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ON CORE CASE MARKING PATTERNS IN TWO TIBETO-BURMAN LANGUAGES OF NAGALAND*

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Abstract: The innovative use of an oblique relational morpheme to disambiguate semantic roles or to signal the increased agency of the referent of a core argument can result in the reanalysis of a case marker that is employed in a new, purely abstract function of marking a core grammatical function. The extent to which such marking of a core argument becomes obligatory in the grammar of a language has implications for the development of case alignment patterns.

Keywords: case, agentive, ergative, pragmatics, Ao, Chang, Tibeto-Burman, grammaticalization, alignment, typology

1. INTRODUCTION

This paper compares core case marking patterns in Ao and Chang, two distantly-related but adjacently located Tibeto-Burman languages spoken in Nagaland state, north-east India. The goal of the paper is to identify the underlying reasons for why the assignment of core case marking is only weakly constrained by syntactic factors in Ao, while Chang demonstrates a much more syntactically-determined distribution based on its transitivity classes of verbs. It will be argued that a cline of grammaticalization involving relational morphology can best account for the divergent distributions and functions of case marking in these two languages.

The contrasting uses of case marking in Ao and Chang are also of relevance to syntactic theory, because the languages offer insights into how oblique case marking can grammaticalize new core marking functions that may eventually crystallize as a morphological alignment pattern. Ao does not accord with any of the common case alignments that have been described in the typological literature (e.g. Silverstein 1976; Dixon 1979, Dixon 1994; Wichmann 2008), and the case marking of a core argument is found to be largely motivated by pragmatic factors in this language, rather than by syntax (Coupe 2007b: 154-169, 2011). The pragmatically-motivated use of core marking in Ao therefore stands in stark contrast to the distribution of core case marking in Chang, a language that presents a rather typical ergative-absolutive morphological alignment pattern in

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which the transitivity status of a clause determines the type of case marking that appears on its core NP argument(s). In this paper I will used the term 'agentive marking' to refer to the non-syntactically constrained use of case marking on an actor argument in both monovalent and bivalent clauses. This is held to be historically related to but distinct from the syntactically constrained and thus predictable use of 'ergative marking' to distinguish actor (or A) arguments of bivalent clauses in a grammaticalized case alignment system.[1]

The paper is structured as follows. Section 2 discusses proposed genetic affiliations of Ao and Chang within Tibeto-Burman and provides background information on the languages, their speakers and their locations in Nagaland. Section 3 addresses the significance of isomorphism in the relational morphology of the Ao and Konyak groups and its diachronic development from relational nouns. Section 4 is concerned with the pathways of grammaticalization and reanalysis by which abstract core case marking functions might develop out of the concrete semantics of older oblique markers; it then reviews explanations for the emergence of ergativity from a South Asian perspective. Section 5 presents two case studies of core case marking. Lastly, Section 6 addresses the implications the findings have for syntactic theory and our understanding of the diachronic development of case alignment systems.

Figure 1. Districts of Nagaland showing approximate locations of the languages of the Ao and Konyak groups (with language names in bold italic face)

[1] The ergative-absolutive case marking pattern of Chang is represented by explicit ergative marking on the A arguments of transitive clauses, versus null marking on the O arguments of transitive clauses and S arguments of intransitive clauses. There is thus an S/O versus A alignment in core case marking. This typological classification overlooks the use of dative marking on the O arguments of a handful of surface contact verbs, which otherwise presents a deviation from the classical ergative-absolutive pattern described in Dixon 1979, 1994.

2. CLASSIFICATION OF AO AND CHANG WITHIN TIBETO-BURMAN

Ao, together with Lotha, Sangtam and Yimchungrü, belongs to the Ao group of languages spoken in central Nagaland. According to the 2001 census of India, the Ao community numbers approximately 232,000 people. The Ao language has two principal dialects. Chungli is the prestige variety and is taught up to the tenth grade in village schools of Mokokchung district. The Chungli dialect also has a Bible translation and, as the official language of religion, it is used in church services and for public announcements in gatherings of the Ao community. A local Chungli newspaper is published online (see http://tiryimyim.com).

The other major dialect of Ao is an unwritten variety known as Mongsen, spoken by roughly 93,000 people. Morphologically and lexically, Mongsen is more conservative than Chungli and thus is more typically representative of the languages of the Ao sub-group (see Figure 2 below). This is possibly due to the fact that Mongsen has had less contact with neighbouring Konyak languages. Mongsen villages are mostly located on ranges in the south and west of Mokokchung district, while the majority of Chungli villages are situated on an eastern range known locally as the *lampaŋkoŋ*. This range runs in a roughly north-east to south-west direction and separates the Mokokchung district from the Longleng and Tuensang districts of Nagaland (see map of Figure 1 above).

Because of their location at the eastern edge of the Ao territory, the residents of many Chungli villages are in contact with neighbouring Konyak languages spoken in Tuensang and Longleng (principally Chang and Phom). Some of these Chungli villages are distinguished by the presence of populations of speakers of Konyak languages residing in their midst. Jakpa village, for example, has had both Chungli- and Chang-speaking wards since the village was founded three generations ago.[2] Announcements can be made in either Chang or Chungli in the Jakpa village church, and services are held in Chungli despite a sizeable proportion of the village population being ethnically Chang. According to my consultants, their Ao and Chang forefathers decided to establish a joint village so as to enhance their chances of living in peace during the era of head-hunting and village raiding; presumably the rationale for this was that the kinship ties of the Chang would prevent other Chang villages from raiding the new colony, and likewise those of the Ao would also afford all the residents protection from Ao raids.

Annexing weaker neighbouring villages or capturing women in raids appears to have provided an important avenue by which speakers of local languages came to be incorporated into neighbouring tribes' populations, as the following excerpt from a Chang text suggests – this was recorded in Tuensang in 2005. It describes how the *Pok Thu Püng* ward of Tuensang village was renamed *Bilashi* when warriors went to raid for human heads to consecrate a new log drum house, but instead captured women.

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[2] The neighbouring village of Yaongyimti has Chungli, Chang **and** Phom-speaking wards within the one village, thus representing an even more complex situation of language contact. An investigation of how this arrangement came about awaits future fieldwork.

(1) *saŋ^{55}ʃi^{55}la^{55} hoʊ^{55}pɯ^{55} jak^{55}sa^{55} laːp^{11}pɯ^{55}kaʔ^{11} haː^{11}khɯ^{55} saɯ^{11}ən^{11}pɯ^{11}kaʔ^{11} pi^{33}la^{33}ʃi^{33} to^{11} ŋən^{31} sap^{33}eɪ^{33}kəɪ^{11}, tʃəj^{33} ju^{33}kəj^{11}.*

saŋ^{55}-ʃi^{55}-la^{55} hoʊ^{55}-pɯ^{55} jak^{55}sa^{55} laːp^{11}-pɯ^{55}-kaʔ^{11}
village-raid-DAT go-NR woman capture-NR-ABL

haː^{11}khɯ^{55} saɯ^{11}ən^{11}-pɯ^{55}-kaʔ^{11}
log.drum.house dedicate-NR-ABL

pi^{55}la^{55}ʃi^{55} to^{11} ŋən^{51} sap^{55}eɪ^{55}-Ø-kəɪ^{11} tʃəj^{55}-ju^{55}-Ø-kəj^{11}
ward.name thus name turn-PST-DECL exchange-RECIP-PST-DECL

'On going village-raiding, because women were captured [rather than head trophies, and] because the log drum house was dedicated [to the capture of women], the village ward was thus renamed "Bilashi"' (a compound noun meaning "female capture").[3]

The former practice of raiding and kidnapping speakers of other languages potentially created the necessary sociolinguistic conditions for language contact and the borrowing of lexical and morphological forms from one language into another distantly related language. It appears that Chungli has indeed borrowed some morphology as well as lexical items from Chang as a result of such contact situations; the nature, significance and consequences of this are discussed in greater detail in Section 3.

