CHAPTER TWO

OVERVIEW OF SINO-TIBETAN MORPHOSYNTAX

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1 SINO-TIBETAN

At the earliest reconstructable stage of the development of the Sino-Tibetan (ST) language family, possibly as much as eight thousand years ago (Thurgood 1994), the proto-language was monosyllabic. Matisoff (1991a: 490) reconstructs the syllable canon as \( \ast h(p) (p) t(c) (t) v(t) (c)(s) \). It is not clear whether the prefixes in some or all cases entailed a vocative element. If so, the structure might have been sesquisyllabic (e.g. as in the name त्रुगा 'Trung/Dulong', the vocative element of the त्र- prefix is very slight).

There was no relational morphology (LaPolla 1990, 1992a, 1993b, 1994b, 1995a, b), but there was derivational morphology in the form of prefixes, suffixes, and voicing alternations of the initial consonants (Wolfenden 1929; Benedict 1972; Pulleyblank 1962–3, 1972, 1973a,b, 1977–8, 1991, 2000; Bodman 1980; Mei 1980, 1988, 1989; LaPolla 1994c; Gong 2000).

Following are examples of several types of derivational morphology.

1.1 *-s prefix

The *-s prefix in most cases had a causativizing, denominative, or 'intensive' (change of state) function (Wolfenden 1929; Pulleyblank 1973a, 2000; Bodman 1980; Mei 1989). Mei (1989) argues all of these functions are manifestations of a more general directive function. For example, Old Chinese (OC) *mj(f)ang (仁) ‘be gone’; *smangs (善) ‘to lose’; OC *mok (墨) ‘ink’; *smak (黑) ‘black’; Written Tibetan (WT) smag ‘dark’; OC *c-rjog (吏) ‘clerk’, ‘minor official’; *srga?- (使) ‘to cause (someone to be an emissary)’, to send; *tshu?- (旅) ‘broom’; *tsr?- (旅) ‘to sweep’; *tshuk (布) ‘to exchange’ *tshug (供) ‘to give’, ‘gift’; WT: grib ‘shade’, ‘shadow’; grib-pa ‘to shade, to darken’; gril ‘a roll’; sgrib-pa ‘to roll together’, ‘to form into a roll’.

1 \( p = \) prefix, \( c_i = \) initial consonant, \( G = \) glide, \( v = \) vowel length, \( c_f = \) final consonant, \( s = \) suffixal *-s, parentheses mark that the item does not appear in all syllables.

2 This list is probably not exhaustive, and the necessarily brief discussion glosses over many controversies and details. As is always the case in attempting to find Sino-Tibetan correspondences, the lack of a single standard for the reconstruction of Old Chinese (ideally based mainly on the comparative method) makes comparative work difficult and more conjectural than would otherwise be the case. What constitutes a cognate set using one reconstruction system might not be seen as cognate using another system. I have here used the system of Baxter 1992, as this is the best system I have found to date, though even this system is in flux (see Baxter 1995; Baxter and Sargent 1998 for discussion of some of the recent changes).

3 In a slightly earlier paper, Mei (1988) argues for reconstructing a voiced initial rather than a prefix.

4 Baxter (1992: 221; following Chang and Chang 1976, 1977) also associates his *N-* prefix (posited to account for characters with phonetic elements that appear in syllables with both stop and homorganic nasal initials) with Tibetan a-chung. Cong (2000) also following Chang and Chang (1976, 1977) associates Tibetan a-chung with a nasal prefix, but uses it to explain the development of Middle Chinese *-d-, items that Baxter now reconstructs with *mi- clusters (e.g. Cong: *N-길/절 (貴), Baxter *-nil/절 (see Matisoff 1995, footnote 1; originally *ル/t/jik in Baxter 1992).

