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*The grammaticalisation of plurality in the languages of Amdo*

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### ABSTRACT

Among the categories grammaticalised in the noun phrase, the domain of number shows several formal and functional similarities in genetically distinct languages of Amdo. In most languages of the area, it is grammaticalised in a complex way, with several morphemes expressing distinct plural categories. This paper describes the attested categories and their functional characteristics in order to retrace cases of linguistic copying and show the respective contribution of each language group to this domain. Hence, the paper shows that the grammatical domain of plurality in Amdo, both from a functional and a formal point of view, presents characteristics of linguistic convergence based on multiple model-languages.

### KEYWORDS

plural, language contact, Amdo, Tibetic, Turkic, Mongolic, Sinitic

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# *The grammaticalisation of plurality in the languages of Amdo: A case of structural convergence*

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## **1 Introduction**

This paper analyses the grammaticalisation of the domain of plurality in several languages of Amdo. This domain of grammar shows characteristic features of areal convergence from multiple model-languages and this paper aims at identifying the respective contribution of each language group in this respect.

The first part describes the plural vs. unmarked opposition attested in all languages of Amdo and introduces the basic morphological features and functional structuration of the domain. Being typologically very common, the functional similarities of this distinction among the languages of Amdo cannot be attributed to linguistic convergence. However, the rich inventory of “main plural” morphemes in most of the languages should be noted as characteristic of the area.

In a second part, the cross-linguistically less frequent plural categories of dual, paucal and collective/exhaustive are described and their degree of grammaticalisation in the languages of Amdo is discussed. The fact that languages belonging to distinct families display several subcategories of plurality, with similar functional characteristics, can be considered an areal feature.

The third part addresses grammatical categories semantically related to plural, but that do not necessarily belong to the same paradigm of plural morphemes. These categories also show clear cases of morpho-phonological and functional copies.

Finally, cases of linguistic copying in the domain of plurality markers are summarised. All the language families present in Amdo have contributed, to varying extent and for different features, as a model-language. The respective contribution of each language group is synthesised in a scheme representing the dynamics of linguistic convergence in the grammatical domain of plurality.

Languages taken into account in this study are listed and located on the map below. Salar and Amdo Tibetan examples are original data of the author, collected since 2012.<sup>1</sup> The Amdo Tibetan varieties taken into account in this paper are spoken in Hualong, Xunhua and Rebkong

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<sup>1</sup>These data are partially archived in the Pangloss Collection (<https://pangloss.cnrs.fr/corpus>).

(ch. Tongren) counties, completed with a few data elicited in Paris, with a speaker from Chabcha (ch. Gonghe). Although these varieties may differ in several respect, no significant differences have been found regarding the marking of plurality.<sup>2</sup> Data for other languages are from secondary sources, listed in the references.<sup>3</sup> Following Dede (2003), three groups of Qinghai Chinese dialects are distinguished.<sup>4</sup> However, depending on the feature considered, only data for the Linxia, Xunhua and Gan'gou Chinese dialects could be accessed. Some authors only provide examples in Chinese characters (without a gloss or a transcription) when they describe these dialects: in this case, the gloss is reconstructed, based on standard Chinese, but we do not attempt to restore the phonological transcription.

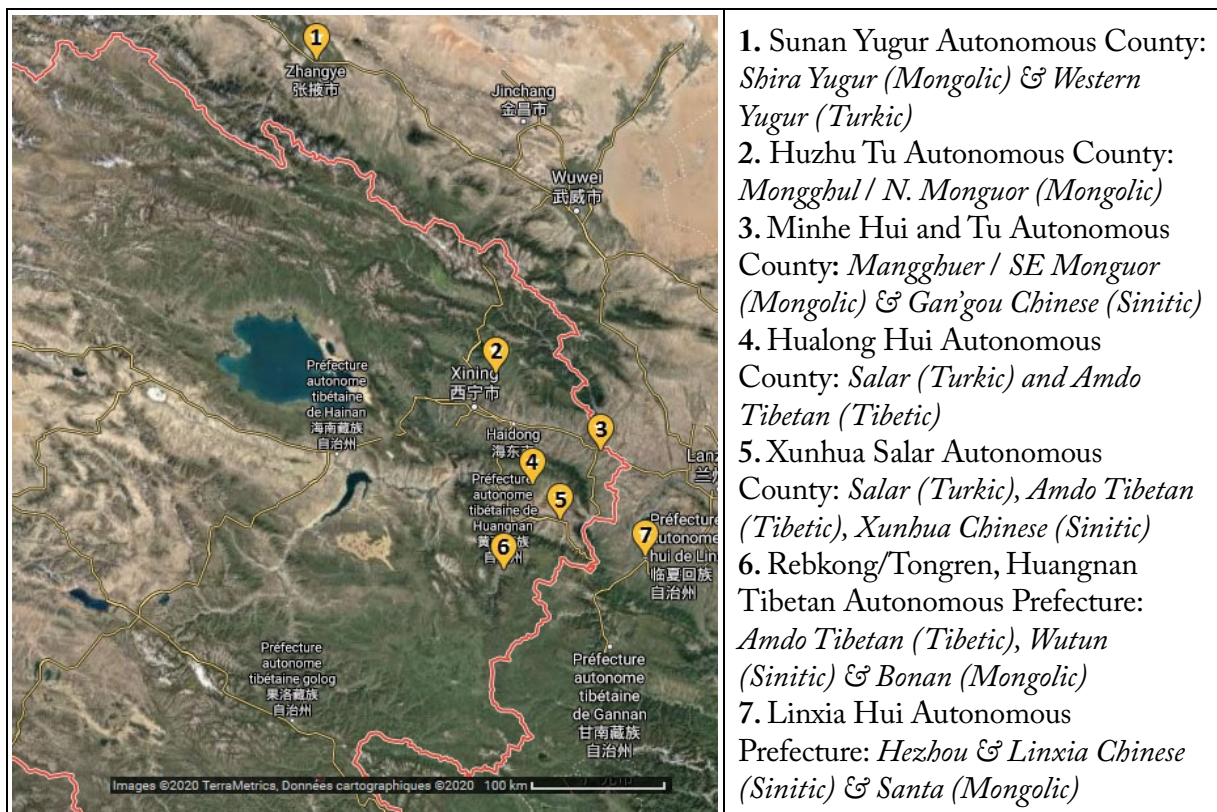


Figure 1. Location of the languages analysed in this paper

<sup>2</sup> Other varieties, such as rMachu (ch. Maqu) Tibetan varieties seem to display more differences, and have not been included here, in the absence of sufficiently precise data.

<sup>3</sup> For a greater clarity, glosses have been harmonised.

<sup>4</sup> “The three groups are: 1) the Xining group, including metropolitan Xining, the counties of Huangzhong, Ping’an, Huangyuan, Huzhu, Hualong, Menyuan and the speech of the county seat of Guide; 2) the Ledu group, including the counties of Ledu and Minhe; and 3) the Xunhua group, including the counties of Xunhua, Tongren and the rural dialects of the county of Guide. The Xunhua group, essentially the areas along the Yellow River, accords with the area that is said to use “Hézhōuhuà”. Hezhou is the former name of Linxia, a county seat across the border in Gansu, where Hézhōuhuà is also used. When this area was still part of Gansu province, its prefectural capital was Hezhou, so it is natural that even today the two regions have similar dialects.” (Dede 2003: 332).

## 2 Opposition between Plural and Unmarked Number

The languages of Amdo mark number only on the pronoun and noun-phrase. In all the languages of Amdo, plural morphemes are suffixes or enclitics that might express semantically different subcategories of plurality. Number is marked once, and there is no agreement of any sort within the noun-phrase. This domain is fundamentally structured by the opposition between plural and unmarked noun-phrases. Noun-phrases unmarked for number may refer to plural or singular entities, whereas noun-phrases with a plural morpheme always refer to more than one entity.

### 2.1 Noun-phrase Unmarked for Number

A general, common feature of the languages of Amdo is that a noun-phrase unmarked for number may correspond to either definite singular, or plural (in particular indefinite or unspecific plural), as illustrated respectively by examples (1) and (2) below:

(1) a. TB Amdo Tibetan, Xunhua, Bimdo, M41 (2014) <sup>5</sup>			
ཉི་མ་	ཞེ་གེས་	མ་-ཚོས་-ན་	སྐམ་-མི་-བྱུང་-གི
<i>nəma</i>	<i>ɛegə</i>	<i>ma-tʰi-na</i>	<sup>h</sup> <i>kam-mə-tʰəp-gə</i>
sun	very	NEG-shine-COND	dry-NEG-can-STAT.SENS
'If the sun does not shine bright,		[one/we] can't dry [grain].'	
b. TU Salar, Xining, M70 (2012)			
<i>dəji</i>	<i>anda</i>	<i>jer-mif</i>	
camel	DEM.LOC	settle-PV.INDIR	
'The camel <sup>6</sup> had settled there.'			
(2) a. TB Amdo Tibetan, Hualong Khargang, M35 (2013)			
དུར་རྩ་	བཀོག་-གི	འགོ་-གི་ཡོང་-ལ།	
<sup>y</sup> <i>jartsa</i>	<sup>h</sup> <i>kok-gə</i>	<sup>n</sup> <i>ɬo-gəjo-la</i>	
<i>cordyceps.sinensis</i>	pick-CONV	go-IPV.EGO-PHAT	
'You go to pick <i>yartsas</i> , right?'			
b. TU Salar, Xining, M70 (2012)			
<i>dal</i>	<i>var-a</i>	<i>dʒidʒek</i>	<i>afəl-ba</i>
tree	EXIST-HET	flower	open-IPV.HET
'[It was a nice, nice place, very green:] there were <b>trees</b> , <b>flowers</b> were blossoming.'			

<sup>5</sup> Examples are introduced as follows: language family (MO: Mongolic; SI: Sinitic; TB: Tibetic; TU: Turkic), language name, source. For examples from the author's corpus, the language name is followed by the place of recordings, details about the speaker and year of recording, e.g. example (1a.) was recorded in 2014 in the Bismdo valley of Xunhua county, with a 41 years old male speaker.

