompson: ‘[...] the morphosyntactic signals which languages use to mark what we are calling high and low Transitivity are so often the same signals used to mark VALENCE, i.e. the distinction between canonical ‘transitive’ and ‘intransitive’ clauses’ (1980: 279). This is exactly what we observe in OT: transitive verbs of lower transitivity inflected according to one of intransitive paradigms: I or II.

| | v1 | v2 | v3 | v4 | |
|--------------------|-----------------------|-------|-----|-----------------------|-------------------------|
| I ⁶³ | √ | | | | Type 2a |
| II ⁶⁴ | √ | √+s | | | Type 2b |
| III | √ | b+√ | | | Type 2b |
| IV ⁶⁵ | d+√ ^(o) 66 | b+√ | g+√ | √ ^(o) +(s) | Type 2d1 + 3b + 3c |
| V | y+√ | b+√ | g+√ | √ ^(o) +(s) | Type 3c |
| VI ⁶⁷ | y+√ ^(e) +d | b+√ | g+√ | √ ^(o) +(s) | Type 3a |
| VII ⁶⁸ | d+√ ^(o) | b+√+s | b+√ | √ ^(o) +s | Type 2d2a |
| VIII ⁶⁹ | y+√ | b+√+s | b+√ | √ ^(o) +s | Type 2c + 2d2b + 3c |
| IX ⁷⁰ | √ ^(e) +d | b+√+s | b+√ | √ ^(o) +s | Type 2d2c |
| X | √ | b+√+s | b+√ | √ ^(o) +s | Type 2d2d ⁷¹ |

The striking fact about the transitive paradigms is the seeming variety of v1-stems in four-stem conjugations. Whereas v2 and v3 followed one of two patterns ($b+\sqrt{\quad}$ / $g+\sqrt{\quad}$ or $b+\sqrt{+s}$ / $b+\sqrt{\quad}$), v1 had five (!) different patterns to choose from. v4 split from the original $*-\sup{(o)}s$. A detailed discussion of this development is provided in §§ 64 & 67.IV. Here I will treat the v4-marking as a uniform $-\sup{(o)}s$. Thus, for stems v2–v4 two fixed sets were available:

| v2 | v3 | v4 |
|------------------|------------------|----------------------|
| $b+\sqrt{\quad}$ | $g+\sqrt{\quad}$ | $\sqrt{\sup{(o)}}+s$ |
| $b+\sqrt{+s}$ | $b+\sqrt{\quad}$ | $\sqrt{\sup{(o)}}+s$ |

We can disclose even more parallels between the transitive paradigms if we include the reconstruction I have proposed in § 23. To wit, the original form of paradigm VI is supposed to have been different than the one quoted in all sources; its original v1 inflected by adding the suffix $-d$ to the transitive root. If we now re-write paradigms IV–IX, we acquire:

| | | | | |
|------|----------------------|-------|-----|-----------------------|
| IV | d+√ ^(o) | b+√ | g+√ | √ ^(o) +(s) |
| V | y+√ | b+√ | g+√ | √ ^(o) +(s) |
| VI | *√ ^(e) +d | b+√ | g+√ | √ ^(o) +(s) |
| VII | d+√ ^(o) | b+√+s | b+√ | √ ^(o) +s |
| VIII | y+√ | b+√+s | b+√ | √ ^(o) +s |
| IX | √ ^(e) +d | b+√+s | b+√ | √ ^(o) +s |

⁶³ This paradigm is identical with paradigm I of intransitive verbs.

⁶⁴ This paradigm is identical with paradigm II of intransitive verbs and corresponds to Shafer's transitive Type 1 (1950a: 707).

⁶⁵ This paradigm corresponds to Shafer's transitive Type 7 (1950a: 712) and Coblin's Paradigm V (1976: 67).

⁶⁶ The sign ^(o) marks the change of the root vowel to *o* in case the root had *a*.

⁶⁷ This paradigm corresponds to Shafer's transitive Type 8a (1950a: 713) and Coblin's Paradigm VI (1976: 64).

⁶⁸ This paradigm corresponds to Coblin's Paradigm IV (1976: 65).

⁶⁹ This paradigm corresponds to Shafer's transitive Type 2 (1950a: 707f.) and Coblin's Paradigm I (1976: 62–4).

⁷⁰ This paradigm corresponds to Coblin's Paradigm III (1976: 64).

⁷¹ Beyer acknowledged only the existence of my paradigms IV, V, VII, VIII (1993: 164).

This arrangement clearly shows that originally a verb stem could have only the following realisations⁷²:

| v1 | v2 | v3 | v4 |
|-----------------------|------------------|------------------|---------------------|
| $d+\sqrt{^{(o)}}$ | $b+\sqrt{\quad}$ | $g+\sqrt{\quad}$ | $\sqrt{^{(o)}+(s)}$ |
| $\gamma+\sqrt{\quad}$ | $b+\sqrt{+s}$ | $b+\sqrt{\quad}$ | $\sqrt{^{(o)}+s}$ |
| $\sqrt{^{(e)}+d}$ | | | |

Basically, the sets $b+\sqrt{\quad}$, $g+\sqrt{\quad}$, $\sqrt{^{(o)}+(s)}$ and $b+\sqrt{+s}$, $b+\sqrt{\quad}$, $\sqrt{^{(o)}+s}$ could inflect according to any of the three v1-patterns. This yielded six different paradigms (IV–IX).

The following system-wise relevant observations can be made regarding the differences between paradigms IV–VI and VII–IX:

1. Their v2–v4 follow the same inflectional patterns; $b-/g-/^{-^{(o)}}s$ in paradigms IV–VI and $b-s/b-/^{-^{(o)}}s$ in paradigms VII–IX.
2. Paradigms IV–VI are mainly attested with verb-families of Type 3, whereas paradigms VII–IX with those of Type 2. The comparison with the Shafer’s list of CT conjugations confirms that verbs of my Type 2d1 that belonged to paradigm IV and those of Type 3c that belonged to paradigm VIII are very infrequent.
3. Paradigms IV–VI marked v2 in the same way as paradigms VII–IX marked v3: with the prefix $b-$.
4. $d+\sqrt{^{(o)}}$ was a very infrequent form of v1-stem. In my OT data it occurs only in: *gtoñ*, *glon* (Type 2d1), *gsod* (Type 3b), *gčod* (Type 3c), and *gšor* (Type 4). Since it is the only form of v1 which caused the change of the root vowel $-a-$ to $-o-$, we can assume that the change was triggered by the prefix $d-$ (or a back vowel of its original syllabic form). Accordingly, the vowel change $-a- > -o-$ also indicates the underlying prefix $d-$ in other verbs. This automatically increases the number of conjugations in paradigms with $d+\sqrt{^{(o)}}$. This form never occurs with the ‘mixed’ conjugation of Type 3a but in 3c it seems to have been used whenever the application of the prefix $\gamma-$ to a v1-stem would have brought about a conflict with the corresponding intransitive conjugation; cf. TR *gčod* (instead of *!yčhad*) < $\sqrt{\text{tead}}$ vs INTR *yčhad* < $\sqrt{\text{tead}}$. However, the latter motivation can be dismissed for Type 3b since here intransitive and transitive conjugations differed in the voicing of the root consonants.
5. $\gamma+\sqrt{\quad}$ was a form closely related to intransitive conjugations. Intransitive stems in $\gamma-$ could be turned into transitive ones by the suffix $-d$ (see § 23).
6. $\sqrt{^{(e)}+d}$ is most probably the oldest of the possible v1-stems and certainly the least frequently used one. My data includes only: *bgyid*, *byed*, *lend*, *sems*, and *seld*. It was replaced by $\gamma+\sqrt{^{(e)}+d}$ in all verbs of Type 3a and by $d+\sqrt{^{(e)}}$ in some other verbs.

§ 35. In addition to the above presented transitive paradigms one could possibly consider the following two paradigms that can be reconstructed only partially from OT data:

⁷² I consider paradigm X as exceptional for it concerns only one verb in my data: $\sqrt{\text{za}}$. Coblin classed the verb as irregular that could belong to his Paradigm VI, VII, or VIII (1976: 69f.). Unfortunately his Paradigms VII and VIII are based on inaccurate data that would have to be discussed for each verb separately – a task beyond the scope of this paper.

| | | | | | |
|-----|--------------------|------------------|------------------|--------------------|--------------------------------|
| XI | $y+\sqrt{(\circ)}$ | $b+\sqrt{\quad}$ | $g+\sqrt{\quad}$ | $\sqrt{(\circ)}+s$ | <i>yjog/bźag/gźag/źog*s</i> |
| XII | $y+\sqrt{(\circ)}$ | $b+\sqrt{+s}$ | $b+\sqrt{\quad}$ | $\sqrt{(\circ)}+s$ | <i>ychol/bcald/bcal/*chold</i> |

The new form of v1, $y+\sqrt{(\circ)}$, looks like a mixed form of $d+\sqrt{(\circ)}$ and $y+\sqrt{\quad}$. It might have resulted from generalisation of the prefix $y-$ in transitive conjugations. However, the origin of the vowel $-o-$ is unknown. Could it be an analogical extension from $d+\sqrt{(\circ)}$?⁷³

§ 36. As I have mentioned above, only seldom are complete conjugations of transitive verbs attested in OT. Therefore, it is often problematic to reconstruct their stems, and even more so to do it on the grounds of CT data. Moreover, one has to emphasise that not all conjugations will match the one or the other paradigm; exceptions are part of each verb system. In this regard I may only quote the OT verb *ydogs/btags/gdags/thogs* ‘to bind’. The final $-s$ was not a suffix but belonged to the root: TR $\sqrt{\text{tags}}$ ~ INTR $\sqrt{\text{dags}}$. Although the verb has a ‘mixed’ conjugation and could be classed as Type 3a, it has the vowel $-o-$ in v1 instead of the ubiquitous $-e-$. The reason for the lack of $-e-$ is that having the complex rime $-ags$ the root could not take the suffix $-d$ which was responsible for the vowel change $-a-$ > $-e-$. Still, the state of our knowledge does not allow us to unanimously classify the verb; no cognates with a voiced root consonant have been attested⁷⁴ and the provenance of the vowel $-o-$ in v1 remains unknown.

To conclude, any verb conjugation that seems to not conform to the established paradigms should be examined individually. Only when more conjugations are collected that follow one pattern (e.g., XI or XII) can we consider adding another paradigm to the proposed ones.

2.2 Voice

§ 37. As the previous sections have shown, OT verbs could have one to four distinct forms. However, there is a remarkable difference between transitive and intransitive verbs in this respect:

⁷³ Hill (2019b: 11) provides a list of six CT verbs with $y+\sqrt{(\circ)}$ in v1 and on these grounds rejects any relationship between the prefix $d-$ and the $-o-$ vowel in v1 (this hypothesis is repeated in Hill 2019c). Of Hill’s verbs *ldon* is a secondary form that replaced the original *glon* (see fn. 128 below) and the conjugation *ydod/dad* is suppletive at best but most probably a later fabrication for Hill (2010a: 150) does not quote any traditional sources that would support it and Hill 2019c: 231f. only quotes examples with *dad* which do not prove that it belonged to one conjugation with *ydod*. What’s more, *ydod* was a modal verb and modal verbs did not inflect in Old and Classical Tibetan. The conjugation *ydoms/gdams/gdam(s)/ydoms* is so unusual that it cannot be reasonably explained and requires detailed textual studies in order to be confirmed (*ydoms* might have been formed by analogy with *ydogs*, see below). For v1 *šoñ* (*šoñ/bśaṅs/bśaṅ/šoṅs*) Jäschke (566b) and Hill (2010a: 288) provide the more plausible variant *gšoñ*. The remaining two conjugations are also treated in this paper; *yjog* forms paradigm XI and *ydogs* is considered an exception due to the complicated root structure (see § 36). Hill’s analysis presented in 2019c is based mainly on verb lists (combining forms from different periods) but also overlooks the possibility of suppletion in some conjugations which has been demonstrated for OT (see fn. 37 above).

⁷⁴ The only certain cognate is *gtogs* derived from v4 *thogs* but no intransitive verbs like **dags* or **ydags* are known. Simon suggested relating the plural clitic *=dag* to *ydogs* (1942: 956) which seems a plausible etymology. The remaining lexemes included by Simon in the same word-family are less convincing.

| | | | | |
|------|----|----|----|-------------------|
| | v1 | v2 | v3 | v4 |
| TR | + | + | + | (+) ⁷⁵ |
| INTR | + | + | | |

In OT the forms were clearly distributed: transitive verbs had up to four, intransitive up to two different stems. Already this juxtaposition demonstrates a break in the morphological markings of transitive and intransitive verbs. If we fill the above table with all possible inflectional affixes we obtain an even more persuasive picture:

| | v1 | | | | v2 | v3 | v4 |
|------|----|----|----|----|-----|----|--------------------|
| TR | ∅ | -d | y- | d- | b- | g- | -(^o)s |
| | | | | | b-s | b- | |
| INTR | ∅ | | | | -s | | |
| | y- | | | | ∅ | | |

Table 6

There were nine inflectional affixes available for transitive verbs and only three for intransitive ones! This is a difference that cannot be passed over in silence.

Even though Conrady already observed that intransitive verbs did not have v3 forms (1896: 18–9, 28),⁷⁶ Müller-Witte first drew consequences from this fact: ‘Nur transitive Verben haben ein Patiens, also brauchen nur sie einen Futurstamm (my v3 – JB), das den Perspektivwechsel, das Umschwenken des Blicks auf das Patiens, ermöglicht. Intransitive Verben haben keinen Futurstamm bzw. Patiensstamm, weil sie kein Patiens haben.’ (2009: 84).

Table 6 demonstrates that not only did intransitive verbs not have a v3-stem in OT, but they also did not have a v4-stem.⁷⁷ A heretofore commonly overlooked consequence of this fact is that *v3 and v4 must have originally marked a value that was relevant for transitivity, otherwise there would be no reason why intransitive verbs should not have had these forms. There is no reason why intransitive verbs should not have inflected for future, necessitative, or for imperative.*⁷⁸ There is no

⁷⁵ v4 was characteristic of controllable verbs and therefore it is bracketed here as a form not available to all transitive verbs.

⁷⁶ ‘Was hier vor allem auffällt ist, dass das Tr[an]s[itivum] durchweg reicher gegliedert ist als das Intransitivum; man darf es im Allgemeinen als vierstimmig bezeichnen. Es wäre um so merkwürdiger, dass das echte Tempora sein sollten, als Intr[ansitivum], wie ich oben zu erweisen versucht habe, überhaupt keine Tempusbildung besitzt.’ (ibid., p. 28). As seldom exceptions Conrady quoted: *yjab*, *rdol*, *ybag*, *ybog*, *yag*, and *za* (ibid., p. 18). However, their lexicographically attested conjugations are apparently a result of confusion or mixing up in one lemma, two etymologically cognate verbs.

⁷⁷ This was also briefly stated by Beyer (‘intransitive verbs do not have future or imperative stems’) but not expanded upon further (1993: 163).

⁷⁸ Today two tendencies in interpreting WT verbs prevail: aspect-interpretation and tense-interpretation. Adherents of the first see grammatical aspect and mood as the major grammatical categories of verbs, whereas adherents of the tense-interpretation ascribe this role to grammatical tense and mood:

| | | | | |
|-----------------------|--------------|------------|--------------------------|------------|
| | v1 | v2 | v3 | v4 |
| Aspect-interpretation | imperfective | perfective | necessitative | imperative |
| Tense-interpretation | present | past | future/ necessitative | imperative |

Problems that arise from these interpretations will be discussed in Bialek (In Preparation a).

known split in the categories of aspect, tense, or mood that would justify such a morphological break between transitive and intransitive forms.⁷⁹

Another argument against the previous interpretations of the verb stems comes from the inflection of transitive verbs. I have noticed that the inflection was conditioned by the transitivity of the verb: the lower the transitivity, the fewer morphological markings; the higher the transitivity, the more complex the morphological structure of a verb stem. Verbs with less than four stems might have been controllable or non-controllable, but for one reason or another they were not prototypical transitive verbs. Consequently, the affixes of the transitive conjugations must have been bound to transitivity. In other words, *it was transitivity that controlled the morphology of verbs*.

Therefore, in order to explain the origins of the OT verb inflection we need a grammatical category different than aspect, tense, and mood. For, as we have seen, these cannot deliver any reasonable explanation of the above facts.

Because only transitive verbs had v3 and v4 stems, their markings must have represented semantic values not accessible for intransitive verbs. On the other hand, both intransitive and transitive verbs had v1 and v2 stems, therefore grammatical meanings marked on these forms were available for both verb types. Hence, there was a split between, on the one hand, v1 and v2 (available for transitive and intransitive verbs) and, on the other hand, v3 and v4 (available only for transitive verbs).

§ 38. Joan Bybee studied morphological strategies with which verbs may code grammatical meanings. She has established a hierarchy of relevance, i.e. a hierarchy that shows which grammatical meanings are more relevant to the meaning of the verb: (the highest relevance) valence – voice – aspect – tense – mood – number agreement – person agreement – gender agreement (the lowest relevance). Relevance in her theory is the scope of affection one element may have on another one (in our case, a verb morpheme on a verb root). The higher a category is on the scale, the greater its relevance to the meaning of the verb. On the other hand, the more relevant a category is to the meaning of the verb, the more closely its marker is bound to the root.

The above descriptions of OT verbs imply that the grammatical category marked by *b-/b-s* (v2) and *g-/b-* (v3) was more relevant to the meaning of the verb than aspect, tense, and mood. It is apparent that v2 and v3 stems were derived by morphemes that must have expressed the same grammatical category: they were both inflected with prefixes that were attached directly to the verb stem (v2 *b+√*, v3 *g+√*) and no vowel change occurred. This agrees with Bybee's observation that 'the more closely related two forms are semantically, the more closely related they will be in the form of their expression.' (1985: 77). The logical conclusion is that v2 and v3 formed opposition within one category, i.e. represented two distinct values of one grammatical meaning.⁸⁰ v2

⁷⁹ Likewise Biemeier's hypothesis that 'the future stem (my v3 – JB) may represent the old present stem' (2004: 403) must be rejected. If tense were the inflectional category expressed by stems v1–v3, then intransitive verbs should also have had v3-stems. But they did not. Compare hereto Bybee: '[A]n inflectional category must be applicable to all stems of the appropriate semantic and syntactic category and must obligatorily occur in the appropriate syntactic context.' (1985: 17).

⁸⁰ Consequently, this analysis, supported by Bybee's cross-linguistic study, proves that the prevalent interpretations of Tibetan verbs in terms of aspect/tense and mood must be rejected. If v2 is interpreted in terms of aspect or tense, then v3 should also have inflected for the same grammatical category. System-wise there is no possibility that v2 with the prefix *b-* inflected for aspect or tense and v3 with the prefix *g-* (but v4 with the suffix *-s*) for mood. On the other hand, should v1, v2, and v3 have expressed tense, why do the morphology of v1-stems differ so considerably from the morphology of v2 and v3? As far as I am aware, none of the adherents of the aspect- or tense-interpretations has ever proposed a plausible explanation to these facts.

expressed the value of the category that was accessible for intransitive and transitive verbs, whereas v3 expressed the value accessible only for transitive verbs. Because in the vast majority of conjugations v2 and v3 mostly resemble the verb root⁸¹ or can be derived therefrom by the least number of morphological processes, I assume that they reflected the most basic opposition.

From Joan Bybee's hierarchy of relevance it follows that the only category that could explain the observed facts is voice. I understand voice as a grammatical category that informs about the perspective from which an action is viewed in its relationship to the participants of the action. Fig. 1 demonstrates the voice oppositions formed by verbs in OT:

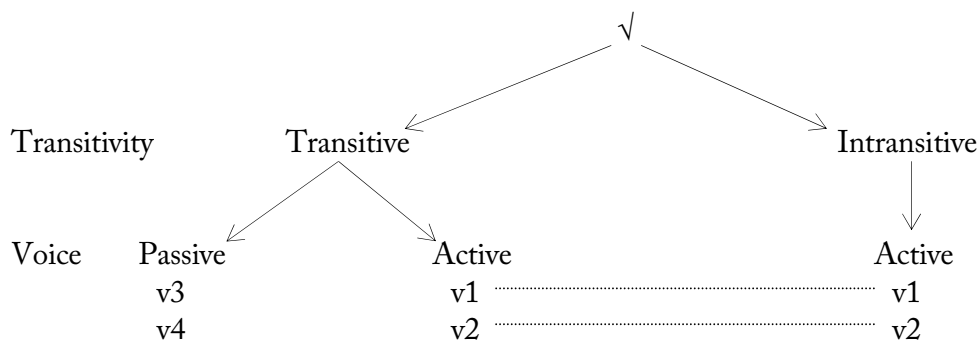


Figure 1

The break between transitive and intransitive morphology in OT was caused by grammatical voice. Both groups of verbs had active forms (v1 & v2), but only transitive verbs could form passive (v3 & v4). This hypothesis explains why intransitive verbs did not have v3 or v4-stems. v3 and v4 marked passive voice and so by definition were reserved for transitive verbs.

The identification of the opposition between v2 and v3 as a voice opposition agrees with yet another observation made by Bybee: '[T]he more a morphological distinction affects the inherent meaning of the verb, the less clear the general markedness values will be' (1985: 147). Because voice has a high relevance and thus significantly affects the meaning of a verb (ibid., p. 20), neither of the members of the opposition can be deemed marked in OT. Both members of the inflectional category voice had parallel morphological markings: *b-* or *b-s* in active and *g-* or *b-* in passive. The equal markedness of voice in transitive conjugations also accounts for the lack of transitive roots in conjugations with four stems. In contrast with transitive verbs, intransitive verbs made a common use of their verb roots, cf. √tead: v1 *yčhad*, v2 *čhad*; here v2 *čhad* was identical with the verb root. Transitive verbs did not use their roots in conjugations⁸² because they had to mark the members of the most basic opposition active vs passive alike due to the most fundamental status of voice in the hierarchy of relevance.

Here I may also mention that the proposed reconstruction finds its support in deverbal derivatives. We notice namely the following regularity:

⁸¹ Already Schiefner asserted that v2 (his Präteritum) were the most primary stems of transitive verbs (1852: 351).

⁸² Exceptions to this rule resulted from phonotactic restrictions in OT; cf., e.g., √draŋ > v3 *drañ*. The latter stem came into being after the simplification of the original PT onset **bdr-* (see § 26).

- v1 & v2 > agent-oriented nouns
 v3 & v4 > patient-oriented nouns

I will come back to this issue in §§ 40 & 44.

The voice opposition is a plausible explanatory frame not only in terms of the morphology of the verb stems, but also in terms of their semantics. In the following sections I will demonstrate the latter assumption by analysing OT verbs in textual context.

2.2.1 Active vs passive

§ 39. This section discusses the basic voice opposition: active voice (v2) vs passive voice (v3). The following quotation shall give us the first impression of how the system functioned:

- (4)
- | | | |
|------------------------------------|----------------------------|---|
| <i>ybañs-kyis-nī rje</i> | <i>bkol-tam /</i> | Did the subject subjugate the lord or |
| subject-ERG-FOC lord(ABS) | ACT.PFV:subjugate-INT | |
| <i>rje-yis-nī ybañs</i> | <i>bkol-bay /</i> | Did the lord subjugate the subject? |
| lord-ERG-FOC subject(ABS) | ACT.PFV:subjugate-NMZ(ABS) | |
| (474) <i>dgu{ñ}+sño-ni ya-bī</i> | <i>mkhyen /</i> | – The blue sky above knows [it]. |
| sky+blue-FOC above-GEN know | | |
| <i>myī-yis-nī rta</i> | <i>bžon-nam /</i> | Did the man ride the horse or |
| man-ERG-FOC horse(ABS) | ACT.PFV:ride-INT | |
| <i>rta-yīs-ni myi</i> | <i>bžon-ba //</i> | Did the horse ride the man? |
| horse-ERG-FOC man(ABS) | ACT.PFV:ride-NMZ(ABS) | |
| <i>pywa-yī-ni gcug+mkhan</i> | <i>mkhyen /</i> | – The one who understands the principles of |
| pywa-GEN-FOC principle+knower(ABS) | know | <i>pywa</i> knows [it]. |
| <i>rcī-yis-nī zor</i> | <i>gčhad-(475)-dam /</i> | Was the sickle cut with the grass or |
| grass-ERG-FOC sickle(ABS) | DPASS:cut-INT | |
| <i>zor-gyis-nī rcwa</i> | <i>gčhad-pa /</i> | Was the grass cut with the sickle? |
| sickle-ERG-FOC grass(ABS) | DPASS:cut-NMZ(ABS) | |
| <i>dog+mon-nī ma-bi</i> | <i>mkhyen //</i> | – The dark earth below knows [it]. |
| earth+dark-FOC below-GEN know | | |

The verbs of the first two stanzas are v2 (*bkol(d)*⁸³ < *b+√kol+d*, *bžon* < *b+√zon*), whereas the verb of the third stanza is v3 (*gčhad* < *g+√thead*). The passage consists of three independent motifs, each with parallel grammatical structure. All three verbs are transitive and controllable. In the first two stanzas the subject is the agent and is marked with ergative. The active v2-stems inform us that the focus is on the agent that acts upon a distinct patient. In the third stanza the action is presented from the point of view of the patient as affected by the action. Here the patient arguments stand in absolutive (*zor*, *rcwa*), whereas ergative marks the instrument arguments (*rci yis*, *zor gyis*). This stanza doesn't have an agent argument. In (4) *g*-stems entered in direct opposition with *b*-stems. The prefix *g*- marked the change of the syntactic function from an object of an active verb to a subject of a passive verb.⁸⁴ This can be sketched as follows:

⁸³ As can be inferred from *bkol tam*, the underlying form of the verb was actually **bkold*.

⁸⁴ Otherwise there would be no reason not to use the v2-stem *bč(h)ad* in the last stanza.

| | | | |
|---------|---------|---------|---------|
| | S | O | V |
| active | AGENT | PATIENT | v2-stem |
| passive | PATIENT | | v3-stem |

The following examples are intended to further illustrate the proposed interpretation of v2 and v3. Examples (5) and (6), as well as (7) and (8), are especially valuable as they contrast the usage of two forms of one verb, $\sqrt{\text{tead}}$ and $\sqrt{\text{tañ}}$ respectively.

(5)

rgyal-(read: *rgya+bon*)-*gyis mñay+thañ* ***bčad-de*** // *gtad-tu* *gnañ-bayi-rnams* /
 net+*bon*_priest-ERG power+extent(ABS) ACT.PFV:cut-GER DPASS:deliver-TERM allow-NMZ:GEN-PL

(102) *bdud gčado* // (Pt 1042)

demon(ABS) DPASS:cut:FNL

The *bon* priests [responsible for preparing] the eight-threaded nets **determined** the extent of power. Demons **were separated** [from objects] that were allowed to be delivered.

(6)

sku+gšen phañs+bon+po-rnams-kyis-kyañ / *gtañ-du scold-* (111)-*payi-rnams* / *spad-de*
sku+gšen phañs+bon+po-PL-ERG-ADD gift-TERM give(ACT.IMPR)-NMZ:GEN-PL *spad*-GER

bdud bčad-nas / *sku+gšen gšog+thabs scalto* // (Pt 1042)

demon(ABS) ACT.PFV:cut-ELA *sku+gšen*(ABS) *gšog+thabs*(ABS) give(ACT.PFV):FNL

sku gšen phañs bon po, having *spad* (?) what one was giving as gifts, **separated** demons. Subsequently, [one] gave *gšog thabs* to *sku gšens*.