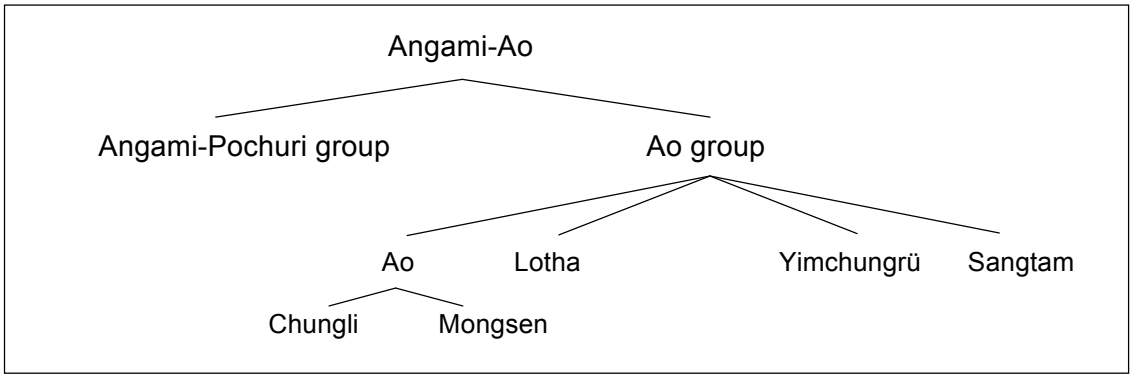

Figure 2. Proposed classification of the Angami-Ao group

The place of the Ao group of central Nagaland within Tibeto-Burman is yet to be conclusively established, but recent research suggests that it forms a higher level node with languages of the Angami-Pochuri group spoken in southern Nagaland. The basis for this intermediate sub-grouping is a typologically rare overcounting cardinal numeral system that was formerly found in languages of the Angami-Pochuri and Ao groups before such systems fell into obsolescence in the early 20th century. Significantly, the languages of these two sub-groups were the only ones in the entire north-eastern border region in which overcounting was previously documented in their cardinal numeral systems; this suggests that the

[3] Four lines of interlinearization are used for the Chang and Mongsen Ao examples in order to clarify the substantial number of morphophonological processes and tone sandhi effects that occur in word formation in these languages.

overcounting pattern was innovated in the intermediate Proto-language and subsequently inherited by its daughters (Coupe, to appear).

Beyond the Angami-Ao grouping, the branch affiliation of these languages within the Tibeto-Burman family remains highly speculative. The languages of central and southern Nagaland (excluding those that are related to the Konyak group) have previously been classified as belonging to a Kukish section of a Burmic branch (Shafer 1950, 1955) or to a Kuki-Chin-Naga branch of Tibeto-Burman (e.g. Benedict 1972), but the evidence for these proposals is meagre, constituting little more than geographical proximity and a shared vocabulary, none of which is innovative. Use of the highly politicized term "Naga" in any linguistic classification is also inherently problematic and misleading, as the languages subsumed by this label can be demonstrated to belong to at least two distinct branches of Tibeto-Burman.

Chang, together with Khiamniungan, Phom, Konyak, Wancho, Nocte and Tangsa, belongs to the Konyak group of the Bodo-Konyak-Jinghpaw branch of Tibeto-Burman. This branch is convincingly established on the basis of a handful of lexical innovations that are proven to be unique to these languages (Burling 1983, 2003; Coupe, to appear). Konyak languages are spoken in Tuensang district and also in Mon, the northernmost district of Nagaland, and related languages are spoken in adjacent areas both across the border in Burma (e.g. Konyak and Khiamniungan varieties) and in the neighbouring state of Arunachal Pradesh to the immediate north of Nagaland (e.g. Nocte, Wancho, and various Tangsa varieties).

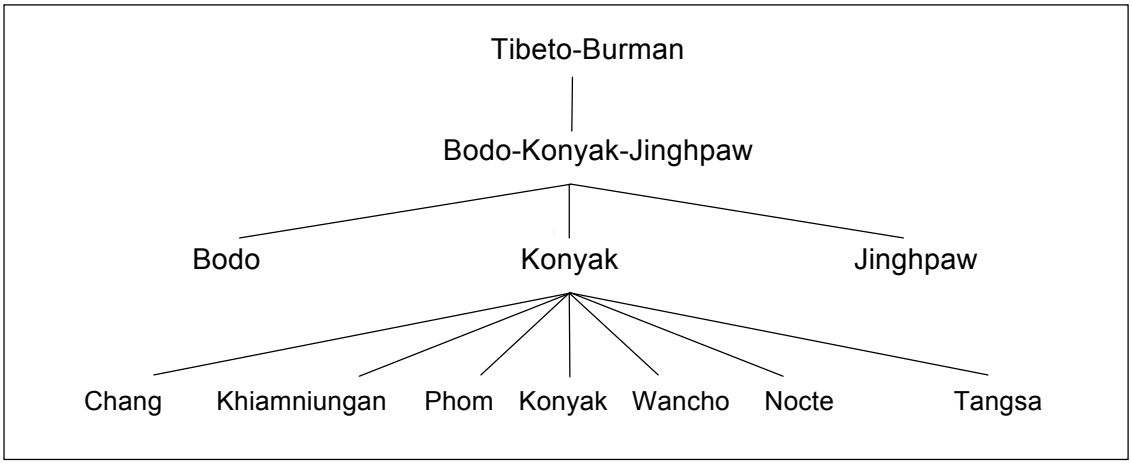

Figure 3. Classification of the Bodo-Konyak-Jinghpaw branch of Tibeto-Burman (Burling 2003)

According to the 2001 Census of India data, the Chang community constitutes approximately 61,000 speakers. It is presently not known how many distinct dialects there are of this language; the Tuensang village dialect functions as the prestige variety, has a Bible translation, and is believed to be intelligible to all speakers of Chang. Anecdotal evidence suggests that the western villages located adjacent to the Ao territory are slightly divergent, but these are yet to be systematically investigated and their dialectal differences documented.

Preliminary research reveals Chang to be a rather typical Tibeto-Burman language of Nagaland. It has three tones whose domain is the syllable (high-level σ^{55}, low-level σ^{11} and high-falling σ^{51}), frequent tone sandhi that manifests in word formation processes, a two-way voice onset time contrast between voiceless aspirated and voiceless unaspirated plosives (but not for the palatal affricate, which is a common lacuna for a number of languages in this group), and a relatively simple phonological inventory that appears to be typical of the Konyak languages, with the exception of a unique phonemic contrast in vowel length for some articulatory positions. Word formation is synthetic and highly agglutinative, not unlike that of Ao, with morphologically complex verb stems potentially inflected for tense, aspect and modality via suffixing morphology. As in other Konyak languages, prefixing morphology is rather rare and is only used for the negation of verb stems. Complex sentence formation is also very similar to that encountered in Ao, with non-finite converb suffixes used to mark narrative chaining structures, tail-head patterns of clause linkage, and collocations involving case-marking and nominalizing morphology serving to encode a range of adverbial presuppositions.

The analysis is primarily based on data that I personally collected on field trips to Nagaland between 1996 and 2010. Example sentences can be assumed to originate from narrative texts or spontaneous utterances, unless explicitly noted to be elicited. The variety of Ao is the Mongsen dialect spoken in Mangmetong village, as described in detail in Coupe 2007b, and the Chang variety is the standard language, as spoken in Tuensang village. Additional data from Yimchungrü, Lotha, Sangtam and Khiamniungan are presented in the discussion of relational morphology in the following section, and these also originate from my fieldwork on those languages. Lastly, the Phom and Konyak data are sourced from Marrison 1967, and the Chungli Ao data is taken from Gowda 1975.

3. ISOMORPHISM IN CASE MARKING MORPHOLOGY

In this section I discuss the significance of isomorphism in relational morphology and review the historical steps involved in the grammaticalization of case marking morphology from nouns with locative meanings. It is argued that the lack of cognate forms in the Ao and Konyak groups suggests that case marking arose independently in the branches represented by these two language groups.