<sup>6</sup> Here, the speaker refers to the legendary white camel that brought Qurans and Samarkand's soil and water, during the founding migration of the Salar people to Amdo. Thus, the referent is specific and well identified.

Moreover, in these languages, the plural marker is generally lacking if the context already suggests the plurality of the referent. Notably, it is normally absent if other elements clearly indicate that the referent is plural: with numerals or quantifiers, as in the following examples:

(3) a. TB Amdo Tibetan, Hualong Kamdo, M82 (2012)

ཚོ་བ་	ལྔ་པོ་	བོད་	རེད།
<i>ts<sup>h</sup>owa</i>	<i><sup>h</sup>ya-wo</i>	<i>wo</i>	<i>re</i>
clan	five-DEF	Tibet	EQU.FACT

The five clans were Tibetan [clans].

b. TU Salar, Xining, M70 (2012)

<i>sen san</i>	<i>ʂə</i>	<i>otuz</i>	<i>quranə</i>	<i>ʃyt-e</i>	<i>sen jyr</i>
2SG	three	ten	thirty	quran.ACC	take-CONV
				2SG	walk.IMP

'You, take thirty, thirty Qurans and walk.'

c. MO Mongghul, Faehndrich (2007: 181)

<i>ʃila:n</i>	<i>Gual-ge</i>	<i>trua-ni</i>	<i>nige</i>	<i>ban</i>	<i>teiGa:n</i>	<i>xurGa</i>	<i>kide:</i>
red	valley-SG	inside-POSS	one	group	white	lamb	lie.down
<i>su:-ɬ-i:</i>	<i>ja:-ni:</i>						
sit-PV-SUBJ	what-SUBJ						

'In a red valley, a group of white lambs are lying down. What [is it?]'

d. SI Xunhua Chinese, Dwyer (1995: 163)

五	個	果子	(裡頭)	我	吃	了	兩個
<i>vu<sub>34</sub></i>	<i>kə<sub>55</sub></i>	<i>kuɔ<sub>53</sub>dzɿ</i>	<i>(li<sub>53</sub>theu)</i>	<i>ŋə<sub>53</sub></i>	<i>tɕi<sub>55</sub></i>	<i>liɔ<sub>53</sub></i>	<i>ljan<sub>53</sub>gə<sub>55</sub></i>
five	CL	fruit	(within)	I	eat	PV	two-CL

'I ate two of the five fruits.'

e. SI Gan'gou Chinese, Zhu, Chuluu, Slater & Stuart (1997: 440)

<i>Nai-huer,</i>	<i>yige</i>	<i>jia-li</i>	<i>sige</i>	<i>ren</i>	<i>youli</i>	<i>bai</i>
that-short time,	one	family-LOC	four	people	there be	EMPH

'In olden days there were four people in one family.'

However, in the same language, Yang (2014: 251-252, examples (96-101)) provides examples where the plural marker co-occurs with a numeral:<sup>7</sup>

f. SI Gan'gou Chinese, Yang (2014: 251)<sup>8</sup>

老師-們	五-個	來-了。
teacher-PL	five-CL	arrive-PV

'Five teachers are here.'

<sup>7</sup> Such a use distinguishes Gan'gou Chinese from other Sinitic languages (Iljic 2001 : 20-24).

<sup>8</sup> Examples mentioned in Yang 2014 have no phonological transcription, nor morpheme-by-morpheme gloses. The proposed glose is based on Mandarin Chinese.

More research is needed to determine whether what motivates the use of a plural marker (or its lack) in this context. In Amdo, Western Yugur presents the only (partial) exception to this rule. The plural morpheme does not co-occur with numerals, however:

The plural is always used in connection with the indefinite pronoun *xosī* ‘all, every, everybody, everything, all of it, all of them’ [as in] *kīsī-lir xosī* all of the people, everybody (person-PL all) (Roos 2000: 67)

The following table summarizes this general tendency of omitting plural markers in a context of explicit plural in the languages of Amdo. This overall lack of plural marking in explicit contexts is expected, since it corresponds to the normal situation in the respective language families and is not the result of structural convergence.

		Morphological marking in an explicitly plural context
SI	Xunhua Chinese <sup>9</sup>	No plural morpheme. See example (3)d.
	Gan’gou Chinese	Plural marker possible, but not obligatory See examples (3)e and f.
	Wutun	“Number marking is also absent with referential nouns when the number is indicated by a numeral or a quantifier.” (Sandman 2016: 44)
TU	Salar	No plural morpheme. See example (3)b.
	Western Yugur	“No plural suffix is used after numerals.” (Roos 2000: 67) Plural suffix with the pronoun ‘all, every, everybody, everything’
TB	Amdo Tibetan (Xunhua, Hualong & Rebkong)	No plural morpheme. See example (3)a.
MO	Qinghai (Rebkong) Bonan	“Noun phrases uninflected for number [...] when number is expressed lexically.” (Fried 2010: 66)
	Mongghul / Northern Monguor	“As in other Mongolic languages, countable nouns which are already determined by a numeral or quantifier are not marked for plurality.” (Georg 2003: 295)
	Minhe Mangghuer / Southeastern Monguor	“[The plural marker] usually appears only when there is no numeral or other lexical indicator of number.” (Slater 2003: 103)
	Santa / Dongxiang	“The plural marker is often omitted, especially when the information is already provided by the context.” (Kim 2003: 353) (Field 1997: 317) indicates, however, that the plural marker may occur in noun phrases containing a numeral, when they refer to a definite (activated, accessible) entity.
	Shira Yughur	“[P]lural marking occurs sparingly. It is normally absent after quantifiers, as well as on stems denoting objects which naturally appear as pairs, groups, or uncountable quantities.” (Nugteren 2003: 270)

Table 1. Morphological number with numerals, quantifiers, or in an explicit plural context

<sup>9</sup> As mentioned above, Xunhua, Linxia and Hezhou Chinese belong to the same subgroup of Qinghai Chinese, and Hezhou is the former name of Linxia. However, the different sources used in this paper sometimes show significant morpho-phonological differences between the varieties they describe. Thus, I chose to keep the language name used by the authors, and to clearly distinguish them in the present analysis. Hence, data from Li (1987) appear under “Qinghai Chinese”, data from Dwyer (1995) are labelled “Xunhua Chinese”, “Linxia Chinese” corresponds to data from Dwyer (1992) and Xie *et al.* (1996), and “Hezhou Chinese” data come from Ma (1988).

## 2.2 Main Plural Marker

The “main” plural morpheme(s) is/are defined as the most frequent and semantically least specific plural morpheme(s) of a given language (other morphemes such as dual, paucal or collective markers are semantically more specific and will be treated in section 3). As shown in table 2 below, most languages of the sample have several allomorphs for this type of plural (unproductive or less common morphemes are indicated in brackets). Allomorphs can be phonologically conditioned, as in Western Yugur and in Shira Yughur, or free allomorphs (in Wutun, Salar, Amdo Tibetan varieties and Mongghul). Their use can also be determined lexically, corresponding to the animacy hierarchy: in this case, pronouns or nouns referring to relatives, humans, or animates may take a specific plural morpheme (mostly in Mongolic languages, but also in Wutun).

The presence of several plural morphemes is common in the Mongolic languages, and finds its origins already in proto-Mongolic (Janhunen 2003: 12-13)<sup>10</sup> whereas in Turkic, allomorphy is normally phonologically conditioned, Salar being clearly divergent in the family. In Tibetic, although several plural morphemes are attested in written Tibetan, individual dialects usually display one single form only (Tournadre & Suzuki forthcoming: 240).<sup>11</sup> This is not the case in Amdo Tibetan: the relative frequency of each morpheme in a single speaker’s discourse is possibly affected by local dialectal and sociolectal factors but even if some speakers seem to favour one morpheme more than others, all speakers tend to use all morphemes as free allomorphs.

		Main plural morpheme(s) and its allomorphs	
SI	Xunhua Chinese	<i>-mɛ̃</i> <sup>12</sup>	
	Linxia Chinese	<i>-mej</i> <sup>13</sup>	
	Hezhou Chinese	<i>-ŋ, -mu</i>	Lexically conditioned + stress <sup>14</sup>
	Gan’gou Chinese	<i>-mu</i> <sup>15</sup>	
	Wutun	<i>-dera; -duru -men</i>	Free allomorphs Lexically conditioned <sup>16</sup>
TU	Salar	<i>-lar; -ler; -lär; -la</i> Free allomorphs <sup>17</sup>	
	Western Yugur	<i>-lir; -tir; -nir; -lar; -tar; -nar</i> Phonologically & sociolinguistically	

<sup>10</sup> To explain the great number of allomorphs, Janhunen notes: “[P]lural formation may originally have been part of a more general system of nominal classes, in which both the singular and the plural were marked by distinct class suffixes. What the semantic basis of this possible Pre-Proto-Mongolic class system may have been, remains to be clarified, but in any case it is obvious that the distribution of the plural suffixes was not only phonologically conditioned.” (Janhunen 2003: 13).

<sup>11</sup> This statement must, however, be mitigated. A closer analysis of this grammatical category in single varieties may reveal a more complex picture. For example, Ladakhi dialects have two plural suffixes corresponding to our main plural, and a free form grammaticalised from the adjective meaning ‘all’ that could be analysed as a kind of exhaustive plural, but tends to occur more frequently than the suffixes (many thanks to the anonymous reviewer for bringing this information to my attention).

<sup>12</sup> Dwyer (1995), examples 2, 56, 90, 83, 123.

<sup>13</sup> From Lefort (2015: 160). Xie *et al.* (1996) do not provide phonological transcriptions.

<sup>14</sup> Ma (1988: 73 §7) indicates that the plural marker is *-ŋ* with pronouns, and *-ŋ* (or *mu*, when stressed) with nouns.

<sup>15</sup> Zhu *et al.* (1997), Yang (2014).