(5) and (6) concern an analogous action: the aversion (lit. separation) of demons during a funeral ceremony. (5) uses the v3-stem *gčad* to direct the focus to the patient argument (*bdud*). The agent argument is suppressed. This is confirmed also by the content. The first clause has **rgya bon* as its agent.⁸⁵ However, from (6) we learn that not a **rgya bon* but a different ritual specialist – *sku gšen phañs bon po* – was responsible for averting demons and therefore the agent of the first clause in (5) cannot be understood as the underlying agent of the clause with the verb *gčad*. The latter is passive, a fact which is marked by the prefix *g-* in *gčad*. In (6), on the other hand, the v2 *bčad* directs the focus towards the agent of the action. The agent argument, not being mentioned in the second clause, has to be complemented from the first clause as *sku gšen phañs bon po*. In addition, *gtad tu* in (5) is an infinitive construction with a v3-stem *gtad* (for other examples of infinitive constructions with v3, see § 40).

(7)

thañ+thañ+brla+ma-žīg / *thugs+sñuñ ybrañ+gam-nas* / *gnam-gyī nad+ka čho dgu* /

Thañ+thañ+brla+ma-INDF(ABS) mind+illness(ABS) *ybrañ+gam*-ELA sky-GEN illness family nine

skin+ka (r35) *lde brgyad gñī+byuñ+zer-las gtañ* / *zla+byuñ+yod-las gtañ* /

swelling class eight(ABS) sun+rise(PFV)+ray-DEL DPASS:send moon+rise(PFV)+light-DEL DPASS:send

skar+byuñ+zil-las gtañ / *sprin+byuñ+gnur-la* {s} *gtañ* /

star+rise(PFV)+brightness-DEL DPASS:send cloud+rise(PFV)+density-DEL DPASS:send

⁸⁵ The focus lies on the agent and so the v2 *bčad* is used.

gʒay+byuñ+yod-las <*gtañ*> (Pt 1285)

rainbow+rise(PFV)+light-DEL DPASS:send

Thañ-thañ-brla-ma ʔwas 'brañ gam regarding mind illness?. Therefore (*nas*), of the sky nine families (*čho*) of diseases [and] eight classes (*lde*) of swellings were sent down from the rays of the risen sun; were sent down from the light of the risen moon; were sent down from the brightness of risen stars; were sent down from the density of risen clouds; [were sent down] from the light of a risen rainbow.

(8)

thañ+(r45)+thañ+brla+ma thugs+sñuñ-nī ybrañ+gam-ste // gnam-gyi nad+ka čho dgu /

Thañ+thañ+brla+ma(ABS) mind+illness-FOC *ybrañ+gam-GER* sky-GEN illness family nine

skar+ka lde brgyad-/-čīg // gñī+byuñ+zer / zla+byuñ+yod / skar+byuñ+ / (r46) + {zi}l /

swelling class eight-INDF(ABS) sun+rise(PFV)+ray moon+rise(PFV)+light star+rise(PFV)+brightness

sprin+byuñ+gnur / yǰa+byuñ+yod-la{s} mñags-ste btañ // (Pt 1285)

cloud+rise(PFV)+density rainbow+rise(PFV)+light-DEL order:ACT.PFV-GER ACT.PFV:send

Thañ-thañ-brla-ma, ʔbeing 'brañ gam regarding mind illness?, having ordered of the sky nine families of diseases [and] eight classes of swellings from the rays of the risen sun, from the light of the risen moon, from the brightness of risen stars, from the density of risen clouds, from the light of a risen rainbow, sent [them down].

Two aspects of passages (7) and (8) have impact on their interpretation: 1. the converbial forms *gam nas* and *gam ste* in the first clauses; and 2. v3 *gtañ* (7) vs v2 *btañ* (8). The aspects are interrelated. The converbial particle *nas* more strictly separated a preceding clause from the following one but it was unmarked for switch-reference.⁸⁶ The gerundial particle *ste* by definition pointed to a closer relationship between clauses which shared their subject in case the following clause did not explicitly mention another subject. Consequently, in (7) *gam nas* informed that the following clauses had different subjects (for overtly stated) and *gtañ* specified that the focus lay on the patient argument. *gam ste* of (8) stated that the subject, i.e. *Thañ-thañ-brla-ma*, remained valid and the v2-stem *btañ* specified that the agent was in the focus of the action.

The next example demonstrates the functional identity of v3-stems in *g-* and those in *b-*:

⁸⁶ In OT *nas* was used in connecting clauses with coreferential arguments but also, those with subject-switch (cf. (6)). Scholars previously examining *nas* for coreference and switch-reference in CT and modern dialects (Haller 2009 and Beer 2019) expressed the opinion that in these languages *nas* links clauses with coreferential subjects. However, the analysis of Beer contained serious errors in the interpretation of the surveyed CT text. In (1) (p. 251), the author falsely interpreted *grub* as a transitive and controllable verb which it was not (cf. CDTD.V: 255); the clauses *de ygro ba sin tu grub nas phyr log ste* have to be translated as 'He, after the journey was finished, turned back'. This is a clear instance of switch-reference despite *nas*. In (2) Beer even translated *nas* twice (p. 251): as a case clitic 'from' and then as a conjunction 'and'. Since *nas* follows the NP *deyi gnas* it is obvious that it is a case clitic here. In (5) *nas* again connects verbs with different subjects: *sprin čhen po zig* and *čhar* (p. 253). The author's comment is more than surprising: 'One can note that although *-nas* is here used for co-reference, if one understands that the cloud rains, *bab* is not a control verb' (emphasis added). The fact is that in the passage the cloud occurred (*byuñ*) and the rain fell (*bab*). In general, the paper contains many other errors in interpreting CT examples and in fact presents examples that invalidate the proposed hypothesis. Therefore it remains doubtful that in CT *nas* was used as a marker of coreference.

- (9)
bcan+(34)+*po* *dbon*+*sras* // *sku* *čhu*+*ñur* *bźugs*-*pa* *yan*+*čad* // *čhab*+*srīd*-*kyi*
bcan+*po* grandson+son.HON(ABS) body small:TERM stay.HON-NMZ(ABS) from realm-GEN
(35) *mñay*+*bdag* *mjad*-*pa* *man*+*čad*-*kyañ* // *dge*+*slon*-*las* / *dge*-*bayī*
power+owner(ABS) do.HON-NMZ(ABS) until-ADD monk-DEL virtue-NMZ:GEN
(36) *bśes*+*ñen* *bskos*-*ste* / *čhos* *thugs*-*su* *čī* *čhud*-*čhud*-*du*
spiritual_friend(ABS) ACT.PFV:appoint-GER teaching(ABS) mind-TERM what.RELPR enter:RDP-TERM
bslab-*čīñ* // *bod* (37) *yoñs*-*kyīs*-*kyañ* *čhos* *slob*-*čīñ* *spyad*-*payī*
DPASS:teach-CO Tibetan all-ERG-ADD teaching(ABS) teach(ACT.IMPR)-CO practise-NMZ:GEN
sgo *myi*-*gčad* / (Skar)
door(ABS) NEG.NPST-DPASS:cut

From the time when *bcan po*, grandsons and sons, are young, until [they] become sovereigns of the realm, having **appointed** a spiritual friend of virtue from among monks, Buddhist teachings (*čhos*) **will be taught**, so that [they can] enter every mind, and (*čīñ*) the door towards learning and practising Buddhist teachings by all Tibetans **will not be closed**.

The passage makes prescriptions for the future. The v2 *bskos* (v3 *bsko*) is contrasted with two v3-stems: *bslab* and *gčad*. *bskos* was an active form and therefore agent-oriented; there will always be a person responsible for appointing a spiritual friend, possibly a *bcan po* is meant here. After this, the focus changes to the patient arguments of the following verbs: Buddhist teachings will be taught and the door of the religion will not be closed. The non-agentive character of the action is particularly clear in the negated form *myi gčad* ‘will not be closed’. By definition, it is not possible to determine who would *not close* the door in the future. One could at best determine who would *close* the door.⁸⁷ *bslab* was a v3-stem with v2 *bslabs*. *bslab* used in (9) paralleled *gčad* with which it was coordinated through the *čīñ*-particle, confirming the functional identity of the two v3-stems.

- (10)
(25) *khyī* *bzañ*+*po* *lo*+*ñam*-*gyi* *lagis* ***byugs***-*pa*-*dañ* / *ña*-*yī* *rta*+*rjīs*
dog beautiful(ABS) Lo+ñam-GEN hand:ERG stroke:ACT.PFV-NMZ-COM I-GEN horse+herdsman:ERG
khyi-*yī* *spu*-*la* *dug* *bskus*-*pas* *lag*+*pa* ***byug***-*ste* *bsad*-*de* /
dog-GEN hair-ALL poison(ABS) ACT.PFV:smear-NMZ:ERG hand(ABS) stroke(DPASS)-GER ACT.PFV:kill-GER
(26) *śa* *blan*-*no* // (Pt 1287)
flesh(ABS) ACT.PFV:take-FNL

Lo-ñam’s hand **stroked** the beautiful dog and the hand **got** (lit. was) **besmeared** with the poison that my herdsman had smeared on the dog’s hair. Having killed [him thus], [they] took revenge (lit. flesh).

The narrative switches from the active *byugs* (v2) ‘stroked’ to the passive *byug* (v3) ‘was besmeared’. The latter verb described the action from the perspective of the patient – *lag pa*: the hand has been besmeared with the poison due to the fact that it got into contact with the dog. The hand was besmeared automatically without there being any agent involved.

⁸⁷ The construction ‘*myi* + v3’ frequently occurs in Central Tibetan inscriptions and is always patient-oriented.

(11)

da *phyīn+čhad* *nam+nam+ža+žar* // *yphrul-gyī* *lha* (23) *bcan+po* / *yab* /
 now(ABS) from forever:TERM magical_power-GEN deity *bcan+po* father.HON
khri+sroñ+lde+brcan-gyī *riñ-la* // *dkon+mčhog* (24) *gsum-gyī* *rten* *bcugs-pa-dañ* /
 Khri+sroñ+lde+brcan-GEN reign-ALL rarity+best three-GEN shrine(ABS) ACT.PFV:erect-NMZ-COM
sañs+rgyas-kyī *čhos* *myad-pa* (25) *myī-gtañ* *ma-žig-par* //
 Buddha-GEN teaching do.HON-NMZ(ABS) NEG.NPST-DPASS:abandon NEG.PST-decline-NMZ:TERM
gduñ+rabs+rgyud-kyīs *yi+dam* *bčayo* (Skar)
 bone.HON+family+lineage-ERG mind+vow(ABS) (DPASS)make:FNL

From now on, a vow **will be made** by [each] generation that shrines erected for the Three Jewels and the teachings of the Buddha established during the reign of the deity of magical powers – the *bcan po*, the father Khri-sroñ-lde-brcan – will never **be abandoned** nor have **declined**.

The juxtaposition of *myi gtañ* (TR/DPASS) with *ma žig* (INTR/ACT) proves that intransitive verbs not only did not have a v3-stem, but also had a different meaning in the same context. *ma žig* means ‘will not have declined’. In OT *žig* was an INTR verb with one stem only. The negation *ma* indicated that the verb should be understood as denoting a completed action. The passage is a prescription for future generations and therefore no concrete agents could be mentioned. Hence, the verb *gtañ* focused on the patients (*rten*, *čhos*). The monovalent character of v3 is once more established here: *rten* and *čhos* are the subjects of *gtañ* and *žig*. Both verbs could have only one syntactic argument, a subject. *žig* as an intransitive and so by definition a monovalent verb took up the subject from the preceding clause.

The above examples (4) – (11) contrast v2 with v3-stems and prove that the opposition was that of voice, i.e. the verbs took different perspectives either focusing on the agent (v2) or on the patient (v3).⁸⁸

§ 40. Also other OT constructions support the proposed interpretation of v3-stems:

1. *žes bya/bgyi ba*, lit. ‘the so-called, the so-said’. This idiomatic phrase is always constructed with a v3-stem of a verb of speaking (cf. *bya* and *bgyi*). The phrase introduces a new proper name or a term into the discourse. Its non-agentive character is apparent.
2. Various infinitive constructions, that is, constructions that require infinitive as their complement, were prototypically formed with v3-stems of controllable transitive verbs in OT:⁸⁹

⁸⁸ The hypothesis that v3-stems expressed dynamic passive (Ger. *Vorgangspassiv*) was put forward in Müller-Witte (2009). However, to this aim he used different arguments than those presented here and concentrated rather on the Tibetan interpretations of verb stems. The idea that v3-stems might have had passive meaning is not new and was already discussed by other authors on the basis of Tibetan native grammatical treatises and Tibetan translations of Sanskrit texts (cf., e.g., Tillemans/Herforth 1989 and Tillemans 1991). These are of course important arguments that add to the hypothesis proposed in this paper. However, since they are based on much later material I omit them from the discussion that focuses on the OT language.

⁸⁹ Excluded are constructions with nominalised clauses, like ‘V₁ /par/ V₂’, lit. ‘V₂ so that V₁’. In these constructions the form of V₁ is independent and may be v1, v2, or v3. For infinitive usage of the constructions with v3 see example (5) and clause V in example (12).

- a. v3 + verb:
 V3_{TERM} + *run* ‘be appropriate to v3’
 V3_{TERM} + verb of going (*ygro*, *slebs*, *gségs*) ‘go to v3’⁹⁰
- b. v3 + final postposition:
 v3+/pa/+GEN *phyir* ‘in order to v3’

The infinitive constructions are formed with v1 in case the verb is intransitive, why then with v3 of transitive verbs? Infinitive in these constructions may be considered a verb of decreased transitivity. I think that it was exactly the demoted agent and the decreased transitivity of v3-stems as passive forms that decided over their usage in infinitive constructions. Otherwise, there would be no reason not to use v1-stems of transitive verbs, as is the case with intransitive verbs.

- 3. Nouns derived by conversion from v3 exhibit strong patient-orientation:

| | |
|-----------------------|---|
| <i>gdon</i> ‘demon’ | < <i>gdon</i> (v1 <i>ydon</i>) ‘was expelled’ |
| <i>dpag</i> ‘measure’ | < <i>dpag</i> (v1 <i>dpog</i>) ‘was measured’ |
| <i>bon</i> ‘gift’ | < <i>bon</i> (v1 <i>yon</i> , v2 <i>bond</i>) ‘was offered’ |
| <i>gzugs</i> ‘stalk’ | < <i>gzugs</i> (v1 <i>yjugs</i>) ‘was placed down’ ⁹¹ |
| <i>bsam</i> ‘thought’ | < <i>bsam</i> (v1 <i>sems</i>) ‘was thought’ |

This was also noticed by Zeisler who wrote: ‘Stem form C (my v3 – JB) is distinguished from all other stems by the close semantic relation or ‘congruence’ between its nominal use (as plain stem, in compounds or as verbal noun) and the patient and/or goal argument [...]’ (2004: 264)⁹²

We may complement the above arguments for a passive reading of v3-stems with the observation that OT clauses with a v2-stem frequently left out either a patient or, more commonly, an agent argument. Clauses with v3-stems always had a patient argument. The only exception concerned subsequent clauses in verb serialisation constructions. However, v3 hardly ever occurred with an agent argument.⁹³ v3-stems were used with the highest frequency in ritual and judicial texts, as well as in some Central Tibetan inscriptions. These text genres used impersonal language to make prescriptions about actions that are to be undertaken. They were goal-oriented and so persistently avoided naming the agents of the actions.

§ 41. To conclude, I understand passive as a point of view focusing on the patient that is affected by the action. Passive is a valence-decreasing construction. It seems that only transitive verbs with a patient argument in absolutive could form passive forms, although this hypothesis has to be tested on more examples yet. The patient argument is the sole argument of a passive verb and the verb must be treated as monovalent.⁹⁴ Like many intransitive verbs, passive verbs could also

⁹⁰ On these constructions in CT, see Garrett/Hill/Zadoks (2013).

⁹¹ For this etymology of *gzugs*, see Bialek (2018a: 2.425).

⁹² At the same time, Zeisler denied that Tibetan verbs could mark voice: ‘stem forms in the predicate do not exhibit any opposition of VOICE’ (ibid.). For a critical evaluation of this contradiction in Zeisler’s approach, see Müller-Witte (2009: 64ff.).

⁹³ Compare the following statement by Müller-Witte: ‘Mit dem Futurstamm (my v3 – JB) zusammen wird seltener ein explizites oder implizites oder definites Agens auftreten als mit dem Präsensstamm (my v1 – JB).’ (2009: 80).

⁹⁴ OT passive agrees with the typological characteristics of passive as presented in Abraham (2006: 2). Givón (1979: 186) defined passive as a construction in which ‘a nonagent is promoted into the role of main topic of the sentence’. He further analysed languages in which the only sign of passivisation is demotion or deletion of the agent (ibid., pp. 191ff.). These languages also acquire some passive markings on verbs. The same characteristics (demotion of the agent and passive verb morphology) are found in OT.

take optional arguments; an agent argument among others.⁹⁵ The latter, however, must be treated as derivative. An active verb, on the other hand, focuses on the agent of the action.

v2 and v3-stems formed an opposition within the grammatical category of voice. They marked active and passive voice respectively. It is therefore logical that intransitive verbs did not have v3-stems; only transitive verbs can participate in passive constructions. Passive is by definition a valence-decreasing construction and so available only for verbs with more than one argument.

If that is so, why then was there a group of verbs (Type 3a) that formed v3 on the basis of an intransitive root (see Tab. 1)? I provide a plausible solution to the problem in § 55 when discussing the origins of v3 and passive constructions in OT.

2.2.2 *Dynamic passive vs stative passive*

§ 42. As the discussion in § 38 has shown, v4-stems must have originally expressed passive voice. However, v4 never took prefixes. The suffix *-s* was obligatory and if the root vowel was *-a-* it was replaced by *-o-*. Already this description suggests that v4-stems did not participate in the primary opposition of v2 and v3-stems. If it nevertheless had passive meaning, we can only conclude that it was introduced into the system independently from v2 and v3 and entered the opposition only with v3.

Although earlier works already discussed non-imperative use of v4-stems in CT,⁹⁶ Müller-Witte was probably the first Western scholar who suggested that the form originally marked stative passive.⁹⁷ That is, it formed an opposition with dynamic passive of v3-stems. The following OT examples should illustrate this usage of v4 in OT.

| | | | | | | | |
|-----------------|--------------------|------------------------|------------------------|--------------------|---------------------|----------------------|----------------------|
| | (12) | | | | | | |
| | <i>ña-yī</i> | <i>dmag-ni</i> | (511) | | | | |
| | I-GEN | army-FOC | | | | | |
| I ⁹⁸ | <i>rcwa</i> | <i>mañ+po-la</i> | <i>zor+ba</i> | <i>gčhīg-gis</i> | <i>gčhod-pa-dañ</i> | <i>mchuñste</i> | <i>čhod-krañ //</i> |
| | grass | many-ALL | sickle | one-ERG | IMPR:cut-NMZ-COM | be_like:GER | cut<SPASS>-INT.RHET |
| II | <i>g.yag</i> | <i>čhed+po-la</i> | <i>mday</i> | <i>phra+mos</i> | <i>yphañs-na</i> | <i>sod-krañ //</i> | |
| | yak | big-ALL | arrow | small:ERG | shoot:ACT.PFV-INE | kill<SPASS>-INT.RHET | |
| | (512) | <i>weñ+ker+žañ+šes</i> | <i>lan</i> | <i>btab-pay //</i> | | | |
| | Weñ+ker+žañ+še:ERG | answer(ABS) | ACT.PFV:throw-NMZ(ABS) | | | | |
| III | <i>sgo+ña</i> | <i>čhu+ñu / rī</i> | <i>čhed+po-yi</i> | <i>ljid-kyīs</i> | <i>mnan-na</i> | <i>čhogs-krañ /</i> | |
| | egg | small(ABS) | mountain | big-GEN | weight-ERG | ACT.PFV:press-INE | break:SPASS-INT.RHET |

⁹⁵ Intransitive verbs could take an additional argument in ergative but it was never an agent argument. Instead it could be an instrument or a cause argument.

⁹⁶ Zeisler (2002, 2004: 849ff., & 2017) argued for the original *potentialis* meaning of v4 from which imperative later developed. This reconstruction however conflicts with conclusions of linguistic typology according to which if a language has verbal inflection then the first mood opposition to occur will be that between indicative and imperative (Bybee 1985: 32).

⁹⁷ As a matter of fact, he came to this conclusion reading works of modern Tibetan scholar Dpay-ris-saṅs-rgyas, who interpreted v4-stems of transitive controllable verbs as expressing stative or resultative passive (Müller-Witte 2009: 241ff.).

⁹⁸ To facilitate the ensuing discussion, I have numbered clauses with a v4-stem with roman numerals I–V.

- IV *mye ybayr-ba / mcho čhed+po-yi rlabs-kyis (513) bsad-na sod-krañ //*
 fire burn-NMZ(ABS) lake big-GEN wave-ERG ACT.PFV:kill-INE kill<SPASS>-INT.RHET
mgar+khrī+ybriñ-gīs lan btab-pay // rī čhed+po-yi steñ-na brag /
 Mgar+khri+ybriñ-ERG answer(ABS) ACT.PFV:throw-NMZ(ABS) mountain big-GEN top-INE rock(ABS)
brag-gī kha-na śīñ / śīñ-gī kha-na chañ / chañ-(514)-gī kha-na sgo+ña-ste /
 rock-GEN surface-INE tree(ABS) tree-GEN surface-INE nest(ABS) nest-GEN surface-INE egg(ABS)-GER
rī ma-rñil-bar brag myī-ydral /
 mountain(ABS) NEG.PST-break_down-NMZ:TERM rock(ABS) NEG.NPST-IMPR:tear
brag ma-ral-bar śīñ myi-čhag /
 rock(ABS) NEG.PST-tear-NMZ:TERM tree(ABS) NEG.NPST-IMPR:break
śīñ ma-čhag-~~dañ~~-{par} chañ myi-žig /
 tree(ABS) NEG.PST-break-NMZ:TERM nest(ABS) NEG.NPST-decline
chañ myi-žig-(515)-par sgo+ña myī-čhag-ste //
 nest(ABS) NEG.NPST-decline-NMZ:TERM egg(ABS) NEG.NPST-break(PFV)-GER
- V *rīs sgo+ña gčhag-du de+ltar myi-čhogs-so // (Pt 1287)*
 mountain:ERG egg(ABS) DPASS:break-TERM so:TERM NEG.NPST-break:SPASS-FNL

‘Regarding my army, being similar to many [blades of] grass which a single sickle cuts, how [can they] be not cut? If [one] shot at a big yak with a small arrow, how [can the yak] be not killed? Weñ-ker-žañ-še gave the [following] answer: ‘A little egg, if a weight of a big mountain pressed [it], how [can it] be not broken? Burning fire, if a wave of a great lake extinguished [it], how [can it] be not extinguished?’ Mgar-khri-ybriñ gave the [following] answer: ‘On top of a big mountain [there is] a rock. On the rock [there is] a tree. On the tree [there is] a nest. In the nest [there is] an egg.

The rock does not tear asunder without the mountain having broken down.

The tree does not break without the rock having torn asunder.

The nest does not collapse without the tree having broken.

The egg will not have broken without the nest being collapsed.⁹⁹

To break the egg by the mountain – in this way [the egg] is not broken.’

Four clauses end with v4+krañ (I–IV).¹⁰⁰ In the last clause (V) v4 is followed by the final particle *so*. The particles *krañ* and *so* are nothing one would expect after an imperative stem. As the translation suggests, the v4-stems cannot be translated here as imperatives. Instead I have rendered them in stative passive, e.g., ‘be broken’, Ger. ‘gebrochen sein’. The information structure of all clauses leaves no doubt that the patient argument of the clauses that precede the v4-clauses is the subject of the v4-verbs. Clauses I–IV begin with the patient argument of the first verb. The argument is the theme (in the information structure theme/rheme) and therefore remains the point of reference for the second verb, i.e. the v4-stem. It becomes then the subject of the monovalent v4-stem. A different situation is in clause V. Here the clause begins with the instrument argument (*rīs*) and is followed by the patient argument (*sgo ña*). However, the verb of the clause is the monovalent

⁹⁹ Pol. *Jajko się nie stłucze_{FUT}, o ile gniazdo nie zniszczyje_{FUT}*. Zeisler has observed that the usage of v2 verbs with *myi* ‘seems to be connected with inactual contexts (future time reference, generic statements, and the result clauses of conditional phrases)’ (2004: 434). As I argue, v2 verbs were ACT/PFV. Therefore, the usage of *ma* would mark an action completed in the past, whereas *myi* would indicate an action completed in a non-past context. Perfective forms cannot be used for present actions, but only past or future ones. It appears that OT expressed this difference only in negations: *myi+v2* = NEG.NPST+PFV ‘will not have done’, *ma+v2* = NEG.PST+PFV ‘did not do’.

¹⁰⁰ *krañ* was a rhetoric question particle. It grammaticalised from √graj ‘to count’. The literal translation of the clauses ‘X v4+krañ’ would be ‘How is X not v4?’

passive *gčhag* with the sole argument (= subject) *sgo na*. Hence, the only syntactic argument that can be taken up by the following verb is *sgo na*. *sgo na* is the subject of *gčhag* and *čhogs*. They are both passive, i.e. monovalent, verbs.

- (13)
gser-gyī-ni doñ+ral-na In a golden quiver,
 gold-GEN-FOC quiver-INE
 (480) *g.yu-γī-ni mday čhīg+ma //* [There is] a sole turquoise arrow.
 turquoise-GEN-FOC arrow sole(ABS)
ma-yphañs-nī śa myi-khums / If one did not shoot [it], a stag is not killed.
 NEG.PST-shoot:ACT.PFV-FOC stag(ABS) NEG.NPST-kill:SPASS
yphañs-na-ni ral-yañ stoñs // (Pt 1287) If one did shoot [it], the quiver is empty.
 shoot:ACT.PFV-INE-FOC quiver-ADD empty

Here the patient argument of the v4 *khums* is explicitly stated as *śa*. The parallelism of verses 3 and 4 is clear; both end with a monovalent verb: *khums* and *stoñs*. There is no way to translate *khums* as imperative without violating the message of the stanza.

- (14)
khyīm+grañs ma-śor-par (305) yoñs-kyis ybañs rnal+mar bkug-go/ (Pt 1287)
 house+number(ABS) NEG.PST-count<SPASS>-NMZ:TERMal-ERG subject genuine:TERM ACT.PFV:summon-FNL
 [Myañ-mañ-po-rje-žañ-snañ] gathered entirely [Sum-pas] as native subjects so that (*par*) the number of [their] houses was not counted.

The nominalised form *śor par* precludes the interpretation of *śor* as an imperative form. *khyim grañs* is the patient argument of *śor*.