1.2 *Voicing alternation

In both OC and Tibeto-Burman (TB), we find pairs of cognate lexical items which differ phonetically only in terms of the voicing or aspiration of the initial, and differ semantically in terms of transitivity, where the item with the voiced initial is intransitive, and the item with the voiceless initial is transitive. Benedict (1972: 124) discussed this for TB, but argued that in Chinese no consistent pattern of morphological alternation could be recognized. Most scholars now would see the Chinese forms as parallel to the TB forms, and part of a cognate phenomenon. Pulleyblank (1973a, 2000) argues these variant forms should be the result of an intransitivizing prefix *-t- (a non-syllabic pharyngeal glide) which voiced the initial of the original transitive root. Mei (1989) includes this prefix in a paradigm with the *s- directive prefix and the *-s direction of action changing suffix (below). Both Pulleyblank and Mei base the idea for the prefix mainly on the Written Tibetan a-chung (*small a*) prefix (here marked with an apostrophe). Pulleyblank also equates this prefix with the a-normalizing prefix found in Burmese. Baxter (1992) adopts this view in reconstructing Chinese forms, and uses *-s- for the form of the prefix, e.g. *kens (見) ‘see’; *Beens (> *gens) (現) ‘appear be visible’. While this analysis is attractive from a systemic point of view, Benedict (ibid) points out that the prefixing and the voicing alternation in Tibetan are two different phenomena that interact in the specialization of different forms as ‘present’, ‘perfect’, ‘future’ and ‘imperative’, such that the present and future forms have the voiced initial and are intransitive or durative, while the perfect and imperative forms have the voiceless initial and are transitive or active. As an example, for the verb ‘put off, pull off, take off’, we have present ‘bud-pa and future ‘bud’, which derive from an intransitive stem *bud, and perfect and imperative phud, which derives from the transitive stem *phud. Evidence that it is not the a-chung prefix that is involved in the contrast in Tibetan is the fact that in many cases both forms of a pair of contrasting forms have the prefix, e.g. Tibetan ‘gril-ba ‘to be twisted or wrapped round’; ‘tshi-ba ‘wind or coil round, embrace’. Bodman (1980: 54) also mentions that he did not find any Tibetan-Chinese cognates where prefixation or lack of it in Tibetan corresponds with the voicing distinction in Chinese. We also find the voicing alternation in TB languages independent of prefixation, e.g. *kh(ri)jog (込) ‘bend’, ‘bent’; *khir(ri)jog (*g(ri)jog) (込) ‘compressed’, ‘bent’; *verved (body) ‘Bhing vuk ‘make bend’; yuk ‘to be bent’ (TB *vuk = *yuk; Benedict 1972: 125). Pulleyblank’s association of the voicing distinction in Chinese with the a-prefix in Burmese is also problematic, as the latter is a nominative, not an intransitivizer, and is independent of the voicing distinction, e.g. Burmese phie ‘break off a small piece from a larger’; ‘crumble’; pai ‘to be broken off’, ‘chipped’; (cf. also that Qian Qie-pe ‘tear (clothes)’; de-pe ‘torn’ (TB *pe- *pe; Benedict 1972: 59) (OC *phais (破) ‘to break’; *paj (破) ‘torn’). Other examples: OC *pros (破) ‘to defeat’; *tbruts (*brats) (敗) ‘to be defeated’; *kru (破) ‘to destroy’. ‘ruin’; *kru (破) (破) ‘to be ruined’; *tjiang (兵) ‘grow tall’, ‘increase’; *tjiang (兵) (兵) ‘long’; Bodo ben ‘to be straight’; *paj (破) ‘to make
straight' (TB *bleg - *bleg, OC *brig (平) 'level'). It seems there are intrativizing (and nominalizing) prefixes in PTB and possibly STC, but these are represented by WT *- (e.g. mkho-ba 'desirable', 'to be wished for': 'khao-be 'to wish, to want'; Wolfenden 1929: 27 - notice the a-chung in the active form), and possibly *b- and/or *g-, e.g. T'run gur (to tear down) (e.g. T'run gur (to tear down)): gub (to fall down) (there is also a separate intrativizing/stativizing prefix in T'run as well: tsh (roll) (vi) > sta-t (roll) (vi) (LaPolla 1995c; see also LaPolla 2000a)). These are independent of the voicing alternation. Quite a few scholars have assumed that the *-s causative prefix was responsible for all of the voicing distinctions now found in the family (e.g. Dai 2001), but, while this is true for some languages, particularly within Lolo-Burmese, the examples given in the discussion of this and the previous section show that the two are separate phenomena.

1.3 *s suffix

The *s suffix most often has the function of transitivizing an intransitive verb, as in WT gbye-ba 'open', 'separate' (vi): byed-pa 'open', 'separate' (vi), Rawang na 'weep': smi 'mourn', 'cry for someone (vi)', but in some cases seems to nominalize intransitive verbs, as in WT gu-mo 'weep': pad-mo 'a sob' (see also Benedict 1991), and in still other cases seems not to have any affect on the valency, e.g. WT gi-ba, giel 'to urinate'; tka word 'speech', skad 'speech' (for other examples and discussion, see Benedict 1972: 98–102; Dai and Xu 1992; Michailovsky 1985; van Driem 1988; Jin 1998a). In Chinese we find pairs of related forms that differ only in the final consonant, but no clear derivational pattern can be determined, e.g. *njij (vi) 'near', 'close': njii (vi) 'intimate', 'familiar'; 'glue' (from Pulleyblank 1972: 11; this set is cognate with WT nye 'near', yien 'relative').

1.4 *n suffix

The *n suffix generally had a nominalizing function, e.g. WT rku 'steal': kun-pa 'thief'; nye 'near', yien 'relative', but in some cases seems to have had a collective sense (Benedict 1972: 99f), e.g. Proto-Tibeto-Burman (PTB) *r-mi 'person': OC *njim (民) 'the people'. Pulleyblank (1972, 2000) also suggests that Proto-Sino-Tibetan (PST) had a morphological *n suffix (as well as a *-t suffix), which could explain the correspondences among pairs such as *nja (言) 'speak': *njan (言) 'say'; 'word' (see also Jin 1998a for more examples). Following Graham (1983), Pulleyblank argues that the *n suffix marks a durative or continuative aspect, and *-t marks a punctual or perfective aspect. Normao (1988: 96) argues that the forms *njin (矣) and *njin (矣) are fusions of *nja (矣) and *nrija (矣) and an *-n initial pronoun, possibly *nja? (矣) or *njaj (矣). While a demonstrative may have been the ultimate origin of the *n suffix, it seems this *n suffix, and not the result of a chance fusion of isolated lexical items. Especially when we see the patterns of variants, it is hard not to assume there was some systematicity to it, e.g. *nja (矣) 'like': *njian (矣) 'like this': *njyk (矣) 'like that'. There is also *?a

5 Although not often explicitly mentioned, except by Jin (1998a, b), the idea is that some of the final pairs we find or words are etymological, while others are affixed. Here we are only talking about affixation.

1.5 *-s suffix

The *-s suffix generally had a nominalizing function (Pulleyblank 1973b; Mei 1980, 1989; where the derived noun is the patient of the action represented by the verb, but also had a function that Mei (1980, 1989) and Schuessler (1985) have characterized as 'change of direction' or 'inversion of attention flow' respectively. Mei (1980) suggests these two functions derive from two different homophonous suffixes, which he equates with the Tibetan derivating and ablative suffixes respectively. In Modern Chinese this suffix is now reflected in the 'departing' tone. In some cases, the addition of the suffix resulted in the creation of a new Chinese character, but in many cases there are simply two pronunciations for the same character. For example OC *C-rjang (量) 'measure': *C-rjangs 'an amount': WT *tang-ba 'to number', 'to count'; tangs 'a number'; OC *tja (綿) 'weave': *tjaok 'thing woven': WT *taj-pa 'to weave': thags 'textures': 'web'; OC *nup (納) 'bring in': *nups (納) 'inside'; *mres (販) 'buy': *mres (販) 'sell'; *duj (授) 'to receive': *dijis (授) 'to give'.