3.1 Ao group

Table 1 compares agentive, instrumental, allative, ablative and locative case markers across the languages of the Ao group. The most striking characteristic of this data is the frequency of isomorphism occurring across distinct categories of relational morphology in all five languages.

This syncretism is most pronounced in the Mongsen and Chungli dialects of Ao, which have a typologically unusual agentive~instrumental~allative conflation in *nə* and *i* respectively. An identical morpheme also occurs as a formative in their respective ablative markers *phinə* and *nuŋi.* Agentive/ergative~instrum-

ental~allative isomorphism is unreported in cross-linguistic surveys by Dixon & Blake (1979), Dixon (1994) and Blake (2001), making this an extremely rare finding. Noonan (2009: 272) explicitly notes that ergative~allative and instrumental~ allative conflations do not occur at all in his survey of Bodic case marking patterns, and such pairings are also unreported in comprehensive surveys of Tibeto-Burman relational morphology by LaPolla (1995, 2004). Conversely, agentive/ergative~instrumental syncretism is a commonly attested pattern in the abovementioned surveys, and not without good reason: these markers often share the same diachronic source.

	Agentive	Instrumental	Allative	Ablative	Locative
Mongsen Ao (Coupe 2007b)	nə	nə	nə	phinə	ku
Chungli Ao (Gowda 1975)	i	i	i	nuŋi	nuŋ
Yimchungrü (field notes)	nə	nə	lim	tʃhiŋnə	tʃhiŋ
Lotha (field notes)	nà	nà	ì	ìnà, loʔnà	ì, loʔ, ǹ
Sangtam (field notes)	nə	nə	làŋ	làŋnà, lànà	tʃháʔ, là

Table 1. Selected case markers in the Ao group[4]

Despite this syncretism, Ao speakers must interpret the agentive, instrumental and allative morphemes as representing the marking of distinct semantic roles of their referents, because it is possible to use all three on NPs in the same clause, as in the following Mongsen proverb. Proverbs have the same syntactic structure as declarative clauses in the spoken language, the only exception being that their finite verbs are not inflected for tense.

(2) *aji nə tuɪ nə áthútʃən nə anəpən wa mətəm.* (Coupe 2007b: 105)

a-ji	nə	tuɪ	nə	athùʔ-tʃən	nə	a-nət-pən
NRL-dog	AGT	GPN	INST	vomit-LNOM	ALL	NRL-two-ORD

wa mətəm
go like
'Like a dog going back to its vomit by itself for a second time.'
(= to eat one's words; to reject something and then want it later)

It is very likely that the ablative forms of Mongsen and Chungli have developed out of former compounds. Case compounding is common in Tibeto-Burman and has been extensively described by Noonan (2008, 2009). This is in

[4] Preliminary comparative research on the tone systems of these languages suggests that all five share a three-tone, register-like system of high-level, mid-level and low-level tones occurring on syllables (respectively represented by a grave diacritic, no diacritic and an acute diacritic in the phonemic orthographies used for languages of this sub-group).

fact a common feature of all but one member of the Ao group, as the ablative marker is uniformly created from a compound of the locative and the agentive~instrumental morphemes. Dimorphemic ablatives in particular are widely reported in Tibeto-Burman languages, e.g. see DeLancey (1984: 60); LaPolla (1995: 192); LaPolla with Huang (2003: 106ff.).

Although the Mongsen Ao ablative form appears to diverge from the common locative+agentive~instrumental pattern, the possibility of a nominal demonstrative intervening between the now semantically-opaque formative *phi* and the relational marker *nə* in textual data strongly suggests that *phi* was the erstwhile lexical head of an oblique noun phrase – most likely expressing a general locative meaning akin to 'side' – which has subsequently undergone reanalysis as a postposition-cum-case marking clitic.[5] Nouns expressing locations are known to be a common source of local case marking morphology (Blake 2001: 164-165; Heine & Kuteva 2002: 240), especially in head-final languages.

The <…> notation in examples (3-4) below represents the unexpected "infixed" position of an anaphoric demonstrative within the two syllables of the ablative marker in (3), and (4) shows an identical position of "infixation" for the distal demonstrative. These case markers with their intrusively inserted demonstratives are both uttered as single phonological words by Mongsen Ao speakers.[6]

(3) *... lùŋkhàm imsən phisənə ...*
lùŋkhàm jim-sən phi<sə>nə
village.name village-new <ANAPH>ABL
'… from the aforementioned New Lungkum village …'

(4) *tuku lítʃápáʔ ki phitʃunə màkhàp tsəŋta ku…*
tə-ku lítʃá-pàʔ ki phi<tʃu>nə
RL-mother's.brother pers.name-M house <DIST>ABL
mà-khàp tsəŋta ku
NEG-depart BETWEEN LOC.CVB
'Before departing from the house of Uncle Lichaba, …'

The usual position of a deictic or anaphoric demonstrative in the noun phrase is at the end of the NP and immediately before the case marker, not inside it, as demonstrated by the more typical constituent order of (5).

(5) *... tsàŋlìjimti lima tʃu phinə ...*
tsàŋlìjimti lima tʃu phinə
village.name country DIST ABL
'… from the land of Chungliyimti …'

[5] A possibly cognate form *lam phe* occurs as the possessed head of a compound noun in a traditional Tangsa song; this lexical item is glossed as 'road sides' by Morey (2011).
[6] In addition to serving as a distal nominal demonstrative, e.g. *aki tʃu* 'that house', *tʃu* is used as the default determiner in Mongsen Ao. In contrast, the anaphoric demonstrative has no spatial deictic function and is only used to determine NPs whose referents represent old or given information.

A logical explanation for a demonstrative occurring within the ablative compound is that this is a relict of an earlier stage of the language. Originally, Mongsen *phi* functioned as the generic head of an appositional noun phrase expressing 'N's location', potentially determined by a demonstrative and case marked as an oblique argument by *nə*. This can account for how the demonstrative optionally comes to be embedded between the two formatives of the ablative case compound in the modern language: yesteryear's NP head is today's postposition.[7]

(6) original NP structure: $[N_{POSSESSOR}$ N_{HEAD} *(phi)* $DEM]_{NP}$ CASE
↓ ↓
reanalysed as: $[N_{HEAD}$ POSTPOSITION $DEM]_{NP}$ CASE

One of the consequences of this diachronic development is that the morphological status of the case markers of Ao is somewhat indeterminate. Overall their distribution is clitic-like, as they consistently occur at the end of a noun phrase. However, bound forms of possessive pronouns also occur with oblique case markers, because they formerly served as the dependent modifiers of noun phrase heads that subsequently underwent the grammaticalization process summarized in (6).

To illustrate, the head noun *taŋi* in (7) is representative of a handful of nouns that are in the process of grammaticalizing as nascent postpositions in Mongsen Ao (see Coupe 2007b: 184-189 for further examples and discussion. These also resemble compound-like constituents, as they occur in tandem with an oblique case marker. Whether these morphemes should be forced into an analysis that identifies them as postpositions on the one hand or as quasi-bound morphemes on the other is therefore a moot point. A better approach is to assume that the grammaticalization of relational morphology involves a cline ranging from words at one extreme to bound affixes at the other, and that certain constructions (such as those involving bound possessive pronouns) may give the impression of a greater degree of cohesion between the host and its marker than those involving independent nouns. A comparison of the following three examples demonstrates this variable degree of construction-specific cohesion.

(7) *kətaŋi siaŋ.*
kə-taŋi si-aŋ
1SG.POSS-side turn-IMP
'Turn towards me.' (Literally: 'Turn [to] my side')

[7] I hasten to add that this is not necessarily the only grammaticalization path for relational morphology in head-final languages. Allomorphs of the benefactive marker *atəma~atəməkə* of Mongsen Ao, for example, have their historical source in a simultaneous converb construction involving a verb root meaning 'to praise, to eulogize' (Coupe 2007b: 172). Benefactive case markers are in general most likely to develop out of verbal sources.