- (15)
na+nīñ-ni gže+niñ śna // A year ago, two years ago, formerly,
 year_ago-FOC two_years_ago before(ABS)
pho+ma-yī-ni ybroñ bkum-ba / An immature wild yak that [one] killed –
 immature-GEN-FOC wild_yak(ABS) ACT.PFV:kill-NMZ(ABS)
lho+śiñ-ni (241) smyug+mo rgyal // The tree of the south, bamboo, is victorious
 south+tree-FOC bamboo(ABS) be_victorious [against it].
lčags-kyīs-nī ma-dral-na // If one did not split [it] off with an iron [tool],
 iron-ERG-FOC NEG.PST-tear(ACT.PFV)-INE
smyug-gīs-ni re myi-pugs // Nothing is pierced with the bamboo.
 bamboo-ERG-FOC something(ABS) NEG.NPST-pierce:SPASS
rgod-kyis-ni (242) ma-bsgron-na / If one did not cover [it] with [feathers of] a bird
 bird_of_pre-ERG-FOC NEG.PST-ACT.PFV:cover-INE of prey,
ybroñ-la-nī re myi-yjen // Nothing would ever reach the wild yak.
 wild_yak-ALL-FOC something(ABS) NEG.NPST-reach
ñas+po-ni ra+yul-gyi / Regarding the armour from Ñas-po, the Ra-sa
 Ñas+po-FOC Ra+country-GEN region,
kom+ce-ni gzig+mo (243) rgyal // A porcupine is victorious [in fight against it].
 hide+twin-FOC porcupine(ABS) be_victorious

| | | |
|---|--|---|
| <i>khab-kyis-nī ma-pug-na /</i> | | If one did not pierce [it] with a needle, |
| needle-ERG-FOC NEG.PST-(ACT.PFV)pierce-INE | | |
| <i>rgyus-kyis-nī re myi-pugs /</i> | | Nothing is pierced with a thread. |
| thread-ERG-FOC something(ABS) NEG.NPST-pierce:SPASS | | |
| <i>rgyus-kyis-ni ma-(244)-drañs-na /</i> | | If one did not draw [it] tightly with the thread, |
| thread-ERG-FOC NEG.PST-draw:ACT.PFV-INE | | |
| <i>kom+ce-nī ñid myi-yjo (Pt 1287)</i> | | The armour could not accomplish by itself. |
| hide+twin-FOC self(ABS) NEG.NPST-accomplish | | |

(15) is especially valuable for in ll. 10–11 it contrasts two forms of one verb: v2 *pug* (< **b+√pug*) vs v4 *pugs* (< **√pug+(^os)*). v4 *pugs* is used here twice in analogous constructions:

X ma dral na ... re myi pugs
X ma pug na ... re myi pugs

First clauses contain v2-stems, i.e. active perfective verbs that refer to the respective action as completed. The verbs are however negated with *ma*. This means that only a successfully completed action (v2) can bring a positive result (v4). If an action has not been completed (*ma+v2*), no result occurs (*myi+v4*). In both sentences the indefinite pronoun *re* is the patient argument and syntactic subject of *pugs*.

(16)

snañ+bzañ+ydus+koñ-gi bu+cha+yphel+(43)+rgyud-kyī bran žiñ / ybrog sog
 Snañ+bzañ+ydus+koñ-GEN son+grandson+grow+lineage-GEN slave field pasture straw_land
chal-las scogs-pa / nam+žar rabs čhad-daṃ / bka+(44)+gyod-la
 forest-DEL gather-NMZ(ABS) ever:TERM family(ABS) die_out(PFV)-CONJ word.HON+accusation-ALL
thogs-na-yañ / phyag-tu myī-bžes / gžan myī-sbyin / (Žwa W)
 attach:SPASS-INE-ADD hand.HON-TERM NEG.NPST-take.HON other(ABS) NEG.NPST-give(DPASS)

Even if [his] family has ever become extinct or is **involved** in an accusation, slaves, fields, summer pastures, straw-lands, and forests (among others) of the descendants of Snañ-bzañ-ydus-koñ should not be confiscated (lit. seized to the authorities' hands) nor given to others.

The passage *rabs čhad daṃ bka gyod la thogs na yañ* literally reads 'even if [his] family (*rabs*) has died out or is involved in an accusation'. *thogs* was the v4-stem of the verb *ydogs*, lit. 'to bind, attach'. It is the only example in this set of quotations in which a v4-stem is used affirmatively, i.e. without a negation. From the context it is apparent that only *rabs* can be the subject of *thogs*. *thogs* is coordinated with another monovalent verb, *čhad*. Even though the events referred to by *čhad* and *thogs* are projected into unspecified future, a *potentialis* reading, as proposed by Zeisler for v4-stems (cf. fn. 96), is not plausible here: ! 'even if [his] family has ever become extinct or can (or: is able to) involve in an accusation'. Being accused is not subject to one's own will and therefore cannot be attempted. It appears that the *potentialis* reading of v4-stems can be meaningful (which does not mean that it is correct) only with negated verbs.

§ 43. The above examples demonstrate various uses of v4-stems none of which can be explained as expressing the imperative mood. The clauses lack the imperative particle /čig/ so that the conclusion can be drawn that it was in fact the particle that added imperative meaning to

originally non-imperative forms.¹⁰¹ What strikes mostly in the examples is the resultative character of the actions expressed by v4-stems. The stems name the state of an entity that ensues when the entity has been successfully acted upon. It is most explicitly expressed in (15): [...] *ma pug*_{v2} *na* [...] *re myi pugs*_{v4} ‘If one did not pierce, nothing is pierced.’ *pug* is a v2-stem (< **b+*√*pug*), i.e. it denotes the action of piercing undertaken by an agent towards an object. *pugs*, on the other hand, is a v4-stem denoting the state resulting from the piercing. That is, its meaning is that of stative passive.

The analysis implies that not all verbs might have been liable to form v4-stems with this meaning. Müller-Witte, following the Tibetan grammarian Dpay-ris-sans-rgyas, argued that only affective (Ger. *affizierend*; < Lat. *afficere* ‘to affect’) verbs could develop resultative forms (2009: 108ff.). In his view, no resultative forms could be achieved from effective (Ger. *effizierend*; < Lat. *efficere* ‘to make out; to produce’) verbs.¹⁰² However, OT data seems to contradict these assumptions. For instance, effective verbs like *rcig* ‘build’ could form v4-stems: *rcigs* ‘is built’. Therefore I argue that it was rather controllability and telicity of a verb that determined the formation of stative passive in OT.

Furthermore, we notice the occurrence of both negations, *myi* and *ma*, with v4-stems. The passages suggest that *myi* could mark non-past and *ma* past contexts. One can compare the distinction between *myi čhogs* and *ma čhogs* with Ger. *is gebrochen/war gebrochen* or Pol. *jest złamany/był złamany*. As a matter of fact, German and Polish can also form future stative passive: *wird gebrochen sein* and *będzie złamany*. OT seems to have made only a twofold distinction between past and non-past meanings. Regarding negation, the fact that prohibitive has never been formed from v4-stems could also suggest that the latter did not have imperative meaning.

§ 44. The proposed passive interpretation of v4-stems is additionally supported by nouns derived by conversion:

| | |
|---------------------------------------|--|
| <i>khroms</i> ‘bazaar’ ¹⁰³ | < v4 <i>khroms</i> (v1 <i>ygrem</i> s) ‘is spread out’ |
| <i>gos</i> ‘clothes’ | < v4 * <i>gos</i> (v1 <i>bgo</i> < orig. * <i>ygo</i> ?) ‘is put on’ |
| <i>čhibs</i> ‘horse’ | < v4 <i>čhibs</i> (v1 <i>yčhib</i>) ‘is ridden’ |
| <i>čhos</i> ‘custom’ | < v4 <i>čhos</i> (v1 <i>yčhay</i>) ‘is made’ |
| <i>čhol</i> ‘dice’ | < v4 <i>čhol</i> (v1 <i>yjal</i>) ‘is weighed’ ¹⁰⁴ |
| <i>thon</i> ‘loss’ | < v4 <i>thon</i> * <i>s</i> (v1 <i>gton</i>) ‘is abandoned’ |
| <i>chems</i> ‘tooth’ | < v4 <i>chems</i> (v1 <i>ychem</i>) ‘is sewn’ |
| <i>zlug</i> s ‘information’ | < v4 <i>zlug</i> s (v1 <i>zlug</i>) ‘is informed’ |
| <i>yugs</i> ‘mourning (one)’ | < v4 * <i>yugs</i> (v1 <i>ybyug</i>) ‘is smeared’ |
| <i>rims</i> ‘epidemy’ | < v4 * <i>rims</i> (v1 <i>ydrims</i>) ‘is spread’ |

¹⁰¹ The change of mood by means of a particle is known from interrogative constructions with the particle /yam/; see § 67.XI.

¹⁰² As ‘affective’ one understands transitive verbs that express an action towards an already existing object that becomes affected through the action. ‘Effective’ verbs, on the other hand, express an action that creates or produces its own object. The object is not present when the action starts.

¹⁰³ Despite the prevailing WT form *khrom*, reflexes of the original *khroms* are attested in WAT dialects: Chik [k^hšoms] ‘festival place’, Leh [t^hšoms] ‘festival ground’ (CDTD: 963).

¹⁰⁴ *čhol* as the original v4 of the verb *yjal* was suggested in Beckwith (1996: 824). *čhol* might have originally denoted weight, i.e. ‘a piece of metal known to weigh a definite amount and used on scales to determine how heavy something is’ (OED: 1638b).

| | |
|------------------------|--|
| <i>ris</i> ‘picture’ | < v4 * <i>ris</i> (v1 <i>ydri</i>) ‘is written’ |
| <i>lugs</i> ‘mould’ | < v4 * <i>lugs</i> (v1 <i>ldug</i>) ‘is poured’ |
| <i>sobs</i> ‘ointment’ | < v4 <i>sobs</i> (v1 <i>gsob</i>) ‘is cured’ |
| <i>lhos</i> ‘look’ | < v4 <i>lhos</i> (v1 <i>lta</i>) ‘is looked at’ |

The patient-orientation of the nouns is apparent even though some of them seem to have undergone further semantic changes. A dedicated study could reveal the nature of the semantic difference between nouns derived from v3 and those derived from v4-stems.

We observe a tendency for the verbs to replace their original v4-stems with new forms as soon as the derivatives have been established in the lexicon; cf.:

| OT v1 | OT v4 | new v4 |
|---------------|---------------|---|
| <i>yjal</i> | <i>čhol</i> | <i>yjol</i> (J: 175a), <i>yjol(d)</i> (Hill 2010a: 95a) |
| <i>ybyug</i> | * <i>yugs</i> | <i>byugs</i> (J: 397a), <i>byug(s)</i> (Hill 2010a: 207b) |
| <i>ydrims</i> | * <i>rims</i> | <i>brims</i> (Hill 2010a: 211, s.v. <i>ybrim</i>) |
| <i>ydri</i> | * <i>ris</i> | <i>bris</i> (J: 400b), <i>bris/phris</i> (Hill 2010a: 211a) |
| <i>ldug</i> | * <i>lugs</i> | <i>blug(s)</i> (J: 291a), <i>ldug(s)/blug(s)/lhugs</i> (Hill 2010a: 159a) |
| <i>lta</i> | <i>lhos</i> | <i>ltos</i> (J: 216a), <i>ltos/ltas</i> (Hill 2010a: 121a) |
| <i>gsob</i> | <i>sobs</i> | <i>sob</i> (Hill 2010a: 305) |

The hypothesis is that the new v4-stems were coined in order to avoid misinterpretations of constructions with /čig/. The latter was used as either the indefinite particle with nouns or the imperative particle with v4-stems. Accordingly, the sequence ‘v4 + /čig/’ became ambiguous and therefore original v4-stems were replaced by new forms. This secondary formation of v4-stems has to be taken into consideration when reconstructing OT conjugations.¹⁰⁵

2.3 Aspect

§ 45. From Fig. 1 (see § 38) it follows that active verbs were in some kind of opposition. Intransitive and transitive verbs could form two distinct stems which I have labelled v1 and v2. However, the markers of v1 and v2 were partially different for intransitive and transitive verbs. This implies that the markers developed independently from each other.

In the following paragraphs I will argue that despite the surface differences v1 and v2 expressed the opposition between imperfective and perfective aspect. Perfective aspect referred to actions conceived as bounded and complete whereas imperfective expressed unbounded or incomplete actions. I further argue that it was intransitive verbs that first developed the opposition, which was subsequently reproduced within transitive conjugations.

¹⁰⁵ From the above list of the original v4-stems only *thoni*s* (passim), *lhos* (ITJ 734, falsely related by Thomas to *lhod*, 1957: 102), and *sobs* (though as *sob čig*, ITJ 740: 227) seem to be still attested in OT. In addition, **ris* has been reconstructed as a v4-stem by Hill (2005). The scarcity of the original v4-stems in imperative function does not surprise since by that time the split of the stative passive suffix *-(^o)s has already taken place (see §§ 64 & 67.XII) which fact is confirmed by the unstable OT orthography with respect to the suffix -s. In the above list only forms preceded by asterisk are reconstructed, the remaining ones are attested as v4 in CT.

2.3.1 Imperfective vs perfective

§ 46. This section brings together textual evidence to support the hypothesis that v1 and v2 were in aspect opposition imperfective vs perfective. I begin the presentation with intransitive verbs and proceed to transitive ones thereafter.

- (17)
- | | | | | | | |
|-----|----------------------------|-------------------------------------|------------------------|-------------------------|---------------------------|---------------|
| | <i>mgar+khri+ybriñ-gīs</i> | <i>lan</i> | <i>btāb-pay //</i> | <i>rī</i> | <i>čhed+po-yi steñ-na</i> | <i>brag /</i> |
| | Mgar+khri+ybriñ-ERG | answer(ABS) | ACT.PFV:throw-NMZ(ABS) | mountain | big-GEN top-INE | rock(ABS) |
| | <i>brag-gī</i> | <i>kha-na</i> | <i>šīñ /</i> | <i>šīñ-gī</i> | <i>kha-na</i> | <i>čañ /</i> |
| | rock-GEN | surface-INE | tree(ABS) | tree-GEN | surface-INE | nest(ABS) |
| | <i>čañ-(514)-gī</i> | <i>kha-na</i> | <i>sgo+ñā-ste /</i> | | | |
| | nest-GEN | surface-INE | egg(ABS)-GER | | | |
| I | <i>rī</i> | <i>ma-rñil-bar</i> | | <i>brag</i> | <i>myī-ydral /</i> | |
| | mountain(ABS) | NEG.PST-break_down-NMZ:TERM | | rock(ABS) | NEG.NPST-IMPR:tear | |
| II | <i>brag</i> | <i>ma-ral-bar</i> | <i>šīñ</i> | <i>myi-yčhag /</i> | | |
| | rock(ABS) | NEG.PST-tear-NMZ:TERM | tree(ABS) | NEG.NPST-IMPR:break | | |
| III | <i>šīñ</i> | <i>ma-čhag-čañ-{par}</i> | <i>čañ</i> | <i>myi-žig /</i> | | |
| | tree(ABS) | NEG.PST-break-NMZ:TERM | nest(ABS) | NEG.NPST-decline | | |
| | <i>čañ</i> | <i>myi-žig-(515)-par</i> | <i>sgo+ñā</i> | <i>myī-čhag-ste //</i> | | |
| | nest(ABS) | NEG.NPST-decline-NMZ:TERM | egg(ABS) | NEG.NPST-break(PFV)-GER | | |
| | <i>rīs</i> | <i>sgo+ñā</i> | <i>gčhag-du</i> | <i>de+ltar</i> | <i>myi-čhogs-so //</i> | (Pt 1287) |
| | mountain:ERG | egg(ABS) | DPASS:break-TERM | so:TERM | NEG.NPST-break:SPASS-FNL | |

Mgar-khri-ybriñ gave the [following] answer: ‘On top of a big mountain [there is] a rock. On the rock [there is] a tree. On the tree [there is] a nest. In the nest [there is] an egg.

The rock does not **tear asunder** without the mountain **having broken down**.

The tree does not **break** without the rock **having torn asunder**.

The nest does not **collapse** without the tree **having broken**.

The egg will not **have broken** without the nest **being collapsed**.

To break the egg by the mountain – in this way [the egg] is not broken.’

Lines numbered with Roman numerals I to III contrast v1 and v2 of intransitive verbs:

- | | |
|--------------|-------------|
| v1 | v2 |
| | <i>rñil</i> |
| <i>ydral</i> | <i>ral</i> |
| <i>yčhag</i> | <i>čhag</i> |
| <i>žig</i> | |

Clauses with v2-stems contain conditions the fulfilment of which allows the following actions to occur. For instance, in II we read that a tree does not break (v1 *yčhag*) unless the rock on which it grows has torn asunder (v2 *ral*). The completion of the first action (v2) paves the way for the next action (v1) to occur. The narrative presents a theoretical construct and does not refer to any factual situation. Mgar-khri-ybriñ describes here a hypothetical situation in which an egg could be broken if all the conditions were fulfilled. Of course, there is a succession and a temporal dependence between the actions, but the kernel is that the actions expressed by v2 must be completed for the actions of v1 to occur. Therefore this passage demonstrates the aspect opposition imperfective vs perfective between intransitive verb stems in *y-* and those in \emptyset .

Concerning the morphology of the verbs, two v1-stems are formed with the prefix *y-* (*ydral*, *yčhag*), but not *žig*, although lexicographical sources for CT provide its v1 as *yžig*. The latter form is

attested in OT only in the compound *yjig rten*. This reminds us of *si* which was originally a v1-stem and first later acquired a new inflected v1 *γčhi*.¹⁰⁶ Why could $\sqrt{\text{ral}}$ ‘tear asunder’ and $\sqrt{\text{teag}}$ ‘break’ receive the prefix *γ-* whereas $\sqrt{\text{zig}}$ ‘fall apart’ and $\sqrt{\text{ei}}$ ‘die’ could not? Apparently, the later addition of the prefix *γ-* to $\sqrt{\text{zig}}$ and $\sqrt{\text{ei}}$ was possible first after the generalisation of its meaning. Here we may notice that $\sqrt{\text{ral}}$ and $\sqrt{\text{teag}}$ formed both transitive and intransitive conjugations from one root each, whereas $\sqrt{\text{zig}}$ had a transitive counterpart in $\sqrt{\text{eig}}$ and $\sqrt{\text{ei}}$ apparently formed a verb-family with one member only.

| | | | | |
|----------------------|--------------------|----------------------------|---|-------------------------------------|
| (18) | | | | |
| <i>da+cam-nī</i> | <i>dguñ+mthay</i> | <i>yan //</i> | Right now, up to the horizon | |
| now-FOC | sky.HON+end | up | | |
| <i>gñi+zla-nī</i> | <i>spyān-gyis</i> | <i>gzigs /</i> | The sun and the moon see with [their] eyes. | |
| sun+moon-FOC | eye.HON-ERG | see.HON | | |
| (476) | <i>dguñ+sño-ni</i> | <i>sñan-gyīs</i> | <i>gsan //</i> | The blue sky hears with [its] ears. |
| sky.HON+blue-FOC | ear-ERG | hear.HON | | |
| <i>pywa-yī-ni</i> | <i>gcug</i> | <i>myi-ygyur /</i> | The principles of <i>pywa</i> do not change . | |
| pywa-GEN-FOC | principle(ABS) | NEG.NPST-IMPR:change | | |
| <i>mdayī-ni</i> | <i>sgro</i> | <i>myi-ybog //</i> | Feathers of an arrow do not fall off . | |
| arrow:GEN-FOC | feather(ABS) | NEG.NPST-IMPR:fall | | |
| <i>bden-nam-nī</i> | <i>brjun-ba</i> | <i>γdī /</i> | Is it a truth or a lie? | |
| true-CONJ-FOC | lie-NMZ | DEM.PROX(ABS) | | |
| <i>sañ+pyi-nī</i> | <i>gnañs</i> (477) | <i>slad-na /</i> | Tomorrow, the day after tomorrow, and thenceforth, | |
| tomorrow-FOC | after_tomorrow | later-INE | | |
| <i>ybañs-kyis-nī</i> | <i>rje</i> | <i>myi-bkol /</i> | The subject will not have subjugated the lord. | |
| subject-ERG-FOC | lord(ABS) | NEG.NPST-ACT.PFV:subjugate | | |
| <i>rta-yīs-ni</i> | <i>myi</i> | <i>myi-žon /</i> | The horse will not ride the man. | |
| horse-ERG-FOC | man(ABS) | NEG.NPST-ride(ACT.IMPR) | | |
| <i>rcī-yis-ni</i> | <i>zor</i> | <i>myi-gčhod //</i> | The grass will not cut the sickle. (Pt 1287) | |
| grass-ERG-FOC | sickle(ABS) | NEG.NPST-ACT.IMPR:cut | | |

I have used the preceding part of this passage above (see Ex. (4) in § 39) when discussing the active–passive distinction. There I have pointed to the agent-orientation of *bkol* and *bžon* in contrast to the patient-orientation of *gčhad*. Now, the passage continues and new oppositions surface. In the last three verses the same verbs recur but partly in distinct forms: *bkol*, *žon*, and *gčhod*. I interpret *bkol* again as v2. The negation *myi* shows the non-past usage of v2 which also agrees with the temporal adverbs ‘tomorrow, the day after tomorrow, and thenceforth’. The v2-stem *bkol* emphasises that the situation in which a subject could have subjugated his lord can (one could say, by definition) never occur.¹⁰⁷ The following verses contain negated v1-stems: *myi žon* and *myi gčhod*. The clauses express generic statements about the natural order in the world in which

¹⁰⁶ See Bialek (2018a: 1.316). *byuñ* might be yet another analogous case. Its v1-stem *ybyuñ* could be formed first after the transitive v1 *ybyuñ* had been replaced by *ybyin*. As I argue in Bialek (2018a: 2.352ff.), *ybyuñ* was the original v1-stem of the transitive verb.

¹⁰⁷ Alternatively, one could interpret *bkol* as v3: *ybañs kyis nī rje myi bkol* ‘The lord will not be subjugated by the subject.’ In OT v2 *bkold* and v3 *bkol* of $\sqrt{\text{kol}}$ largely merged after the loss of the post-consonantal *-d*. The active interpretation of *bkol* as v2 agrees with the active forms *žon* and *gčhod* of the following clauses. Moreover, the clause contains an agent argument (*ybañs kyis*), which makes the active interpretation more plausible.

neither the horse rides the man nor grass cuts the sickle. The generic meaning is by definition imperfective; it describes an action as habitual. I translate the verbs here with English future due to the future-oriented temporal adverbs. The first part of the passage contains two other v1-stems of inflecting verbs: *ygyur* and *ybog*.¹⁰⁸ Like *ydral* and *yčhag* from (17), they were formed with the prefix *y-*. They were negated and expressed generic statements that were true under the condition that the order of the world was intact. Therefore, here v1 can also be ascribed the imperfective meaning.

With *bkol*, *zon*, and *gčhod* we have turned to transitive verbs.

(19)

ybrog+sog *gčod-payī* *riñ+lugs* *so+sor* *bkye* (ITJ 750: 307)
pasture+straw_land(ABS) ACT.IMPR:cut-NMZ:GEN quick+inform(ABS) separate:TERM ACT.PFV:send

One sent separately messengers who were **deciding** over summer pastures and straw-lands.

Although v1 *gčod* is used here in a relative clause it is still possible to sketch its grammatical meaning. *gčod* was a transitive verb in active voice. Here it has two arguments: the agent *riñ lugs* and the patient *ybrog sog*. It describes an action that the messengers were intended to carry out. The action was not completed, it had not even started at the time the main action of sending took place. The adverb *so sor* implies that there were more messengers participating in the action, which was therefore seen as repeated by each messenger separately. This leads us to the conclusion that *gčod* coded imperfective aspect.

(20)

deñ phan+čhad / ziñ+(175)+po+rje rgyab-du myī-dor re / spu+rgyal
now from Ziñ+po+rje(ABS) back-TERM NEG.NPST-ACT.IMPR:throw never Spu+rgyal(ABS)
pañ-du myī-len re // bcan+po spu+rgyal-la glo+ba ydrīñ re //
bosom-TERM NEG.NPST-receive(ACT.IMPR) never *bcan+po* Spu+rgyal-ALL side(ABS) ACT.IMPR:be_far never
mthañ grañ re / man+ñag thub-par myi-(176)-yčhal re / pyī+ma+nañ
bottom(ABS) count never instruction(ABS) fulfil-NMZ:TERM NEG.NPST-wish never outside+NEG+inside(ABS)
yčhal re / som+ñi bgyīd re // brtul phod-par myī-yčhal re //
wish never mind+two(ABS) make:ACT.IMPR never diligence(ABS) able-NMZ:TERM NEG.NPST-wish never
srog+sponš yčhal re // bcan+po (177) slon+bcan-gyis // bkay jī
life+abandonment(ABS) wish never *bcan+po* Slon+bcan-ERG word.HON what.RELPR(ABS)
scald-pa bžīñ myi-ñan re / gžan sus bslus-kyan ñan
give.HON(ACT.PFV)-NMZ(ABS) like NEG.NPST-listen never other who.RELPR:ERG ACT.PFV:deceive-ADD listen
re-bar bro scol-to // (Pt 1287)
never-NMZ:TERM vow(ABS) give.HON(ACT.IMPR)-FNL

[They] were swearing an oath that ‘From now onward, [they] will turn away from Ziñ-po-rje [Khri-pañ-sum]. [They] will receive Spu-rgyal in [their] arms (lit. bosom). [They] will never become disloyal to *bcan po* Spu-rgyal. [They] will never disgrace [him]. [They] will ever wish to follow (lit. fulfil) [his] instructions. [They] will never look for conspiracy. [They] will never doubt. [They] will wish to be courageous (?). [They] will not give up [the *bcan po*’s?] life. Whatever orders *bcan po* Slon-bcan has given, [they] will listen [to them]. Even if somebody else shall have enticed [them], [they] will not listen [to him].’

¹⁰⁸ The remaining verbs *mkhyen*, *gzigs*, and *gsan* were transitive but did not inflect.

The verbs preceding the enclitic *re* were all v1-stems: *dor*, *len*, *γdriñ*, *grañ*, *γchal*, *bgyid*, *ñan*. In this passage subjects of *bcan po* Slon-bcan obliged themselves to act according to the words of the vow. The respective actions have not occurred yet and it is also not certain whether they would be completed in the future. The words expressed a mere volition or resolution on the part of the subjects. Their fulfilment was not granted. The last clause of the vow contrasts the v1-stem *ñan* with the v2-stem *bslus*. The v2 active stem *bslus* marked the action of an agent (*gžan sus*) as completed, ‘enticed’. It does not say whether the action was successfully completed. Therefore there is no contradiction between the completing of the action of *bslus* and the fact that an object (i.e. the subjects of the *bcan po*) was not affected by the action. Accordingly, the v2 *bslus* expressed the perfective aspect juxtaposed here with the future-oriented (*re*) imperfective v1 *ñan*.

(21)

yuñ-nas lo+ñam-gyīs gsol-pa / de+ltar myī-gnañ-na / lha-yi dko}{r} (11)
 DEM.DIST-ELA Lo+ñam-ERG say.HBL-NMZ(ABS) that+like:TERM NEG.NPST-allow-INE god-GEN movable(ABS)
mduñ rañ+γdebs-dañ / ral+gyī rañ+gčod-dañ / khrab rañ+gyon-dañ / phub
 lance self+ACT.IMPR:throw-COM sword self+ACT.IMPR:cut-COM armour self+wear-COM shield
rañ+bzur-la scogs-pa / γphrul-gyi dko}{r} (12) *čhed+po mñay-ba-γī-rnams*
 self+parry-ALL gather-NMZ(ABS) magic_power-GEN movable big(ABS) possess.HON-NMZ-GEN-PL
bdag-la scal-na phod-čes gsol-to / (Pt 1287)
 I.HBL-ALL give.HON(ACT.PFV)-INE be_able-QUOT say.HBL-FNL

Thereafter Lo-ñam said: ‘If [you] do not allow [me to refuse to fight] thus (*de ltar*), I dare [to fight against you], if [you] grant me the god’s (*lha = bcan po*) movables, like the self-**throwing** lance, the self-**cutting** sword, the self-**donning** armour, [and] the self-**parrying** shield – the great movables of magic powers, that [you] possess.’