1.6 *j suffix

Maisoff (1989, 1995) discusses etyma that show palatal-final and non-palatal-final variants, and posits three different sources for variants with morphological differences: PST *-jaway = *-yuy 'go': 'motion away', for translative motion/motion away from the deictic centre or emergent quality in stative verbs; PST *ya (牡) = *tsa (牡) 'gza (牡) 'child', 'son' for a diminutive or affective sense; and PST *way = *ray for nominalization, subordination, or other grammatical functions. The clearest examples are in the system of pronouns, for where the first person pronoun we get PTB *paj: OC *paj (晩) = *paj (我).

6 The usual reading of this last character when used as an interrogative pronoun is *?a, but it is written using a character that is in other contexts pronounced *?ak. If it is the same pronunciation as the one otherwise written (馬), it seems odd to use a character that normally is read with a stop final.
1.7 *-? suffix

Chinese seems to have had a glottal stop suffix which developed into the rising tone category, e.g. *trjang (張) 'to make long', 'stretch'; *trjang (張) 'grow tall', 'increase'; 'elder'; *wak (覀) 'someone'; *wajok (有) 'there is'; *jak (患) 'each'; *k(rlj)akl(¥fi!) 'all'. In these last two examples I am assuming that the suffix caused the loss of the root final consonant, just as is assumed to have happened with the *s suffix (Baxter 1992: 323ff.; cf. also Bodman 1980: 132), but this assumption is not widely accepted. An alternative possibility, discussed immediately below, is that there was a *k suffix. Glottalized forms do appear in some TB languages (e.g. Gyalrong, T'rang), but it is not clear that there is any relation between the forms in these languages and those in Chinese.

1.8 *-k suffix

There may have been a *k suffix as well, as we find a large number of lexical items in both TB and Chinese that have open final and *-k final variants, e.g. TB *yu(w) : *yuk 'descend' (Benedict 1972: 101); OC *mirije (無) 'there is not': *mak (莫) 'no one'; *djii (誰) 'who'; *jiuk (缺) 'which one'. This possibility was suggested by Pulleyblank (1972: 13, 1973a: 122) as an explanation for some of the pairs given above as examples of the glottal stop suffix: *wujok (有) 'there is'; *wak (覀) 'someone'; *k(rlj)akl(¥fi!) 'all'; 'lift': *jak (患) 'each'. Pulleyblank only discusses this in relation to pronominal forms, and says the suffix marks a distributive sense. There is also the set *nya (如) 'like'; *nijk (像) 'like', 'that' mentioned above. As the largest number of variants involve the difference between an open final and a *-k final (63 out of 99 rhymes in the Book of Poetry where the finals differed, as marked in Weng 1980; see LaPolla 1999c for discussion), it may be that there is more than one explanation; some velar stop finals may have dropped due to the influence of the glottal stop suffix, and some may have been the result of a *k formative suffix (see also Jin 1990b). If PST had a particle similar to Tibetan -ga, which Das (1902: 203) says 'is sometimes used as an affixed particle to a word to complete it', then this would be at least one explanation for the large number of *-? - *-k variants.

It has long been known that within Sino-Tibetan we must deal with word forms rather than isolated words (Karlgreen 1956; Wolfenden 1936, 1937, 1939). Given what we now know about these derivational processes, we can see clearly how the word forms are created. These forms seem to have formed paradigms (sets of choices), but of derivational possibilities rather than inflectional possibilities. Following are two examples (from Baxter 1992: 317 and 324 respectively; see also Mei 1989): *kat (著) 'to injure', 'to harm' (vi): *fikat (*gats (著) 'harm', 'injury' (n); *trjang (張) 'to make long', 'stretch' (vi): *trjang (張) 'grow tall', 'increase'; 'elder' (intransitive active verb): *ftrjang (*trjang (張) 'long' (stative verb). Aside from the suffixes mentioned above, Mei Tsu-lin (personal communication, November 1994) has suggested some of the frequent variations found in Chinese between homorganic stop and nasal final might be due to Chinese having had suffixes similar to WT -ma and -pu (which have both gender marking and formative functions). The nasal-initial suffix would cause a final stop to nasalize, while the stop-initial suffix would de nasalize a final nasal.

7 Our answer to this question will affect our understanding of certain word families. For example, Pulleyblank (1991: 30) suggests that *k(tr)ja (著) 'all'; 'lift' as an allotam *kJat (著) 'lift' (and so the latter would involve a *-t suffix). This set would stand only if we assume the root did not originally have a *-k final.

We see this sort of development with the diminutive in some dialects of Chinese, where the diminutive suffix reduces to a nasal element (e.g. in Wenzhou, and some areas of Anhui, Zhejiang, Guangxi, and Guangdong), and in some cases nasalizes final stops, e.g. in Xinyi of Guangdong, the nasal suffix *n causes final -p, -t, and -k to become -m, -n, and -n respectively, as in *pu 'duck' > am 'duckling'. Certainly the use of reflexes of PTB *pa (and to a lesser extent *ma) as a gender marker and as a nominalizer (usually producing an agentive noun) is widespread throughout TB, though there is the possibility that many of these were independent parallel developments, such as in the case of the frequent development of diminutives from a word meaning 'son' or 'child' (Matisoff 1995), and of causatives from a word meaning 'make', 'cause', or 'send' (LaPolla 1994b). In Chinese the form *trjat (天/夏) was used as an extra-syllabic suffix for creating agentive nouns, just as in TB (e.g. *din trjia (田天) 'farmer'), and this may be the cognate of PTB *pa.