(8) *"nàŋ nə khən kətaŋku tsə̀ŋsaŋa siaŋ," tə̀ sa.*

nàŋ	nə	khən	kə-taŋ	ku	tsə̀ŋsaŋ-a	si-aŋ
2SG	AGT	once	1SG.POSS-SIDE	LOC	dance-SIM	show-IMP

tə̀ sa-Ø.
thus say-PST
'"You show me once how you dance," said [Leopard Cat to Cock].'

(9) *tuku taŋ nə waŋ!*

tə-ku	taŋ	nə	wa-aŋ
RL-uncle	SIDE	ALL	go-IMP

'Go to uncle!'

The development of relational morphology from spatial orientation and relational body part nouns such as 'side', 'face', 'back' etc. is a widespread phenomenon in Tibeto-Burman as well as in many other language families (e.g. see Aristar 1991; DeLancey 1997; Dryer 2006). This represents the earliest stages of the grammaticalization of relational morphology. Given that it is possible to demonstrate historically that much of the case marking morphology of Mongsen Ao developed out of the grammaticalization of nouns, and that it continues to do so – as suggested by a nascent postposition *taŋ* grammaticalizing from the noun *taŋi* 'side' – it is almost certainly the case that the ubiquitous relational morpheme *nə~na* of the Ao group also developed out of a nominal source. We return to a discussion of its diachronic origins and the subsequent development of its various case marking functions in Section 4.

3.2 Konyak group

Table 2 below lists five categories of case marking morphology in the Konyak languages of Nagaland.

	Agentive/ Ergative	Instrumental	Allative	Ablative	Locative
Chang (field notes)	eɪ^{55}	eɪ^{55}	toʔ^{11}	kaʔ^{11}	a^{55}
Khiamniungan (field notes)	ɔʔ^{33}~əʔ^{33}	ɔʔ^{33}~əʔ^{33}	təʔ^{33}	aɪ^{33}nɔ^{33}	aɪ^{33}, ko^{33}
Phom (Marrison 1967)	no data	homei	lei, kəi	kəpə	mə, ei
Konyak (Marrison 1967)	no data	kaie	te	mepu	me, ʃa

Table 2. Selected case markers in languages of the Konyak group of Nagaland[8]

[8] Tone marking for languages of the Konyak group is represented by tone letters (Chao 1930); the tonal contrasts of Chang have been described above in Section 2. Khiamniungan has a five-tone system consisting of high-level σ^{55}, mid-level σ^{33}, high-falling σ^{51}, mid-falling σ^{31}, and mid-rising σ^{35}. Weidert (1987) claimed this language has a six-tone system with two rising

Agentive/ergative forms for Phom and Konyak are not available in Marrison's (1967) data, but both Chang and Khiamniungan demonstrate the agentive/ergative~instrumental isomorphism that characterizes forms of case-marking morphology in languages of the Ao group. Khiamniungan demonstrates free variation in the vowel of the agentive/ergative and instrumental markers (as well as in many lexical morphemes), therefore two forms are provided for each of these relational categories.[9]

It is relevant to mention that the Chungli dialect of Ao has agentive and instrumental forms in *i* that are suspiciously phonologically similar to the ergative~instrumental markers of its neighbour Chang, yet it matches up with the Mongsen dialect in demonstrating the rare agentive~instrumental~allative syncretism. This similarity in form has possibly led some authors investigating Tibeto-Burman relational morphology to recognize Chungli as a Konyak language (e.g. LaPolla 1995: 199-200; Noonan 2009: 278), but this is disproven by Chungli lacking the lexical innovations that necessarily characterize the Bodo-Konyak-Jinghpaw branch (Burling 1983, 2003). A feasible explanation for the divergence of the Chungli forms is that the language has borrowed the ergative~instrumental marker of Chang as a result of the language contact scenario suggested by the textual example of (1) above – see Coupe 2007a for further discussion.

Little else is significant in the forms of the relational morphemes of the Konyak group. The compounding pattern of the ablative markers observed in the Ao group is possibly reflected in the Konyak language only, but Marrison's data is insufficient to be able to confirm this. The ablative marker *ka?*^{11} of Chang is unlikely to be a compound involving the locative marker *a*^{55}, unless phonological attrition now conceals a shared diachronic origin. This is unlikely though, because in all Tibeto-Burman languages with recognizable dimorphic ablative markers, the locative formative constitutes the first element in the ablative compound, as it must be the first relational category to grammaticalize (cf. the order of ablative and locative forms in the Ao group in Table 1). We also see in the data of the Ao group that the tone of the locative marker is the same as the phonologically identical formative occurring in the dimorphemic ablative marker, whereas it is different in the corresponding Chang forms.

A category-by-category comparison of the relational morphology of members of the Ao and Konyak groups suggests that none of these forms can be reconstructed to Proto-Tibeto-Burman, so it appears that the case marking morphology developed independently in these two groups via the

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tones, but an acoustic analysis of the data of two speakers (Coupe 2006) concludes that his auditory analysis was incorrect. By a strange coincidence we both worked with the same consultant, some thirty years apart, and it is unlikely that this speaker lost a contrastive tone in the intervening period. Marrison's (1967) data does not represent tone.

[9] I remain agnostic as to whether all the languages of the Konyak group have grammaticalized an ergative-absolutive alignment system without having investigated their grammars, hence the term agentive/ergative.

grammaticalization of relational and body part nouns, as described in Section 3.1 for Mongsen Ao. The demonstrated lack of cognacy of relational markers across different branches of Tibeto-Burman has led some authors to conclude that Proto-Tibeto-Burman lacked relational morphology altogether (Benedict 1972; LaPolla 1992, 1995, 2003, 2004).

To sum up the findings thus far, it has been shown that relational nouns in appositional NPs are a plausible historical source of case marking morphology in Ao and by analogy in other Tibeto-Burman languages, and that the possessed heads of these constructions develop into postpositions. In the following section I will demonstrate that such a noun developed a range of case marking functions in addition to encoding locative senses in Mongsen Ao, and that one of these extended functions is the innovative marking of a core argument in an actor semantic role.

4. THE ORIGIN OF AGENTIVE CASE MARKING IN AO

The recurring forms of a cognate case marker in the languages of the Ao group (presented in Table 1 above) suggest that Proto-Ao had an oblique marker in **na*. Drawing on evidence that grammaticalization proceeds via metaphorical extension from concrete meanings to more abstract ones (e.g. Heine, Claudi & Hünnemeyer 1991), I assume that **na* was initially a semantically underspecified marker of a location, and that a number of semantically specific relational categories now extant in the daughter languages have subsequently evolved from this source.

By semantically underspecified, I mean that it probably just marked a NP as being generally oblique, and the attendant semantics of the context determined how its referent's precise semantic role should be interpreted – perhaps as a goal with a verb expressing 'go', as a source with a verb expressing 'come', or possibly as an instrument when used to mark a NP whose inanimate referent is a tool. We see that these types of contextual cues continue to be important in Mongsen Ao for assigning semantic roles to identically case marked NP arguments, as demonstrated in the proverb of example (2).

The most likely diachronic origin of the Proto-Ao oblique marker **na* is a relational noun meaning 'side'. A related form *təki-təna* still occurs in a compound noun with the meaning of 'outermost side' in Mongsen Ao, and a preglottalized form **ʔ-nam* with the meaning of 'side / rib' is reconstructed by Matisoff (2003: 100, 604) for Proto-Tibeto-Burman. Note that the expression *təki-təna* in (10) serves as the possessed head of an appositional NP, thus reflecting the historical structure described in (6) that facilitates the grammaticalization of such relational morphology.

(10) *"aki təkitəna táŋ ku nuŋla."* (Coupe 2007b: 471)

a-ki	təki-təna	táŋ	ku	nuŋ	la
NRL-house	outermost side	just	LOC	not	TOP

"[The knot surrounded by wood grain] is not on the outermost side of the house," [repeated Noksensangba].