Despite their distinct morphologies, *γdebs*, *gčod*, *gyon* and *bzur* are all v1-stems.¹⁰⁹ The verbs are not used here as predicates but nevertheless the semantics of their forms can be easily gathered from the context. They all denoted actions that characterised the respective nouns. That is, they named a general feature inherent to the object referred to by the noun. No temporal frame was assumed.

§ 47. In § 32, I discussed two paradigms of inflecting intransitive verbs.¹¹⁰ The earlier discussion of the semantics of the suffix *-s* and the above observations on the opposition *γ-* vs *∅-* allow us to ascribe the following grammatical meanings to the stems of the intransitive conjugations:

| | v1: ACT/IMPR | v2: ACT/PFV |
|-----|--------------|-------------|
| II | √ | √+s |
| III | γ+√ | √ |

¹⁰⁹ In CT lexicographical sources *bzur* is glossed only as v2 of *γjur* (cf. J: 466b & Hill 2010a: 246b). The comparison with other verbs from the passage leaves no doubt that here it was a v1. *bzur* might originally have been a denominal verb derived from the noun *zur* by means of the prefix *b-*: *zur* ‘corner’ > *bzur* * ‘to corner’. Later the full conjugation was devised by analogy with other similar verbs.

¹¹⁰ Paradigm I comprises intransitive verbs that did not inflect in OT.

These findings partly agree with Zeisler's conclusions:

- v1: 'the mere occurrence of an event or the development up to some kind of transformation'
- v2: 'the resulting state after some kind of transformation (inchoative-stative)' (2001: 189)

Without wanting to call it so, Zeisler in fact describes the difference between v1 and v2 of intransitive verbs in terms of aspect rather than tense. I argue that the basic opposition was between imperfective (v1) and perfective (v2) aspect. Cross-linguistic studies show that if a language makes a twofold aspect opposition, then it is most frequently the opposition between imperfective and perfective.¹¹¹ Even more important is the cross-linguistically confirmed finding that '[...] the various indicators of markedness are often in conflict when applied to aspect' and further '[...] languages do not show one aspect as clearly unmarked and the other marked because for some verbs (in particular, activity verbs and stative verbs), imperfective is the conceptually unmarked member, while for other verbs (in particular, telic or event verbs), perfective is the conceptually unmarked member.' (Bybee 1985: 147). This is exactly what we observe in OT with respect to intransitive verbs; in paradigm II the imperfective is the unmarked form, while in paradigm III it is the perfective. I argue that the marked forms (in *-s* and *γ-*) evolved independently from each other. The choice of the marker was dependent on the verb semantics. As the first, the suffix *-s* occurred to mark the perfective of controllable verbs. The suffix was 'borrowed' from the stative passive *-(^o)s* to denote the completeness of an action.¹¹² Here one can recall the morphological identity of stative passive and intransitive past forms in German: *ist gemacht* (TR/SPASS) vs *ist gekommen* (INTR/PST). The transfer of the suffix *-s* into intransitive conjugations introduced the aspect opposition perfective vs imperfective. Non-controllable verbs followed by generalising the derivational autocausative prefix *γ-* as their imperfective marker.

The morphological situation within transitive conjugations was more complex although the aspect opposition was the same as within intransitive conjugations: v1 = imperfective, v2 = perfective. Inflecting transitive verbs could have the following v1 and v2 forms:

| | v1: ACT/IMPR | v2: ACT/PFV |
|------|--------------------------------------|-------------|
| II | √ | √+s |
| III | √ | b+√ |
| IV | d+√(^o) | b+√ |
| V | γ+√ | b+√ |
| VI | γ+√(^e)+d ¹¹³ | b+√ |
| VII | d+√(^o) | b+√+s |
| VIII | γ+√ | b+√+s |
| IX | √(^e)+d | b+√+s |
| X | √ | b+√+s |

¹¹¹ Bybee (1985: 141). The second most commonly made distinction is that between habitual and continuous aspects. I have not found any traces of this opposition in inflectional morphology of OT.

¹¹² For more details see § 64.

¹¹³ This form replaced the original *√(^o)d.

Paradigm II agrees with paradigm II of intransitive conjugations. In my data paradigms III and X had only one verb each. With respect to paradigms II, III, and X we can state that their v1-stems were unmarked. In the remaining paradigms it was the v2-stem that was unmarked. v2 was marked for active voice either as $b+\sqrt{\quad}$ or as $b+\sqrt{\quad}+s$. Its morphological opposition was v3 in $g+\sqrt{\quad}$ or $b+\sqrt{\quad}$ respectively. Transitive v1-stems entered the conjugations independently and their morphological forms were dependent on two factors: 1. the semantics of the verb; and 2. the availability of stems that could be used for the v1-stem.

§ 48. Nominal derivatives from both v1 and v2 exhibited agent-orientation as opposed to patient-orientation of the derivatives from v3 and v4.¹¹⁴ This again points to the main systemic break between v1/v2 and v3/v4 verbs. However, it is conspicuous that v1 and v2 did not derive nominal stems by a mere conversion, as v3 and v4 did. They added one of nominal particles to the stem.

§ 49. Besides the explanations presented above, I argue against the reconstruction of inflectional tense in PT and OT because:

1. The OT syntax was prototypically iconic, i.e. it linearly represented the order of the events. Compare hereto the free order of the clauses within the English sentences ‘Because I am tired I go home’ and ‘I go home because I am tired.’ In OT only the first type was possible. This order tacitly indicated that whatever comes in the first clause, in the real world it preceded the event of the following clause. Therefore, relative tense was coded in the order of clauses.¹¹⁵
2. For future events temporal adverbs were usually used. This is especially conspicuous in Central Tibetan inscriptions that make prescriptions for the future; they persistently use the temporal adverbs *nam źar*, *nam nam źa źar*, or similar. Compare also the usage of temporal adverbs in examples (11), (16), (18), and (20) above.
3. Typologically, present (or non-past) tense is most commonly the unmarked member within the tense opposition (Bybee 1985: 155). In OT this was certainly not the case with v1-stems of transitive conjugations which had three distinct markings (the suffix *-d* and the prefixes *d-* and *γ-*). It is also problematic in intransitive conjugations to determine the unmarked member; v1-stems had two distinct markings: \emptyset and *γ-*.
4. *γ-* and *-d* were originally derivational affixes but were borrowed by the inflectional system to mark the imperfective aspect in intransitive and transitive conjugations respectively (see §§ 56 & 60–2). Bybee observed that aspect but not tense markers can sometimes derive from derivational morphemes (1985: 161). It follows that *γ-* and *-d* could not mark tense.

¹¹⁴ The agent-orientation of nominal derivatives from v1-stems was already observed by Zeisler (2004: 264).

¹¹⁵ Although Zeisler noticed that ‘[i]n most cases, the presentation of the events is iconic, i.e. anterior events are mentioned earlier than posterior events’ (2004: 271) she nevertheless reconstructed tense as the basic grammatical category of Tibetan verbs.

3 Part 3: Inflectional affixes

§ 50. This part focuses on semantics of the inflectional markers and their evolution within the inflectional system of OT. It is apparent that the affixes each had their own history prior to entering the OT inflection. This history undoubtedly affected the way they functioned within the system. Therefore I have also presented some typological and comparative data to roughly sketch the possible origins of the affixes. It should be stressed, however, that for now our knowledge in this respect is undeniably limited and so the following accounts remain but an outline. The reflections on the diachronic sources of the inflectional affixes are meant to suggest directions for further studies rather than put forward concrete hypotheses.

3.1 *b-*

§ 51. The prefix *b-* in v2-stems focused a volitional agent acting upon a patient distinct from the agent. It became an active voice marker of controllable transitive verbs after the opposition between *b-* and *g-* stems had been established (cf. Fig. 3 in § 66). It also marked the verb as divalent: agent = subject and patient = object. This description agrees with the classification of the prefix *b-* as ‘*g’zan*’ in *Rtags kyi yjug pa*, i.e. as a prefix that informed that the agent was distinct (*g’zan*) from the patient.¹¹⁶ In addition, it explains why *b-* was the only prefix that could be combined with *s-* (*b+s+√*) and *r-* (*b+r+√*). The latter were derivational causative prefixes and *b-* was an agentive prefix.¹¹⁷ In terms of their semantics, the prefixes were compatible with each other.

This usage of the prefix *b-* with v2-stems of transitive verbs was restricted to verbs that could also take the *g-* prefix in their v3-stems. Because not all transitive verbs could take the *g-* prefix (see § 54), the application of the prefix *b-* was extended. Such v3-stems acquired the prefix *b-* and the v2-stems of these verbs had the additional suffix *-s* added, in order to distinguish their v2 from v3.¹¹⁸ Under the influence of the perfective suffix *-s* of intransitive conjugations, the suffix *-s* probably contributed to the re-analysis of v2-stems in *b—s* as perfective, which interpretation subsequently spread to v2-stems in *b-* as well. That is, the *-s* in *b—s*, even though originally a dummy suffix, was re-interpreted as identical with the perfective *-s* of intransitive conjugations.

When the conjugations were introduced both patterns were equally applied. However, because the conjugations with v2 in *b-* seem to have been more restricted in OT, one could hypothesise that from a certain point in time only paradigms with v2 in *b—s* and v3 in *b-* continued to be productive.

§ 52. Data published on cognate languages suggests that the agent-oriented prefix *b-* might have grammaticalised from a 3rd person singular pronoun. OT does not seem to have preserved any personal pronoun with a labial onset. However, we find such a pronoun in close relatives of Tibetic languages:¹¹⁹

¹¹⁶ For a new interpretation of the twelfth verse of *Rtags kyi yjug pa* see Bialek (In Preparation a).

¹¹⁷ As opposed to *b-*, *g-* was a detransitivising and *y-* an autocausative prefix. Their meanings were antithetical to the meanings of *s-* and *r-* and therefore *g-* and *y-* could not be added to roots in *s-* and *r-*.

¹¹⁸ In addition, the set v2 *b—s*, v3 *b-* was selected by transitive verbs of Type 2 with a voiced labial root consonant, cf. $\sqrt{\text{bja}}$: v2 *byas* < **b+bya+s*, v3 *bya* < **b+bya*. According to Coblin’s Law, the prefix *b-* assimilated to the root consonant (Hill 2019b: 10).

¹¹⁹ The data comes from Hyslop 2014: 170, Tab. 12.

| | Dakpa | Dzala | Kurtöp | Bumthap |
|-----|-------|----------------------------------|--------|---------|
| 3SG | be | be | | |
| 3PL | ber | beta(ŋ) (INCL) bera(ŋ) (EXCL) | bot | bot |

Table 7

Hyslop reconstructed the 3SG pronoun of the Proto-East-Bodish as **ba* (2014: 172)¹²⁰ and related it to the ‘Pre-classical Tibetan *ba*’ (ibid., p. 173, Tab. 13) as reconstructed by Wolfenden. The latter author described the verbal prefix *b-* in CT as pronominal (1929: 93). On the reconstructed **ba*, Wolfenden wrote ‘an old 3rd personal element *ba*, which there is reason to believe once existed in this language (sic) as an independent pronoun, was withdrawn from independent use and confined to prefixed (and perhaps suffixed) positions with verbs’ (ibid., p. 95).¹²¹ The grammaticalisation of the Proto-Bodish 3SG **ba* to the transitive active voice agent prefix *b-* in OT would explain why the descendants of the pronoun are still attested as pronouns in East Bodish languages but not in Tibetic.¹²²

Heine and Kuteva summarise their account of the grammaticalisation pattern 3SG > AGREEMENT in the following words: ‘The evidence available suggests in fact that third person singular pronouns are the most common source for verbal subject agreement markers.’ (2002: 235). Because the prefix *b-* was a marker coreferencing the *agent* of a transitive active verb it might have developed from the Proto-Bodish 3SG pronoun **ba*. Doubtlessly this would have been a different kind of verb agreement than the one known from some other TH languages. The agreement would be semantically motivated, indexing the agent and not the subject on the verb: 3SG **ba* > agreement subject **ba*= > agent *b-*. The change from marking a subject to marking an agent might have been influenced by the grammaticalisation of *g-* as a patient-marker (see § 55).¹²³

This is only a vague hypothesis. Whatever its diachronic origin, the prefix *b-* coreferenced the agent of a controllable transitive active verb as a subject distinct from an object.

3.2 *g-*

§ 53. The prefix *g-* (allomorph: *d-*) in *v3*-stems was the marker of passive voice. It formed the direct opposition with the active voice prefix *b-*. *g-* marked the patient affected by the agent as a subject of a verb. *Rtags kyi yjug pa* labels the prefix ‘*gñis ka*’, which term has generally been

¹²⁰ Kurtöp ergative and genitive of 3PL *bot* are *boi* and *boci* (Hyslop 2017: 156, Tab. 55), suggesting that the root of the pronoun was **bo*. The inflected forms of the reflexive pronoun of 3PL are *bor(a)* (ABS), *bori* (ERG), and *bori* (GEN).

¹²¹ As against Wolfenden, I don’t think that the syllabic suffix *-ba* goes back to the same source as the prefix *b-*.

¹²² The pronoun does not seem to be known in Tshangla (cf. Andvik 2010: 53, Tab. 4). Neither Western Tamang (Kaiké-Ghale-Tamangic) nor Bunan (West Himalayish) have pronouns with a labial onset (see Regmi/Regmi 2018: 57, Tab. 4.4 & Widmer 2017: 245ff.). On the other hand, DeLancey reconstructed 3SG possessive pronoun **bV* for Proto-Boro-Garo (2011: 15, Table 10). The same author also quoted 3SG possessive pronoun *po* from Angami (ibid., p. 15, Table 11). Unfortunately, DeLancey did not comment on the pronouns but he discussed verb agreement prefixes of pronominal origins in other languages of the family.

¹²³ Bikol (Central Philippine) is an example of a language that marks the semantic role of the subject on the verb (Givón 2001: 1.230f. & 2.133f.).

interpreted as including both ‘bdag’ and ‘gʒan’. As I argue in Bialek (In Preparation a), the term ‘gñis ka’ was coined because Sanskrit did not have any term for passive voice that would parallel *ātmanepada* (= WT *bdag*) and *parasmaipada* (= WT *gʒan*). Being passive, v3-stems were by definition monovalent and so resembled in this respect ‘bdag’ stems. On the other hand, they assumed some underlying volitional agent acting upon the patient, even if only the latter argument was focused on the surface. The existence of an agent, even though demoted, made v3-stems resemble ‘gʒan’, i.e. active verbs. In this way, passive v3-stems could be said to be both (‘gñis ka’) ‘bdag’ and ‘gʒan’.

§ 54. Passivisation is a process by which valence of a verb is decreased. Accordingly, the prefix *g-* could not be added to verbs that already possessed one of the derivational valence-increasing prefixes: *s-* or *r-*. These prefixes marked the action as carried out by a volitional agent. The combinations $!g+s+\sqrt{\quad}$ and $!g+r+\sqrt{\quad}$ would have been internally contradictory and were therefore blocked.¹²⁴ Since verbs with prefixes *s-* and *r-* were by definition transitive and controllable, they were capable of forming passive. This created the pressure to provide means of expression for passive voice other than the prefix *g-*. As a result the prefix *b-* was used in v3-stems and the same verbs added the suffix *-s* to their v2-stems. As time passed, this pattern occurred more productively and later encompassed also verbs with no semantic restrictions. It seems to have even outlived the ‘basic’ pattern with v2 in *b-* and v3 in *g-*.

After the formation of v4 stative passive forms in $-(^o)s$, v3 entered a secondary opposition with v4: v3 = dynamic passive vs v4 = stative passive. The antecedence of the opposition active–passive is confirmed by the morphology. Active and passive voice were marked with the prefixes *b-* and *g-*, whereas stative passive was marked with the suffix $-(^o)s$. This supports the hypothesis that v4 was added to the system independently.

§ 55. I assume that the *g-* prefix was distinct from the *d-* prefix in v1-stems of some transitive conjugations. Because there are indications that the prefix of v1-stems had a dental consonant (see § 59), I suggest that the prefix of v3 was velar. Like the prefix *b-*, *g-* did not cause any vowel change and therefore one can reconstruct the vowel *a* to its diachronic source: $*ga$. The prefix *g-* marked the patient-argument of a verb as its subject.

To one of the reviewers I owe the perceptive remark that the prefix might have been related to the PTH nominalising prefix $*gV-$ (cf. Konnerth 2016). Konnerth distinguished between three main types of nominalisation in which various reflexes of the PTH $*gV-$ participate in modern TH languages: 1. Morphological/derivational nominalisation; 2. Syntactic/clausal nominalisation; and 3. Diachronic nominalisation (ibid., pp. 7f.). Konnerth also related the PTH $*gV-$ to the OT nominalising prefix *g-/d-* (ibid., p. 16 and Jacques 2014: 160f. & 2019: 19f.). Examples cited by Jacques are restricted to nouns derived from either verbs or adjectives. In Bialek (2018a: 2.519) I proposed two etymologies that point to an intermediate stage of the derivation:

gčags ‘desirous one’ < *čhags* ‘to be attached’
g.yen ‘longing one’ < $*yen$ ‘to be attached’

The primary meanings yielded by the prefix *g-/d-* might have been $*\text{‘attached’}$ in both cases.

¹²⁴ For a detailed account of the derivational prefixes *s-* and *r-* in OT see Bialek (In Preparation a). The existence of the onsets like *gsc-* in OT (see OTDO) supports my hypothesis by demonstrating that there were no phonotactic restraints on this combination. The combinations were allowed as long as the prefix *d-/g-* was not identical with the inflectional prefix *g-*.

In OT a noun could be modified by a postposed attribute which was either an adjective or a verbal adjective (VA, i.e. a participle). In the latter case the adjective was derived either from a v1 or a v2-stem of a verb by adding the nominalising *pa/ba* particle; cf. *ldeg ren pa log pa rnam* (ITJ 750: 151–2) ‘revolted instigators’, *khral phab pa* (Or.8212/187: 9) ‘imposed taxes’ (*phab* = v2 < √pab). However, in the earliest dated occurrence of such NPs the adjectives are apparently derived from v3-stems, cf.:

- (22)
- | | | | |
|----------------------|--|----------------------------------|---|
| <i>blon+čhe</i> | <i>stoñ+rcan-gyis</i> / { <i>ydun+ma</i> } | <i>moñ+pu+sral+yjoñ-duy</i> (28) | <i>bsduste</i> / |
| councillor+great | Stoñ+rcan-ERG council(ABS) | Moñ+pu+sral+yjoñ-TERM | ACT.PFV:assemble:GER |
| <i>rgod+g.yuñ</i> | <i>dbye-ziñ</i> / | <i>mkho+śam</i> | <i>čhen+pho</i> <i>bgyī-bayī</i> |
| fierce+weak(ABS) | DPASS:divide-CO | needs+foundation | great(ABS) (DPASS)make-NMZ:GEN |
| <i>rcis+mgo</i> | <i>bgyī{s}</i> (Pt 1288) | | |
| account+incipit(ABS) | make:ACT.PFV | | |

Great councillor [Mgar] Stoñ-rcan-[yul-zuñ], having convened {the council} at Moñ-pu-sral-yjoñ, made an initial account of braves and weaklings, who **were divided**, and of great administrative arrangements, that **were undertaken**.

Despite their translations as relative clauses, the phrases *rgod g.yuñ dbye [ba]*¹²⁵ and *mkho śam čhen pho bgyi ba* are attributive and can be analysed as ‘NP+VA’ (NP = *rgod g.yuñ*, *mkho śam čhen po*; VA = *dbye [ba]*, *bgyi ba*). The phrase *rgod g.yuñ dbye ziñ mkho śam čhen pho bgyi bayi rcis mgo*, lit. ‘an initial account of divided braves and weaklings and of great administrative arrangements undertaken’, cannot be analysed as a relative clause plus the head noun *rcis mgo* because the latter is not coreferential with any argument of the underlying clauses. It is conspicuous that in these isolated examples the verbal adjectives are formally identical with v3-stems of the verbs *ybyed* and *bgyid* respectively. This formation of deverbal modifiers has its parallel in Limbu (Eastern Kiranti):

- (23)
- | | | |
|-------------------|-----------------|----------------|
| <i>kε-de-η-ba</i> | <i>te-ʔl-in</i> | <i>thund-u</i> |
| *gV-tear-AP | clothes-ABS | mend-3 |
- He mends torn clothes. (*apud* Konnerth 2016: 18, Ex. (36))

Participle *kε-de-η-ba* ‘torn’ is derived from *de-η* ‘tear’ by means of the nominalising prefix *kε-* and the morpheme *-ba* that forms active participles. We observe a perfect analogy with the OT *dbye [ba]* and *bgyi ba* in (22):

- **g-bye ba* ‘divided’ < √b^{je} INTR ‘divide’
- **g-bgyi ba* ‘done’ < √bgⁱ TR ‘do’

(22) comes from the annual entry for the year 654/5 of the *Old Tibetan Annals* and the unusual formation of the nominal phrases might be an archaism, reflecting an earlier stage of the language.

¹²⁵ The nominalising particle *ba* is elided in the clause because the phrase is coordinated with with following one by means of the coordinative particle *ziñ*.

I put forward the hypothesis that the *g-* prefix of v3-stems is historically identical with the PTH nominalising prefix **gV-* (and so also with the nominalising *g-/d-* of WT). Its development in PT and OT may be sketched in the following stages:

1. **ga-* > *g-* = nominalising prefix;
2. *g-* + V (+ *pa/ba*) = verbal adjective¹²⁶;
3. *gV-* = v3-stem.

In terms of its semantics, the prefix *g-* added to verbs must have brought about patient-oriented meaning in order for the forms to be interpreted as passive (see section 2.2.1). Therefore, we may think of the following development: *bye* INTR ‘divide’ > **g+bye* ‘be divided’ (adjectival-stative) > TR *dbye* ‘was divided’ (passive). This path of grammaticalisation would resemble the predicate-adjective source of passive constructions in English (cf. Givón 2001: 2.132). We may further hypothesise that attributive and intransitive verbs were the primary target of the prefix *g-* from which its use to derive passive forms spread to other transitive verbs. This hypothesis would not only explain the existence of the ‘mixed’ conjugations (cf. Type 3a), but also give them temporal precedence over other conjugations with v3-stems.

Since (22) is the only passage known to me in which verbal adjectives based on v3-stems are used we may speculate that this construction came out of use not later than in the second half of the 7th century. In consequence, forms in *g-* were definitively established within the verb conjugation and entered the opposition with *b-* forms. Moreover, the grammaticalisation of the originally adjectival-stative forms in *g-* as patient-oriented (i.e. passive) might have triggered the introduction of new stative forms (v4) in ^(o)*s*.

The functional identification of the v3 prefix with the PTH nominalising prefix **gV-* also confirms the independently proposed reconstruction of the OT prefix as based on a velar consonant.

3.3 *ɣ-*

§ 56. The prefix *ɣ-* has probably the most complex history among the inflectional affixes of OT. As a verbal prefix it occurs in three distinct functions:

1. Derivation of intransitive verbs;
2. Inflection: INTR/IMPR;
3. Inflection: TR/IMPR.

Re: 1. Historically the derivational function must have preceded the inflectional ones. As I argue in Bialek (In Preparation a), the derivational prefix *ɣ-* originally marked autocausative verbs, i.e. monovalent verbs with the agent of the action simultaneously undergoing the change as its patient. This implied that the agent was construed as volitional and the verbs in *ɣ-* were controllable. Due to this autocausative meaning *ɣ-* was labelled ‘bdag’ in the famous twelfth verse of *Rtags kyi ɣjug pa*. The term ‘bdag’, introduced in dependence on Skt. *ātmanepada* (*ātman* = *bdag*),

¹²⁶ Cf. hereto Jacques’ statement that ‘some of the *g-/d-* prefixes found in the Tibetan verbal system, in particular in the future tense, may be participial form that entered the finite system.’ (2019: 20).

was intended to convey the fact that the prefix marked verbs whose agent was acting upon itself (Eng. *self* = WT *bdag*).

Re: 2. Verbs primarily derived by means of the prefix *γ-* were a special class of intransitive verbs. This most possibly prompted the interpretation of *γ-* as an intransitive prefix in general, especially when juxtaposed with transitive verbs formed with the prefixes *s-* and *r-*. I assume that this semantic proximity and monovalence of intransitive and anticausative verbs triggered the grammaticalisation of *γ-* to an inflectional prefix of intransitive conjugations. The prefix was borrowed into intransitive conjugations to mark imperfective forms of those verbs that were not eligible to take the suffix *-s*. Because the latter suffix could be added only to controllable verbs, it is possible that the prefix *γ-* was primarily restricted to non-controllable verbs. In addition, it might have also been applied to controllable verbs that for phonotactic reasons could not take the suffix *-s*, like, for instance, $\sqrt{\text{bro}}$ *γbro*/*bro* ‘to flee’. Eventually its sole function as an inflectional affix was to form a marked imperfective counterpart of an unmarked verb root that was interpreted as perfective.¹²⁷

Re: 3. As already assumed by Conrady (1896: 27), intransitive verbs of Type 3a with the *v1*-stem in *γ-* and a voiced root consonant formed the basis from which transitive *v1*-stems were derived by means of the agentive suffix *-d*: INTR $\gamma+\sqrt{G}$ - > INTR $\gamma+\sqrt{G}$ - + agentive *-d* > TR $\gamma+\sqrt{G+d}$; e.g., INTR *γdab* > **γdab+d* > TR *γdebs*, INTR *γbab* > **γbab+d* > TR *γbebs*. This process introduced *γ-* as an imperfective prefix into transitive conjugations so that verbs of other types may also have followed in forming their imperfective *v1*-stems with the prefix *γ-*.¹²⁸

§ 57. *γ-* was originally a derivational prefix that formed autocausative verbs. Therefore its direct lexical source might have been a reflexive pronoun. In a typological study of reflexives, Schladt argued that the most common lexical sources for reflexives are: 1. body part names (most commonly ‘body’ and ‘head’); 2. ‘person’, ‘self’, ‘owner’; 3. emphatic pronouns; 4. object personal pronouns; 5. ‘to return, come back’; 6. ‘reflection’; and 7. locative prepositions (2000: 105–6).¹²⁹ This does not help us much since in OT none of the lexemes with these meanings begins with the initial *γ-*. On the other hand, no stable correspondences between OT *γ-* [ɣ] and sounds of other cognate languages have been established yet that could help us to identify the TH source of the prefix. Therefore the source of the derivational prefix *γ-* remains unknown.¹³⁰

¹²⁷ The prefix does not seem to have automatically spread to all non-controllable verbs for, as I noticed above, *ši* and *zig* remained *v1*-stems even in LOT. The question of the original conditions for acquiring the prefix *γ-* has to be deferred to a future study.