<sup>16</sup> “[T]he Chinese plural marker *-men* is occasionally used with +HUMAN nouns” (Sandman 2016: 45).

<sup>17</sup> There is no evidence of phonological conditioning (vowel harmony) in my data.

		Main plural morpheme(s) and its allomorphs	
		conditioned <sup>18</sup>	
TB	Amdo Tibetan (Xunhua, Hualong & Rebkong)	<i>-ɣ<sup>h</sup>ao; -ɣ<sup>h</sup>o; -zo; -so</i>	Free allomorphs <sup>19</sup>
	Qinghai (Rebkong) Bonan	<i>-la</i>	
MO	Mongghul / Northern Monguor	<i>-sgɿ; -sɿ;</i> <i>(-sila; -ɲla; -ɲgula;</i> <i>-aŋla; -ɲ)</i>	Free allomorphs (Lexically conditioned) <sup>20</sup>
	Minhe Mangghuer / Southeastern Monguor	<i>-si</i>	
	Santa / Dongxiang	<i>-la;</i> <i>(-sila; -ɛje; -ɛjela)</i>	(Lexically conditioned) <sup>21</sup>
	Shira Yughur	<i>-s; -is</i> <i>(-duud)</i>	Phonologically conditioned (Lexically conditioned) <sup>22</sup>

Table 2. Main plural morphemes in the languages of Amdo

This table shows that the non-Sinitic languages of Amdo tend to have several allomorphs to mark the main plural. Wutun is the only notable exception among the Sinitic languages, with three allomorphs. All the descriptions of the languages of Amdo highlight the fact that plurality is tightly related to referentiality or definiteness: plural marking is limited to referential or definite plural entities as in the Amdo Tibetan and Salar examples in (4) and (5).<sup>23</sup>

(4) a. TB Amdo Tibetan, Hualong, Chumar F45 (2012)

ཆཱ་ཡི་ཚའོ་གིས་	ཉན་ནས་	བཞུང་ཡོད་གི
<i>fajə-ɣ<sup>h</sup>ao-kə</i>	<i>ɲen-i</i>	<i>za-jokə</i>
children-PL-ERG	listen-CONV	stay-PERF.SENS
'The children are listening.'		

<sup>18</sup> "Younger speakers often do not observe vowel harmony in this suffix, and in their speech, *-Lir* is the predominant form." (Roos 2000: 66). According to Zhong (2019: 212), the initial consonant assimilation is also irregular among younger speakers.

<sup>19</sup> The morphemes have a distinct etymology: the first two (*-ɣ<sup>h</sup>ao* and *-ɣ<sup>h</sup>o*) probably grammaticalised from the noun 'pair' <cha> followed by the definite marker <bo> while the other two (*-zo* and *-so*) correspond to the Central Tibetic plural marker *-ts<sup>h</sup>o* (Skal bzang 'gyur med and Skal bzang dbyang can 2002).

<sup>20</sup> These morphemes only appear with pronouns and nouns referring to animates in elicited data. Note that the two more common morphemes *-sgɿ; -sɿ;* can also be used with these morphemes, instead of *-sila; -ɲla; -ɲgula; aŋla; -ɲ* (Faehndrich 2007: 86-87). See also Faehndrich (2007: 92) for a complete inventory of plural markers in the different Mongghul dialects.

<sup>21</sup> These forms are not productive and used only for pronouns and kinship terms (Kim 2003: 353).

<sup>22</sup> "Another plural ending is *.duud* (historically a double plural *\*-d.UUd*), which is found in a few 'elevated' words such as *niyon* 'lord': pl. *nियो.duud*." (Nugteren 2003: 270).

<sup>23</sup> Although not all definite plural noun-phrases bear a plural marker. As noted above, noun-phrases referring to definite, plural entities may remain unmarked for plural if the context is clear enough.

b. TB Amdo Tibetan, Hualong, Kamdo, M82 (2012)

ས་ཚོ	བཞོན་སྡེག	བྱས་བཞོན་མི་རེད།
<i>s<sup>h</sup>a-zo</i>	<i>koqək</i>	<i>je-<sup>v</sup>zoknəre</i>
fields-PL	distribution	LIGHTV-RES.PERF.FACT
‘[They] have redistributed the fields [of the villagers].’		

(5) TU Salar, Xunhua, Yardzi, M47 (2014)

<i>Marijen-nige</i>	<i>ojna-gudzi</i>	<i>bala-lar</i>	<i>dʒab-lar</i>	<i>anə</i>	<i>ʃəqer-me</i>	<i>gij-mif</i>
M.-GEN	play-NMLZ.AG	child-PL	friend-PL	3SG.ACC	call-NMLZ	come-PV.INDIR
‘Marijen’s friends, the children who are playing came to call her.’						

A similar restriction is mentioned by Sandman (2016: 45) for Wutun, by Roos (2000: 66-67) for Western Yugur, and by Fried for Bonan (Fried 2010: 74). No clear information has been found on this topic for Shira Yughur but in Mangghuer, Slater (2003: 103) notes that “[s]peakers often choose not to use *si* when the referent has the characteristics of a non-individuated set, as do *puzighuo* ‘deep-fried twisted doughsticks’ in (74) and *khuoni* ‘sheep’ in (75)”

For Santa/Dongxiang, although this restriction is not explicitly mentioned, a particularly clear example of the relationship between the use of plural marker and definiteness is provided by Field (1997). In one and the same text, the first occurrence of a noun phrase referring to three celestial beings has no plural marker, whereas the second occurrence - after the referent has become identifiable by the hearer - has one. As mentioned above, such an example goes against the Kim’s statement that noun phrases containing a numeral are unmarked for number in Santa.

(6) MO Santa, Field (1997: 317)

a.	<i>ɕieni-də=ni</i>	<i>guraŋ</i>	<i>ʂənciən</i>	<i>irə=də</i>	<i>gudəu</i>	<i>buluŋ-də</i>	<i>hamara-ndu-wo</i>
	night-LOC=TM	three	celestial.being	come=CONV	well	edge-LOC	rest-REC-PV
	‘At night, three celestial beings came and rested together at the well’s edge.’						
b.	<i>ɕieni-də=ni</i>	<i>ənə</i>	<i>guraŋ</i>	<i>ʂənciən-la</i>	<i>pəsə</i>	<i>irə=də</i>	<i>ənə</i>
	night-LOC=TM	this	three	celestial.being-PL	again	come-CONV	this
	<i>gudəu</i>	<i>buluŋ</i>	<i>dziərə</i>	<i>hamara-ndu-wo</i>			
	well	edge	on	rest-REC-PV			
	‘At night, these three celestial beings came again and rested on the well’s edge.’						

In Mongghul, non-referential (ex. 7a.) or indefinite (ex. 7b.) plural entities are also unmarked for number.

(7) a. MO Mongghul, Faehndrich (2007: 106)

<i>bi</i>	<i>jile:-sa</i>	<i>xudi</i>	<i>aji-n-a</i>
1SG	ghost-ABL	INTENS	fear-NPST-OBJ
‘I am very afraid of ghosts.’			

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b. MO Mongghul, Faehndrich (2007: 305)

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<i>ta-nla</i>	<i>aw-dzi</i>	<i>ri-san-i</i>	<i>dzanri</i>
2PL.STEM-PL	take-IPV	come-PST-SUBJ	metal.hairpin

‘You brought metal hairpins.’

The only notable exception to this rule is Mangghuer. In this language, the plural marker can occur on noun phrases referring to indefinite plural entities, such as ‘boys’ in the following example.

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(8) MO Mangghuer, Slater (2003: 102)

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<i>bulai-si</i>	<i>xi-ku,</i>
child-PL	go-IPV

‘(Some) boys went.’

The plural morpheme is however optional in this utterance<sup>24</sup>. Moreover, its presence in example (8) could also be related to the fact that the noun phrase is referential and refers to humans. In the following example, the indefinite noun phrases ‘sheep’ and ‘goats’ are not marked in plural although they refer to plural entities.

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(9) MO Mangghuer (Slater 2003: 318)

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<i>muni</i>	<i>ger=du</i>	<i>khuoni</i>	<i>a</i>	<i>bi,</i>	<i>yima</i>	<i>a</i>	<i>bi,</i>
1:SG:GEN	house=DAT	sheep	also	SUBJ:COP	goat	also	SUBJ:COP

[What is in your house?] In my house there are sheep, there are also goats,

This distribution of the main plural marker, restricted to definite or referential entities corresponds to what is classically observed in the Tibetic<sup>25</sup> and Turkic languages<sup>26</sup>. In the Sinitic languages, plural marking is further restricted:<sup>27</sup>

The one place where Mandarin must mark plurality is with pronouns [...] This same suffix *-men* may occasionally be found to express plurality with nouns referring to people [...] but its use with nouns is very rare. (Li and Thomson 1989: 12)

But the Sinitic languages of Amdo have extended the use of the plural marker as a result of language contact:

Xie, Hua, and Zhang (1996: 274) report that Linxia Chinese dialect has generalized the Sinitic plural marker *men* to mark all plural nouns. They attribute this development to the influence of Amdo Tibetan [...]. K. Li (1987: 27) reports a similar development in Qinghai Chinese, although this author attributes the generalization of *men* to the influence of Altaic languages. (Slater 2003: 104)

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<sup>24</sup> “When a plural referent is intended, the post-nominal plural marker *si* may optionally be used.” (Slater 2003: 102).

<sup>25</sup> “Number is usually not compulsory in the Tibetic languages [...] In many cases, the use of collective markers (or ‘plural’ markers) is restricted to definite and animate beings when it is directly affixed to the head nouns, but they may be used with inanimate entities when preceded by a demonstrative.” (Tournadre and Suzuki forthcoming: 239-241).

<sup>26</sup> See for instance Bazin (1987: 28) for Turkish.

<sup>27</sup> See also Iljic (2001: 19).

These authors provide several examples of noun-phrases referring to things marked with the plural morpheme 们. The noun phrase is always referential, as in the following example:

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(10) a. SI Linxia Chinese, Xie, Hua and Zhang (1996: 274)

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书	们	拿	走!
book	PL	take	go
‘Take the books away!’			