Heine & Kuteva (2002: 272) note that 'side' appears to have developed a locative meaning in a number of pidgin and creole languages, as well as in distantly-related Chinese. Recall from the discussion of Mongsen Ao relational nouns in Section 3.1 that a noun *taŋi* with the meaning of 'side' is in the process of grammaticalizing as a postposition with a locative sense in what must represent a new cycle of this process. Significantly, Peterson (ms, cited in Noonan 2009: 268) suggests a proto-form **s-naak* 'side' as the source of a set of morphemes with relational (and specifically ergative) senses in Chin languages. However, given our current understanding of the historical development of abstract grammatical case markers out of concrete spatial case markers (e.g. Heine, Claudi & Hunnemeyer 1991: 123ff.; Blake 2001:170; LaPolla 2004: 56), the evolution of an ergative core marking function must be a relatively late development, and it is the fundamental premise of this paper that the grammaticalization of an oblique relational marking function logically emerges before the development of any core marking function.

Having established that Proto-Ao **na* originally encoded the location of its oblique NP referent, the task now is to account for how a case marker with a locative meaning could subsequently develop a rather diverse range of other senses, and most importantly, how it could have made the transition to a core agentive marking function.[10] But before addressing that, it will be useful to briefly review explanations for how ergative case marking evolves in languages, because this is ultimately of central concern to the conclusions reached in this paper.

A number of theories have been put forward to account for the development of ergative-absolutive morphological alignment. In the 1970's, when ergativity first became a hot topic in linguistics, the predominantly held idea was that the ergative developed from a reanalysis of a passive voice construction as an active one. This was offered as an explanation for how Indo-Aryan languages developed ergative characteristics in Late Sanskrit (e.g. Anderson 1977; Trask 1979; Pirejko 1979). A decade or so later, the agented passive origin for the Indo-Aryan ergative was still assumed by Masica (1991), Hock (1991) and Dixon (1994).

However, this hypothesis has attracted recent criticism from Indo-Iranian scholars who find that such an explanation is not corroborated by empirical studies of historical texts. Haig (2008), for example, does not find any supporting

[10] A parallel example of a noun with similar semantics developing a core marking function is reported by Beames (1872-1879), who identifies the Hindi-Urdu dative case marker *-ko* as having a historical source in the locative of Sanskrit *kāksha* 'side, armpit.' The dative case marker of Hindi-Urdu is used pragmatically on O arguments of transitive clauses for disambiguation purposes when the referent is human or specific (Masica 1991: 365), and it is also used to mark non-canonical subjects of experiencer constructions (pp. 346ff.).

evidence for the agented passive hypothesis in Iranian languages and instead proposes that the shift to an ergative alignment came about through the extension of function of a non-canonical subject construction; Butt (2009: 179ff.) summarizes the numerous objections to the agented passive analysis and also raises the possibility that ergative alignment arose via a dative subject construction. She goes somewhat further in suggesting that the Indo-Iranian languages could have all been ergative originally. In sum, there are a number of dissenting views as to how ergative alignment developed in Indo-Iranian, yet this branch of Indo-European easily represents the most studied with respect to the emergence of ergativity.

Regardless of whether the agented passive hypothesis is right or wrong in explaining the origin of ergativity, it cannot account for the development of an agentive case marking function from an older locative in Ao, even though locatives are sometimes implicated in the development of agent markers via passive constructions (e.g. see Heine & Kuteva 2002: 199-200 for examples). This is because the language has not grammaticalized a voice distinction, as it simply omits the actor of a bivalent clause to emphasize the resultant state of the undergoer. English does something similar with verbs that express a change of state, e.g. *The frame cracked under the weight and the chair broke*, but this is quite restricted, whereas in Ao virtually any bivalent change-of-state verb permits this monovalent use. Also, transitivity only appears to be an organizing feature of the grammar for certain constructions in Ao, so this makes it even more unlikely that a passive hypothesis can account for the development of agentive case marking in this language (Coupe 2011).

Most accounts dealing with the typology of case marking patterns commonly assume that all languages conform to an alignment system – that they are either ergative or accusative, but might subsequently shift their alignment pattern as a consequence of various influences. Such a point of view is adopted in Chapter 7 of Dixon 1994, which deals with language change. Dixon discusses the conditions under which a language may change from accusative to ergative, or from ergative to accusative, and the various pathways by which these alignment shifts take place. But what is not addressed in Dixon's chapter and generally in work on this topic is how such alignments become established in the first place (see DeLancey 2004 for further criticisms of alignment typology).

In this paper I propose that the extent to which the formal marking of a particular core argument becomes obligatory in turn determines whether an alignment pattern actually grammaticalizes in a language. A language may not necessarily develop any consistent marking pattern that conforms to a particular alignment. Thai and Mandarin Chinese are examples of two analytic languages in which pragmatics serves as the chief determinant for the assignment of semantic roles, so arguably they have no alignment, and the same can be said for Mongsen Ao. On the other hand, Chang appears to present a fairly consistent ergative-absolutive alignment. This contrast can be demonstrated by comparing the distribution of core case marking in the two languages.

5. CORE MARKING IN AO AND CHANG: TWO CASE STUDIES

The following comparison of case marking in Ao and Chang assumes that an ergative language formally marks the A argument of a transitive clause distinctly from the way that it marks the O (a.k.a. P) argument of a transitive clause and the S argument of an intransitive clause, following the standard textbook definitions of morphological ergativity (Comrie 1978; Dixon 1994; Payne 1997). Such a pattern should be reflected in the majority of verbal clauses for a language to be recognized as having a morphological ergative-absolutive alignment, and the distribution of the marking should also be consistent with the transitivity status of the verbal clause. If such a pattern is not consistently demonstrated, then the language does not have an ergative-absolutive alignment and one must consider other motivations for the explicit marking of actor arguments, especially when the case marking occurs on actor arguments of both monovalent and bivalent clauses.

The most likely of these influences is pragmatics. The need to disambiguate agents from patients is what provides the pragmatic motivation for an oblique case form being co-opted into marking a core argument, and it may be the precursor to the development of an obligatory marking pattern. For example, the accusative markers of Spanish and Hindi both have etymological sources in datives, and these are used to mark definite and/or animate O's (Hopper & Thompson 1980: 260). LaPolla (1992) refers to such marking as 'anti-ergative marking', because it serves to encode that the argument so marked is **not** the actor. This kind of disambiguating marking also correlates with Silverstein's (1976) animacy/saliency hierarchy, in that it serves to identify a referent in an atypical grammatical function.

In some languages it may be the undergoer argument of a bivalent clause that receives the disambiguating marking – e.g. Lahu (Matisoff 1973); in others it may be the actor that is distinguished, as it will be demonstrated for Ao and Chang. The conventionalized obligatory marking of the undergoer argument in bivalent clauses may result in an accusative alignment pattern. Conversely, the conventionalized obligatory marking of the actor argument of bivalent clauses may result in ergative alignment, but it also may not. Lahu is characterized by accusative alignment no more than Mongsen Ao is characterized by ergativity, as it will now be demonstrated in the following section.

5.1. Core marking in Mongsen Ao

There are only two types of clauses in Mongsen Ao in which it is possible to predict that agentive case marking will consistently occur on the actor argument. The first of these is the causative derivation. For example, the absence of marking on the pronominal NP *pa* (3SG) in the first line of interlinearization in (11) unequivocally identifies its semantic role as that of the **causee** of the causativized predicate, while agentive marking in (12) identifies its overtly mentioned referent as the **causer** argument.

(11) *təɪ, pa tʃu aki tʃu mùŋtʃakiɪ, pa áhlú nə wa.*

tə-əɪ,	pa	tʃu	a-ki	tʃu	mùŋ-tʃak-iʔ-əɪ,
thus-SEQ	3SG	DIST	NRL-house	DIST	rest-RS-CAUS-SEQ

pa	áhlú	nə	wa-Ø
3SG	NRL-field	ALL	go-PST

And then, making him remain resting at the house, she went to the field.

(12) *təɪ wàzàʔ nə tsəpàʔ ku atsə mətʃəmilà.* (Coupe 2007b: 457)

tə-əɪ	wàzàʔ	nə	tsəpàʔ	ku	a-tsə
thus-SEQ	bird	AGT	pond	LOC	NRL-water

mə-tʃəm-iʔ-la	
NEG-drink-CAUS-NEG.PST	

And, the birds didn't let [her] (= caused her not to) drink at the pond.