¹²⁸ As a distinct process a later replacement of the original *v1*-stems in *d-* by those in *γ-* might have occurred. One such an example is the OT verb *glon/blan/glan/lon* ‘to answer’ (cf. Pt 1283: 243, 245; for a more thorough discussion of the verb see Hill/Zadoks (2015)). Its original *v1* has been replaced by *ldon* (< **γ+√lan*) in MT. The latter form is not attested in OT sources. It seems that the inflection by means of the prefix *γ-* continued to be productive after other *v1* affixes had lost their productivity. The motivation for the replacement of *glon* by *ldon* is unknown. One could think of levelling and analogy with other conjugations based on a verb root with a liquid onset, like *ldug* or *ldud*.

¹²⁹ Tab. 6 on p. 110 of the same publication contains statistical data about the lexical sources for reflexives presented according to continents. According to its data almost all reflexives in the languages of Asia grammaticalised from body part names, ‘person’/self, emphatic pronouns, ‘soul’/spirit, or personal pronouns.

¹³⁰ By way of a very rough speculation one could consider PTH MAN/FATHER/HUSBAND/PERSON reconstructed on the STEDT as **wa* (# 5484). However, Karenic data suggests **khwa*. The latter might have been related to WT *kho*.

3.4 *d-*

§ 58. Stems in *d-* formed the second least numerous group of v1 in OT (after v1-stems in *-d*). Apart from the prefix *d-* (allomorph: *g-*) their common feature was the vowel *-o-* if the verb root had *-a-*.

According to my reconstruction of the OT inflectional system, v1-stems in *d-* were introduced to express the perfective–imperfective opposition in transitive conjugations with v2-stems being the unmarked elements. The following groups of verbs were eligible for the prefix *d-*:

1. Verbs with the root final consonant *-d* for phonotactic reasons could not add the suffix *-d*; e.g. $\sqrt{\text{tead}}$ (v1 *gčod*), $\sqrt{\text{sad}}$ (v1 *gsod*). I assume that this was the primary motivation for the introduction of the prefix *d-* as an alternative to the suffix *-d*.¹³¹
2. Transitive verbs of Type 2d whose original v1 ended in *-d* and was re-interpreted as a stative passive form after the merger of the post-consonantal *-d* with *-s*; e.g., *gton* (orig. v1 **thend* > *thens*). After the re-interpretation of *thens* and the ensuing shift in the system a gap occurred that was filled with newly coined v1-stems in *d-*. This step marked the generalisation of the prefix *d-* that continued in the next group of verbs.
3. Other verbs of Types 2d, 3b, and 3c for which no clear motivation can be disclosed. We observe that verbs of Type 2d have all either vocalic, velar, or labial final.¹³² Apparently they could not take the suffix *-d* due to phonotactic restrictions because their v1 were formed before the merger of *-d* with *-s*.¹³³ Furthermore, a considerable number of verbs with the derivational prefixes *s-* or *r-* attest to the vowel *-o-* in v1 although their root vowel was *-a-*. They all must have taken the *d-* prefix because the semantics of the prefix *γ-* was irreconcilable with the semantics of the derivational prefixes *s-* and *r-*.

The prefix *d-* could not be added to verbs with mixed voiced–voiceless conjugations, i.e. verbs of Type 3a.

One could speculate that at the beginning the choice of the affixes in the formation of v1-stems was additionally motivated by the semantics of the verbs. However, OT data does not seem to provide any evidence to support this hypothesis.

I assume that the prefix *d-* as a marker of the imperfective aspect of transitive verbs was introduced simultaneously with or shortly after the introduction of the suffix *-d* into the inflectional system. Primarily it was applied to verbs that for one reason or another could not take the suffix *-d* in v1.

§ 59. The prefix *d-* triggered the vowel change *-a- > -o-* in the v1-stems of verbs whose root vowel was *-a-*. This indicates that its lexical source had a back vowel. The v1-stem *dor* (v2 *bor*) of the OT verb $\sqrt{\text{yor}}$ ‘throw’ suggests that the underlying form of the prefix had a dental

¹³¹ A similar situation occurred in paradigm II of intransitive conjugations with the suffix *-s*. The suffix could be added only to controllable verbs but if a controllable verb could not take the suffix for phonotactic reasons, it inflected according to paradigm III.

¹³² This observation concerns not only my OT data but also verbs listed by Coblin as his Paradigms IV and I/IV (1976: 65ff.). The only exception is the verb *gsed* for which Coblin gives the forms *gsed/bsed/bsed/sed* (p. 65) and BTC *gsed/bsed/gsed/sed* (p. 3020a). The verb is not attested in OT.

¹³³ On the other hand, as the only such verb, *sems* was formed with the suffix *-d* despite its labial final. Therefore, it is possible that some of the verbs with v1-stems in *d-* originally formed their v1-stems with the suffix *-d*. The latter were, however, re-interpreted as stative passive and so new forms had to be coined. Hence, these verbs could be classed in the second group, but cannot as long as their stative passive forms in *-(^e)s* have not been documented.

consonant.¹³⁴ I tentatively reconstruct the prefix as **d^(o)-*. The prefixed position of the morpheme points to its early grammaticalisation and so we could expect the prefix to have primarily had a different function but was re-defined to express the imperfective aspect. On the other hand, in OT there are no indications suggesting the existence of another **d^(o)-* prefix with an underlying back vowel. If the prefix was grammaticalised for the sole purpose of marking imperfective aspect, its source must have been either pronominal or adverbial judging by its position towards the verb root. Pronouns are not known as lexical sources for aspect markings but the adverb ‘now’ is attested as the lexical source for progressive (cf. Bybee/Perkins/Pagliuca 1994: 128, Tab. 5.1). STEDT reconstructs Proto-Kuki-Chin **nuu* now (#4213) that would match the above description of the lexical source: dental onset, back vowel, and the meaning ‘now’. However, its cognates are only attested in the Kuki-Chin group. In many Trans-Himalayan languages the adverb ‘now’ seems to be related to WT *da*. But this doesn’t help us much. In conclusion, the source of the prefix remains unknown.¹³⁵

¹³⁴ Compare the clauses: *zñ po rje rgyab du myi dor re* (Pt 1287: 174–5) and *zñ po rje rgyab du bor* (Pt 1287: 249). The context of the first clause leaves no doubt that *dor* was originally a v1-stem (see also Ex. (20) above). This interpretation is supported by the deverbal formation *dor po* ‘resistant one’ (Pt 1287: 382). It appears that in OT new v1 – *γdor* – was coined which caused reinterpretation of *dor* as a v2. This again triggered the split of the primary conjugation into two verbs *√dor* and *√bor*.

In a recent publication Hill put forward the hypothesis that ‘*h* (my *γ* – JB) is the original initial, which fortified to *g*- (my *d*- – JB) before voiceless acute initials’ (2019a: 328). This hypothesis stands in obvious opposition to the approach followed in this paper. As I argue, the v1-prefix had a dental (and not velar as assumed by Hill) onset otherwise it would be difficult to account for the v1-stem *dor*. (Neither in 2019a nor in 2019c does Hill provide any argument for choosing the alloform *g*- over *d*- as the etymological one.) In addition, v1-stems in *d*- triggered the vowel change *-a- > -o-*, which was not the case with *γ*- in OT. In fn. 128 I have quoted the OT v1 *glon* (< **d^(o)+√lan*) which was later replaced by *ldon* (< **γ+√lan*). Thus, *γ*- was apparently longer productive than *d*- and seems to have been introduced to the transitive conjugation after *-d* and *d*- (see § 67.VIII–X); these observations contradict Hill’s chronology. Furthermore, Hill overlooked the fact that, as opposed to *d*-, *γ*- was also a derivative prefix (see §4). As a final argument against Hill’s hypothesis one has to mention that the change *γ*- > *g*- would have resulted in some alternating pairs not only within verbs but also nominal lexemes. This has, however, been never observed and the verb pairs *γčhad* ~ *gčod* or *γčhag* ~ *gčog* (see also the examples quoted in the next footnote) prove that the prefixes *γ*- and *d*- (Hill’s *g*-) had distinct (and distinctive) semantics.

¹³⁵ Shafer mechanically reconstructed the prefix **go*- arguing that the prefix must have had the vowel *o* which caused the vowel shift *a > o* in v1-stems (1950b: 1024).

Bielmeier quotes the WT set NC *non* ‘to catch hold of (by chance)’ ~ C *gnon* ‘to catch, to seize (power)’ suggesting that the prefix *g*- turned the non-controllable *non* into the controllable *gnon* (2004: 403). This would imply that this *g*- might have originally been another derivational prefix generalised to become an inflectional prefix. This is an interesting hypothesis worthy of being tested with other sets of verbs. For now I can quote the following pairs whose dialectal reflexes confirm the pattern: NC *thug* ‘to touch, meet’ (CDTD.V: 545) ~ C *gtug* ‘to touch’ (CDTD.V: 492); NC *γthig* ‘to drop’ (CDTD.V: 568) ~ C *gtig* ‘to drip’ (CDTD.V: 491); NC *γthor* ‘to get scattered’ (CDTD.V: 585) ~ C *gtor* ‘to scatter’ (CDTD.V: 501); NC *γphyan* ‘to hang down’ (CDTD.V: 814) ~ C *dpyon* ‘to suspend’ (CDTD.V: 758); NC *γchar* ‘to be finished’ (CDTD.V: 1005) ~ *gcar* ‘to finish’ (CDTD.V: 988). In Bialek (2016: 150f.) I quoted several verb pairs with alternating onsets *dk*- ~ *γkh*- arguing that verbs in *dk*- were controllable and those in *γkh*- non-controllable. Now, this prefix *g*- can be identified with the prefix *d*-. However, their identification with the inflectional prefix **d^(o)-* is doubtful for they do not cause the vowel change *-a- > -o-*.

3.5 *-d*

§ 60. The suffix *-d* was originally a derivational suffix and formed controllable transitive verbs from intransitive ones:

| | |
|-------------------------|---------------------------------------|
| INTR | TR/C |
| <i>skye</i> ‘be born’ | <i>skyed</i> ‘produce’ |
| <i>ykhri</i> ‘go along’ | <i>ykhrīd</i> ‘lead’ |
| <i>nu</i> ‘suck’ | <i>nud</i> ‘suckle’ |
| <i>ybu</i> ‘unfold’ | <i>ybud</i> ‘set free’ |
| <i>ybyi</i> ‘fall off’ | <i>ybyīd</i> ‘wipe off’ |
| <i>ybri</i> ‘lessen’ | <i>ybrīd</i> ‘lessen’ |
| <i>yju</i> ‘enter’ | <i>yjud</i> ‘put into’ ¹³⁶ |

A rather limited number of such sets suggests that the derivation ceased to be productive very early, maybe even in PT or in the very beginning of the historical era, i.e. in EOT at the latest. None of the dialects seems to have preserved this derivational pattern. Alternatively, the diminished applicability of *-d* as a derivational suffix might be related to its grammaticalisation as an inflectional suffix.

§ 61. As an inflectional suffix *-d* formed active imperfective forms of controllable verbs, i.e. v1-stems in *-d* but with no *y-* prefix (e.g., *bgyīd*, *byed*, *lend*, *sems*, *seld*).¹³⁷ I assume that the agentive character of the suffix prompted its grammaticalisation as an imperfective marker on controllable transitive verbs. It was suitable for this function because of the original agent-orientation of the derivational *-d* — the function that was also focused in the active voice. *-d* was introduced as an imperfective suffix to enable the marking of the aspect opposition imperfective vs perfective of transitive verbs. v2-stems were the unmarked forms within the opposition due to the re-interpretation of the *-s* suffix in v2 *b—s* as a perfective marker.

The suffix *-d* was applied once more to form transitive imperfective v1 from intransitive v1 in *yG-* within verb-families of Type 3a.¹³⁸ This led to the mixed conjugations in which original v1-stems with voiceless root consonants were replaced by v1-stems with voiced root consonants. Subsequently, post-consonantal *-d* merged with post-consonantal *-s*.

§ 62. In all its identified functions the agentive suffix *-d* triggered the vowel change *-a- > -e-*. This clearly distinguished this suffix from the nominal *-d* like in:

¹³⁶ *-d* might have originally been a pure agentive suffix, i.e. a suffix marking the addition of an agent argument. Compare in this context: *sgyu* N ‘trick’ > **sgyud* V ‘trick’ (cf. fn. 17), *thuñ* ‘short’ > $\sqrt{\text{tuñs}}$ (v1 *ythuñs*, v2 *btuñs*) ‘to make short(er) by cutting down; to slaughter’, *pho* ‘male’ > *phod* ‘be able’, *blo* ‘advice’ ~ *blod* ‘to confer’, *rma* ‘wound’ ~ *rmed* ‘to plow’. Conrady already observed the usage of *-d* in derivation of transitive verbs although his examples demonstrate that he did not distinguish between derivational and inflectional functions of the suffix (1896: 45). The same confusion prevailed in Beyer’s discussion of the suffix (1993: 176) whereas LaPolla even identified the transitivising suffix with the nominal suffix *-d* (2003: 24).

¹³⁷ Shafer called this *-d* ‘a transitive present suffix’ (1950b: 1026).

¹³⁸ This process was already observed by Wolfenden who described the suffix *-d* here as another directive that was now transferred to the final position of the root (1929: 66ff.).

| | |
|-------------------------|-----------------------------------|
| <i>rku</i> ‘steal’ | <i>rkud</i> ‘stolen goods; theft’ |
| <i>rga</i> ‘be old’ | <i>rgad</i> ‘an old person’ |
| <i>na</i> ‘I’ | <i>ñad</i> * ‘potency’ |
| <i>ñu</i> ‘to weep’ | <i>ñud</i> ‘a sob’ |
| <i>che</i> ‘be great’ | <i>ched</i> ‘importance’ |
| <i>yday</i> ‘pass away’ | <i>mdad</i> ‘funeral’ |
| <i>na</i> ‘be ill’ | <i>nad</i> ‘illness’ |
| <i>śi</i> ‘die’ | <i>śid</i> ‘funeral’ |
| <i>sla</i> ‘limb’ | <i>slad</i> ‘hind part’ |

Because the nominal suffix *-d* did not trigger the vowel change *-a- > -e-* (cf. *rga* ~ *rgad* and *na* ~ *nad*), we can be certain that it was not the consonant *d* alone that caused the vowel change before the agentive *-d*¹³⁹. Instead, the agentive suffix can be assumed to have contained a front vowel. Because the agentive suffix *-d* originally formed transitive verbs from intransitive ones one can hypothesise that it grammaticalised, for instance, from a verb with the meaning ‘to do’ according to the widely documented pattern DO > CAUSATIVE (Heine/Kuteva 2002: 117f.). In OT, as well as in CT, verbs with the meaning ‘to do’ (*byed*, *bgyid*, *mjad*) frequently formed collocations in which they functioned as mere verbalisers or light verbs.¹⁴⁰ Matisoff discussed Lahu verb *te* ‘to do’ that ‘serves to transitivize and causativize the following verb, whether it be an adjectival (= stative) verb, an intransitive action verb, or a verb which is already transitive’ (1991: 432). This verb is of PTH origin and its root has been reconstructed as **day* DO/MAKE (STEDT #552). STEDT does not record any cognates of the verb in the Himalayish group of languages (group 2 of STEDT), that is, the group most closely related to the Tibetic languages.¹⁴¹ Nevertheless, it adds, for example, *de* ‘to do’ from the Ergong (other names: Danba, Daofu, Horpa) language of the Rgyalrongic group. On this rather thin basis I tentatively reconstruct the source of the agentive suffix *-d* as the verb **de* ‘to do’.¹⁴²

¹³⁹ The vowel change was attributed to the mere suffix *-d* by Coblin (1976: 52). Likewise Hill was misled by the assumption that the vowel change should be attributed to a sound change (2019b: 43). Because this is the only suffix that caused the change *-a- > -e-* we have to assume that verbs with the vowel *-e-* that are cognate with *-a-* verbs (see § 23) must have derived from the latter by this very suffix.

¹⁴⁰ Contrary to Thomas’ exemplary reconstruction of *bsad* as ‘*ba-sad*, ‘do kill’, a compound verb of a type common in the language’ (1957: 54 & 58; also accepted by Zeisler, 2004: 871f.), compounded verbs of the form ‘verb of doing + main verb’ have never been used in Tibetic languages. Instead, the constructions have a reversed order of elements: ‘main verb + verb of doing’.

¹⁴¹ Actually, group 2 of STEDT encompasses languages otherwise classified as independent branches of Bodic and Himalayish languages on Glottolog.

¹⁴² Conrady juxtaposed the agentive suffix *-d* with causative suffixes of other TH languages, like: Manipuri *-dök*, Ao Naga *-dak*, Lotha Naga *-tak*. The last two are glossed as independent verbs with the meanings ‘let, allow’. He related them to the Southern Chin (?) verb *dök* ‘send, use’ (1896: 45). Conrady’s other examples like Karen *du* ‘verursachen’, Jingpho *dī*, *dō* ‘do’, Kachari *ḍa* ‘do’ are undoubtedly cognates of the PTH **day* DO/MAKE.

The suffix *-d* could be identical with the transitivising suffix *-t* attested in some TH languages. Widmer reconstructed **-te* and/or **-t* as a transitivity marker in Proto-Eastern-West-Himalayish (2018: 90). However, due to the ambivalence of his reconstruction it is difficult to draw any parallels between these markers and the OT *-d*. On the other hand, Bunan has the verbalising suffix *-t* that ‘derives verb stems from nominal roots’ (ibid., p. 382). In this context we may recall the applicative suffix *-t* in Kiranti languages (Jacques 2015), the transitive *-t* in Limbu (Michailovsky 1985: 366), and the transitivising *-t* in Bahing (ibid., p. 368). The parallels are appealing but do not explain the grammaticalisation of OT *-d* as an inflectional marker and the sound change *-a- > -e-* it caused.

Accordingly, we shall distinguish between two *-d* suffixes in OT:

1. Agentive **^(o)d*;
2. Nominal **-d*.

The grammaticalisation of the verb **de* ‘to do’ to the agentive suffix *-d* of OT would explain why the verb is not attested as an independent morpheme anymore.¹⁴³

3.6 *-s*

§ 63. OT possessed two inflectional suffixes with the surface realisation *-s*. I tentatively reconstruct them as:

1. **^(o)s*;
2. **-s*.¹⁴⁴

§ 64. Re: 1. I reconstruct the optional (and therefore bracketed) vowel **o* due to the fact that the suffix caused the vowel change *-a- > -o-* only if the root vowel was *-a-*. This vowel change distinguished the suffix **^(o)s* from **-s* (cf. **√bja +^(o)s > v4 byos* but **b+√bja+s > v2 byas*). The suffix was added directly to the verb root (e.g. *byos < √bja*). One could also speculate that the suffix originally consisted of two morphemes: **s* and **o*. However, in OT at least, we don’t find any traces of an independent infix **o*. The vowel change *-a- > -o-* is clearly phonetically conditioned and therefore I assume that **o* belonged to the suffix.

**^(o)s* originally formed stative passive forms. Stative passive expresses the result of an action that was initiated by a volitional agent. Accordingly, only controllable verbs could form stative passive. The fact that stative passive denotes the result of an action implies that the very action is perceived as completed. In OT this semantic ambiguity between result and completion led to the generalisation of the meaning of **^(o)s* changing it into a perfective suffix. Because the majority of v4-stems had only the suffix *-s* and no vowel change, it was *-s* alone that was re-interpreted as a perfective marker and borrowed into intransitive conjugations of controllable verbs.¹⁴⁵ On the other hand, the same suffix was applied to attributive verbs to mark past forms (cf. Ex. (1)). Moreover, after the now *-s* suffix had been re-interpreted as a perfective marker it triggered the semantic change in the suffix **-s*: $\emptyset >$ perfective (see § 65).

The twofold evolution of **^(o)s* towards a perfective (with intransitive controllable verbs) and a past marker (with attributive verbs) agrees with patterns of grammaticalisation attested for perfect markers (cf. Heine/Kuteva 2002: 231f.):

¹⁴³ My analysis of the suffix *-d* stands in obvious opposition to the analysis presented in Zemp 2016 (p. 107ff.). The latter author has overlooked the existence of the OT agentive suffix *-d* that derived transitive verbs and therefore his conclusions must be deemed misguided.

¹⁴⁴ The distinction between two functionally varying suffixes *-s* was first suggested by Shafer (1950b: 1024).

¹⁴⁵ As an exception, verbs with complex onsets also took the suffix *-s* because, due to phonotactic restrictions, they could not take the imperfective prefix *γ-*; cf. *skye/skyes*.

Compare in this context also Bielmeier’s remark: ‘Western Archaic Tibetan nc-verbs never take (post)final *-s* in the perfective. But there are nc-verbs with (post)final *-s* belonging to the stem and used throughout all forms.’ (2004: 410, fn. 13).

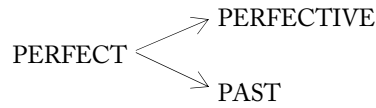


Figure 2

This in turn confirms the suggested reconstruction of the suffix $*_{-(o)}s$ as originally marking the result of a completed action.¹⁴⁶

The source of the suffix $*_{-(o)}s$ remains unknown. Its position towards a verb root indicates that it grammaticalised from a functionally different source than the prefixes. Presuming that the clause order was identical with that of OT, the only class of words available for this grammaticalisation would have been verbs. For the source of the agentive suffix $-d$ I have proposed the PT verb $*de$ ‘to do’ (see § 62). Because the agentive suffix $-d$ caused a vowel change analogous to the suffix $-s$, one could suggest that the latter grammaticalised from a verb of the form $*so$ that denoted completion of an action like, for instance, ‘to finish’ or ‘to complete’. On the other hand, Matisoff discussed Lahu verb $tā$ ‘place on; put on; set on; stand sth. upright’ as a source of the perfective particle $tā$ (1991: 396f.). However, I was not able to identify any potential source verb for the suffix $*_{-(o)}s$ that would match this semantic description. I may only notice here that OT had the noun so ‘place; spot’ that might have been a cognate of a once verb $*so$ ‘to put down’.¹⁴⁷

§ 65. Re: 2. Not much can be said about the suffix $*_{-s}$. It was added to v2-stems of transitive verbs whose v3-stems had to be formed with the prefix $b-$; i.e. v2 = $b-s$, v3 = $b-$. I deem this morpheme to have originally been a dummy suffix introduced to disambiguate two stems that would otherwise have been identical.¹⁴⁸ Because these stems expressed antithetical values of one category (active vs passive) it was necessary to distinguish between them. I have argued that $*_{-s}$ was re-interpreted as a perfective suffix after this meaning had been ascribed to $*_{-(o)}s$. That means, $*_{-s}$ and $*_{-(o)}s$ merged in transitive conjugations. The re-interpretation of $*_{-s}$ as a perfective suffix introduced the aspect opposition perfective vs imperfective into transitive conjugations.

In terms of chronology, the markers $b-s$ and $b-$ must be deemed earlier than the suffix $*_{-(o)}s$ since they complemented the markers $b-$ and $g-$. Besides, the suffix $*_{-s}$ did not cause the vowel change $-a- > -o-$ in the verb roots. These two circumstances speak against the identification of $*_{-s}$ with $*_{-(o)}s$.¹⁴⁹ Nevertheless the source of the $*_{-s}$ suffix remains unknown and will be difficult to establish due to the unspecified meaning of the suffix.

¹⁴⁶ Other TH languages likewise attest to suffixes $-s$ that functionally seem to resemble the OT $_{-(o)}s$ suffix. Widmer discussed two $-s$ suffixes in Bunan: a stative and a detransitivising suffix (2017: 361ff.). $-s$ is attested in Rongpo as a passive suffix (see Zoller 1983: 49f.). However, none of the suffixes was reported to cause the vowel change $-a- > -o-$ characteristic of the OT $_{-(o)}s$ suffix. Both Bunan and Rongpo are closely related Central-Eastern West Himalayish languages strongly influenced by various Tibetic languages. Therefore one could consider whether they (or rather their common proto-language) did not borrow the suffix $-s$ from Tibetic and subsequently generalised it.

¹⁴⁷ Both patterns, FINISH > PERFECTIVE and PUT > COMPLETIVE, are attested in languages of the world, see Heine/Kuteva (2002: 138 & 248). In addition, Ding reports grammaticalisation of the Nuosu (or Nosu) verb si^{21} ‘to take, hold’ as a resultative suffix (2018). But its grammaticalisation is not fully completed yet and so we may assume it started not long ago.

¹⁴⁸ Apparently the same view was already held by Schiefner who characterised the function of the suffix with the words: ‘es nur als diakritisches Zeichen dasteht’ (1852: 375).

¹⁴⁹ This conclusion was also arrived at by Zeisler (2004: 452).

3.7 Summary

§ 66. The basic voice opposition active–passive was marked with the prefixes *b-* and *g-*. I have put forward the hypothesis that *b-* marked the agent (= subject) of a divalent verb as acting upon a patient, whereas *g-* marked the patient of a monovalent verb as its subject. The voice prefixes may be characterised as follows:

| | VALENCE | VOICE | Syntax | Semantics |
|-----------|------------|---------|---------|-----------|
| <i>b-</i> | divalent | ACTIVE | subject | agent |
| <i>g-</i> | monovalent | PASSIVE | subject | patient |

I have put forward the hypothesis that the agent-oriented prefix *b-* grammaticalised from a 3SG pronoun whereas the patient-oriented *g-* from a nominalising prefix of PTH origins. Seen in this perspective the system represented a form of verb agreement in which the prefixes coreferenced a subject: prefix *b-* identified it with the agent and the prefix *g-* with the patient argument. To summarise the development of the prefixes *b-* and *g-* towards voice markers the following grammaticalisation paths are hypothesised:

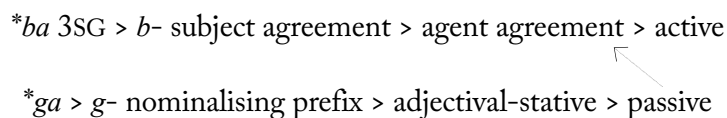


Figure 3

The re-interpretation of *b-* as an agent agreement marker was triggered by the grammaticalisation of *g-* as a passive morpheme, i.e. marking a patient of a verb as its subject.

Table 8 gives an overview of the proposed lexical sources for all inflectional affixes. However, most of the reconstructions are highly hypothetical and shall be deemed tentative.

| | Affix | Meaning | Lexical source | Meaning | Word class |
|------------|-------------------------|------------------------------|----------------|----------------------------------|-------------|
| DERIVATION | <i>y-</i> | A-CAUS > INTR/IMPR > TR/IMPR | ? | REFL (?) | pronoun (?) |
| | <i>-d</i> | AG > TR/IMPR | <i>*de</i> | 'to do' | verb |
| INFLECTION | <i>b-</i> | TR/ACT | <i>*ba</i> | 3SG | pronoun |
| | <i>g-</i> | TR/DPASS | <i>*ga</i> | PTH nominaliser | prefix |
| | <i>d-</i> | TR/IMPR | <i>*do</i> (?) | PROG (?) < 'now' | adverb (?) |
| | <i>-(^o)s</i> | SPASS | <i>*so</i> | 'to finish' or 'to place' (?) | verb |
| | | | | | |
| | > PST | | | | |
| | <i>-s</i> | ∅ > TR/PFV | ? | ? | ? |

Table 8

Because I have not been able to find the smallest indication that PT might have had a different word order than OT, I have reconstructed the lexical sources for the single affixes in accordance with the clause structure known from OT.¹⁵⁰

4 Part 4: Verb inflection in a diachronic perspective

§ 67. This part concentrates on processes that led to the synchronic state of the verb system that emerges from OT texts. The most important conclusion is that the system was dynamic and it was able to generate new oppositions that could influence other elements of the system as well. OT had only six inflectional affixes (*b-*, *g-*, *γ-*, *d-*, *-d*, *-s*), all of which seem to have grammaticalised in PT and remained productive in EOT but only partially in LOT. With these six affixes OT tackled new grammatical meanings that had occurred between PT and OT.