Another example is provided by Ma for Hezhou Chinese, where the plural morpheme occurs after the interrogative pronoun ‘who’:

---

(10) b. SI Hezhou Chinese, Ma (1988: 72)

---

谁	们	来	了
<i>akə</i>	<i>mu</i>	<i>le</i>	<i>liɔ</i>
who	PL	come	pv
‘Who came?’			

In Gan’gou Chinese too, Yang also observes that the plural marker *mu* may occur in noun phrases referring to inanimates (Yang 2014: 241), as well as after interrogative pronouns (Yang 2014: 245–246). However, this is not systematic: as the following example shows, the noun-phrase ‘the fried cakes’ has no plural morpheme, although it refers to several cakes (and the immediate context does not provide explicit indication of number, even though we might consider that since there are two parents, there must be at least one cake for each):

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(11) SI Gan’gou Chinese, Zhu, Chuluu, Slater and Stuart (1997: 438–439, Narrative 1.42)

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<i>dao-shang-zhi</i>	<i>ha-gei-liao-shi,</i>	<b><i>nege</i></b>	<b><i>you-bingzi</i></b>	<i>re-zhi</i>
pour-INTENS-CONV	down-CAUS-PV-(COP-)then	<b>that</b>	<b>fried cake</b>	hot-CONV
<i>liar-ren-ha</i>	<i>tang-si-guo-gei-liao</i>			
two-person-ACC	burn-die-INTENS-PV			
‘Afterwards, because <b>those fried cakes</b> were so hot, they burned the parents to die.’				

Thus, similarities in the domain of number in the different languages of Amdo can first be observed in the use of plural marker on pronouns and referential or definite noun phrases, wherever the context does not explicitly indicate plurality. It should be noted that such a distribution is typologically common and is generally expected in the language families analysed here. However, the use of plural marker with noun phrase in the Sinitic varieties of Amdo, contrary to other Sinitic varieties, is likely to be a contact induced change. Second, the fact that several languages display many free or conditioned allomorphs should also be noted as a possible areal feature.

### 3 Specific Plural Categories

In most languages of Amdo, this opposition between unmarked number and plural is further augmented by one or several more specific number categories such as dual, paucal, collective and exhaustive. These categories share similar morphosyntactic properties with the main plural

morphemes in their respective languages. In most cases, however, they are more recently grammaticalised, and thus, remain morphosyntactically more independent than the main plural morphemes, and their etymology is often transparent.

### 3.1 Dual

A dual marker is defined as a morpheme obligatorily used if the noun phrase refers to exactly two entities. Thus, in languages with a dual number, the plural morpheme is only used when there are more than two entities. It can be argued that several languages of Amdo have grammaticalised such a marker, even though the source of grammaticalisation, the numeral ‘two’ remains transparent. For instance, Fried provides phonological and syntactic arguments to demonstrate the grammaticalisation of a dual morpheme in Bonan.

The enclitic =*ɣala* marks dual number. One might object that this form should be analyzed as the numeral ‘two’ (*ɣar*) plus the plural marker =*la*. However, indicating ‘two’ lexically by means of the numeral *ɣar* differs from the use of =*ɣala* in that *ɣar* is not phonologically part of the preceding word, and no number enclitic is used. Additionally, the use of lexical number rather than a number enclitic usually indicates indefiniteness. [...] Furthermore, the use of the plural enclitic =*la* alone to refer to two entities is ungrammatical, which is evidence that the distinction between dual and plural number is a fully integrated part of the number system. Synchronically speaking, then, the form =*ɣala* is best analyzed as a monomorphemic dual marker, the morphological transparency of its pathway of grammaticalization notwithstanding. (Fried 2010: 67)

Similarly, in Salar, morphosyntactic properties indicate that the numeral ‘two’ is grammaticalised as a dual morpheme. First, whereas numerals may appear both before and after the noun phrase in Salar (example 12), the dual marker *ifgisi* always follows the noun, like in example (13)a. Moreover, it is related to the noun phrase with the possessive suffix *-si*. The possessive suffix is obligatory but unlike regular possessive constructions illustrated, for instance, by *bazar-nige dot jan-ə* ‘the market’s four corners’ in (12), the noun phrase cannot bear the genitive suffix (example 13b.)

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(12) TU Salar, Xining, M70 (2012)

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[*bazar-nige*] *dot jan-ə ak daf dot belige tik-se vo-ga ro*  
 [market-GEN] four side-3POSS white stone four like.this erect-COND be.fine-FUT.HET Q  
 ‘Can you erect four white stones at the [market’s] four corners?’

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(13) a. TU Salar, Hualong, Chumar, M70 (2012)

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*bu xaba-dzik ifgi-si dala-f-bəra*  
 DEM dog-DEF DU-3POSS bite-REC-IPV.HET  
 ‘These (two) dogs are biting each other.’

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b. TU Salar, Xunhua, Yardzi, M46, elicited (2013)

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\* *bu xaba-dzik-nige ifgi-si dala-f-bəra*  
 DEM dog-DEF-GEN DU-3POSS bite-REC-IPV.HET  
 (Intended: ‘These two dogs are biting each other’)

In most Turkic languages, the possessive construction consist of an (optional) genitive marker on the possessor, and a possessive marker on the possessed entity (Johanson1998: 49-50). The genitive marker can be omitted if the possessor is non-referential, but its presence never leads to an ungrammatical construction. The fact that the possessor cannot bear the genitive marker, despite its referentiality, indicates that the construction is frozen.

Finally, the dual marker is a morphosyntactically independent unit in Salar: it does not require the presence of noun or a pronoun and forms the head of the noun phrase:

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(14) TU Salar, Xunhua, Yardzi, M46 (2013)

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<i>ja:</i>	<i>ifgi-si</i>	<i>solə-f-dzi</i>	<i>a</i>
PTCL	DU-3POSS	collide-REC-PFV.DIR	PTCL

‘Oh, the two of [them] collided!’

The Turkic languages usually do not have dual morphemes,<sup>28</sup> but both Salar and Western Yugur present evidences of the grammaticalisation of this category. In Salar, the main plural marker is normally excluded when the noun phrase refers to two entities. However, this is not an absolute rule, and it should be noted that in example (5) *bala-lar* and *dʒab-lar* correspond to the description of a picture representing two children only.

Similar arguments can be made for Western Yugur. First, in terms of frequency, Roos (2000: 93) notes that “the third person possessive of the numeral *işki* ‘two’, *işki-si*, means ‘the two of them, both, together with, and’”, and is more frequent than the third person possessive forms of other numerals. Such an observation indicates that noun phrases referring to exactly two entities normally tend to occur with *işki-si* instead of another plural marker. In the sample of texts provided by Roos (2000), I have, indeed, not been able to find a single occurrence of the main plural marker when the noun phrase refers to two entities only (whereas it does occur when it refers to three entities). Hence, trial (or more) noun phrases are marked by the main plural morpheme, whereas dual noun phrases are usually marked by *işki-si*, indicating a possible grammaticalisation as a proper dual marker. Finally, according to her examples, the morphosyntactic construction is different if one refers to a group of three: in the latter case, the word *kisi* ‘person’ should be used.

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(15) TU Western Yugur, Roos (2000: 93)

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a.	<i>miz</i>	<b><i>işki-si</i></b>	<i>yol</i>	<i>maŋ-ıppar</i>
	we	two-3POSS	road	walk-PROG

‘The two of us are walking.’

b.	<i>miz</i>	<b><i>uŝ</i></b>	<b><i>kisi</i></b>	<i>ku</i>	<i>payacanı</i>	<i>thayt-ı</i>	<i>oyŋ-ini,</i>	<i>su-ŝ-ki</i>
	we	three	person	DEM	bucket-ACC	throw-CONV	play-IMP <sub>1PL</sub>	water-in-DAT

‘Let the three of us play, throwing these buckets into the water.’

Thus, in Western Yugur too, a dual marker is, if not fully, at least partly grammaticalised. The same situation is found in Amdo Tibetan, where the morphosyntactic position of the numeral ‘two’

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<sup>28</sup> According to Róna-Tas (1998: 73) there was no dual in Proto-Turkic, and this category is not common in this language family.

marker is different from that of other numerals: It appears after the demonstrative, in the same slot as the plural markers, whereas numerals appear before the demonstrative, as illustrated in (16)a. and (16)b.

(16) a. TB Amdo Tibetan, Paris, M50, Elicited

མྱེ            འདི་གཉིས་ཀྱིས  
*m̥nə*        *ˈdə-ɣi-kə*  
 person      DEM-DU-ERG  
 ‘These two people’

b. TB Amdo Tibetan, Hualong, Kamdo, M82 (2012)

འཚོ་བ་        ལྔ་            འདི་  
*ˈs̥ˠowa*      *ˈŋa*        *ˈdə*  
 clan        five        DEM  
 ‘These five clans’

Among the Mongolic languages of Amdo, as mentioned above, Bonan possesses the grammatical category of dual. In Shira Yugur, a similar morpheme, corresponding etymologically to the collective form of the numeral ‘two’, seems to be particularly common and frequent, and could be a partly grammaticalised dual marker. Moreover, a specific dual pronoun is grammaticalised for the second person:

There are also numerous compound expressions with [...] *ghuur.la* > *ghula* ‘two together’: [...] *ene ghula* ‘these two’, *tere ghuur.la* > *tere ghula* ‘both; the two of them’, etc. [...] A special formation is, however, present in *tughula* (< *\*ta+ghuur.la*) ‘you two’, which comes close to being a separate dual pronoun, as is also suggested by the fact that it has developed an oblique stem in *n*, e.g. conn. *tughulan-i*. (Nugteren 2003: 273, emphasis added).

In Mangghuer, Mongghul and in Santa/Dongxiang, more research is needed to precisely assess the extent to which the construction combining the numeral ‘two’ with a collective suffix is fully grammaticalised as an obligatory dual morpheme. For Minhe Mangghuer, Slater gives one example where this form combines with an unexpected allomorph for the first person plural pronoun, which could be analysed as a specific dual pronoun rather than a plural.