Because causative derivations often involve two human participants in the roles of causer and causee, there is functional pressure to make their semantic roles explicit, and this is probably why agentive case marking on overtly mentioned causer NPs has grammaticalized as an obligatory requirement in causativized clauses. The historical development of a morphological causative (from the verb 'give') is therefore the harbinger of the grammaticalization of transitivity in Mongsen Ao, as demonstrated by the shift to an obligatory case marking pattern in this clause type. Similarly, the development of pairs of cognate monovalent and bivalent verbs in numerous Tibeto-Burman languages is arguably a sequel to the earlier grammaticalization of a causative *s-* prefix in Proto-Tibeto-Burman, as this has resulted in the lexicalization of transitive and intransitive verb classes in many of the daughter languages. Causativization therefore probably provides the single most important means by which transitivity develops as an organizing feature of grammar in Tibeto-Burman (Coupe 2011: 513-516, and references therein).

Obligatory agentive marking on actor arguments is also required in clauses that express generic statements of habitual activity. Chelliah (2009: 391-392) reports an identical pattern of obligatory agentive marking in clauses used to characterize a class of referents in Meithei – another Tibeto-Burman language with pragmatically motivated agentive marking – and proposes that it reflects the force of tradition of a class, as well as the particularizing function of agentive case marking. The same explanations seem applicable to the obligatory marking of actors in generic statements of habitual activity in Mongsen Ao.

(13) *nì nə asəŋ səɪə̀.* (Coupe 2011: 500)

nì	nə	a-sə́ŋ	sə-ə̀ɪ
1SG	AGT	NRL-wood	chop-PRES

'I chop wood.' (i.e. habitually, as an occupation)

Agency, personal choice and intention are the key pragmatic influences on the use of agentive case marking in all other types of verbal clauses in Mongsen Ao,

and this is unrestrained by clausal valency. For example, in the monovalent clause of (14a), agentive case marking on the actor NP encodes that the referent is strongly motivated to go to his father for advice after surreptitiously observing his wife (who happens to be the daughter of a deity) eat a human hand to magically restore her youthful beauty.

(14) a. *tàpàʔ tʃu nə mətʃatshàŋ nə təpaʔ taŋ nə waɹà.*

tà-pàʔ	tʃu	nə			
thus-SEQ	DIST	INST			
mətʃatshàŋ	nə	tə-paʔ	taŋ	nə	wa-àɹ
pers.name	AGT	RL-father	SIDE	ALL	go-PRES

'Because of that, Mechatseng goes to [his] father.'

b. *"nì la kəni nə amiʔ khət tʃàɹùʔ," tə sawʔ tàɹùʔ.*

nì	la	kə-ni	nə	a-miʔ	khət
1SG	TOP	1SG.POSS-wife	AGT	NRL-person	hand
tʃàʔ-àɹ-ùʔ		tà	sa-Ø-ùʔ	tàɹ-ùʔ	
consume-PRES-DECL		thus	say-PST-DECL	REP-DECL	

'"[Help] me – my wife eats human hands," he reportedly said.'

Actor arguments of verbs of motion are never marked for agentive case in pragmatically-neutral situations (e.g. compare the finite clause of [11] above), but the extraordinary behaviour of the wife and Mechatseng's resolve to deal with it is emphasized by the narrator's choice of agentive marking on this NP, which signals the increased agency of the referent in this contextual setting. The same can be said for the use of agentive marking on the actor argument of *tʃàʔ* 'consume' in (14b), which in pragmatically-neutral situations of reporting does not assign agentive marking to its actor argument. The difference in meaning between the two clauses of (15a-b) below is that in (15a) the chickens have been fed paddy to eat, whereas in (15b) they are opportunistically stealing it.

(15) a. *ahən atʃak tʃàɹùʔ.* (Coupe 2007b: 157)

a-hən	a-tʃak	tʃàʔ-àɹ-ùʔ
NRL-chicken	NRL-paddy	consume-PRES-DECL

'The chickens are eating paddy.'

b. *ahən nə atʃak tʃàɹùʔ.*

a-hən	nə	a-tʃak	tʃàʔ-àɹ-ùʔ
NRL-chicken	AGT	NRL-paddy	consume-PRES-DECL

'The chickens are eating paddy.' (implying that they are stealing it)

In the following elicited context, a game of football is being broadcast on television. Someone walks into the room and asks who is playing, and secondly, who is winning. The first question does not require agentive marking on the interrogative pronoun, but the second does. This is because the winning side has a

strongly motivated intention to do so, and their greater agency and commitment as reflected by the score must be encoded by the agentive marker. Consultants explained that it would be pragmatically inappropriate to use the agentive marker in the question of (16c), unless it was asked ironically and it was the known intention of one team to lose the match. So in that scenario, the intention of a team to lose explains why the interrogative pronoun would require agentive marking on its NP.

(16) a. *səpáʔ tʃhajɹə̀*
səpáʔ tʃhaj-ə̀ɹ
who play-PRES
'Who's playing?'

b. *səpáʔ ǹə kùkɹə̀*
səpáʔ ǹə kùk-ə̀ɹ
who AGT win-PRES
'Who's winning?'

c. *səpáʔ məkùkɹə̀*
səpáʔ (*nə) mə̀-kùk-ə̀ɹ
who AGT NEG-win-PRES
'Who's losing?' (Elicited data)

Sometimes neither argument of a bivalent clause is assigned case marking. This is typically found in pragmatically-neutral contexts in which the semantic nature of the referents logically determines their semantic roles, and their behaviour is in accordance with social expectations.

(17) *ásə̨ŋ tʃu hənəɹ tʃhuwaɹə̀, pa aki tʃhà.*
a-sə̨ŋ tʃu hən-əɹ tʃhuwa-əɹ
NRL-wood DIST take-SEQ emerge-SEQ
pa a-ki tʃhà-Ø
3SG NRL-house make-PST
After returning carrying wood, he built his house.

Conversely, an actor NP may be overtly marked, particularly when both referents are animate and equally capable of controlling the activity expressed by the predicate. In this situation it serves a disambiguating function, as described for causativized clauses above. Agentive marking is also found when the undergoer argument precedes the actor argument, presumably to over-ride any default interpretations that the clause-initial argument could be the actor NP, especially if it too has an animate referent.

(18) *təpaukàʔ pa tʃu ajizala tʃu nə ənsətəɹ …*
tə-pàkukàʔ pa tʃu a-ji-za-la tʃu nə ənsət-əɹ
thus-CONCESS 3SG DIST NRL-rat-DIM-F DIST AGT kill-SEQ
'Even though that was the case, after she was killed by Little Rat …'

Limitations on space do not permit a full account of the pragmatic triggers determining agentive marking in Mongsen Ao, but it suffices to say that it is used on actor NPs in both monovalent and bivalent clauses when the increased agency

of a referent is being stressed, and it also is used in bivalent clauses when there is a need to disambiguate semantic roles of referents (for further examples and extended discussion, see Coupe 2007b: 154-165, 2011). The examples presented in this section adequately demonstrate that Mongsen Ao does not have a distribution of core case marking that correlates with any known morphological alignment pattern. It is therefore not surprising that the language also lacks a syntactic pivot (Coupe 2007b: 165-168, 2011: 501-503).

5.2. Core marking in Chang

In contrast to its neighbour Ao, core case marking is found to be remarkably consistent in Chang texts. A simultaneously uttered commentary on events portrayed in the Pear Film[11] was recorded, transcribed and then examined for the number of occurrences of transitive clauses with an overtly mentioned A argument, and how many of these were distinguished by core case marking. In the entire text there were twenty-three instances of transitive clauses with an explicitly mentioned A argument, and one-hundred percent of their noun phrases included a case marker distinguishing the A function.