In terms of clausal morphology, there may have been a clause-final question particle *la, as there is evidence for such a particle in several languages across the family: OC *lia (強). Newar lā, Burmese lā, Meithei la (Matisoff 1995: 73-4). As mentioned above, though, the Chinese form has been said to be a fusion form, from *le hwa (邑) (Norman 1988: 95).

Unmarked clausal negation in PST took the form of a preverbal particle *ma. For PTB we can also reconstruct a prohibitive (negative imperative) particle *ta- (see ex. (1) below) for a Lahu example, but this is not found in Chinese. Chinese instead had two negative imperative particles *mja (你), which was homophonous with the unmarked negator but written with a different character, and *mja (或), which is often assumed to be due to fusion of the negative *mja with another particle (assumed to be the demonstrative pronoun *tja (這)).

Most languages in the family have not grammaticalized grammatical relations, but many have grammaticalized semantic marking. For detailed arguments against the existence of syntactic functions in particular Sino-Tibetan languages, see Andersen 1987 (Classical Tibetan), Bhat 1991 (Manipuri), and LaPolla 1990, 1999b (Chinese). See also the discussions of Lisu in Hope 1973, 1974 and Mallison and Blake 1981. Benedict (1972: 95f) also expressed the view that relational morphology was not part of the grammatical system of PTB. A corollary of the fact that very few languages have grammaticalized grammatical relations is that there are few true passive constructions in the family. As the order of NPs is generally determined by pragmatic factors, variations of word order can affect the interpretation of utterances in a way similar to the effect of passives.

Classifiers were not part of PST, but evolved individually in quite a few of the languages in the family (see for example Xu 1987, 1990; Dai 1994, 1997a, b for prosodic reasons for some languages developing classifiers, and some not). There was no definite marking in PST, and only a few languages in TB, such as Qiang (see LaPolla forthcoming) have developed something that can be considered as definite marking (in the case of Qiang, the marking seems to have developed from classifiers). Several languages that have developed
classifiers, both in TB and among Chinese dialects, have developed a use of the classifiers that resembles definite or specific marking. This generally involves use of the classifier without a numeral, e.g. Rawang lethi tiq bok [book one CL] 'one book', lethi bok 'the book', Cantonese yar5 ga13 che35 [one CL vehicle] 'one car', ga13 che35 (roughly) 'the car'. This feature is an areal feature of part of Southeast Asia (Baron 1973).

In terms of word order, all ST languages have GENITIVE-HEAD order and MODIFIER-MODIFIED order in N-N structures (the former is actually a subcase of the latter in PST). All ST languages have RELATIVE-NOUN order (Karen also has a less productive post-nominal relative clause – Solnit 1997: 249ff). Originally there were no nominalizers or relative markers in relative clauses, but various languages have developed one or the other since that time. In cases where the relative clause is nominalized, this construction then is also a subcase of the N-N modifier-modified construction. It seems the original position of attributes was after the head, but in many languages (e.g. Burmese), the attribute can be nominalized and appear before the head. This then becomes another subcase of the N-N modifier-modified construction. The overwhelming majority of ST languages have NEGATIVE-VERB order, and where there is a deviation from this, the pattern is either due to reinforcement of the original negative, as in Karen, or due to the grammaticalization of a post-main-verb negative verb out of a negative-auxiliary verb combination. We can therefore assume MODIFIER-MODIFIED order in N-N structures, and GENITIVE-HEAD, HEAD-ATTRIBUTE, NEGATIVE-VERB, and RELATIVE-NOUN word order patterns for PST. At present, the Sinic languages (Chinese dialects), the Karen languages, and Bai have an unmarked post-verbal focus position (rather than an immediately preverbal unmarked focus position as in the other languages), and so the patient argument often appears in post-verbal position in the clause. From the fact that we can clearly see changes in the word order of these three languages over time, and cannot see such changes in the Tibeto-Burman languages other than Bai and Karen, we assume that it was Bai, Karen, and Chinese that changed rather than all the other Tibeto-Burman languages. As argued in LaPolla 1993a, these three languages show a remarkable similarity in the particular patterns they developed. In Old Chinese, the verb-medial order (which implies a post-verbal position for unmarked focus) was the unmarked word order, but there was a marked verb-final word order pattern used for contrastive focus that seems to be due to an earlier preverbal focus position. In Karen and Bai, we have the same situation as in Old Chinese in terms of the major constituents: unmarked verb-medial order, but NP-NP-V as a marked word order possibility. What is significant is that the conditions on the use of the marked word order pattern in Pai are almost exactly the same as those of Old Chinese: it is used when the second NP is a contrastive pronoun or when the sentence is negative or a question (Xu and Zhao 1984). Also interesting about the use of the different word order patterns in Bai is the fact that the older people prefer the verb-final order, whereas the younger and more Sinicized people prefer the verb-medial order (ibid.). This would seem to point to the change in word order pattern as being relatively recent. Karen (Solnit 1997; this volume) has some similar word order patterns, with genitives and nominal modifiers coming before the noun, and number and classifier follow the noun, while adjectival and verbal modifiers (i.e. relative clauses) can follow the head. Karen does not appear to have a preverbal focus position; from the data in Solnit 1997, it seems that focus position is sentence-final as in Modern Chinese. In terms of phrase-internal order, Karen is very similar to Old Chinese, differing mainly in terms of having HEAD-ATTRIBUTE order as the unmarked word order, as opposed to Chinese, which has it only as a marked order. Karen and Bai differ from most of the rest of the Tibeto-Burman languages mainly in terms of the position of the NP representing the undergoer referent and in terms of having prepositions. Based on the relative frequency of patterns and patterns of change witnessed in some languages, we can assume PST also had the following word order patterns: DEMONSTRATIVE-HEAD, HEAD-NUMBER, NOUN-ADPOSITION, and STANDARD-(MARKER)-ADJECTIVE (see LaPolla 1993a, 1994a; also Dryer, this volume).