[T]here is one example in the folktales of the first singular pronoun *bi* [instead of the expected suppletive root *da*] appearing with the collectivized numeral ‘two’ to indicate a plural meaning. (Slater 2003: 84).

A dual morpheme is also found in Mongghul (Faehndrich 2007: 89-91) for pronouns and nouns referring to animate entities:

(17) MO Mongghul, Faehndrich (2007: 90)

*menszen da a:ma-gula-na: kunan a xa,*  
 menzhen and mother-DU-REFL difficult COP PTCL  
 ‘Menzhen and his mother were both very poor, so ...’

Dwyer & Politzer-Ahles (forthcoming) transcribe this morpheme as *ghulo*, combining with some pronouns, demonstratives and nouns referring to humans, either as a suffix or as an independent unit. Regarding its function, they further observe that:

*ghulo* is some special sort of number and seems to only be used in this grammatical sort of way (ie, it is not used for counting or referring to the idea of “two,” but rather for making things plural), and in this sense it contrasts with *ghoor*, which also means “two” but seems to be more literal. (Dwyer & Politzer-Ahles forthcoming: 4)

Hence, this morpheme does not always have a dual reading but can also be interpreted as an exhaustive plural marker (see also below, section 3.3). However, the authors provide several examples combining this morpheme with noun phrases referring to natural pairs, such as “father and mother” (such as example 18) or pronouns “you and me”, that suggest that the dual meaning is still present, even though the grammaticalisation has gone further towards an exhaustive or a more general plural morpheme.

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(18) MO Mongghul, Dwyer & Politzer-Ahles (forthcoming: 8)

<i>aaba</i>	<i>aama</i>	<b><i>ghulo</i></b>	<i>ndiree</i>	<i>sauguna,</i>	<i>mane</i>	<i>moxiji.</i>
father	mother	two.NUM.COLL	here	live-ACC.FUT	scripture	chant-IPV

‘[My] mother and father will live here and chant scriptures.’

While Faehndrich unambiguously analyses this morpheme as dual, Dwyer & Politzer-Ahles do not clearly state whether a pronoun or a noun-phrase referring to two entities can be marked with the main plural morpheme or not.

In Santa, Field (1997) does not mention any evidence of grammaticalisation of the numeral ‘two’ into a dual marker. Although the collective or plural form of the numeral ‘two’ may, in this language too, appear to be a good candidate for this function, as in example (19a.), example (19b) clearly shows that this form is not obligatory.

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(19) a. MO Santa, Üjjiyediin Chuluu (1994: 10)

<i>hə</i>	<b><i>gua-la</i></b>	<i>ʃi</i>	<i>niə</i>	<i>nasuŋ</i>	<i>wo</i>
they	two-PL	be	one	age	COP

‘They tow [sic.] are the same age.’

---

b. MO Santa, Üjjiyediin Chuluu (1994: 21)<sup>29</sup>

<i>biɕiən</i>	<i>gua</i>	<i>dzoʃəŋ-ni</i>	<i>eiŋla-dzi</i>	<i>xeifaŋ</i>	<i>iɕiə-ka-nə</i>	<i>giəsə</i>	<b><i>hə-la</i></b>	<i>əsə</i>	<i>irə-wo</i>
we	two	guest-ACC	invite-IPV	dinner	eat-CAUS-NPST	but	he-PL	NEG	come-PST

‘We invited two people for dinner, but they didn’t come.’

Finally, while Sinitic is argued to be one of the language families totally lacking a dual (Plank 2003: 256), Sandman discusses its existence in Wutun: “When talking about two persons, it is common to use the collective numeral *liang-ge*, ‘two together’ after the personal pronoun.” (Sandman 2016: 72). She observes that, like in Bonan, this marker has undergone a grammaticalisation and assumes a double function: synchronically, it may either correspond to a dual, or to a sociative marker,

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<sup>29</sup> Note that this example is consistent with Field’s remark that plural marker may co-occur with explicit numbers, if the referent is accessible and activated (Field 1997: 317).

the sociative function being statistically more common. Moreover, in Wutun, it is not fully integrated into the paradigm of number, since it may occur after a pronoun already marked as plural. Whether a pronoun or a noun-phrase referring to exactly two entities can bear the main plural morpheme (without *-liangge*) remains unclear. Thus, the grammaticalisation of a dual marker in Wutun is limited and debatable.

The other Sinitic languages of the area remain unaffected by this general tendency: no description of these languages mentions a dual marker.

The following table summarizes the grammaticalisation of dual in the languages of Amdo.

		Dual
SI	Xunhua Chinese	/
	Linxia Chinese	/
	Gan'gou Chinese	/
	Wutun	( <i>-liangge?</i> )
TU	Salar	<i>iʃgi-si</i>
	Western Yugur	<i>iʃki-si</i> Fully grammaticalised?
TB	Amdo Tibetan (Xunhua, Hualong & Rebkong)	<sup>y</sup> <i>ni</i>
MO	Qinghai (Rebkong) Bonan	= <i>ɤala</i>
	Huzhu Mongghul / Northern Monguor	<i>ghulo / Gula</i> Fully grammaticalised?
	Minhe Mangghuer / Southeast Monguor	<i>ghula</i> + At least one dual pronoun grammaticalised
	Santa / Dongxiang	/
	Shira Yughur	<i>ghula</i> + At least one dual pronoun grammaticalised

Table 3. Grammaticalised dual morphemes in Amdo

Hence, languages belonging to three different families have at least partially grammaticalised a dual morpheme in Amdo.

### 3.2 Paucal

A third number category found in several languages of Amdo is paucal. Paucal is defined as a plural morpheme marking noun-phrases that refer “to a small number of distinct real-world entities” (Corbett 2000: 22). It usually corresponds to a number of 3 to 5 entities but there is no specific upper bound: depending on the context it may be used with a greater number of entities. For instance, a noun phrase referring to 15 children in a schoolyard could be marked in paucal, if the speaker considers that this group is relatively small compared to her expectations (given that nowadays, schools in Amdo frequently gather hundreds of children).

Wutun, Salar, and Qinghai Bonan each have a paucal marker. In Wutun Sandman (2016: 45) observes: “The paucal *-jhege* is used for small numbers (usually three to four entities).” Similarly in Bonan, Fried (2010: 71) notes that:

“The status of the paucal enclitic =*bula* is not as clear-cut as that of the other number markers. It typically refers to three or four entities, but it is not absolutely constrained to this upper limit.”

In Salar, paucal is expressed by the morpheme *fɔ*, linked to the noun phrase with the possessive suffix. The examples in (20) contrast this morpheme with the main plural suffix *-lar*.

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(20) TU Salar, Xunhua, Yardzi, M46, elicited (2013)

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a.	<i>bu</i>	<i>xar</i>	<i>kifi-dʒik</i>	<i>bala</i>	<i>fɔ-sə-na</i>	<i>naŋ-dər</i>	<i>mi</i>	<i>orgət-ba</i>
	DEM	old	person-DEF	child	PAUC-3POSS-DAT	what-EQU	Q	teach-IPV.HET
	‘This old man is teaching something to a <b>few children</b> .’							
b.	<i>bu</i>	<i>xar</i>	<i>kifi-dʒik</i>	<i>bala-lar-a</i>	<i>naŋ-dər</i>	<i>mi</i>	<i>orgət-ba</i>	
	DEM	old	person-DEF	child-PL-DAT	what-EQU	Q	teach-IPV.HET	
	‘This old man is teaching something to <b>the children</b> .’							

From the morphosyntactic point of view, the paucal marker behaves like the dual marker. Its relation to the pronoun or the noun phrase is made explicit by the possessive suffix, but there can be no genitive marker on the first noun (example 21). This morpheme can also be morphologically independent and form the head of the noun phrase, as in example (22).

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(21) TU Salar, Xunhua, Yardzi, M47 (2014)

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<i>avu-dʒək</i>	<i>fɔ-sə</i>	<i>oson</i>	<i>var-dʒi-a</i>
boy-DEF	PAUC-3POSS	slowly	go-PV.DIR-PTCL
‘The (three) boys went slowly.’			

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(22) TU Salar, Xunhua, Yardzi, M47 (2014)

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<i>aaa</i>	<i>fɔ-si</i>	<i>var-dʒi</i>
PTCL	PAUC-3POSS	go-PV.DIR
‘Ah, they left.’		

Although the number of languages having the category of paucal is small, it is significant that, like in the case of the dual marker, they belong to three of the four linguistic groups that make up the Amdo Sprachbund, namely, Sinitic, Mongolic and Turkic. Moreover, a paucal category is not common in either Turkic (Johanson 1998: 38) or Sinitic languages, and, for the Mongolic family, it is only described in the languages that belong to the Amdo Sprachbund (Rybatzki 2003: 376).

### 3.3 *Collective and Exhaustive*

Following Corbett (2000: 33), exhaustive or global plural is defined as “all possible instances of the referent” whereas “Collective [...] indicates that [the entities referred to] should be considered

as a unit [...] The primary function of collective is to specify the cohesion of a group, sometimes manifested in joint activity.” (Corbett 2000: 118-119)

No clear distinction between collective and exhaustive functions could be found in the languages of Amdo: the same morpheme expresses the fact that all possible instances of the referent (in absolute or with regard to the speech situation) constitute a cohesive group.