A similar consistency was demonstrated by the single S arguments of intransitive clauses and the O arguments of transitive clauses, the vast majority of which were distinguished from other case roles by absolutive (zero) case marking. As noted in fn. 1 of Section 1, the only deviation from this is found with the O arguments of a very small number of transitive verbs of surface contact, which are marked by the dative case. Oblique marking on the O arguments of this semantic class of predicate is also reported in Lhasa Tibetan (DeLancey (2003) and in Mongsen Ao (Coupe 2007b). Whether this is due to genetic inheritance or some other factor remains to be determined.

Examples (19-21) demonstrate a canonical ergative-absolutive pattern of case marking: S and O arguments are distinguished by the zero-marked absolutive case and A arguments are overtly marked by the ergative.

(19) *haʊ^{33} pu^{33}ɲu^{55} to^{11} ɲi^{33}poʊ^{55} aːŋ^{55}ŋəɪ^{55}tʃɪn^{11}eɪ^{11}, mət^{55} tʃeɪ^{33} loːn^{11}koʊ^{11}an^{31} taːn^{33}kəɪ^{11}.*

haʊ^{11}	pu^{11}ɲu^{55}	toʔ^{11}	ɲi^{11}-poʊ^{55}	aːŋ^{55}-ŋəɪ^{55}-tʃɪn^{11}eɪ^{11},
3SG	tree	ALL	two-NR	climb-RPET-TEMP.CV

mət^{55}	tʃeʔ^{11}-eɪ^{55}	loːn^{11}	koʊ^{11}-an^{11}	taːn^{55}-Ø-kəɪ^{11}.
man	one-ERG	goat	pull-SEQ	pass.by-PST-DECL

'While he was climbing the tree a second time, a man pulling a goat passed by.'

[11] This film was used as a stimulus for eliciting narrative data. See Wallace Chafe (ed.), (1980) *The Pear Stories: Cognitive, Cultural, and Linguistic Aspects of Narrative Production*. Norwood, New Jersey: Ablex. http://www.linguistics.ucsb.edu/faculty/chafe/pearfilm.htm.

(20) *haʊ^{33}eɪ^{55} pu^{55}hek^{11} pən^{55}toʊ^{55} sʊŋ^{55}an^{11} tʃe^{11}kaʔ^{11} tʃeʔ^{11} to^{11}ko^{11} tʃəɯ^{33}kəɪ^{11}.*

haʊ^{11}-eɪ^{55}	pu^{55}hek^{11}	pən^{55}toʊ^{55}	sʊŋ^{55}-an^{11}
3SG-ERG	fruit	all	take-SEQ

tʃeʔ^{11}-kaʔ^{11}	tʃeʔ^{11}	to^{11}ko^{11}	tʃəɯ^{55}-Ø-kəɪ^{11}
one-ABL	one	manner	look-PST-DECL

'He took all the fruits one-by-one in that manner and looked at them.'

(21) *ja^{55}sa^{55} na^{11}ʃoʊ^{11} mɯt^{55} tʃəʔ^{11} saɪ^{11}kəl^{11} tʃʊŋ^{11}an^{11} loʊ^{55}ko^{11} ki^{33}taɪ^{33}kəɪ^{11}.*

ja^{55}sa^{55}	na^{11}-ʃoʊ^{11}	mɯt^{55}	tʃəʔ^{11}	saɪ^{11}kəl^{11}	tʃʊŋ^{11}-an^{11}
woman	child-DIM	person	one	cycle	hold-SEQ

loʊ^{55}-ko^{11}	ki^{55}-taɪ^{55}-Ø-kəɪ^{11}.
come-SIM	stay-IMPFV-PST-DECL

'A girl riding a bicycle was coming.'

In view of the consistency in core case marking alignment vis-à-vis transitivity classes of verbs, it might be proposed that Chang is a morphologically ergative-absolutive language in which the A argument of a transitive clause is obligatorily distinguished by the ergative marker *-eɪ^{55}*, while the O argument of a transitive clause and the S argument of an intransitive clause are distinguished by zero marking *-Ø*.

The ergative-absolutive alignment pattern is also reflected in the distinct forms of 1st and 2nd person pronouns inflected for the ergative case, as shown in Table 3 below. The 3rd person singular ergative form (as well as the dual and plural forms of the paradigm) demonstrates a looser coalescence, as the ergative morpheme can be easily segmented and takes the same form as that appearing on nouns.

1ST SG		2ND SG		3RD SG	
ERG	ABS	ERG	ABS	ERG	ABS
ŋeɪ^{11}	ŋo^{11}	ɲi^{11}	no^{11}	haʊ^{11}-eɪ^{55}	haʊ^{11}

Table 3. Distinct ergative and absolutive forms of Chang singular pronouns

The following data further demonstrate just how systematic the morphological marking of core arguments is in this language, and how equally important is the transitivity status of the verb for the assignment of case to its argument(s). In preparation for doing a tonal analysis of Chang, I elicited the following data independently from three female speakers of Chang. Considering that each clause was uttered in the absence of a qualifying context, it is significant that the absolutive inflection of the first person is consistently selected if the verb is intransitive (e.g. 22a-c), whereas a transitive verb triggers the selection of the ergative inflection (e.g. 22d-f). Transitivity thus appears to be central to the

morphosyntactic organization of this language for its speakers, and this is strongly reflected in the consistent case-marking patterns of core arguments.

(22) a. *ŋo^{11} loʊ^{33}kəɪ^{11}*
ŋo^{11} loʊ^{55}-Ø -kəɪ^{11}
1SG.ABS come-PST-DECL
'I came'

b. *ŋo^{11} haʊ^{33}kəɪ^{11}*
ŋo^{11} haʊ^{55}-Ø-kəɪ^{11}
1SG.ABS go-PST-DECL
'I went'

c. *ŋo^{11} ja:n^{33}kəɪ^{11}*
ŋo^{11} ja:n^{55}-Ø-kəɪ^{11}
1SG.ABS descend-PST-DECL
'I descended'

d. *ŋeɪ^{11} tʃek^{11}kəɪ^{11}*
ŋeɪ^{11} tʃek^{11}-Ø-kəɪ^{11}
1SG.ERG buy-PST-DECL
'I bought'

d. *ŋeɪ^{11} we^{33}kəɪ^{11}*
ŋeɪ^{11} we^{55}-Ø-kəɪ^{11}
1SG.ERG count-PST-DECL
'I counted'

f. *ŋeɪ^{11} thu^{33}kəɪ^{11}*
ŋeɪ^{11} thu^{55}-Ø-kəɪ^{11}
1SG.ERG dig-PST-DECL
'I dug' (Elicited data)

In view of the syntactic uniformity of the case marking pattern in textual data and in the elicited data of (22), it is therefore noteworthy that non-syntactic factors can still exert an influence in some contexts of use. Returning once again to our scenario of a football game being broadcast on television, it is found that the distribution of ergative marking corresponds precisely with the pattern described for Mongsen Ao agentive marking in the semantically identical clauses of (16).

(23) a. *aʊ^{51} loʊ^{33}juʔ^{33}ta^{11}?*
aʊ^{51} loʊ^{55}-juʔ^{55}-ta^{11}
who.ABS play-RECIP-PRES
'Who's playing'

b. *aʊ^{11}-eɪ^{33} thɯk^{33}ta^{11}?*
aʊ^{11}-eɪ^{55} thɯk^{55}-ta^{11}
who-ERG win-PRES
'Who's winning?

c. *aʊ^{51} koŋ^{33}ta^{11}?*
aʊ^{51} (*-eɪ^{55}) koŋ^{55}-ta^{11}
who.ABS forfeit-PRES
'Who's losing?' (Elicited data)

Another similarity with Mongsen Ao is observed in the morphosyntactic encoding of spontaneous versus deliberate coughing (cf. Coupe 2007b: 160-161). In the following elicited sentences, the spontaneous event requires the absolutive form of a pronoun, as in (24a), whereas the deliberate act of (24b) requires the ergative form, the latter reinforced by *ma:ŋ^{11}* 'mind' marked with the instrumental case.