2 CHINESE

In Chinese, there was a gradual loss of productivity of the derivational morphology sometime around the formation of the characters (roughly 3500 years ago), and the language became more isolating. A gradual change occurred in the word order and information structure pattern to verb-medial word order and post-verbal focus position (LaPolla 1993a). There has been no grammaticalization of relational relationships; the basic structure of the clause is topic-comment rather than subject-predicate (Chao 1955, 1959, 1968; Lyu 1979; LaPolla 1990, 1993b). Information structure is the chief determinant of word order in Chinese (LaPolla 1995d). The prepositions now found in the language all derive transparently from verbs. In the past there was an assumption among Chinese linguists that the grammar of all the dialects is roughly the same, and so until recently little serious work was done on the grammar of the dialects. With the work by Anne Yue-Hashimoto (1993, this volume), Huang Borong (1996), and Chappell (2001), serious investigation of the grammar of the dialects has begun, but much more needs to be done to understand the differences between the dialects, particularly in more difficult-to-understand areas such as information structure and its relation to grammatical structure. As Yue (this volume) and Ho (this volume) give us an overview of modern dialect grammar, I will not say more about this, and devote the rest of this chapter to the Tibeto-Burman languages.

3 TIBETO-BURMAN

After the split-up of Sino-Tibetan into Sinitic and Tibeto-Burman, there were a number of developments in the realm of grammar, some of which have areal coverage, some of which are subgroup specific. I will first discuss the different groups and some of their characteristics, and then some more general morphosyntactic phenomena.

3.1 Language groups

Based on morphological paradigms and migration history (LaPolla 2000b, 2001), I divide TB into the following groups:10

The Bodic group: Tibetan and the other languages, such as Tamang, Gurung, Lepcha, Dzongkha, and Newar (Newari), derived from the original migrations west into Tibet and then later migrations south down into Nepal, India/Sikkim, and Bhutan; in terms of morphology, this group is characterized by an *-s ablative/ergative suffix on nouns (see LaPolla 1995a). Non-classification morphological features include development of a conjunct-disjunct system in some languages (see for example Hale and Watters 1973: 207ff. on Jirel, Newar, and Sherpa; Hale 1980 on Newar), and a lack of a bound pronominal person marking system or reflexive/middle marking.

10 These groupings are not definitive, as much more work needs to be done on comparing the morphology (rather than random samples of words) to prove genetic relatedness (see LaPolla 2000b for arguments). For earlier hypotheses on the genetic groupings, see Benedict 1972; Burling 1983; Dai et al. 1989; DeLancey 1987; Maisoff 1990, 1991a; Shafey 1955; Sun 1988; Thurgood 1984, 1985; Bradley 1997.
The Qiangic group: Qiang, Pumi, Shixing, Ergong, Daofu, Queyu, Guiqiong, Muya, Namyu, Zaba, and possibly a few others, the speakers of which migrated only a short distance from the original ST homeland in Northwest China (these languages are now spoken in Sichuan and Yunnan Provinces, China). Languages of this group characteristically have a set of 3-10 directional prefixes on the verb, marking action up, down, up-river, down-river, inward, outward, towards the speaker, away from the speaker, and sometimes towards the mountain, away from the mountain, although the actual forms of the systems in different languages do not all correspond in any clear way (see Sun 1981, Huang Bufan 1991). They have cognate person marking systems which often have an actor/non-actor contrast (as opposed to a hierarchical system as in many other TB languages). The exception would be Tangut, if this language is in fact to be included in the Qiangic group (Sun 1991, 2001), as the very simple person marking system there is clearly hierarchical (see Ebert 1987; LaPolla 1992a). It may be that the Qiangic system was originally hierarchical and later developed into an actor/non-actor system, as it seems this system may be related at a very deep time depth to the system of the Rung group (below), which is clearly hierarchical. These languages generally have evidential systems, but it is not clear if there is any cognacy among the systems. The case markers fill similar categories, but generally are not cognate. See Sun 1982, 1985, 2001, Huang Bufan 1991 for more on this group. Sun (1982, 1983, 2001), who first established the Qiangic group as a group, includes rGyalrong as part of the group, but the relation of rGyalrong to the Rawang and Kiranti groups is much clearer than that to the Qiangic group. The similarity rGyalrong shares with Qiangic may simply be areal influence.