For this function, specific morphemes are only found in the Amdo Tibetan varieties, where the morphemes *-rak(a)* (< ‘sort, species’) and *-fjenko* (< possessive nominalizer + definite) are used as specific collective-exhaustive plural morphemes:

(23) a. TB Amdo Tibetan, Rebkong, F38 (2017)					
ཁྱེ་ལོ་	ད་པོ་	ལ་ཡི་རྒྱལ་ས་གུ་	རྩོ་རྒྱ་	རྩོ་ཡོད་གི།	མོན་གུ་
<i>theke<sup>he</sup></i>	<i>tawo</i>	<i>faji-rak-gə</i>	<i>ʼtseɛɛ</i>	<i>ʼtse-jokə</i>	<i>hɔŋgə</i>
knucklebones	still	child-COLL-ERG	play-NMLZ.IRR	play-PERF.SENS	a.lot
‘Knucklebones, children still have played it, a lot.’					
b. TB Amdo Tibetan, Xunhua, Bimdo, M41 (2014)					
མི་མང་ཅན་པོ་	ཞེ་གུ་	དགའ་གི་ཡོད་གི་ཡུ།			
<i>ʰgaʰgi-fjenko<sup>30</sup></i>	<i>ɛegə</i>	<i>ʰga-kogə-ja:</i>			
old.people-COLL	very	like-IPV.SENS-PTCL			
‘Old people like [this kind of bread] a lot!’					

However, the main plural marker may also be used to refer to a whole class of entities, as shown in the next example:

(24) TB Amdo Tibetan, Xunhua, Bimdo, M41 (2014)				
བླ་ཚ་ཆ་པོ་ལ་	ད་	ལས་ཀྱི་	གཞིག་ར་	མེད་གི་
<i>wats<sup>h</sup>a-ʰu</i>	<i>ta</i>	<i>liʰka</i>	<i>ʰʃak-ra</i>	<i>mekə</i>
boy-PL.DAT	TOP	work	one-even	NEG.EXIST.SENS
[Comparing the amount of work done by men and women herders]				
‘As for men, they have no work at all.’				

Thus, the grammaticalization of exhaustive-collective plural markers in Amdo Tibetan remains limited. More research is also needed, in order to bring to light a potential dialectal or sociolectal distribution of the two exhaustive-collective plural markers in Amdo Tibetan. The other languages of the area don’t have any specific exhaustive-collective morpheme. For Gan’gou Chinese Yang (2014: 250) mentions that the main plural morpheme *mu* may also be used for collective-exhaustive, which is expected given that in Chinese, in general, the plural morpheme has a collective function (Iljic 2001: 11).<sup>31</sup>

<sup>30</sup> In several Amdo Tibetan varieties, the (originally) definite suffix *-po* is realised as /ko/ after alveolar consonants. In this paper, we opted for an etymological spelling, thus this phonologically conditioned allomorph is noted རོ.

<sup>31</sup> Iljic (2001: 26) further specifies that: “N-men is definite. Thus, *bàizimen* does not refer to ‘some children’ nor to ‘children in general’, but to ‘the children identified in the context’. Hence, it is collective, rather than exhaustive.

However, a typologically less common phenomenon has to be noted: in several languages, not the main plural marker but the dual or the paucal marker assumes the function of an exhaustive-collective marker. Hence, in Wutun, Sandman notes:

The paucal *-jhege* is used for small numbers (usually three to four entities). It can also be used to refer [to] **generic groups that comprise a whole class of entities**. (Sandman 2016: 45-46)

While paucal is typically used for small numbers, it can also be used for large numbers when the noun refers to **[a] generic, unlimited group that comprises the entire class of entities**. The plural, on the other hand, refers to specific, limited groups that comprise only some particular members of the class of entities. (Sandman 2016: 48-49, emphasis added)

A similar syncretism is observed in Salar, where the paucal marker *fɔ* can be used for collective-exhaustive. In this case, the noun phrase marked with *fɔ* does not necessarily refer to a small number of entities.

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(25) a. TU Salar, Xunhua, Yardzi, M46, elicited (2013)

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<i>bala</i>	<i>fɔ-si</i>	<i>jumax</i>	<i>ojna-ba</i>
child	PAUC-3POSS	ball	play-IPV.HET

‘The children are playing ball.’  
(i.e. all the children in the given situation)

---

b. TU Salar, Xunhua, Yardzi, M46, elicited (2013)

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<i>kidzi-si</i>	<i>fɔ-siŋ</i>	<i>iline</i>	<i>gel</i>	<i>džadak-ə</i>	<i>fɔ-siŋ</i>	<i>ardžina</i>	<i>var</i>
small-3POSS	PAUC-2POSS	front.DAT	come.IMP	big-3POSS	PAUC-2POSS	behind-DAT	go.IMP

‘(All) the small ones, come in front! (All) the big ones, go behind!’

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c. TU Salar, Xunhua, Yardzi, M46, elicited (2013)

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<i>menige</i>	<i>su</i>	<i>fɔ-si</i>	<i>mānda</i>	<i>qoj-dži</i>
1POSS	book	PAUC-3POSS	DEM.LOC	put-PV.DIR

<i>bala-nige-nə</i>	<i>dju</i>	<i>elende</i>	<i>qoj-dži</i>
child-GEN-ACC	PTCL	that.side.LOC	put-PV.DIR

‘I put (all) my books here. And I put the children’s [ones] over there.’

A different situation is found in Mongghul. In this language, the collective-exhaustive function is performed by the dual marker (rather than a paucal marker):

Ghulo is usually used as an inclusive plural (for talking about two people), and for large groups it seems more customary to use postpositive numbers or quantifiers [...]. But there are a few cases where *ghulo* seems to act as an “all” plural. (Dwyer & Politzer-Ahles, forthcoming: 9)

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(26) MO Mongghul, Dwyer & Politzer-Ahles (forthcoming: 9)

---

<i>ai,</i>	<i>ghadim</i>	<i>ghuloni</i>	<i>ayilni</i>	<i>cogloji</i>
PTCL	all.villagers	two.NUM.COLL-ACC	village-LOC	gather-VBLZ-IPV

‘Ah, they gathered all the villagers together in the village.’

Hence, four languages, belonging to all the four language groups of Amdo, grammaticalize the collective-exhaustive plural, either with a specific morpheme, as in Amdo Tibetan, or as a secondary function of the paucal or the dual morpheme. The fact that the same morpheme may express either a relatively small number of entities or a whole class of entities may appear counter-intuitive. However, both meanings can be semantically related, considering that paucal refers to ‘a small group’ of entities (and dual ‘a group of two’ entities). Thus, the semantic features of such morphemes comprise both the specific reference to a relatively small number of entities, and the fact that these entities form a group. It can therefore be assumed that the originally dual morpheme of Mongghul has evolved to specifically emphasize the fact that the two entities form a group and to focus on the fact that each of them are referred to. The meaning can therefore be reinterpreted as collective or exhaustive. The same change can be hypothesized for the paucal, grammaticalized from a construction originally meaning ‘three’ or ‘some’:

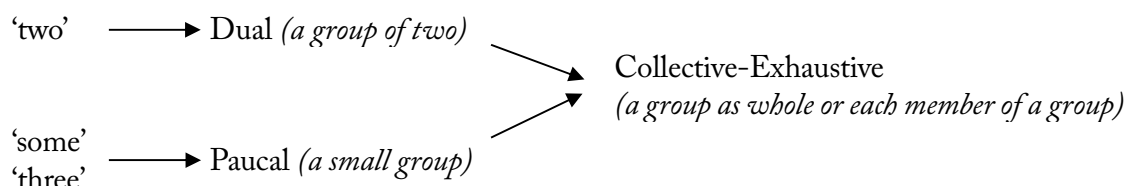


Figure 2. Grammaticalisation path from Dual and Paucal to Collective-Exhaustive

The grammaticalisation of collective-exhaustive plural by extending the use of the paucal or the dual morpheme rather than, or in concurrence with, a quantifier is typologically uncommon. Whether the fact that three genetically unrelated languages of Amdo tend to follow this pattern is significant and should be considered as the result of areal convergence is open to discussion. A similar syncretism is observed by Hahn (2005: 40-41) in Classical Tibetan, who notes that the collective plural marker <dag><sup>32</sup> originally expresses collective, and, through its use to express collective entities that naturally occur in pairs (such as ‘eyes’), extended to become the standard translation of the Sanskrit dual. Thus, the reverse extension from collective to dual is also possible. The source-language for this convergence remains unclear and would deserve more systematic research in the languages for which this feature is not documented.

#### 4 Marginal Plural Categories

On top of the plural categories mentioned above, several languages of Amdo possess two other plural forms: multiple types and associative plurals. They are marginal in the paradigm of number, either because of their morphological form or because they may partially combine with other number morphemes.

<sup>32</sup> This morpheme is unattested in the Amdo-Tibetan varieties taken into account in this paper, but it is frequent and seems to correspond to the main plural marker in Rmachu (ch. Maqu) Amdo Tibetan varieties, in the southern part of the Gansu Province.

#### 4.1 Multiple Types Plural

In Amdo, the multiple types plural is typically marked by a reduplication pattern, identical across the different languages. This type of plural marking is labelled “distributive plural” by authors such as Corbett and Cruse, who defined it as follows:

Distributives mark the separation of members of a group [...]. Each is considered distinct in space, sort, or time. Distributive marking on nouns has two primary functions: it may spread (distribute) entities over various locations or over various sorts (types). (Corbett 2000: 111-112)

Basically, a distributive plural refers to a plurality of kinds or types (loosely interpreted), normally without regards to the numbers of individual of each kind. (Cruse 1999: 267)

In this paper, however, we avoid the label “distributive”, as it creates confusion with another use of the term “distributive”, in constructions such as *I gave the children one fruit each*. (as opposed to *I gave the children one fruit*.) To paraphrase Corbett’s definition, in the languages examined here, the distributive meaning is restricted to a distribution over various types only, thus, for the sake of clarity, we call it “multiple types plural”.

In several languages of Amdo, the multiple types plural usually has a depreciative connotation. It is expressed by the reduplication pattern [noun + M~REDUPL], where the initial consonant or consonant cluster of the reduplicated form is replaced by /m/. This pattern, with the initial /m/ on the second occurrence of the reduplicated form, originates from Turko-mongolic (cf. Müller (2004: 278), quoting Ramstedt (1952: 250-251)). Reduplication patterns to express plurality, or even multiple types plural are widely attested in the languages of the the world, and would not be considered as a potential areal feature, were it not for the presence of this initial /m/, that makes the reduplication pattern strictly identical in the Amdo Tibetan varieties.