(24) a. *ŋo^{11} ŋoʊ^{11}ʃa:k^{33}kəɪ^{11}.*
ŋo^{11} ŋoʊ^{11}ʃa:k^{55}-Ø-kəɪ^{11}
1.ABS cough-PST-DECL
'I coughed.'

b. *ŋei^{11} maːŋ^{11}eɪ^{33} ŋoʊ^{11}ʃaːk^{33}kəɪ^{11}.*
ŋei^{11} maːŋ^{11}-eɪ^{55} ŋoʊ^{11}ʃaːk^{55}-Ø-kəɪ^{11}
1SG.ERG mind-INST cough-PST-DECL
'I purposely coughed.' (Elicited data)

And lastly, a Chang consultant confirms that it is also possible to omit the instrumental argument from (24b) to derive a meaning of a purposive act in (24c) below, such as coughing in a meeting to surreptitiously attract the attention of someone. The linguistic encoding of this pragmatically marked event is achieved solely through the use of the ergative form of pronoun.

(25) *ŋei^{11} ŋoʊ^{11}ʃaːk^{33}kəɪ^{11}.*
ŋei^{11} ŋoʊ^{11}ʃaːk^{55}-Ø-kəɪ^{11}
1SG.ERG cough-PST-DECL
'I coughed' (purposely, to attract attention) (Elicited data)

It would be very useful to the discussion to determine if Chang has a syntactic pivot that constrains the cross-clausal coreference of elided arguments, because this would provide an indication of the extent to which grammatical relations may have grammaticalized in this language. At present the database of texts is not sufficient to be able to make a confident assessment of this aspect of clausal syntax, therefore an investigation of pivots must be left to future research.

To summarize this section, Chang appears to have a predictable distribution of ergative case marking on the A arguments of transitive clauses, and the language also demonstrates the existence of specifically ergative pronouns in the first and second persons. Despite the observation in texts that the case marking pattern suggests a consistent ergative-absolutive alignment, further exploration of the distribution of case markers using elicited data in carefully contextualized settings demonstrates that pragmatics nevertheless plays a role in the encoding of agency.

6. CONCLUSION

Let us now retrace the steps taken by relational morphology from their nominal lexical origins to their grammaticalized function as markers of abstract case relations, and consider the implications this process has for syntactic theory and the typology of alignment systems.

This paper has proposed that core case marking in Mongsen Ao and Chang represents a cline of grammaticalization of relational morphology. Ao represents the most nascent system, considering how pragmatically driven its morphosyntacic marking is, while Chang has progressed the most towards a syntactically-constrained alignment system in which pragmatic influences on morphosyntax play a much more limited role. Consequently it is only in Chang that we can recognize a pattern of case marking representing a morphological alignment, and the two languages therefore currently stand at considerably different stages of grammaticalization of their relational morphology.

Figure 1 below represents a grammaticalization cline for the evolution of case marking systems. This model specifically applies to Tibeto-Burman languages, based on the evidence presented in this paper, but it may also represent the development of syntactically-organized case systems in all languages in which pragmatics initially exerts an important influence on syntactic structure. At the earliest stages, case marking develops from relational nouns and other lexical sources, and the primary function of this relational morphology is to encode oblique functions with concrete meanings, such as locations, sources, goals and instruments. It was argued that pragmatics is what first motivates the innovative usage of an oblique marker to clarify the semantic role of a core argument, particularly when both referents of a bivalent clause are animate. The extent to which this core marking becomes obligatory on the actor arguments of transitive clauses is the chief determinant for whether a language eventually conventionalizes a canonical ergative-absolutive alignment. Alternatively, some languages may extend an oblique case marking function to marking the undergoer arguments of transitive clauses to disambiguate semantic roles, which would instead represent a first step to the possible development of accusative syntax.

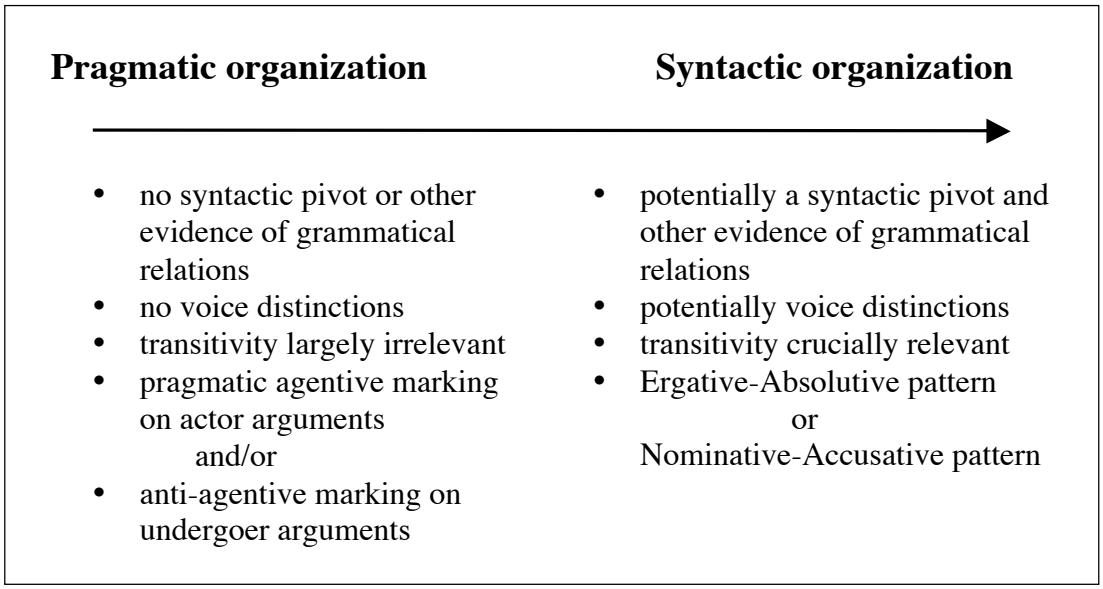

Figure 4. Proposed grammaticalization cline of case alignment systems in Tibeto-Burman languages

Chang is much closer to the syntactically-organized pole of the grammaticalization cline, but it nevertheless continues to demonstrate the possibility of using ergative marking for encoding pragmatically-marked events. Further towards the opposite pole is Mongsen Ao, whose morphosyntax is much more driven by pragmatic factors, and which only demonstrates syntactically-organized core case marking on the causer arguments of causativized clauses and the actor arguments of clauses expressing generic statements of habitual activity.

The distributions of case-marking morphemes and the varying motivations for their use raise some challenging issues for any theory of syntax that unquestioningly assumes that grammatical relations such as “subject” and

"object", or even the nominal category of "case", are primitive universal categories of human language. The empirical data from these Tibeto-Burman languages strongly supports the view that oblique relational morphology first develops out of lexical sources, then may undergo a metaphorical extension of function to marking a core argument in pragmatically determined contexts. It is only after a language shifts completely from using case marking for encoding pragmatic information to obligatorily marking syntactic information that the opportunity for the development of alignment patterns, pivots and possibly voice distinctions arises.

ABBREVIATIONS

ABL	ablative case
ABS	absolutive case
AGT	agentive case
ALL	allative case
ANAPH	anaphoric demonstrative
BETWEEN	'between' nascent postposition
CAUS	causative
CONCESS	consessive converb suffix
DECL	declarative mood clitic
DIM	diminutive suffix
DIST	distal demonstrative
DAT	dative case
ERG	ergative case
F	feminine gender
GPN	generic pronoun
IMP	imperative mood
IMPFV	imperfective aspect
INST	instrumental case
IRR	irrealis mood
LOC	locative case
LOC.CVB	locative converb
LNOM	locative nominalizer
M	masculine gender
NEG	negative
NR	nominalizer/relativizer suffix
NRL	non-relational noun prefix
ORD	ordinal number
POSS	possessive
PRES	present tense
PST	past tense
RECIP	reciprocal
REP	repetitive aspect
RL	relational noun prefix
RPET	repetitive aspect
RS	resultant state
SEQ	sequential converb suffix
SIDE	'side' nascent postposition
SG	singular number
SIM	simultaneous converb suffix
TEMP.CV	temporal converb suffix
TOP	topic particle

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