The following discussion is a commentary on the diagram presented in Appendix C and therefore the reader is advised to consult it with the diagram. For ease of reference I have numbered single formations and processes with Roman numerals I–XV in the diagram and will discuss them in this order, which is not always identical to the chronological order in which the single elements might have occurred in the language.

I The most fundamental opposition within the system was that between transitive and intransitive verbs. Transitivity could have lexical or derivational expression. Regarding the latter, transitive verbs were marked with voiceless root consonants (K), whereas their cognate intransitive counterparts had voiced root consonants (G). In addition, OT possessed four derivational affixes whose primary function was to change the valence of a given verb:

- s-* causative: marked a volitional agent as acting upon a patient that was fully affected by the action;
- r-* causative: marked a volitional agent as acting upon a patient that was partially affected by the action¹⁵¹;
- γ-* autocausative: marked a volitional agent as acting upon itself;
- d* agentive: changed an anticausative verb into a causative one, i.e. it added an agent-argument to the argument structure of a verb.

Only controllable transitive verbs of higher transitivity inflected for four stems. Verbs of lower transitivity usually formed up to two stems according to one of the intransitive inflectional patterns.¹⁵² Intransitive verbs could have up to two inflected forms.

¹⁵⁰ Thereby I oppose the tendency to reconstruct verbs as lexical sources of the inflectional affixes regardless the position of the affixes towards the verb root (for a different approach see Conrady 1896: 45f., Thomas 1957: 54ff., Zeisler 2004: 871f. & 874). I deem it historically a more plausible option that the position of an affix towards the verb root was a direct consequence of the position of its lexical source in a clause (cf. Bybee 1985: 38). Unless the reversed has been unanimously proven, I assume that the word order in PT was the same as in OT, i.e. SOV, with all its typological implications.

¹⁵¹ It is possible that *r-* formed applicative in fact, but a dedicated study would be needed to test this hypothesis. OT data clearly contradicts Shefts Chang's assumption on the common origin of *s-* and *r-* (cf. 1971: 631).

¹⁵² As an exception, very few transitive verbs seem to have inflected according to paradigm III: v1 √, v2 *b+√*. It is possible that these verbs were originally derived from nouns.

II The second most basic opposition was that of active voice vs passive voice within controllable transitive verbs. The voice opposition was expressed by means of inflectional affixes: *b-* vs *g-* and *b-s* vs *b-*. The latter set of affixes was originally applied to verbs whose semantics did not allow for the prefix *g-* in the v3-stem. The suffix *-s* in *b-s* served only to disambiguate v2 and v3-stems of such verbs. Intransitive verbs could by definition have only active voice forms.

III The secondary voice opposition dynamic passive vs stative passive occurred independently of the primary active-passive opposition. This can be inferred from the fact that stative passive forms were marked with the suffix *-^(o)s*, whereas the opposition active-passive was expressed by means of prefixes only. The stative passive suffix *-^(o)s* expressed the result of a completed action that was initiated by a volitional agent. This explains why only controllable verbs could inflect for stative passive.

IV Because the suffix *-^(o)s* had the surface realisation *-s* in the majority of verbs¹⁵³, it was re-interpreted as two independent affixes: suffix *-s* and infix *-o-*. The suffix *-s* was generalised and construed as marking a completed action. With this meaning it entered intransitive conjugations establishing paradigm II (v1 $\sqrt{\quad}$, v2 $\sqrt{\quad}+s$; v1-stems being morphologically unmarked). Due to its meaning of an accomplishment suffix, *-s* introduced a new grammatical opposition in intransitive conjugations: imperfective (v1) vs perfective (v2) aspect. The fact that the suffix *-s* could be added only to controllable intransitive verbs supports its reconstructed provenance from the stative passive *-^(o)s*. The latter could likewise be applied only to controllable verbs. On the other hand, the suffix *-s* was also used with attributive verbs to mark the tense opposition non-past (v1) vs past (v2). This twofold evolution of the suffix *-s* within intransitive verbs (towards the perfective and past marker) supports its original perfect meaning as marking a result of a completed action.

V The aspect opposition imperfective-perfective could be marked with the suffix *-s* only on controllable intransitive verbs. There was therefore a pressure to introduce other morphological means for the remaining verbs and those controllable ones that could not take *-s* for phonotactic reasons. For this purpose the derivational prefix *y-* was introduced into the inflectional system. It was primarily an autocausative morpheme forming monovalent verbs that was re-interpreted as an intransitive marker. As such it entered intransitive conjugations to mark imperfective v1-stems; their perfective counterparts remained morphologically unmarked. This created the intransitive paradigm III: v1 $y+\sqrt{\quad}$, v2 $\sqrt{\quad}$.

VI Under the influence of the perfective *-s* (< *-^(o)s*; see IV) the *-s* of *b-s* was re-interpreted as a perfective suffix, i.e. identified with the *-s* of intransitive conjugations. The fact that both, transitive v2-stems in *b-s* and intransitive v2-stems in *-s*, were controllable might have facilitated the semantic change. Owing to the re-interpretation of *-s* in *b-s* as a perfective suffix, also other transitive v2-stems (i.e. those without *-s*) came to be understood as active and perfective.¹⁵⁴

VII The interpretation of *-s* in *b-s* as a perfective suffix introduced the aspect opposition perfective-imperfective to transitive conjugations. Because the active/perfective v2 forms were unmarked for aspect (their only marking was the original voice marking), the aspect opposition was morphologically expressed by coining new forms that were marked only for the imperfective aspect. To this end three affixes were introduced: *-d*, *d-*, and *y-*.

¹⁵³ That is, in those verbs that had a root vowel different than *-a-*.

¹⁵⁴ This development was also suggested by Zeisler who identified the suffix *-s* as resultative in this context (2004: 875).

VIII The imperfective marker *-d* was introduced from the derivational system in which it was an agentive suffix deriving transitive verbs from intransitive ones. More specifically, it added a slot for an agent-argument to originally intransitive verbs. As an agentive suffix it was eligible to be applied in transitive conjugations. In PT the suffix could be added to any consonantal final (maybe beside *-s* and *-d*) and caused the vowel change *-a- > -e-* whenever *-a-* was the root vowel. As an inflectional suffix it marked the aspect opposition between imperfective v1 and perfective v2.

IX The prefix *d-* entered the aspect opposition to mark imperfective forms within transitive conjugations. At the beginning the distribution of the imperfective markers *-d* and *d-* was phonetically motivated.

X The prefix *γ-* was ‘borrowed’ into transitive conjugations from intransitive ones. In the latter conjugations it marked imperfective forms. It was first introduced into transitive conjugations with intransitive imperfective stems in *γ-* of mixed conjugations (Type 3a). These stems were added the agentive suffix *-d* in order to render them transitive. In this way the prefix *γ-* was established as the imperfective marker in transitive conjugations. Thereafter it was generalised and used with transitive verbs of other types as well. It seems that in transitive conjugations this prefix remained productive as an imperfective marker longer than the remaining two imperfective affixes.

XI Parallel to the above processes OT (and possibly PT) used analytical constructions to express grammatical mood:

indicative + /*γam*/ > interrogative

indicative + /*čig*/ > imperative

Imperative clauses were formed from indicative clauses with stative passive verbs that were added the imperative particle /*čig*/. Triggered by their usage in the imperative constructions, stative passive forms were then re-interpreted as themselves expressing imperative meaning.¹⁵⁵ Two additional processes, that were most probably paralleling each other in time, contributed to the re-interpretation of the once stative passive forms in *-(^o)s* as imperatives: 1. the re-analysis of *-(^o)s* as consisting of the perfective *-s* and the independent *-o-* ‘infix’ (see IV); and 2. the merger of the post-consonantal *-d* with the post-consonantal *-s*. The first process led to the interpretation of the ‘infix’ *-o-* as an imperative marker because *-s* alone was now closely associated with the perfective aspect. The merger of *-d* and *-s* affected first of all the transitive imperfective stems with the post-consonantal *-d* (see VIII) and caused an increase of inflected forms with the post-consonantal *-s*; the post-consonantal *-d* was now restricted to three consonants: *-n*, *-r*, and *-l*.¹⁵⁶ These processes together with the use of stative passive forms in imperative constructions triggered two shifts within the system:

1. Stative passive > imperative (see XII);
2. Transitive imperfective in *-d* > stative passive (see XIII).

¹⁵⁵ Imperative constructions were certainly much more common than constructions with a bare stative passive verb. This is suggested by the frequency of these constructions in OT; imperative by far outnumbered stative passive.

¹⁵⁶ A later side-effect of the merger of *-d* and *-s* was the merger of some v2 with v3-stems. Namely, if the root final was *-n*, *-r*, or *-l* it now acquired the allomorph *-d* in v2. The post-consonantal *-d* was, however, dropped already in LOT making v2 identical with v3 (cf. *bkol* discussed in fn. 107).

XII Due to the re-interpretation of the ‘infix’ *-o-* as an imperative marker the stative passive verbs that once had both the vowel *-o-* and the suffix *-s* could drop the suffix *-s* when acquiring imperative meaning.¹⁵⁷ The forms remained within transitive conjugations holding the fourth slot (v4) but now had imperative meaning. Imperative forms of verbs that for various reasons were not able to create new stative passive forms (see XIII) retained their double meaning: 1. stative passive and 2. imperative. Hence, depending on their formal features, transitive verbs developed three distinct strategies to deal with the new shifts:

1. New stative passive in *-(^o)s* (see XIII), imperative in *-o-* ($\sqrt{\text{tab}}$: SPASS *thebs* vs IMP *thob*);
2. Stative passive in *-(^o)s*, imperative in *-o-* ($\sqrt{\text{za}}$: SPASS *zos* vs IMP *zo*; $\sqrt{\text{teag}}$: SPASS *čhogs* vs IMP *chog*);
3. Stative passive = imperative ($\sqrt{\text{tsugs}}$: SPASS = IMP *chugs*).¹⁵⁸

XIII The re-interpretation of the once stative passive forms (v4) as imperatives caused a morphological gap; the semantic opposition between dynamic and stative passive was established in the language but some verbs now lacked a morphological expression of stative passive. At the same time the independent sound change, the merger of post-consonantal *-d* and *-s*, supplied the language with new forms in *-s* (see XI). The forms with the vowel *-e-* (if possible)¹⁵⁹ and the suffix *-s* (*thebs*, *theñs* etc.) were re-interpreted as stative passive forms and filled the gap.¹⁶⁰

XIV However, the fourth slot of transitive verbs was already occupied by the now imperative forms (v4). Therefore, the new stative passive forms with the vowel *-e-* (if possible) and the suffix *-s* were ‘pushed’ out of the transitive inflection and forced to form their own conjugations. That is, they separated as new verbs (Uray’s I or Hill’s C, see § 23). Because they were by definition monovalent, they formed intransitive conjugations. They inflected according to intransitive paradigm III (e.g., v1 *ythebs*, v2 *thebs*) since they were unable to take the perfective suffix *-s* of paradigm II due to their inherent post-consonantal *-s* or other phonotactic restrictions. These verbs were secondary developments and actually side-effects of some accidental changes like the merger of *-d* and *-s*.

XV The formation of new transitive v1-stems in **y-d* from the respective intransitive v1-stems (see X) caused a chain reaction in the system. New v1-stems pushed the original v1 to stative passive slots. The re-interpretation of v1-stems in *-(^o)s* as stative passive also encompassed other verbs, i.e. verbs from verb-families other than of Type 3a. Because these did not have intransitive counterparts to form new v1 in **y-d* ($> y-s$), they filled their v1 slots with new formations coined by means of the prefix *d-* (e.g., *gtoñ*). It is also conceivable that the original v1 in

¹⁵⁷ A reversed development, i.e. from imperative to stative passive, is improbable because it would not account for the secondary introduction of stative passive forms like *theñs*, *thebs* etc.

¹⁵⁸ In general, a verb that didn’t develop a secondary form of stative passive (like *thebs* etc.) could use its v4 in this sense; for examples from CT see Zeisler (2002: 445ff.) & Zeisler (2004: 850ff.). However, in OT, verbs that had a secondary form of stative passive exclusively used this form and not their v4. In OT, stative passive was available only to controllable verbs of high transitivity.

¹⁵⁹ Only inflected forms of verbs with the root vowel *-a-* could have the vowel *-e-*. All the other v1-stems that inflected with the suffix *-d* retained their root vowels.

¹⁶⁰ This re-interpretation was apparently triggered by the change *-d > -s* in post-consonantal position, for verbs like *byed* remained ACT/IMPR.

*^(e)*d* co-existed for some time with new v1 in **y-d*.¹⁶¹ Old v1-stems were completely replaced first after the prefix *y-* had been established as an imperfective prefix and the merger of post-consonantal *-d* with *-s* had been completed.

Processes X–XV formed a push-chain indirectly initiated by the split of the suffix ^(e)*s* and the reinterpretation of the original v4-stems as imperatives. The latter process caused a gap in the old system and created internal dynamics, leading to new formations and re-organisation of verb inflection. The chronological order of processes that constituted the chain was¹⁶²: 1. formation of v1 in **y-d* (X) – 2. merger of *-d* and *-s* (XI) > 3. reinterpretation of old v1 (now in ^(e)*s*) as stative passive (XIII–XIV) > 4. formation of new v1 in *d-* (XV).

Conclusions

§ 68. Verbs in PT and OT coded the following grammatical properties: transitivity (intransitive, transitive), voice (active, dynamic passive, stative passive), aspect (imperfective, perfective), and mood (indicative, imperative). However, as shown in Tab. 9, the morphological expressions of the single categories varied:

| | Lexical | Derivational | Inflectional | Analytical |
|--------------|---------|--------------|--------------|------------|
| Transitivity | + | + | | |
| Voice | | | + | |
| Aspect | | | + | |
| Mood | | | (+) | + |

Table 9

The distribution of the markings perfectly corresponds to the hierarchy of relevance as established by Bybee: the more relevant the meaning of a morpheme is to the meaning of the root, the more intrinsically its marker is bound to the root. I have bracketed the plus sign for the inflectional mood because the marking of the imperative mood resulted from a re-interpretation of the original stative passive forms. Imperative was primarily expressed with analytical constructions of the type ‘stative passive + /čig’.

Table 10 provides an overview of the derivational and inflectional affixes of OT verbs. The affixes are grouped according to the grammatical categories they marked:¹⁶³

¹⁶¹ This might be compared to the situation in Modern English where ‘old’ strong verbs (e.g., *leapt*, *dreamt*, *wept*) co-exist with ‘new’ forms (*leaped*, *dreamed*, *weaped*).

¹⁶² ‘^(e)’ marks a following process as independent from the preceding one; ‘>’ marks a causal relation between two processes.

¹⁶³ The bracketed plus signs mark secondary meaning of an affix.

| | Derivational | | Inflectional | | | | | |
|-------------------------|--------------|--------|--------------|-------|-------|--------|------|------|
| | VALENCE | | VOICE | | | ASPECT | | MOOD |
| | CAUS | A-CAUS | ACT | DPASS | SPASS | PFV | IMPR | IMP |
| <i>s-</i> | + | | | | | | | |
| <i>r-</i> | + | | | | | | | |
| <i>ʎ-</i> | | + | | | | | (+) | |
| <i>b-</i> | | | + | | | (+) | | |
| <i>g-</i> | | | | + | | | | |
| <i>d-</i> | | | | | | | + | |
| <i>-(^o)s</i> | | | | | + | (+) | | (+) |
| <i>-d</i> | + | | | | | | (+) | |

Table 10

§ 69. It is more than apparent that the presented reconstruction of the OT inflectional system does not provide answers to all the questions of OT verb morphology. I have merely attempted to sketch the most fundamental characteristics of the system and the processes it was driven by. I can certainly think of many questions that still need to be answered, and possibly even more that I do not realise. In the hope that other scholars may come to plausible solutions, I list here four most puzzling issues: 1. the origin of the prefix *d-*; 2. the underlying forms of the *g-* and *d-* prefixes; 3. the origin of *v1* in *ʎ^(o)-* (see § 35); and 4. the origin of the ‘dummy’ suffix *-s*.

The reconstructions proposed in the paper only comprise the period of the language until the introduction of analytical constructions of the type ‘converb + verb’. The latter seem to have started occurring in the written language as early as the first half of the ninth century. Their generalisation and the subsequent proliferation must have had a major impact on the verb inflectional system.¹⁶⁴ However, these were the developments of the following centuries and should be examined in a separate study.

§ 70. Assuming that Old Tibetan was a Trans-Himalayan language, it had a very unique system of verb inflection not encountered in any other language of the family. What’s more, as I believe to have demonstrated in the paper, the system was still productive. I have argued that the inflectional affixes were partly borrowed from derivational morphology and partly grammaticalised from other lexical sources of the language. It is more than probable that PT and OT inherited at least some of their derivational affixes from a parent language.

Although features considered by DeLancey as characterising Tibetic as a creoloid languages might not be in agreement with the description of OT presented in this paper¹⁶⁵, it seems that OT was a creoloid language after inflectional verb morphology inherited from PTH had largely collapsed in Proto-Bodish (or maybe even earlier). The inevitable consequence of this assumption is however that inflectional morphology developed in Proto-Tibetic and passed down to OT must

¹⁶⁴ The emergence of analytical constructions might have also contributed to the loss of inflectional affixes observed in modern dialects.

¹⁶⁵ Cf. ‘[...] when Tibetan is first recorded, it has the basic creoloid structure – the elaborate (for a creoloid Tibeto-Burman language) verbal morphology is still and all a *nominalized construction*, and in its essential structure the verb functions as in a creoloid language, providing grounding information but *no recapitulation of the event and the arguments*.’ (DeLancey 2014: 58f.; emphasis added).

have been substantially independent of PTH inflectional morphology.¹⁶⁶ Another consequence is that creoloid character of modern vernaculars has resulted from two independent historical processes: 1. ‘Bodish (or Bodic?) conquest’ – the conquest of the regions in the middle course of the Gcañ-po river and/or southern parts of the Tibetan Plateau; and 2. ‘Tibetan conquest’ – the conquest of the Tibetan Plateau and neighbouring territories during the Tibetan Empire. The first conquest led, among other things, to the loss of PTH verb inflection due to creolisation.¹⁶⁷ As long as we don’t have archaeological evidence, the ‘Bodish/Bodic conquest’ remains pure speculation launched with the sole aim of accounting for the lack of PTH verb inflection in Bodic languages. The second, this time historically attested, conquest brought OT to all corners of the Tibetan Plateau and beyond.¹⁶⁸ As a consequence of intense contacts with various (not only Trans-Himalayan) languages the OT verb inflection was slowly abandoned and new analytical constructions were introduced instead. The latter were created independently in distinct geographical and linguistic contexts, a fact which explains their diversity among modern dialects.¹⁶⁹

ABBREVIATIONS

| | |
|----------------|---|
| ! | historically/logically impossible form or process |
| √ | reconstructed verb root |
| # | word boundary |
| * | reconstructed form |
| * _s | suffix inferred from the assimilated forms of the following clitics |
| ?...? | uncertain translation |
| {b} | text added by JB |
| <e> | text reconstructed by JB |
| ## | letters deleted by JB |
| [-] | text damage or letters illegible |
| 3 | third person |
| A-CAUS | autocausative |

¹⁶⁶ It seems that Bodish languages preserved some PTH derivational affixes (e.g., *s-*, *g-* or *-d*) but lost the whole inflectional morphology. The hypothesis that Proto-Bodish lost PTH verb morphology presumes that Proto-Bodish and its descendants were TH languages.

¹⁶⁷ We are not in a position to speculate about the linguistic affiliation of languages spoken by peoples who inhabited this part of the Tibetan Plateau prior to the ‘Bodish conquest’.

¹⁶⁸ The expansionistic politics of Tibetan *bcan pos* during the Empire might have forced those peoples, who did not want to submit to the Tibetan authority, to migrate. Thus, speakers of Proto-East-Bodish and Proto-Tshangla might have crossed the Himalayas and settled on the southern slopes due to the Tibetan imperial expansion. The same historical circumstances might have brought the speakers of Proto-Kaike-Ghale-Tamangic and Proto-West-Himalayish to their current locations. If the so-called *Zaṅ-zuṅ* language can one day be proven to have been a distinct West-Himalayish language, we would acquire a strong indication that the latter were once spoken on the Tibetan Plateau. Alternatively, the language called today ‘*Zaṅ-zuṅ*’ might have been an ancestor either of a one particular West Himalayish language or, what’s more probable, of the whole branch of West Himalayish languages. In the latter case, part of the population of *Zaṅ-zuṅ* would have fled southward to avoid the Tibetan conquest.

¹⁶⁹ A similar two-step language re-organisation was discussed in Zeisler (2009: 86ff.). However, she located both changes within the history of Tibetic languages not considering the common history of Bodish languages in this respect.

| | |
|--------|--|
| ABS | absolutive |
| ACT | active |
| ADD | additive |
| AG | agentive |
| ALL | allative |
| AP | active participle |
| Bal | Balti |
| BayHua | Amdo Bayan |
| BCRD | The Buddhist Canons Research Database (see Internet sources) |
| BDSN | <i>Brda gsar rñiñ gi rnam par dbye ba</i> of Dbus-pa-blo-gsal (<i>apud</i> Mimaki 1992) |
| BTC | Zhang 1993 (see References) |
| C | controllable |
| cA | controllable verb/absolutive |
| cAD | controllable verb/absolutive-dative |
| CAUS | causative |
| CDTD | Bielmeier et al. (see References) |
| cE | controllable verb/ergative |
| cEA | controllable verb/ergative-absolutive |
| cED | controllable verb/ergative-dative |
| Chik | Chiktan |
| CO | coordinator |
| COM | comitative |
| CONJ | conjunction |
| CT | Classical Tibetan |
| D | dental stop |
| DEL | delative |
| DEM | demonstrative |
| DIM | diminutive |
| DIST | distal |
| DPASS | dynamic passive |
| E | East |
| ELA | elative |
| EMP | emphatic |
| Eng. | English |
| EOT | Early Old Tibetan |
| ERG | ergative |
| Ex. | example |
| EXCL | exclusive |
| F | feminine |
| FNL | paragraph-final particle |
| FOC | focus |
| FUT | future |
| G | voiced obstruent |
| GEN | genitive |
| GER | gerund |

| | |
|------|---|
| Ger. | German |
| HBL | humble |
| HON | honorific |
| IDP | International Dunhuang Project (see Internet sources) |
| IMP | imperative |
| IMPR | imperfective |
| INCL | inclusive |
| INDF | indefinite |
| INE | inessive |
| INT | interrogative |
| INTR | intransitive |
| IPA | International Phonetic Alphabet |
| ITJ | IOL Tib J |
| J | Jäschke, 1881 (see References) |
| K | voiceless obstruent |
| Kar | Kargil |
| Lat. | Latin |
| LOT | Late Old Tibetan |
| MOT | Middle Old Tibetan |
| MT | Modern Tibetan |
| Mvy | Ishihama/Fukuda, 1989 (see References) |
| N | noun |
| NC | non-controllable |
| NEG | negation |
| NMZ | nominaliser |
| NP | nominal phrase |
| NPST | non-past |
| O | object |
| OED | <i>Oxford English Dictionary</i> (see References) |
| Or. | Oriental Collections of the British Library |
| OT | Old Tibetan |
| OTA | <i>Old Tibetan Annals</i> |
| OTDO | Old Tibetan Documents Online (see Internet sources) |
| PFV | perfective |
| PL | plural |
| Pol. | Polish |
| PROG | progressive |
| PROX | proximal |
| PST | past |
| Pt | Pelliot tibétain |
| PT | Proto-Tibetic |
| PTCL | particle |
| PTH | Proto-Trans-Himalayan |
| QUOT | quotative |
| RDP | reduplication |

| | |
|----------------|---|
| REFL | reflexive |
| RELPR | relative pronoun |
| RHET | rhetoric |
| S | subject |
| Sch | Schmidt 1841 (see References) |
| SG | singular |
| Skt. | Sanskrit |
| SOV | subject-object-verb |
| SPASS | stative passive |
| STEDT | Sino-Tibetan Etymological Dictionary and Thesaurus (see Internet sources) |
| TERM | terminative |
| TH | Trans-Himalayan |
| The | Themchen |
| TR | transitive |
| V | 1. verb; 2. vowel |
| v1, v2, v3, v4 | verb stems |
| VA | verbal adjective |
| W | West |
| WAT | Western Archaic Tibetan |
| WT | written Tibetan |
| Žwa | Žwayi-lha-khan inscription |

REFERENCES

- Abraham, Werner. 2006. 'Introduction: Passivization and typology. Form vs. function – a confined survey into the research status quo.' In *Passivization and typology*, edited by Werner Abraham and Larisa Leisiö, 1–27. Amsterdam: John Benjamins Publishing.
- Andvik, Erik E. 2010. *A grammar of Tshangla*. Leiden: Brill.
- Baxter, William H., and Laurent Sagart. 2014. *Old Chinese: a new reconstruction*. Oxford: Oxford University Press.
- Beckwith, Christopher I. 1996. 'The Morphological Argument for the Existence of Sino-Tibetan.' In *Pan-Asiatic linguistics: proceedings of the fourth international symposium on languages and linguistics*, 812–826. Bangkok.
- Beer, Zack. 2019. 'Switch-reference in the *Ye shes rgyas pa'i mdo*.' *Journal of the Royal Asiatic Society* 29 (2): 249–256.
- Benedict, Paul K. 1972. *Sino-Tibetan: A Conspectus*. Cambridge: Cambridge University Press.
- Beyer, Stephan V. 1993. *The Classical Tibetan Language*. Delhi: Sri Satguru Publications.
- Bialek, Joanna. 2016. 'Side, stench, remnant, plot, oath, and craftiness—the semantic 'capacity' of the OT *dku*.' *Revue d'Etudes Tibétaines* 35: 115–167.
- Bialek, Joanna. 2018a. *Compounds and Compounding in Old Tibetan. A Corpus Based Approach*. 2 vols. Marburg: Indica et Tibetica.
- Bialek, Joanna. 2018b. 'The Proto-Tibetan clusters *sL-* and *sR-* and the periodisation of Old Tibetan.' *Himalayan Linguistics* 17 (2): 1–50. doi: <https://doi.org/10.5070/H917238831>.