The Rung group: rGyalrong, T’rung (Duong), Rawang, Kiranti, Kham, and Western Himalayan (Byangsi, Darina, Chaudangsi, Kinauri), languages that (except for rGyalrong) migrated down along the eastern edge of the Himalayas and then across Burma and into Northern India and Nepal. These languages have clearly cognate complex person marking systems, and all but rGyalrong have a *-si reflexive/middle marker on the verb: 31

<table>
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<tr>
<th>Proto-rGyalrong</th>
<th>1sg</th>
<th>1pl</th>
<th>2pl</th>
<th>dual</th>
<th>refl/middle</th>
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<td>*lsg</td>
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<td>*li</td>
<td>*li</td>
<td>*lsh</td>
<td>*lisi</td>
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</table>

Within this group then, there is a branching where rGyalrong splits off from the others, as it does not share the innovation of the reflexive/middle marking. This accords well with the migrations assumed. A second branching of Western Himalayan off from Rawang and

11 Ebert (1996) has argued for a Kiranti-rGyalrong-Rawang genetic grouping (see also Thurgood 1985), based largely on the person marking systems; I am including also Western Himalayan in this grouping, based on the person marking and the reflexive/middle marking (LaPolla 2000b). See also Gierson (1909, vol. III), for particular characteristics shared between the Western and Eastern Himalayan pronominialized languages not shared by the Tibetan languages, and Watters (1975: 50) for discussion of the 'remarkable similarities' between the pronominals and subject marking systems of the eastern (now including Kham) and western Himalayan pronominialized languages. Chang and Chang (1975) also argued for a close connection between rGyalrong and T’rung. The name Rung was coined by Thurgood (1984), but used for a somewhat larger grouping of languages. That original grouping is no longer recognized, and so I have used the name for this grouping.

12 Thurgood (1984) discusses the fact that rGyalrung, T’rung, and Kham all have a preverbal yes-no interrogative particle *ma- (< PTB *ma ‘negative particle’), and argues this is a shared innovation (a reduction of an alternative (A not A) question) that points to a common parent language. If only these three share this innovation, it would cloud the picture presented above, unless there was an assumption that this form was lost in Kiranti, just as it is now being lost in T’rung.

13 The Rawang people feel that the speakers of the Tani languages are related to the Rawang people, being simply a further extension of the Rawang migration west. They point to the name Aber as evidence (Aber is a Rawang clan name), and tell stories of Rawangs who have been to India and can speak in Rawang with the people there and be understood. Given the major differences in the languages, this would seem unlikely.
The Bodo-Konyak-Jinghpaw group: This group, which includes the Luish, Bodo-Garo, Koch, Konyak, and Jinghpaw/Singpho languages (Burling, this volume), was given central importance by Benedict (1972: 6) partly because of its central geographic location. There are early Chinese records that seem to point to the Jinghpaw having been in northern Burma in the early part of the current era, but there is nothing definitive on their time of arrival. A number of linguists have grouped Rawang and Dulung (the so-called Nungish languages) with Jinghpaw, but I do not find a pattern of shared innovations that would lead to seeing them as forming a group. While Jinghpaw does have a person-marking system, it is not cognate with that of the Rung group. Resemblances between the languages seem to be due to shared retentions rather than innovations, or due to long-term contact. Within the larger grouping, only Nocte and Jinghpaw have person marking systems, and they do not appear to be cognate.

Aside from these genetic groupings, and a split in prosodic type between a Southeastern iambic stress area and a Northern trochaic stress area, there are two other broader areas of language contact, the Indo-sphere and the Sino-sphere (Matisoff 1990, 1991a). These terms refer to whether the languages are more influenced by Indic languages and culture, or by Sinitic languages and culture. There are certain features that we frequently find in languages in the Indo-sphere that we do not find in the Sino-sphere. In phonology we find, for example, the development of retroflex stop consonants. In syntax we find, for example, post-head relatives or correlates of the Indic type (relative clauses are generally pre-head and without relative pronouns in Sino-Tibetan languages). In Sino-spheric languages we often find the development of tones. Contact with Chinese can also result in monosyllabicity and an isolating structure (the most extreme example of this is Vietnamese).

3.2 Person marking

Several branches of TB have independently innovated person marking, possibly due to areal influence (LaPolla 1992a, 1994b, in press). The marking develops from copies of the free pronouns becoming prefixed or suffixed to the verb. Even groups that do not normally have person marking systems, such as Karen and Naga, have recently developed such systems in some dialects (see for example the Delugong dialect of Saw Karen discussed in Dai et al. 1991). The pattern discussed most often is that of the Rung group, because of its wide geographic distribution. This pattern has been associated with the Tangut pattern, but it is not clear whether the Rung pattern developed out of the simpler Tangut pattern (1sg *mr, 2sg *nr, 3pl *nt) (the same forms as for the free pronouns), first and second person plural nmr. Attempts to associate the Rung pattern with other patterns in the family and reconstruct it to PTB have been unsuccessful (see LaPolla 1992a for discussion).

3.3 Multiple existential verbs

In a number of unrelated languages we find a pattern of multiple existential or locative verbs, with the difference between them being, if there are only two, as in Idu (Sun 1983a: 72) a difference between an animate (Idu iti) and an inanimate (Idu kha) referent. A language may have as many as seven different verbs with distinctions between the verbs being of the type animate vs inanimate, abstract vs concrete, location within a container vs location on a plane, and others. For example, Hani has a general existential dpa, an existential for people and animals dpo, an existential boli for people and their organs, dsi for liquids, dsi for general animate, kxi for existence within a group, and one existential verb, si, which is used only in the poetic language (Li and Wang 1986: 54). In Queyu there are seven existential verbs (Wang 1991: 61): tfa, for animals; ko for location in a vessel or certain area; co for non-movable objects; ci for movable objects; lo for an object mixed up in another object; ru, for abstract objects; and fit, for possession by a person. In Zaiwa (Xu and Xu 1984: 80–1) there are six existential verbs, two of which are specialized for animate beings and can be causativized: nji, which seems to mark the existence or long-term location of animate beings and has the causative form nji, for short-term location of animate beings and has the causative form luo, for possession by a person; tfe, for inanimates; po for containment within a vessel; and lop, for roads and footprints. Other languages that have this feature are Jinghpaw, Apatani, Tamang, Naxi, Nusu, Pumi, rGyalrong, Qiang and most of the other Qiangic languages. While some of the categories of existential verbs correspond among the languages, particularly within Lolo-Burmese, such as ‘containment in a vessel or area’ (Hani ko, Zaiwa po), ‘possession by a person’ (Hani lop, Zaiwa po), the forms used in these languages are clearly not cognate.