As for the Turkic languages, this pattern is found in Western Yugur (Roos: 79) and in Salar. In Salar, if the reduplicated noun already starts with /m/, the following vowel is labialized.

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(27) a. TU Salar, Movie<sup>33</sup>

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<i>gafə</i>	<i>mafə</i>	<i>bər</i>	<i>ʃək-be-magə</i>	<i>jo</i>
speech	REDUPL~speech	INDEF	go.out-APPL-NEG.IMP	PTCL
‘Don’t tell us all kind of stuff!’				

---

b. TU Salar, Xunhua, Yardzi, M46, elicited (2013)

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<i>maylə</i>	<i>muylə</i>
bean	REDPUL~bean
‘all sorts of beans, beans and the like’	

---

<sup>33</sup> This example comes from the dialogues of Chinese entertainment movie directed by Feng Xiaoning, which was later dubbed into Salar by an unknown group of Salar people, The movie is entitled *Qolungtixdigbil* ‘Hands up’ in Salar.

This reduplication pattern was copied in Amdo Tibetan, but it is notably absent in the Tibetic varieties outside of the contact area with Mongolic (and Turkic) speakers.

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(28) TB Amdo Tibetan, Hualong, Ashnu, F60 (2012)

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དཀར་ཡོལ་	མར་ཡོལ་
<sup>h</sup> <i>kaju</i>	<i>maju</i>
cup	REDUPL~cup
'All kinds of cups, many cups'	

Some of the Mongolic languages of the area have preserved this reduplicated form to express multiple types plural, for instance, in Santa/Dongxiang (Kim 2003: 353).<sup>34</sup> In Bonan, according to Fried (2010: 84), this reduplication pattern expresses “annoyance or a negative feeling toward the referent”. Two of the three examples provided clearly correspond to the multiple types plural:

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(29) a. MO Bonan, Fried (2010: 84)

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<i>pə</i>	<i>kaɕoŋ</i>	<i>m-aɕoŋ=da</i>	<i>ələ</i>	<i>gakə-na</i>
1SG	sour	REDUPL~sour=LOC	NEG	like-DUR
'I don't like sour stuff.'				

---

b. MO Bonan, Fried (2010: 84)

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<i>mərku</i>	<i>m-ərku</i>	<i>oloŋ</i>	<i>wa</i>
clothing	REDUPL~clothing	many	COP.OBJ
'There is clothing (and junk) everywhere!'			

But one example, reproduced in (30), is translated in singular:

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(30) MO Bonan, Fried (2010: 84)

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<i>χapa</i>	<i>m-apa</i>
dog	REDUPL~dog
'That dog!'	

However, one could wonder whether this example specifically refers to the neighbour's dog or whether it could be more generic ('these dogs and all these annoying and useless animals...')<sup>35</sup>. Given that this reduplication pattern for multiple types plural originates from the Turko-Mongolic languages, more research would be necessary to assess whether this form has partially lost its multiple types meaning or not. In this language, simple reduplication [noun + noun] also has a multiple types meaning.

Huzhu Mongghul, Minhe Mangghuer and Shira Yugur seem to have lost this reduplication pattern. No evidence for any specific morphological marking of multiple types plural have been found for Minhe Mangghuer and Shira Yugur. In Mongghul / Northern Monguor, multiple types plural is

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<sup>34</sup> Field (1997: 187) also provides examples of the same type of reduplication of adjectives, rather than nouns.

<sup>35</sup> Fried (Online conference, 13/09/2019) agreed that this example might well have had a generic, rather than a specific, singular reference.

expressed by the suffix *-mange* (transcribed as an independent morpheme *mangi* or a suffix *-mangi* by Dwyer & Politzer-Ahles, forthcoming):

A further number marker is *-mange*, which indicates a generic plural ('and other such things'), e.g. *dereni sgee.mange haaʒi iiguna* 'he covered himself with felt and some other stuff'. (Georg 2003: 295)

The following table summarizes how the multiple types plural is expressed in the languages of Amdo. As it clearly appears, this reduplication pattern is not mentioned in any description of the Sinitic languages of the area: it has apparently not been copied in any language of this family, even in Wutun.

		Multiple types plural
SI	Xunhua Chinese	/
	Linxia Chinese	/
	Gan'gou Chinese	/
	Wutun	/
TU	Salar	noun+M-REDUPL
	Western Yugur	noun+M-REDUPL
TB	Amdo Tibetan (Xunhua, Hualong & Rebkong)	noun+M-REDUPL
MO	Qinghai Bonan (Rebkong)	noun+M-REDUPL noun+REDUPL
	Mongghul / Northern Monguor	<i>-mange</i> (or <i>mangi</i> , <i>-mangi</i> )
	Minhe Mangghuer / Southeastern Monguor	/
	Santa / Dongxiang	noun+M-REDUPL
	Shira Yughur	/

Table 4. The multiple types plural in Amdo

Thus, there is a double dynamic of convergence with respect to the multiple types plural: Amdo Tibetan converges towards Turkic-Mongolic by copying the reduplication pattern, whereas some Mongolic languages converge towards Sinitic by losing this morphological pattern.

#### 4.2 Associative Plural

An associative plural marker is used to refer to one (main) entity together with the other entities frequently associated with this main entity (cf. Corbett 2000: 101). This function is illustrated by the following examples.

(31) Ifugao, Austronesian (Creissels 2006: 124)	
a. <i>ama hin-ama</i> 'father' 'father and son(s)'	b. <i>basu hin-basu</i> 'cup' 'the cup and its content'

In most of the languages of Amdo (with the notable exception of Gang’ou Chinese), the associative plural is restricted to human referents. Whether associative plural markers truly belong to the paradigm of number is disputed. Corbett shows that, at least in some languages, it may combine with dual or plural markers, and thus, belongs to a distinct paradigm.

In Amdo Tibetan, which is the model language from which this category has spread in the Amdo Sprachbund, the associative plural morpheme has a complementary distribution with the other markers of plurality. Hence, the morpheme *-ts<sup>h</sup>añ*, (and its unconditioned allomorphs *-zañ* and *-sañ*) is obligatorily used to express the associative plural. Etymologically, this morpheme originates from the grammaticalisation of the noun ཚང་ <tshang> ‘nest’<sup>36</sup> and/or the verb ཚང་ <tshang> ‘to be complete’, and it is distinct from the other plural morphemes. It may appear with pronouns (ex. 32), proper names (ex. 33) and common nouns (ex. 34).

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(32) TB Amdo Tibetan, Xunhua, Dobi, F19 (2012)

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ཨ་བ་-གིས་	དྲ	ལྷ་ཚང་-གི་	[...]	ལྟ་	རྒྱག་-གོ་གི
<i>apa-ki</i>	<i>ta</i>	<i>k<sup>h</sup>ə-t<sup>h</sup>añ-kə</i>	[...]	<i>ˈɖa</i>	<i>ˈɖak-kokə</i>
father-ERG	TOP	3-ASS.PL-GEN		picture	LIGHTV-IPV.SENS
‘The father takes a picture of his [family].’					

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(33) TB Amdo Tibetan, Paris, M40, elicited (2018)

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ལྷ་ལུམ་ཚེ་རིང་-ཚང་-གིས་	ཁ་སང་	ཏུ་	མི་-བཀལ་-ནི་ཨི་རེད།
<i>ˈlə<sup>m</sup>bəmts<sup>h</sup>erəŋ-t<sup>h</sup>añ-gə</i>	<i>k<sup>h</sup>aˈtɕəŋ</i>	<i>rə</i>	<i>mə-ˈkwa-nəere</i>
L.-ASS.PL-ERG	yesterday	tent	NEG-move-GENER.FACT.Q
‘Didn’t Ləmbəm Tserangs [i.e. his family] move their camp yesterday?’			

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(34) TB Amdo Tibetan, Paris, M40, elicited (2018)

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ལྷོ་འུ་	ཨ་ཚེ་-ཚང་-གི་	ཁང་བ་	གང་	རེད།
<i>ʃ<sup>h</sup>u</i>	<i>aɣ<sup>h</sup>e-zañ-kə</i>	<i>k<sup>h</sup>oŋwa</i>	<i>kaŋ</i>	<i>re</i>
2SG.GEN	elder.sister-ASS.PL-GEN	house	what	EQU.FACT
Which house is your elder sisters’ [i.e. her family’s]?’				

This morpheme is widely attested in the whole Tibetan speaking area. It can be found in clan names in- and outside of Amdo, and adding this suffix to one’s father’s or village’s name is one of the most common Tibetan strategies to create a family name.<sup>37</sup> Thus, this suffixation process remains transparent to the speakers and fully productive.

It should be noted that none of the Turkic languages of Amdo has developed a specific morpheme to mark associative plural. In Salar, as well as in Western Yugur, associative is expressed by the main plural morpheme (resp. *-lA(r)* and *-LAr*):

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<sup>36</sup> This lexeme is synchronically widely spread among the Tibetic languages to refer to a nest or other animal habitat. See also Tournadre & Suzuki (forthcoming: 241).

<sup>37</sup> When a patronym becomes required, for instance, in the context of migration.

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(35) a. TU Salar Ma, Ma & Stuart (2001: 8, §1,1)

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*Qaramaŋ-lar*    *fıq-gile*            *bidži*    *vo-mi-yan*  
 Q.-PL            go.out-CONV    a.bit    become-NEG-NMLZ  
 ‘Not long after Kharimang (and his followers) left (Samarkand), [...]’

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(35) b. TU Western Yugur, Zhong (2019: 214)

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*Sutjis-lar*                    *gel-də*  
 Sutjis-PL                    come-PST  
 ‘Sutjis and other people came over (or Sutjis and her associates came over).’

This use of the plural suffix is similar to what is found, for instance, in Turkish (Csató & Johanson 1998: 209)<sup>38</sup>. The Turkic languages of Amdo do not differ from other Turkic languages in this respect.