- Bialek, Joanna. 2020 (Forthcoming). 'Towards a standardisation of Tibetan transliteration for textual studies.' *Revue d'Etudes Tibétaines* Octobre: 28–46.
- Bialek, Joanna. In Preparation a. *Old Tibetan Annals: A Comprehensive Text Grammar*.
- Bialek, Joanna. In Preparation b. *Funerary Rites in Tibetan Empire: A philological examination of PT 1042*.
- Bielmeier, Roland. 1988. 'The reconstruction of the stop series and the verbal system in Tibetan.' In *Languages and History in East Asia: Festschrift for Tatsuo Nishida on the Occasion of his 60th Birthday*, 15–27. Kyoto.
- Bielmeier, Roland. 2004. 'Shafer's proto-West Bodish hypothesis and the formation of the Tibetan verb paradigms.' In *Himalayan Languages. Past and Present*, edited by Anju Saxena, 395–412. Berlin: Mouton de Gruyter.
- Bielmeier, Roland, Felix Haller, Katrin Häslér, Brigitte Huber, and Marianne Volkart, eds. 2013 (draft). *Comparative Dictionary of Tibetan Dialects*.
- Bielmeier, Roland, Katrin Häslér, Chungda Haller, Felix Haller, Veronika Hein, Brigitte Huber, Marianne Volkart, Thomas Preiswerk, Ngawang Tsering, Manuel Widmer, and Marius Zemp. 2018. *Comparative Dictionary of Tibetan Dialects (CDTD). Volume 2: Verbs*. Berlin: De Gruyter Mouton.
- Bybee, Joan L. 1985. *Morphology: A study of the relation between meaning and form*. Amsterdam: John Benjamins Publishing.
- Bybee, Joan L, Revere Dale Perkins, and William Pagliuca. 1994. *The evolution of grammar: Tense, aspect, and modality in the languages of the world*. Chicago: University of Chicago Press.
- Coblin, Weldon South. 1976. 'Notes on Tibetan Verbal Morphology.' *Toung Pao* 62: 45–70.
- Conrady, August. 1896. *Eine indochinesische Causativ-Denominativ-Bildung und ihr Zusammenhang mit den Tonaccenten: Ein Beitrag zur vergleichenden Grammatik der indochinesischen Sprachen, Insonderheit des tibetischen, barmanischen, siamesischen und chinesischen*. Leipzig: Harrassowitz.
- DeLancey, Scott. 2011. 'Notes on verb agreement prefixes in Tibeto-Burman.' *Himalayan Linguistics* 10 (1): 1–29.
- DeLancey, Scott. 2014. 'Creolization in the Divergence of the Tibeto-Burman Languages.' In *Trans-Himalayan Linguistics. Historical and descriptive linguistics of the Himalayan area*, edited by Nathan W. Hill and Thomas Owen-Smith, 41–70. Berlin: De Gruyter.
- Ding, Hongdi. 2018. 'Grammaticalization of the take-verb si²¹ in Nuosu in Sichuan, China.' *The 51st International Conference on Sino-Tibetan Languages and Linguistics* (2018).
- Dixon, Robert M.W. 2010–12. *Basic linguistic theory*. Vol. 3. Oxford: Oxford University Press.
- Garrett, Edward, Nathan W. Hill, and Abel Zadoks. 2013. 'Disambiguating Tibetan verb stems with matrix verbs in the indirect infinitive construction.' *Bulletin of Tibetology* 49 (2): 35–44.
- Givón, Talmy. 1979. *On understanding grammar*. Orlando: Academic Press.
- Givón, Talmy. 2001. *Syntax: An Introduction*. 2 vols. Amsterdam: John Benjamins Publishing.
- Hahn, Michael. 1996. *Lehrbuch der klassischen tibetischen Schriftsprache*. Swisstal-Ondorf: Indica et Tibetica.
- Haller, Felix. 2009. 'Switch-reference in Tibetan.' *Linguistics of the Tibeto-Burman area* 32 (2): 45–70.

- Heine, Bernd, and Tania Kuteva. 2002. *World Lexicon of Grammaticalization*. Cambridge: Cambridge University Press.
- Hill, Nathan W. 2005. 'The Verb *bri* 'to write' in Old Tibetan.' *Journal of Asian and African Studies* 68: 177–182.
- Hill, Nathan W. 2010a. *A lexicon of Tibetan verb stems as reported by the grammatical tradition*. München: Bayerische Akademie der Wissenschaften.
- Hill, Nathan W. 2010b. 'An Overview of Old Tibetan Synchronic Phonology.' *Transactions of the Philological Society* 108 (2):110–125.
- Hill, Nathan W. 2012. 'The Six Vowel Hypothesis of Old Chinese in Comparative Context.' *Bulletin of Chinese Linguistics* 6 (2): 1–69.
- Hill, Nathan W. 2014a. 'Tibeto-Burman *dz-> Tibetan z-and Related Proposals.' In *Studies in Chinese and Sino-Tibetan Linguistics: Dialect, Phonology, Transcription and Text*, edited by Richard VanNess Simmons and Newell Ann Van Auken, 167–78. Taipei: Institute of Linguistics, Academia Sinica.
- Hill, Nathan W. 2014b. 'A Note on Voicing Alternation in the Tibetan verbal system.' *Transactions of the Philological Society* 112 (1): 1–4.
- Hill, Nathan W. 2015. 'Tibetan *-as > -os.' *International Journal of Diachronic Linguistics and Linguistic Reconstruction* 12: 165–175.
- Hill, Nathan W. 2019a. 'The derivation of the Tibetan present prefix g- from h-.' *Acta Orientalia Academiae Scientiarum Hungaricae* 72 (3): 325–332.
- Hill, Nathan W. 2019b. *The Historical Phonology of Tibetan, Burmese, and Chinese*. Cambridge University Press.
- Hill, Nathan W. 2019c. 'The prefix g- and -o- ablaut in Tibetan present verb stems.' *Bulletin of Chinese Linguistics* 12: 229–236.
- Hill, Nathan W., and Abel Zadoks. 2015. 'Tibetan $\sqrt{\text{lan}}$ 'reply'.' *Journal of the Royal Asiatic Society* 25 (1): 117–121.
- Hopper, Paul J., and Sandra A. Thompson. 1980. 'Transitivity in Grammar and Discourse.' *Language* 56 (2): 251–299.
- Hyslop, Gwendolyn. 2014. 'A preliminary reconstruction of East Bodish.' In *Trans-Himalayan Linguistics. Historical and Descriptive Linguistics of the Himalayan Area*, edited by Nathan W. Hill and Thomas Owen-Smith, 155–179. Berlin: De Gruyter.
- Hyslop, Gwendolyn. 2017. *A Grammar of Kurtöp*. Leiden: Brill.
- Ishihama, Yumiko, and Yoichi Fukuda, eds. 1989. *A New Critical Edition of the Mahāvvyutpatti: Sanskrit–Tibetan–Mongolian Dictionary of Buddhist Terminology*. Tokyo: The Toyo Bunko.
- Jacques, Guillaume. 2010. 'A possible trace of verb agreement in Tibetan.' *Himalayan Linguistics* 9 (1): 41–9.
- Jacques, Guillaume. 2012. 'An internal reconstruction of Tibetan stem alternations.' *Transactions of the Philological Society* 110 (2): 212–24.
- Jacques, Guillaume. 2014. 'On Coblin's Law.' *Studies in Chinese and Sino-Tibetan Linguistics*: 155–165.
- Jacques, Guillaume. 2015. 'Derivational Verbal Morphology in Khaling.' *Bulletin of Chinese Linguistics* 8: 78–85.

- Jacques, Guillaume. 2016. 'How Many *-s Suffixes in Old Chinese?' *Bulletin of Chinese Linguistics* 9: 205–217.
- Jacques, Guillaume. 2019. 'Fossil Nominalization Prefixes in Tibetan and Chinese.' *Bulletin of Chinese Linguistics* 12: 13–28.
- Jäschke, Heinrich August. 1881. *A Tibetan-English dictionary*. Reprint, New York: Dover Publications, 2003.
- Konnerth, Linda. 2016. 'The Proto-Tibeto-Burman *gV- nominalizing prefix.' *Linguistics of the Tibeto-Burman Area* 39 (1): 3–32.
- LaPolla, Randy J. 2003. 'Overview of Sino-Tibetan Morphosyntax.' In *The Sino-Tibetan Languages*, edited by Graham Thurgood and Randy J. LaPolla, 22–42. London: Routledge.
- Li, Fang-Kuei. 1933. 'Certain phonetic influences of the Tibetan prefixes upon the root initials.' *Bulletin of the Institute of History and Philology* 4: 135–157.
- Matisoff, James A. 1991. 'Areal and Universal Dimensions of Grammatization in Lahu.' In *Approaches to Grammaticalization*, edited by Elizabeth Closs Traugott and Bernd Heine, 383–453. Amsterdam: John Benjamins.
- Michailovsky, Boyd. 1985. 'Tibeto-Burman dental suffixes: Evidence from Limbu (Nepal).' In *Linguistics of the Sino-Tibetan Area: The State of the Art*, edited by Graham Thurgood, James A. Matisoff and David Bradley, 363–75. Canberra: Pacific Linguistics.
- Mimaki, Katsumi. 1992. 'Index to two *brDa gsar rñiñ* treatises. The works of dBus pa blo gsal and lCañ skya Rol pa'i rdo rje.' 成田山仏教研究所紀要 (*Bulletin of the Naritasan Institute for Buddhist studies*) 15 (2): 479–503.
- Müller-Witte, Frank. 2009. 'Handlungsrichtung im Tibetischen: die Verbalkategorien *bdag* und *gzhan* bei dPa' ris sangs rgyas und Dor zhi gdong drug und ihr Nutzen für das Verständnis tibetischer Texte.' PhD Thesis, Ludwig-Maximilians-Universität München.
- Stevenson, Angus, and Maurice Waite, eds. 2011. *Oxford English Dictionary*. Oxford: Oxford University Press.
- Regmi, Dan Raj, and Ambika Regmi. 2018. *A Grammar of Western Tamang*. München: Lincom.
- Schiefner, Anton. 1852. 'Tibetische Studien I-III.' *Mélanges asiatiques tirés Bulletin de l'Académie impériale des sciences des St.-Pétersbourg* 1: 324–94.
- Schladt, Mathias. 2000. 'The typology and grammaticalization of reflexives.' In *Reflexives: Forms and Functions*, edited by Zygmunt Frajzyngier and Traci S. Curl, 103–124. Amsterdam: John Benjamins.
- Schmidt, Isaac Jacob. 1841. *Tibetisch-Deutsches Wörterbuch*. St. Petersburg.
- Shafer, Robert. 1950a. 'Studies in the Morphology of Bodic Verbs.' *Bulletin of the School of Oriental and African Studies* 13 (3): 702–724.
- Shafer, Robert. 1950b. 'Studies in the Morphology of Bodic Verbs.' *Bulletin of the School of Oriental and African Studies* 13 (4): 1017–31.
- Shefts Chang, Betty. 1971. 'The Tibetan Causative: Phonology.' *Bulletin of the Institute of History and Philology* 42: 623–765.
- Simon, Walter. 1942. 'Tibetan *dañ*, *ciñ*, *kyin*, *yin* and *ham*.' *Bulletin of the School of Oriental and African Studies* 10 (4): 954–975.

- Thomas, Frederick William. 1957. *Ancient Folk-Literature from North-Eastern Tibet*. Berlin: Akademie Verlag.
- Tillemans, Tom J.F. 1991. 'Gser tog blo bzang tshul khriims rgya mtsho on Tibetan verb tenses.' In *Tibetan History and Language: Studies Dedicated to Uray Géza on his Seventieth Birthday*, edited by Ernst Steinkellner, 487–96. Wien: Universität Wien.
- Tillemans, Tom Johannes Frank, and Derek Dane Herforth. 1989. *Agents and Actions in Classical Tibetan: The Indigenous Grammarians on Bdag and Gzan and Bya Byed Las Gsum*. Wien: Arbeitskreis für Tibetische und Buddhistische Studien.
- Tournadre, Nicholas, and Sangda Dorje. 1998. *Manuel de Tibétain Standard, langue et civilisation: Bodkyi spyiskad slobdeb*. Paris: Mondes et Langue.
- Uray, Géza. 1953. 'Some problems of the Ancient Tibetan verbal morphology—methodological observations on recent studies.' *Acta Linguistica Academiae Scientiarum Hungaricae* 3 (1/2): 37–62.
- Valin, Robert D. van, and Randy J. LaPolla. 1998. *Syntax: structure, meaning, and function*. Cambridge: Cambridge University Press.
- Widmer, Manuel. 2017. *A Grammar of Bunan*. Berlin: de Gruyter Mouton.
- Widmer, Manuel. 2018. 'Transitivity markers in West Himalayish.' *Linguistics of the Tibeto-Burman Area* 41 (1): 75–105.
- Wolfenden, Stuart, N. 1929. *Outlines of Tibeto-Burman Linguistic Morphology*. London: The Royal Asiatic Society.
- Zeisler, Bettina. 2001. 'The Development of Temporal Coding in Tibetan: Some Suggestions for a Functional Internal Reconstruction. Part II: The Original Semantics of the 'Past' Stem of Controlled Action Verbs and the Reorganisation of the Proto-Tibetan Verb System.' *Zentralasiatische Studien* 31: 169–216.
- Zeisler, Bettina. 2002. 'The development of temporal coding in Tibetan: some suggestions for a functional internal reconstruction (1): Unexpected use of the 'imperative' stem in Old Tibetan and Themchen (Amdo Tibetan).' In *Tibet, Past and Present. Proceedings of the Ninth Seminar of the International Association for Tibetan Studies, Leiden 2000*, 441–453. Leiden: Brill.
- Zeisler, Bettina. 2004. *Relative Tense and Aspectual Values in Tibetan Languages: A Comparative Study*. Berlin: Mouton de Gruyter.
- Zeisler, Bettina. 2009. 'Reducing phonological complexity and grammatical opaqueness: Old Tibetan as a *lingua franca* and the development of the modern Tibetan dialects.' In *Complex Processes in New Languages*, edited by Enoch Oladé Aboh, 75–95. Amsterdam: John Benjamins.
- Zeisler, Bettina. 2015. 'Eat and drink—if you can! A language internal explanation for the 'irregular' paradigm of Tibetan *za, zos, zo* 'eat'.' *Himalayan Linguistics* 14 (1): 34–62.
- Zeisler, Bettina. 2017. 'Hypothetical sound laws and sound potential meaning. Once again on the uncommon Tibetan verb paradigm *za, zos, zo* 'eat'.' *International Journal of Diachronic Linguistics and Linguistic Reconstruction* 14: 77–117.
- Zemp, Marius. 2016. 'A functional reconstruction of the Proto-Tibetan verbal system.' *Himalayan Linguistics* 15 (2): 88–133.
- Zhang, Yisun. 1993. *Bod rgya chig myod chen mo*. Beijing: Mi rigs dpe skrun khan.
- Zoller, Claus Peter. 1983. *Die Sprache der Rang Pas von Garhwal*. Wiesbaden: Harrassowitz.

INTERNET SOURCES

Gallica: <http://gallica.bnf.fr>

Glottolog: <https://glottolog.org/>

International Dunhuang Project: <http://idp.bl.uk/>

Old Tibetan Documents Online: <http://otdo.aa.tufs.ac.jp/>

Sino-Tibetan Etymological Dictionary and Thesaurus: <https://stedt.berkeley.edu/>

The Buddhist Canons Research Database:

<http://www.aibs.columbia.edu/databases/New/index.php>

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Appendices

Appendix A: Sample verb-families

Below I present several verb-families in a schematic manner. As it seems, in some cases nominal derivations were involved in creating new verbal conjugations. The graphics should be understood as first attempts at structuring OT verb-families and not as ultimate representations thereof. An exhaustive study of derivational processes in OT remains a desideratum. Therefore, we shall assume that there might still be some processes to be discovered when more philological and linguistic research has been carried out regarding the oldest attested Tibetic language.

Ex. 1 $\sqrt{\text{tea}}$

An interesting case of a ‘secondary’ derivation is the verb $\sqrt{\text{teos}}$.¹⁷⁰ Namely, it was derived from the noun $\check{\text{chos}}$, itself a derivative by conversion from v4 of $\sqrt{\text{tea}}$ ‘to prepare, to establish’. The etymological meaning of $\check{\text{chos}}$ was *‘what is established’, from which it evolved towards ‘manner; custom, tradition’ and later ‘Buddhist teachings’. The noun $\check{\text{chos}}$ gave rise to the new verb $\sqrt{\text{teos}}$ *‘to customise’ > ‘to prepare, to make ready’. The verb-family can be sketched as follows:

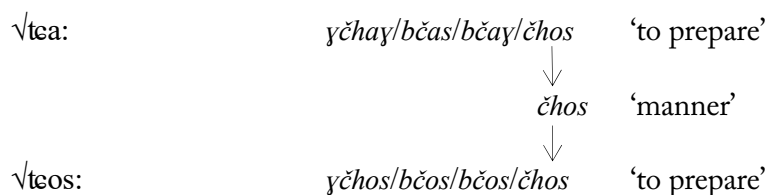


Figure 1: $\sqrt{\text{tea}}$

¹⁷⁰ Properly speaking, this verb-family is not secondary in the sense ascribed to the term in the paper (cf. § 27) because its secondary member $\sqrt{\text{teos}}$ was not derived from the verb root $\sqrt{\text{tea}}$ by means of a derivational affix.

Ex. 2 $\sqrt{\epsilon ar}$

An example analogous to \sqrt{tea} is $\sqrt{\epsilon ar}$. The difference lies in the fact that the ‘secondary’ derivation within the verb-family \sqrt{tea} occurred via a nominal derivative (*čhos*), whereas in the verb-family $\sqrt{\epsilon ar}$ the ‘secondary’ derivation seems to have taken as its base the stative passive stem *śor*:

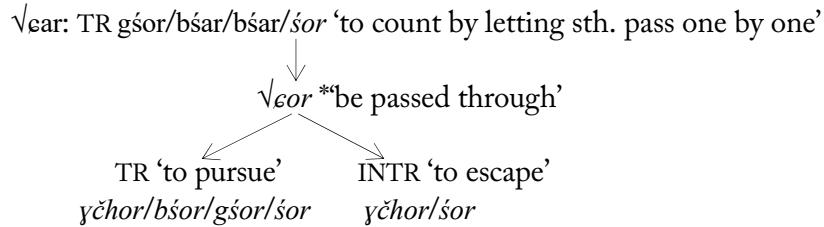


Figure 2: $\sqrt{\epsilon ar}$

The vowel *a* in the primary root $\sqrt{\epsilon ar}$ is confirmed by such classical and modern cognates as: *śar* BayHua ‘row (of houses)’ (CDTD: 8503); *śar rgyag* ‘direct, directly’ (CDTD: 8506); *śar ma* ‘ein Streifen’ (Sch: 575a); *śar re* ‘directly’ (CDTD: 8516); *śar śar* ‘straightway, directly’ (J: 557b).

Ex. 3 \sqrt{teag}

\sqrt{teag} was an ambivalent verb root. It could take both transitive and intransitive affixes which then determined the valence of the verb. In addition, the verb-family also included forms derived by the causative prefix *s-* (**s*+ \sqrt{teag}).¹⁷¹

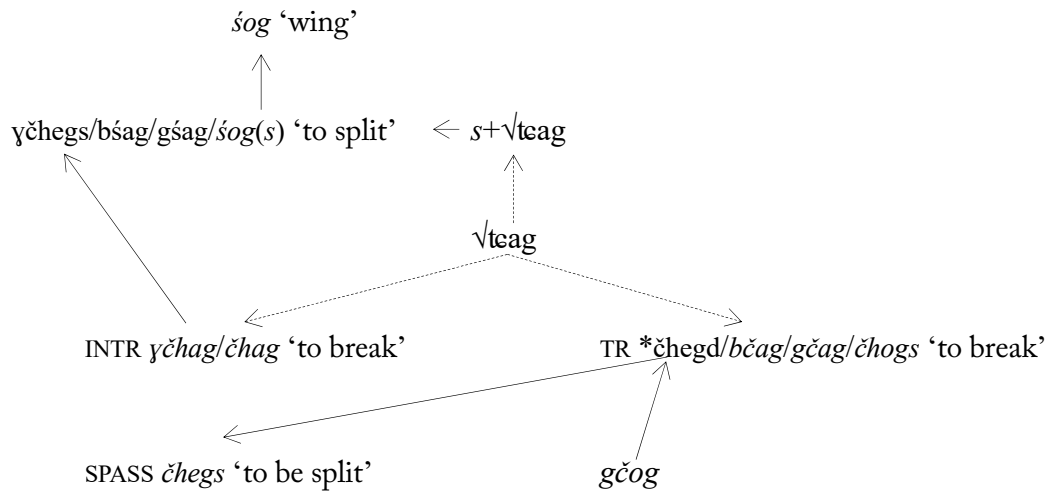


Figure 3: \sqrt{teag}

In general, there is a great mismatch in CT data on the verb-family and so one should proceed very carefully in reconstructing its members. The original v1 of the transitive conjugation is attested in a stative passive *čhegs* (< **čhegd*) in: *śa bragi mdo* (r206) *ru čhegs/* (ITJ 734) ‘Deer were separated (lit.

¹⁷¹ The rule *s+te- > e-* was formulated by Li (1933: 141).

split) in a rock vale.’ In CT lexicographical sources we find also $y\check{c}heg(s)$ ‘to cleave, to split’ (J: 170a & 566a, s.v. *gśog pa*) that accords to the pattern of transitive v1-stems derived from intransitive v1: INTR $y\check{c}hag > *y\check{c}hag+d > TR y\check{c}hegs$. It was formed by analogy with other similar verb forms like *ydebs*, *ygeñs*, *ybebs*, etc. However, for unknown reasons it did not take over the v1-slot in the basic transitive conjugation (it is also not attested in OT). We observe that this slot was filled with *gčog*. The co-existence of two competing v1-forms, *gčog* and *yčhegs*, suggests that there might have been some semantic difference between v1-stems in *d-* and those in **y-d* as well. This is the only such example identified so far. Alternatively, the derivation **y-d* might have been later than *d-* and so the v1-slot had already been filled by *gčog*. The stem *yčhegs* was incorporated into the conjugation of **s+√teag* because its regular v1 (either *gśog* or *yčhag*) came to be homophonous with v1-stems of two other verbs: ‘to confess’ and ‘to break’ (INTR).

Ex. 4 $\sqrt{pab} \sim \sqrt{bab}$

The verb-family $\sqrt{pab} \sim \sqrt{bab}$ is a prototypical example of Type 3a. The family was based on the primary voice opposition $\sqrt{pab} = TR$, $\sqrt{bab} = INTR$:

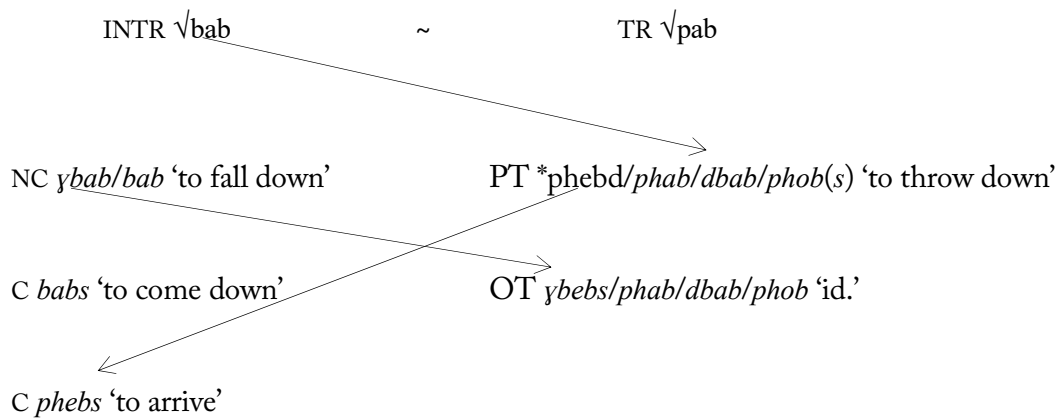


Figure 4: $\sqrt{pab} \sim \sqrt{bab}$

An unusual characteristic of the intransitive root was that it inflected according to two distinct paradigms, depending on the semantics of the verb. In the meaning ‘to come down’ the verb was allowed to take the perfective suffix *-s* restricted to controllable verbs, but in the meaning ‘to fall down’ it followed the inflection of non-controllable verbs. The OT transitive conjugation attests to a typical mixed pattern of v1/v3 being based on the intransitive root \sqrt{bab} and v2/v4 on the transitive \sqrt{pab} . The original v1 was formed with the suffix *-d* (**phebd*) but was ousted by *ybebs* formed on the basis of the intransitive v1 *ybab*: INTR/IMPR *ybab > *ybab+d > TR/IMPR ybebs*. Due to the merger of post-consonantal *-d* with *-s*, **phebd* became *phebs* and was re-interpreted as an independent verb with a stative passive meaning. This meaning might still be detected in *čhar myi phebs* (Pt 1052: r239) ‘The rain has not come down’ (Ger. *Der Regen ist nicht gefallen*). The suggested semantic development would be: SPASS ‘to have come down’ (cf. Ger. *heruntergekommen sein*) > ‘to arrive’ > ‘to come’.

Ex. 5: $\sqrt{\text{dra}\eta}$

$\sqrt{\text{dra}\eta}$ was an ambivalent root in PT. Its verb-family constitutes an instructive example of how certain differences between verb stems were levelled out in OT due to sound changes.

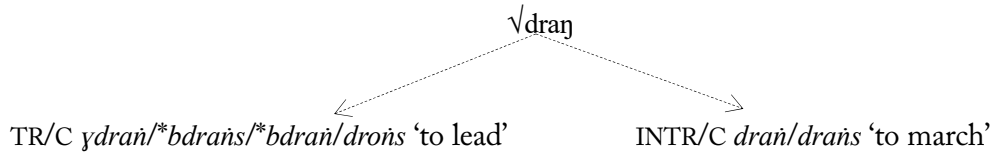


Figure 5: $\sqrt{\text{dra}\eta}$

The original transitive v2 **bdrañs* and v3 **bdrañ* were simplified to *drañs* and *drañ* in OT (**bdr-* > *dr-*). As a consequence they became homophonous with intransitive v2 and v1 respectively.¹⁷²

Appendix B: Textual context

As I mentioned earlier, only seldom did one OT text make use of more than two stems of one verb. In the following I quote two fragments (a & b) from ITJ 731 in which more stems of one verb are used.¹⁷³

(a)

| | | | | |
|------------------------------|-------------------------------|------------------------------|------------------|------------------|
| <i>bu</i> | <i>gyim+po</i> | <i>spun</i> | <i>dr{u}g-ki</i> | <i>mčhid-nas</i> |
| son | Gyim+po | sibling | six-GEN | speech-ELA |
| <i>phayi</i> | <i>śid</i> | <i>g{t}añ</i> ¹⁷⁴ | <i>ño</i> | |
| father:GEN | funeral(ABS) | DPASS:prepare | FNL | |
| <i>yab-ki</i> (v8) | <i>ya rmañ</i> ¹⁷⁵ | <i>gzugso</i> | | |
| father.HON-GEN | grave(ABS) | DPASS:erect:FNL | | |
| <i>gyim+po+ñag+g{č}ig-ki</i> | <i>mčhid-nas</i> | | | |
| Gyim+po+ñag+gčig-GEN | speech-ELA | | | |
| <i>myi</i> | <i>dbul-{du-ni}</i> | <i>dbul}</i> (v9) | | |
| man(ABS) | be_poor-TERM-FOC | be_poor | | |
| <i>g.yañ</i> | <i>ridu-n{i}</i> | <i>rid}</i> | | |
| life_potency(ABS) | be_meagre:TERM-FOC | be_meagre | | |
| <i>phayi</i> | <i>śid</i> | <i>myi-theñs</i> | | |
| father:GEN | funeral(ABS) | NEG.NPST-be_prepared | | |
| <i>yab-ki</i> | <i>rmañ</i> | <i>myi-chugs-so</i> | | |
| father.HON-GEN | grave(ABS) | NEG.NPST-be_erected-FNL | | |

¹⁷² The verb *ydrañs*, likewise attested in OT, is related to CT *ygrañ*.