3.4 Causative marking

The PST *s- causative prefix and voicing alternations are no longer productive in most TB languages, and so languages throughout the family (more than eighty languages and dialects I have counted) have innovated analytical causatives, usually by serializing a verb meaning ‘send on an errand’, ‘entrust with a commission’, ‘make’, ‘do’, or ‘give’ to create a causative construction (Matisoff 1976, 1991b; LaPolla 1994b). For example, in Lahu the verb ci ‘send on an errand’ is used to create causatives, as in Johnny thà? qay-ci-ve [OBJ go-CAUSE-PART] ‘Make Johnny run’ (Matisoff 1976: 418). Though occasionally different languages will use cognate verbs to form such causatives (e.g. Lahu and Burmese), the pattern cannot be reconstructed to even some of the lower (e.g. the Proto-Lolo-Burmese) levels; it must have been independently grammaticalized in each of the languages (Matisoff 1976). Even among the very closely related languages and dialects of Northern Burmish we find radically different forms used for causative marking: Longchuan Achang xu, Xiandao Achang xep, Bola na, and Lqii/Langsu i2, in each case we have the independent grammaticalization of a free verb into a post-verbal causative marker.

3.5 Benefactive marking

Another commonly found development among TB languages is the grammaticalization of a benefactive construction. This most commonly takes the form of an auxiliary verb derived from a verb meaning ‘to give’, as in Jinghpaw (-fa), Tamang (pin), Tsangla (bi), Camling (bi), Belhare (-per), and Lahu (pf; for third person benefactives; Matisoff 1991b). As can be seen from these examples, the verb used in this construction is often the PST verb *biy ‘give’, but the constructions themselves were independently innovated. A fully morphological etymologically opaque benefactive such as is found in Rawang, where the suffix -a has
an applicative benefactive function (LaPolla 2000a; e.g. ri-ti-δ-δ (carry-BEN-TR.NPAST-NPAST) '(He is carrying (something) for him') is rare.

### 3.6 Semantic case marking

As mentioned above, there is no relational morphology that we can reconstruct to the PST stage, although there has been grammaticalization of different types of adpositions in every branch of the family (see Hale and Watters 1973; LaPolla 1994b). These adpositions are also often used for subordinate clause marking (Genetti 1986, 1991; Ebert 1993). There is a regular path for the development of adpositions in the family, where locational markers first develop, then these are extended in use to cover other types of relation, in a predictable way along two different paths: ablative > instrumental > manner adverbial > agentive > anterior or causal clause subordinator; locative > dative > patient > purposive, temporal, or conditional clausal subordinator (LaPolla 1995b). Large scale surveys of agentive marking (LaPolla 1994b, 1995a) and 'object' marking (LaPolla 1992b, 1994b) were carried out, and the results indicate that although 106 languages (out of 145) have an agentive marker, and such a marker can be reconstructed to some of the lower level groupings within TB, such as proto-Bodish, there is no form that cuts across the upper level groupings to the extent that it could be reconstructed to PTB. The conditions on the use of agentive marking in each language were also surveyed. The results point to the existence of at least two major types of 'ergative' marking in TB: systemic and non-systemic (or 'paradigmatic' and 'non-paradigmatic'). Non-systemic marking can be seen as a relatively recent development, and has the same function as 'anti-ergative' marking (LaPolla 1992b), i.e. disambiguation of two potential agents. It is used only when needed for this purpose and does not pattern paradigmatically, so is unlike what is normally referred to as 'ergativity'. Systemic ergativity is much more complex, often involving semantic and pragmatic functions beyond simple disambiguation (see for example Genetti 1988; Nagano 1987; Tournadre 1991). Though discussed as two types for expository purposes, these two types, as they are manifested in TB, are actually points on a continuum of types from completely non-systemic to fully systemic, with movement along the continuum (which is unidirectional) corresponding to degree of grammaticalization.