¹⁷³ The text was transliterated and translated by Thomas (1957: 16ff. & 28ff.). The passages were also analysed in Zeisler (2004: 437ff.). Unfortunately, the text has not been scanned yet and so we must rely on Thomas' transliteration which contains some obvious misspellings.

¹⁷⁴ Thomas (1957: 16) read *gdañ* which is an obvious misspelling for *gtañ*. OT phrases like *śid btañ* or *śid gtañ*, attested independently in other texts (see OTDO), prove that the verb $\sqrt{\text{ta}\eta}$ was intended.

¹⁷⁵ *rmañ* occurs as a counterpart of *śid* in many other OT texts. Therefore, I understand the syllable *ya* at the beginning of line v8 as a scribal error of writing once more the beginning of the syllable *yab*.

| | | | | | | |
|---------------------------------|---------------------------------|-------------------------|------------------------------|---------------------|--------------------|------------------|
| (v10) <i>bcāl</i> | <i>rgya-ru</i> | <i>bcāl-yañ</i> | | | | |
| ACT.PFV:look_for | rgya-TERM | ACT.PFV:look_for-ADD | | | | |
| <i>rñed śir</i> | <i>myi-rñed-č{e}s</i> | <i>gsuñ</i> | | | | |
| find śir(ABS) | NEG.NPST-find-QUOT | speak.HON(IMPR) | | | | |
| <i>bu gyim+po</i> | <i>spun</i> | <i>{drug}-(v11)-gis</i> | <i>{ma}+rta</i> | <i>nag+po</i> | <i>brgya-žig</i> | |
| son Gyim+po | sibling | six-ERG | PTLC.F+horse | black | hundred-INDF(ABS) | |
| <i>bseyi mañ+lag-la</i> | <i>g.yus-(read: brgyus)-na</i> | | | | | |
| bse:GEN | many+branch-ALL | ACT.PFV:attach-INE | | | | |
| <i>lčuñ+ka khron-la</i> | <i>{lkhag?}-(v12)-pa</i> | <i>lta</i> | | | | |
| jackdaw | fang-ALL | lkhag+NMZ(ABS) | ACT.IMPR:look | | | |
| <i>śu+smug</i> | <i>brgya-žig</i> | <i>bseyi</i> | <i>mañ+lag-la</i> | <i>brgyus-na</i> | | |
| śu_horse+brown | hundred-INDF(ABS) | bse:GEN | many+branch-ALL | ACT.PFV:attach-INE | | |
| <i>seyu</i> | <i>smyin-ko</i> | <i>lta</i> | | | | |
| pomegranate | ripening-NMZ(ABS) | ACT.IMPR:look | | | | |
| <i>ñañ+bu</i> (v13) | <i>brgya-žig</i> | <i>bseyi</i> | <i>mañ+lag-la</i> | <i>brgyus-na</i> | | |
| goose | hundred-INDF(ABS) | bse:GEN | many+branch-ALL | ACT.PFV:attach-INE | | |
| <i>ñur+bu</i> | <i>mcho+mthar</i> | <i>ydus+ko</i> | <i>lta</i> | | | |
| duck+DIM | lake+end:TERM | gather:PFV+NMZ(ABS) | ACT.IMPR:look | | | |
| <i>rta</i> | <i>dkar+(v14)+po</i> | <i>brgya-žig</i> | <i>bseyi</i> | <i>mañ+lag-la</i> | <i>brgyus-na</i> | |
| horse | white | hundred-INDF(ABS) | bse:GEN | many+branch-ALL | ACT.PFV:attach-INE | |
| <i>ser+ba</i> | <i>ydriś-(read: ydrims?)-ko</i> | <i>lta</i> | | | | |
| hail | ACT.IMPR:spread-NMZ(ABS) | ACT.IMPR:look | | | | |
| <i>śñon+po</i> | <i>brgya-(v15)-žig</i> | <i>bseyi</i> | <i>mañ+lag-la</i> | <i>brgyus-na</i> | | |
| śñon+po | hundred-INDF(ABS) | bse:GEN | many+branch-ALL | ACT.PFV:attach-INE | | |
| <i>phug+ron</i> | <i>brag-la</i> | <i>ydus-ko</i> | <i>lta</i> | | | |
| dove | rock-ALL | gather:PFV+NMZ(ABS) | ACT.IMPR:look | | | |
| <i>yon-gyañ</i> (v16) | <i>{phayi}</i> | <i>śid</i> | <i>ma-theñs</i> | | | |
| but-ADD | father:GEN | funeral(ABS) | NEG.PST-be_prepared | | | |
| <i>mgyogs</i> | <i>kho{d}-de</i> | <i>byañ+rjoñ-du</i> | <i>ma-ruñ</i> | | | |
| swift_one(ABS) | prepare(PFV)-GER | byañ+rjoñ-TERM | NEG.PST-be_suitable | | | |
| <i>dar</i> | <i>dmar+po</i> | <i>bcos-gyis</i> (v17) | <i>spañ+po</i> | <i>žugs-gyis</i> | <i>gral-go</i> | <i>lta</i> |
| silk(ABS) | red(ABS) | ACT.PFV:dye-ERG | meadow(ABS) | fire-ERG | line(PFV)-NMZ(ABS) | ACT.IMPR:look |
| <i>dar</i> | <i>d{k}ar+po</i> | <i>bcos-gyis</i> | <i>kha+b{a}</i> | <i>gañs+pas</i> | <i>dkar</i> | <i>l</i> |
| silk(ABS) | white(ABS) | ACT.PFV:dye-ERG | snow(ABS) | snow_mountain:ERG | white | |
| (v18) <i>ma+(read: mun)+nag</i> | <i>bcos-gyis</i> | <i>bya</i> | <i>slañ-(read: ldiñ?)-ñe</i> | <i>[ldiñ]</i> | | |
| black(ABS) | ACT.PFV:dye-ERG | bird(ABS) | soar-EMP | ACT.IMPR:soar | | |
| <i>phayi</i> | <i>śid</i> | <i>ma-theñs</i> | | | | |
| father:GEN | funeral(ABS) | NEG.PST-be_prepared | | | | |
| <i>yon-gy{a}ñ</i> | <i>yab-gyi</i> | <i>{rm}añ</i> | <i>ma-chugs</i> | | | |
| but-ADD | father.HON-GEN | grave(ABS) | NEG.PST-be_erected | | | |
| <i>bzañ+dar</i> | <i>čha</i> | <i>yom+bur</i> | <i>ma-ruñ</i> | | | |
| fine+silk | piece(ABS) | tamarisk:TERM | NEG.PST-be_suitable | | | |
| <i>lug+dkar-la</i> | <i>brgya</i> | <i>gnag-la</i> | <i>{brgya}</i> | <i>sre-(v20)-la</i> | <i>brgya</i> | <i>đgro-la</i> |
| sheep+white-ALL | hundred | black-ALL | hundred | mixed-ALL | hundred | reddish_grey-ALL |
| <i>pa+yab-gyi</i> | <i>phyag-du</i> | <i>phul</i> | | | | |
| father+father.HON-GEN | hand.HON-TERM | (ACT.PFV)give | | | | |
| <i>yon-kyañ</i> | <i>skyibs+lug-du</i> | <i>ma-(v21)-ruñ</i> | <i>ma{r}+ba-ru</i> | <i>ma-ruñ</i> | | |
| but-ADD | saddlecloth+sheep-TERM | NEG.PST-be_suitable | red_sheep-TERM | NEG.PST-be_suitable | | |
| <i>śña</i> | <i>khriñ+čheyi</i> | <i>khriñ</i> | <i>ma-blañs</i> | | | |
| earlier(ABS) | ribbon_great:GEN | ribbon(ABS) | NEG.PST-ACT.PFV:take | | | |

| | | | | | |
|---|--|--|--|--|--|
| <i>smra dos drag-ki lčag (v22) ma-btab /</i> | | | | | |
| <i>smra dos drag-GEN blow(ABS) NEG.PST-ACT.PFV:throw</i> | | | | | |
| <i>bgab-ki źo bźos-kyañ skyo+ma ba+r{k}yal-du ma-ruñ /</i> | | | | | |
| <i>bgab-GEN milk(ABS) ACT.PFV:milk-ADD dough cow+bag-TERM NEG.PST-be_suitable</i> | | | | | |
| <i>rgyab-ki bal+bal (v23) [-] {ma}+yum rcañ+bdagi bcun+moyi phyag-du phul</i> | | | | | |
| <i>back-GEN wool+wool(ABS) mother+mother.HON Rcañ+lord:GEN lady:GEN hand.HON-TERM (ACT.PFV)give</i> | | | | | |
| <i>rmał-źiñ bkał-bkał (v24)</i> | | | | | |
| <i>(ACT.PFV)pluck-CO ACT.PFV:spin-RDP</i> | | | | | |
| <i>bkał-źiñ bźu-bźu</i> | | | | | |
| <i>ACT.PFV:spin-CO ACT.PFV:twist-RDP</i> | | | | | |
| <i>bźu-źiñ bran-bran</i> | | | | | |
| <i>ACT.PFV:twist-CO ACT.PFV:pour-RDP</i> | | | | | |
| <i>bran-źiñ bdag-bdag (read: btags btags)</i> | | | | | |
| <i>ACT.PFV:pour-CO ACT.PFV:bind-RDP</i> | | | | | |
| <i>scañ+pha{d}+(v25)+sgye phud+sgye sgye+ma rca+dagsu ma-ruñ</i> | | | | | |
| <i>grain+sack+bag first_fruit+bag(ABS) bag rca+dags:TERM NEG.PST-be_suitable</i> | | | | | |
| <i>nañ bas-na nub ma-bltam</i> | | | | | |
| <i>day(ABS) finish:ACT.PFV-INE night(ABS) NEG.PST-DPASS:be_born</i> | | | | | |
| <i>nub bas-(v26)-na nañ ma-bltam</i> | | | | | |
| <i>night(ABS) finish:ACT.PFV-INE day(ABS) NEG.PST-DPASS:be_born</i> | | | | | |
| <i>dbyar čin rul</i> | | | | | |
| <i>summer(ABS) during rot</i> | | | | | |
| <i>dgun čin ykhyags /</i> | | | | | |
| <i>winter(ABS) during congeal</i> | | | | | |
| <i>scañ+phad+sgye phud+(v27)+sgyer ma ruñ</i> | | | | | |
| <i>grain+sack+bag first_fruit+bag:TERM NEG.PST-be_suitable</i> | | | | | |
| <i>phayi śid ma-theis</i> | | | | | |
| <i>father:GEN funeral(ABS) NEG.PST-be_prepared</i> | | | | | |
| <i>yab-ki rmañ ma-chugs</i> | | | | | |
| <i>father.HON-GEN grave(ABS) NEG.PST-be_erected</i> | | | | | |
| <i>yab sten+rgan+(v28)+ñar+pa-ni sku mgur+ču man+čad</i> | | | | | |
| <i>father.HON Sten+rgan+ñar+pa(ABS)-FOC body.HON(ABS) mgur+ču(ABS) downward</i> | | | | | |
| <i>sa+dog+rum-du byiñ-ygis ma-mčhis</i> | | | | | |
| <i>earth+narrow+womb-TERM sink(PFV)-ERG NEG.PST-exist:PFV</i> | | | | | |

The sons, the six Gyim-po siblings said:

‘Father’s funeral shall **be prepared**.

Father’s grave shall **be erected**.’

Gyim-po-ñag-gčig (lit. the single Gyim-po)¹⁷⁶ said:

‘The man is poor.

[His] life potency is meagre.

Father’s funeral is **not prepared**.

Father’s grave is **not erected**.

Even though [one] looked for, [one] looked for *rgya* (?),

[One] will not find a *śir*.’ Thus [he] was speaking.

¹⁷⁶ Cf. *ñag mal/ñag re/ñag gčig* ‘single’ (J: 185a, s.v. *ñag ma*). Jäschke also quoted the phrase *sañs rgyas ñag gčig* ‘only Buddha, or nothing less than Buddha’ (ibid.).

When the sons, the six Gyim-po siblings¹⁷⁷, attached one hundred black mares to many branches of a *bse*-plant, [they] were looking like *lkhag pa* jackdaws on fangs. When [the sons] attached one hundred brown *śu*-horses to many branches of a *bse*-plant, [they] were looking like ripening pomegranates. When [the sons] attached one hundred geese to many branches of a *bse*-plant, [they] were looking like young ducks gathered on a lake shore. When [the sons] attached one hundred white horses to many branches of a *bse*-plant, [they] were looking like spreading hail. When [the sons] attached one hundred *śnon po* to many branches of a *bse*-plant, [they] were looking like doves gathered on a rock. Yet, father's funeral **was not prepared**. Having arranged the swift-ones, [they] were not suitable to [ascend] *byañ rjoñ* (northern castle?).¹⁷⁸ Because [the sons] dyed the silk red, [it] was looking like meadow lined (?) by fire. Because [the sons] dyed the silk white, [it was looking like] snow more white than a snow-mountain. Because [the sons] dyed [the silk] black, [it was looking like] a soaring [black-]bird. Father's funeral **was not prepared**. Yet, father's grave **was not erected**. Pieces (*čha*) of fine silk were not suitable as tamarisk. [The sons] gave one hundred of¹⁷⁹ white sheep, one hundred of black [sheep], one hundred of mixed (*sre*) [sheep], [and] one hundred of reddish-grey [sheep] in the hands of the father. Yet, [they] were not suitable as sheep mounts. [They] were not suitable as red [sheep].¹⁸⁰ Earlier [the sons] did not take the ribbon (?) of the great ribbon (?). [The sons] ?did not give a blow? of *smra dos drag*. Even though [the sons] obtained (lit. milked) milk of *bgab*, [it] was not enough (lit. suitable) as a cow-skin bag of dough.¹⁸¹ [The sons] gave [...] wool from the back in the hands of the mother, the lady of the lord of Rcañ.¹⁸²

While having plucked, [she] spun [and] spun.

While having spun, [she] twisted [and] twisted a thread.¹⁸³

While having twisted, [she] moistened [and] moistened (?) [it].¹⁸⁴

While having moistened [it], [she] bound [and] bound [it].

The large bag for grain [and] the bag for first-fruits were not suitable as *rca dags* (grass-woven?) bags.

When the day was finished, the night was not born.

When the night was finished, the day was not born.

[It] rotted during the summer.

[It] congealed during the winter.

The large bag for grain was not suitable as a bag for first-fruits.

¹⁷⁷ Thomas (1957: 28) and Zeisler (2004: 440) interpreted the ergative *gis* as introducing another speech of the Gyim-po siblings. However, the verb of speaking is missing in the story. Neither is the end of the assumed quotation marked. Instead, the following passages describe various actions undertaken to prepare the burial, all of which failed. I interpret the ergative *gis* as marking the agent of the actions. The actions failed in preparing a funeral because they were carried out by the six siblings and not by Gyim-po-ñag-gčig who was obliged to do it.

¹⁷⁸ The same text reads *do ma thugs dags/ čhus bsen rgan (v6) rog mgyogs kho[d] de byañ rjoñ yob č[en] dgu la yjeg pa yon čig* and in Pt 1060 we find *mgyogs gyil ybrañ// khod de byañ rcoñ/* (l. 47). The latter passage confirms Thomas' reconstruction of *kho de* as **khod de*. The meaning of the clause remains unclear.

¹⁷⁹ One would expect delative *las* instead of the attested *la*, but the meaning of the phrases is clear.

¹⁸⁰ In OT funeral texts *skyibs lug* sometimes acquires the attribute *mar ba*, sometimes other animals referred to as *mchal mar* or *grwa dp(h)uñ mar* are mentioned. For examples see Bialek (2018a: 1.404ff.). In Pt 1042: 138 *skyibs lug* is mentioned together with *mchal mar*.

¹⁸¹ According to Pt 1042: 113, *skyo ma* 'dough' was offered during funeral rituals.

¹⁸² Cf. *skyi bdag(i) bcun mo* (Pt 1068: 61 & 64), *rgya bdag bcun mo* (Pt 1285: r118), and *bal bdag bcun mo* (Pt 1285: r145).

¹⁸³ *bzu* is attested in modern dialects with the meaning 'to twist a thread' (CDTD.V: 1105).

¹⁸⁴ Jäschke glosses *bran* as 'to pour out' (381a). CDTD.V:660 includes The [pʃəwəŋ] as a variant of [tʃəŋ] with the gloss 'to pour (h)' but identifies it with WT *ydren/drans/drañ/droñs*. My translation is purely contextual.

Father's funeral was not prepared.

Father's grave was not erected.

Regarding the father Sten-rgan-ñar-pa, because [his] body, from *mgur ču* downwards, had sunk into the abyss [of] the earth, [he] ceased to exist (lit. was no [more]).

(b)

| | | | | |
|------------------------------------|---------------------------------|------------------------------|------------------------------|--|
| <i>pha+yab-ki</i> | <i>žal-nas</i> | | | |
| father+father.HON-GEN | mouth.HON-ELA | | | |
| <i>bu gyim+po+ñag+čig</i> | <i>phayi</i> | <i>drin</i> | <i>ma-{bzos}-na</i> | |
| son Gyim+po+ñag+čig(ABS) | father:GEN | favour(ABS) | NEG.PST-ACT.PFV:remember-INE | |
| <i>sman+dags-(v99) [-]-dañ</i> | <i>mchuñ-ste</i> | | | |
| <i>sman+dags-COM</i> | <i>be_like-GER</i> | | | |
| <i>gañs-ki</i> | <i>ltoñ-nas</i> | <i>sky{e}so</i> | | |
| glacier-GEN | summit-ELA | be_born:PFV:FNL | | |
| <i>mayi</i> | <i>drin</i> | <i>ma-{b}zos-na</i> | | |
| mother:GEN | favour(ABS) | NEG.PST-ACT.PFV:remember-INE | | |
| <i>bya khu+byug-(v100) [-]-dañ</i> | <i>mchuñ-ste</i> | | | |
| bird cuckoo-COM | <i>be_like-GER</i> | | | |
| <i>čaň-dañ</i> | <i>gž{e}ñs¹⁸⁵-na</i> | <i>skyeso</i> | | |
| nest-COM | country-INE | be_born:PFV:FNL | | |
| <i>yon-kyañ</i> | <i>phayi</i> | <i>śid</i> | <i>thoñ śig</i> | |
| but-ADD | father:GEN | funeral(ABS) | prepare:IMP-IMP.PTCL | |
| <i>yab-(v101)-{ki m}dad+rmañ</i> | <i>chugs-śig</i> | <i>gsuñ</i> | | |
| father.HON-GEN | funeral+grave(ABS) | erect:IMP-IMP.PTCL | say.HON(ACT.IMPR) | |

The father said: ‘Son Gyim-po-ñag-čig, if [one] did not acknowledge the favour of [one’s] father, being like a *sman dags*, [one] is born from the summit of a glacier. If [one] did not acknowledge the favour of [one’s] mother, being like a cuckoo bird, [one] is born in a nest and in the country. Still, **prepare** the funeral for the father! **Erect** the grave for the father!’ Thus [he] said.

The passages are enigmatic, to say the least. However, they use distinct forms of two verbs which can be juxtaposed as follows:

| | | | |
|------------|-------------------------------|-----------------------------------|----------------------------------|
| | $\sqrt{tañ} \sim \sqrt{teñs}$ | | $\sqrt{tsugs} \sim \sqrt{dzugs}$ |
| DPASS | <i>gtañ</i> | ‘be prepared’ | <i>gzugs</i> |
| SPASS/NPST | <i>myi theñs</i> | ‘is not prepared’ | <i>myi chugs</i> |
| SPASS/PST | <i>ma theñs</i> | ‘was not prepared’ ¹⁸⁶ | <i>ma chugs</i> |
| IMP | <i>thoñ śig</i> | ‘prepare!’ | <i>chugs śig</i> |
| | | | ‘erect!’ |

I agree with Zeisler who related *theñs* to CT *gtoñ/btañ/gtañ/thoñ* (2004: 126). However, in accordance with the above reconstruction of the OT verb inflection, I interpret *theñs* as a stative

¹⁸⁵ Thomas provides two possible readings of the syllable: *gžibs* or *gžins* (1957: 39). His proposal to interpret *gžibs/gžins* as *gžis* ‘land, estate’ doesn’t make much sense in this context. On the other hand, *gžens* is glossed as *ljoñs* in BDSN (*apud* Mimaki 1992: 489b). On this basis, I read *gžens*, which was an apparent derivative of *žen* ‘breadth, width’ (J: 478a).

¹⁸⁶ English does not distinguish between stative and dynamic passive. In German the literal translation of the three first forms of the verb $\sqrt{tañ} \sim \sqrt{teñs}$ would be: ‘wird vorbereitet’, ‘ist nicht vorbereitet’, ‘war nicht vorbereitet’.

passive form ‘to be prepared’, derived from the original ACT/IMPR v1 **theñd*. The original stative passive **thoñs* was re-interpreted as imperative and lost the suffix *-s* (still alluded to in the allomorph *sig*) after the suffix *-^os* had split into the imperative *-o-* infix and the stative passive *-s* suffix. This, accompanied by the formation of a new v1 *gtoñ*, caused a restructuring of the verb-family:

| | | | v1 | v2 | v3 | v4 |
|----|-------|-------|---------------|-------------|-------------|---------------|
| PT | | √taŋ | <i>*theñd</i> | <i>btañ</i> | <i>gtañ</i> | <i>*thoñs</i> |
| OT | TR | √taŋ | <i>gtoñ</i> | <i>btañ</i> | <i>gtañ</i> | <i>thoñ</i> |
| | SPASS | √teŋs | <i>theñs</i> | | | |

Table 1

Synchronically *gtañ* and **thoñs* were inflected forms of the verb √taŋ in OT, whereas *theñs* was a stem of the verb √teŋs. Thus, in PT the verb-family consisted of only one member – √taŋ, but in OT the verb √teŋs was added to it.

The situation is different with the second verb √tsugs ~ √dʒugs since here the imperative form merged with stative passive. This was caused by the fact that the root vowel of √tsugs was not *-a-* and so could not be replaced by *-o-* in v4 *!chogs*.

Considering the contextual interpretation of the verbs, we observe that none of the stems is used with an agent argument. All clauses have only a patient argument. This agrees with the proposed reconstruction, according to which DPASS v3, SPASS v4 (> v1), and IMP v4 were all monovalent. The v3-stems *gtañ* and *gzugs* were used when the Gyim-po brothers stated the necessity to prepare a burial for their father. In response, Gyim-po-ñag-gčig seems to have been arguing that the burial has not been accomplished (*myi theñs*, *myi chugs*) due to his poverty and weakness. The non-past negation *myi* is applied to refer to the actual situation. What follows is a series of undertakings to prepare the burial. However, because it was the six siblings who undertook the preparations and not Gyim-po-ñag-gčig, animals and objects were qualified as not suitable (*ma ruñ*) and the attempts failed. The negated forms *ma theñs* ‘was not prepared’ and *ma chugs* ‘was not erected’ express the fact that the means did not bring about the completion of the burial as a result of the undertakings. There seems to be little doubt that in (b) the father urged Gyim-po-ñag-gčig to prepare a funeral and erect a grave for him. The v4-stems **thoñs* and *chugs* were used in the imperative construction with the particle *sig*.

Appendix C: Verb inflection in a diachronic perspective

Fig. 6 is a graphic representation of diachronic changes in the verb system as described in Part 4.

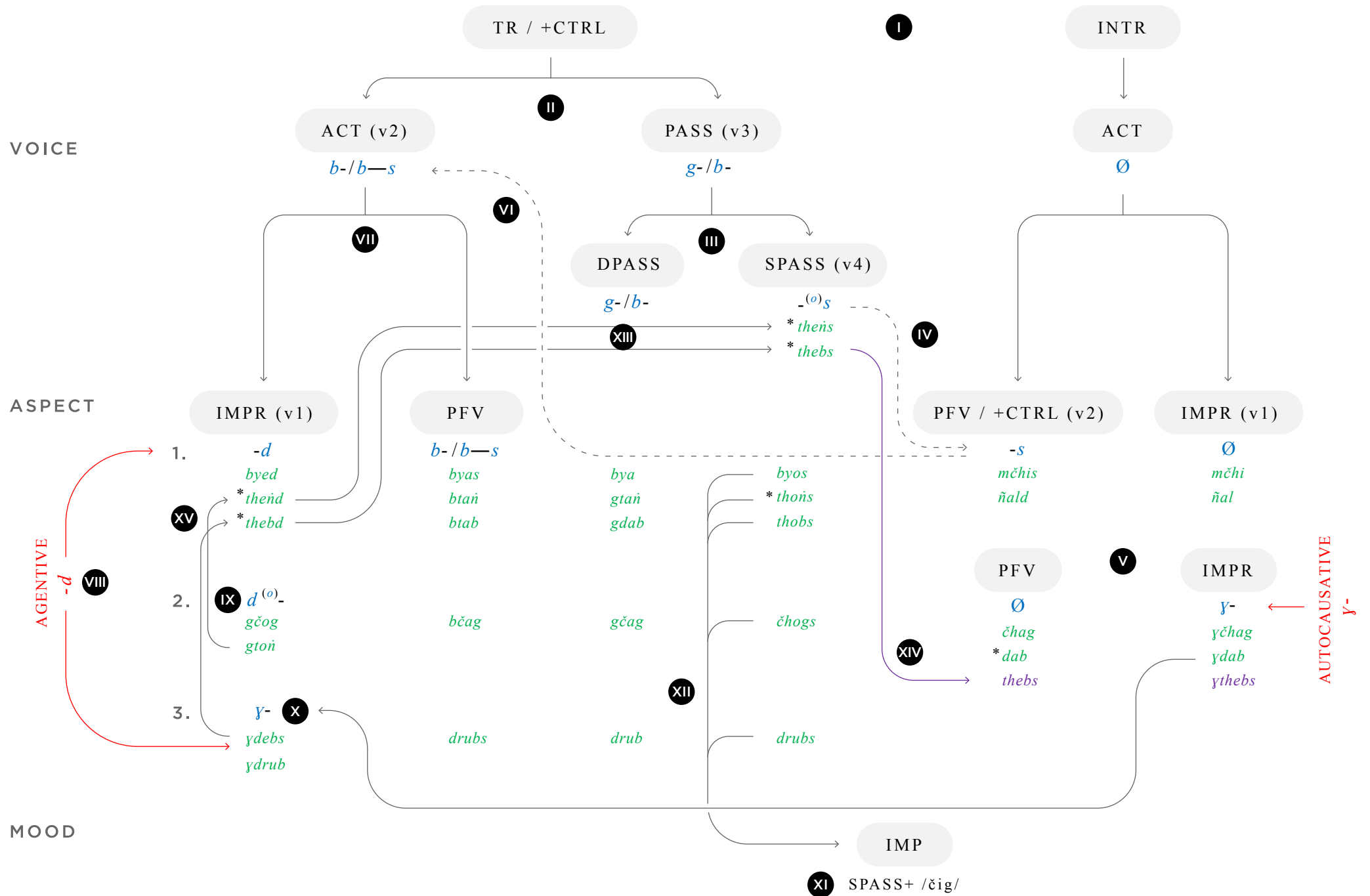


Figure 6