From the survey of 'object' marking in Tibeto-Burman, it was found that out of 126 languages surveyed, twenty-two languages had no nominal object marking, twenty languages had nominal morphology consistently marking the patient as object, regardless of whether the clause included another non-agent argument (i.e. was either transitive or ditransitive), and eighty-four languages, from a broad spectrum of languages in all sub-branches and areas of TB, had a type of marking where the patient in monotransitive clauses is often or always marked with the same postposition as the recipient, or other non-actor argument or other non-actor argument in ditransitive clauses. For example, in the Lahu examples below (Matisoff 1973: 156–7), thàʔ marks a patient argument in (1a), but a recipient argument in (1b).

```
1a. a. qa thàʔ òd òd.  
1sg OBJ NEG.IMP hit  book that 1sg OBJ give
' Don't hit me.'

1b. b. liʔ chi qa thàʔ plʔ.  
 Give me that book.'
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I refer to this type of marking as 'anti-ergative' marking, as the crucial function of this type of marking is to mark an animate argument that might otherwise be interpreted as an actor as being something other than an actor. In this way it is the opposite of the type of ergative marking we find in some of these same languages, which marks an argument as being an actor.16 In those languages that have both types of marking, it is often optional whether to use one or the other or both, but the marking is often not systemic, as it is used only to disambiguate two arguments when that becomes necessary due to the semantics of the referents, the actions involved, or the pragmatic viewpoint (see for example Matisoff 1973: 155–8 on Lahu thàʔ, Wheatley 1982 on Burmese kou). It is especially common for overt marking (either ergative or anti-ergative) to be necessary when the most natural (unmarked) topic, the agent, is not the topic, and instead appears in the preverbal focus position.

Most of the languages have grammaticalized different morphemes to mark anti-ergative arguments, and so while it is possible to reconstruct forms for some low-level groupings such as Tani or Tibetan, in other branches even closely related languages have different anti-ergative markers (e.g. Lahu (thàʔ), Akha (dpi), or differ in terms of having anti-ergative marking or not (e.g. Akha, which has anti-ergative marking, and Hani, which does not). We can assume that this marking is not of great time depth.

Those languages that have postpositions, but do not have the anti-ergative marking pattern (e.g. Tujia, Hani) generally mark NPs by strictly semantic principles. That is, a locative/goal (when marked) will always be marked the same way, and a patient/theme (when marked) will always be marked the same way, and there are no relation changing (or 'promotion' rules (e.g. passive, dative, antedative). We then have two types of role marking in Tibeto-Burman. Both are semantically based, but one (ergative and patient marking) is based on what semantic role a referent has, and the other (anti-ergative marking) on what semantic role a referent does not have. The development of both types of marking can be said to be related to the importance of semantic role, pragmatic viewpoint, and animacy to the users of these languages.

### 3.7 Evidential marking

Evidential marking, the marking of how one came to know the information one is reporting is making a statement (e.g. seen with one's own eyes, heard from someone else, inferred) has grammaticalized in quite a few languages within TB. The systems may be as simple as having only a contrast between hearsay and non-hearsay (e.g. Rawang, where the hearsay particle wà is derived from the verb 'say'), to more complex systems, as in different varieties of Tibetan (DeLancey 1986; Woodbury 1986; Sun 1993c; Hongladarom 1993). Other languages which have evidential marking are Qiang (LaPolla to appear), Newar (Hargreaves 1983), and Akha (Hansson this volume; Egerod 1985; Thurgood 1986).

### 3.8 Reflexive/middle marking

Reflexive marking of different types, using reflexive pronouns or verb suffixes, is found throughout the family, but a small number of languages have independently innovated patterns like that found in French, where marking that was originally used only for true

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16 The term anti-ergative may be somewhat infelicitous, as, like the term ergative itself, it may lead the reader to credit these particles with more of a paradigmatic nature than they actually have, but this term is already somewhat established in the literature (e.g. Comrie 1975, 1978; LaPolla 1992b), and clearer than Blansitt's (1984) term for this phenomenon, deicticative. I also do not use Dryer's (1986) term primary object because he defines it as a grammatical function. The use of this type of marking in most of the Tibeto-Burman languages that have it is not of the nature of a grammatical function, and in some languages it is also not limited to marking objects.
reflexives gets extended to middle voice situations (i.e. situations where there is no clear distinction between the 'doer' and the one 'being done to'; LaPolla 1996). One pattern found was mentioned above. This is the *-si suffix found in the Rawang, Kiranti, Kham, and Western Himalayan languages. For example, in Dulong, ḏp sat-ču 'He is hitting himself' and ḏp et-ču 'He is laughing/smiling' have the same morphological form, but the semantics of the reflexive are less clear in 'laugh', and this verb must take this suffix to mean 'laugh' rather than 'laugh at (someone)'. This suffix has also been extended to use as a detransitivizer in some contexts (see LaPolla 1995c, 2000s; this volume, on Dulong and Rawang). Several Tani languages, e.g. Padam, Nishi, have a similar suffix *au (Lorrain 1907; Tayeng 1983; Das Gupta 1969), but it is unclear whether this suffix is cognate to the one in Rawang. Gyarlung has a verbal prefix *n- which marks indirect reflexives and middles and also functions as an emphizer of intransitivness (Nagano 1984: 55; Jin et al. 1958: 81). Mizo (Changte 1993; Lorrain and Savidge 1989) has a verb prefix -in which marks reflexive, reciprocal, and middle semantics.

Quite a few other frequent patterns could be discussed, but the above should suffice to show that with the loss of the original PST derivational morphology the daughter languages each went their own way in creating new morphology, but due to inherited typological features and areal contact, there were certain regularities in the types of morphology they developed.

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CHAPTER THREE

WORD ORDER IN SINO-TIBETAN LANGUAGES FROM A TYPOLOGICAL AND GEOGRAPHICAL PERSPECTIVE

Matthew S. Dryer

1 INTRODUCTION

Word order, both at the clause level and even more at the phrase level, varies among Sino-Tibetan languages. In this Chapter, I describe some of this variation and examine it in the light of word order tendencies found among the languages of the world as a whole. In Section 1, I briefly summarize some of the variation in word order within Tibeto-Burman (TB) languages, and discuss what features of word order in these languages are typical and atypical. In Section 2, I discuss word order in Chinese, identifying some typological unusual features and discussing possible explanations for them. An overall theme shared by the two sections is that word order in Sino-Tibetan is best understood in an areal context.

2 WORD ORDER IN TIBETO-BURMAN

The discussion in this section summarizes briefly what I discuss in much greater depth in Dryer (forthcoming). It is based on examination of descriptions of ninety-three TB languages.

2.1 Order of object and verb and word order features that correlate with it

The distribution of the two orders of object and verb in TB is straightforward: all TB languages are OT (except for Bai and the Karen languages, which are VO and more specifically VSO). Although available data varies in the descriptions, the OT languages within TB generally share a variety of other word order characteristics typical of OT languages, in employing postpositions rather than prepositions, in placing genitive modifiers before the possessed noun, in placing relative clauses (if they are externally headed) before the head noun, in placing postpositional phrases before the verb, in employing clause-final markers for subordinate

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