In Sinitic, Iljic (2001: 29-31) notes that the plural marker *-men* may occur with proper names to express associative plural, although it is rare, synchronically, and speakers prefer to use another, specific morpheme, *-tamen*, for this function. For Qinghai Chinese, Li (1987: 27-28) mentions that, like in the Turkic languages, the main plural morpheme can be added to a noun phrase, in order to refer to a group of people associated to this person (e.g. ‘my fathers’ = people associated with one’s father). Yang (2014: 246) mentions the possibility of extending the main plural marker in Gang’ou Chinese to express the associative plural with proper nouns, but also in noun phrases referring to inanimates, such as ‘table’. In the following example, (like in the Ifugao example (31)b. above), the associative plural marker may be paraphrased as ‘and the other things that usually go together with the tables:

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(35) c. SI Gan’gou Chinese, Yang (2014: 246)<sup>39</sup>

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今兒 個客人 多 啊 學校 些 桌子 們 哈 搬 著 來 了 坐 給。  
 today guest many PTCL school some table PL ? move get come PV sit give  
 ‘We have a lot of guests today, so we have brought some tables, benches, etc. to the school.’

In Wutun, a specific morpheme *-mu* (allomorph: *-n*) is suffixed to personal pronouns to express the associative plural:

Collective<sup>40</sup> plural personal pronouns, on the other hand, refer to ‘person and his/her associates.’ They are used to indicate intimately connected, collective groups of people, most typically village or family. The speakers of Wutun also refer to their own language with the term *nga-n-de hua* 1-COLL-ATTR speech, ‘our speech’. [...] The collective-non-collective distinction is most common with first person, but it also occurs frequently with third person (the second person collective forms are rare in my data). (Sandman 2016: 71-72)

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<sup>38</sup> The authors also mention the existence of another, less common suffix: “*-gil* can also be used in some registers with the same meaning, e.g. *Abmetgil* ‘Ahmet and his family.’”

<sup>39</sup> Yang does not provide phonological transcription or word-by-word translation, thus, glossing (and possible errors) is mine. The function of one morpheme could not be identified.

<sup>40</sup> Although this form is labelled “collective”, the definition provided by Sandman seems to correspond closely to the definition adopted here for associative plural.

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(36) SI Wutun, Sandman (2016: 71)

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*nga-mu gu qhichai mai-she-ma-li*  
 1SG-ASS.PL that car buy-RES.AG-RES.PA-SENS.INF  
 ‘We (our whole family) bought that car.’

The descriptions of the other Sinitic language of the area do not mention associative plural.

A more interesting case in this respect is Bonan, the only Mongolic language possessing both specific associative plural pronouns<sup>41</sup>, like Wutun, and also a grammaticalised associative plural enclitic, which occurs on noun phrases. In this language, the Tibetan morpheme *ts<sup>h</sup>añ* has been copied to perform the same functions as in Amdo Tibetan:

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(37) MO Bonan, Fried (2010: 75)

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*nudə pətəla t<sup>h</sup>añk<sup>h</sup>a p<sup>h</sup>itətəə=ku k<sup>h</sup>oŋ=ts<sup>h</sup>añ=da o-gi*  
 today 1PL.EXCL tangka.painting write=IPV.NMLZ people=family=LOC go-FUT.SUBJ  
 ‘We are going to the family of the person who paints (lit. ‘writes’) tangka paintings today.’

Fried does not gloss *=ts<sup>h</sup>añ* as a grammatical morpheme but he explicitly indicates that it cannot be used an independent lexeme: when referring to a ‘family’, *teəmsan*, another lexeme of Tibetan origin, is used instead. Contrary to Amdo Tibetan, in Bonan, this morpheme does not belong to the paradigm of number *stricto sensu*: it may occur together with numerals and/or plural enclitics, such as the paucal in the following example:

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(38) MO Bonan, Fried (2010: 76)

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*ateañ ta=ɸula=ts<sup>h</sup>añ=nə gojoχ-gə-təə*  
 3SG 2=PAUC=family=ACC cheat-VBLZ-PV  
 ‘He cheated you few families.’

In such cases, the associative plural has scope over the plural marker. The function of the morpheme *=ts<sup>h</sup>añ* is distributed over each referent of the pluralized noun phrase: ‘He cheated the people usually associated with (i.e. the family of) each of the few of them.’ Bonan is the only Mongolic language of Amdo to have copied the Tibetan associative plural morpheme. Despite some morphosyntactic specificities, the associative plurals are still very similar, both morphophonologically and functionally in the two languages.

Another similarity between the two languages is indeed to be found in the secondary use of this morpheme as an honorific marker. This function can be easily derived from the fact that this marker is attached to the most prominent member of a group, often corresponding to the one socially deserving respect. In Amdo Tibetan, the morpheme *-ts<sup>h</sup>añ* may indicate associative plural, like in examples (32) to (34), but also honorific, without any plural reference:

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<sup>41</sup> Like in Sandman’s description of Wutun, these pronouns are labelled “collective” (Fried 2010: 117-120).

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(39) TB Amdo Tibetan, Paris, M40, elicited (2018)

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ཇ་ལགས་ཚང་གི	དབུ་ལྗ
<i>alak-ts<sup>h</sup>ay-kə</i>	<i>ʌəfa</i>
Rinpoche <sup>42</sup> -ASS.PL-GEN	hat.H
'Rinpoche's hat' (NOT: Rinpoche and his retinue's hats)	

In Bonan, a similar use is described, although the plural meaning seems to be always preserved:

The use of =*ts<sup>h</sup>ay* is most commonly dictated by constraints of politeness. It is inherently plural, and it is the most common way to show respect when speaking about an interlocutor's family members or matters relating to an interlocutor's family. Fried (2010: 75)

As mentioned above, Qinghai Chinese, as analysed by Li (1987), makes use of the main plural morpheme to express associative plural. This author also mentions an honorific function, performed by plural marker *-mu*<sup>43</sup>. Whether the development of this honorific function is related to the associative plural or corresponds to a more universal tendency remains to be examined in greater detail, but it nevertheless participates in the convergence process.

Hence, associative plural is grammaticalised to some extent in three languages of the area, belonging to three different language groups. Although this category remains infrequent in Amdo, at least in Bonan its development should clearly be related to the contact with Amdo Tibetan. In the case of Wutun, the role of Amdo-Tibetan as a model language for the grammaticalisation of this category is more doubtful, given the structural differences between the two languages.

## 5 The Dynamics of Convergence in the Domain of Plurality

To conclude this examination of the grammaticalisation of plurality in Amdo, the extent to which similarities between the different languages can be attributed to areal convergence will be discussed. This last section will finally examine the respective contribution of the four language groups of Amdo, in this domain.

### 5.1 Number Categories and Plural Morphemes in Amdo: Summary

The preceding sections analysed and illustrated the morphemes associated with the different categories of number, and their morphological and functional specificities. These observations are summarised in table 5 below. Specific suffixes or enclitics for a given category are noted with an X, followed by a digit indicating the number of (conditioned or unconditioned) allomorphs. Additional digits in parentheses stand for marginal, rare morphemes. Some categories are encoded by specific pronoun(s), indicated as such in the table. In the case of collective-exhaustive and associative plural,

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<sup>42</sup> *Alak* is the Amdo Tibetan form of the Common and Written Tibetan title *Rinpoche* ('precious one'), used to refer to high religious figures.

<sup>43</sup> “‘们’加在名词后面，给句子赋予一种尊敬、委婉的语义色彩。”“们” is added after the noun to give the sentence a respectful and euphemistic semantic color.”(Li 1987: 28)

the table indicates the other function assumed by the morpheme used for this function. Finally, empty boxes indicate that the corresponding number category is not grammaticalised in the given language. We can expect that the main plural marker takes over these functions, but the descriptions consulted do not provide explicit information on this question.

		Main plural	Dual	Paucal	Collective-Exhaust.	Associative plural	Mult. types plural
SI	Qinghai Chinese	X <sub>2</sub>				Main pl.	
	Xunhua Chinese	X <sub>1</sub>					
	Linxia Chinese	X <sub>1</sub>					
	Gan'gou Chinese	X <sub>1</sub>			Main pl.	Main pl.	
	Minhe Chinese	X <sub>1</sub>					
	Wutun	X <sub>3</sub>	(X <sub>1</sub> ?)	X <sub>1</sub>	Paucal	Pronouns	
TU	Salar	X <sub>4</sub>	X <sub>1</sub>	X <sub>1</sub>	Paucal	Main pl.	REDUPL
	Western Yugur	X <sub>6</sub>	X <sub>1</sub>			Main pl.	REDUPL
TB	Amdo Tibetan (Xunhua, Hualong & Rebkong)	X <sub>4</sub>	X <sub>1</sub>	“Main” pl.	X <sub>2</sub> + “Main” pl.	X <sub>1</sub>	REDUPL
MO	Qinghai Bonan	X <sub>1</sub>	X <sub>1</sub>	X <sub>1</sub>		Pronouns + X <sub>1</sub>	REDUPL
	Huzhu Mongghul / N. Monguor	X <sub>2 (+5)</sub>	X <sub>1</sub>		Dual		X <sub>1</sub>
	Minhe Mangghuer / SE Monguor	X <sub>1</sub>	X <sub>1</sub>		Pronoun?		
	Santa / Dongxiang	X <sub>1 (+3)</sub>					REDUPL
	Shira Yughur	X <sub>2 (+1)</sub>	X <sub>1</sub>				

Table 5. The grammaticalisation of plural categories in Amdo

In this table, we can see that even though no language of the area grammaticalises independently the six number categories, five of the eleven languages, belonging to all four language groups (namely: Wutun, Salar, Amdo Tibetan, Qinghai Bonan and Huzhu Mongghul) possess a specific morpheme (or a particular use pattern, for collective-exhaustive) for four to five categories. This development of several subcategories of plural in Amdo has probably been facilitated by the fact that most languages possess a number of allomorphs, which can be a basis for reanalysis and functional remotivation, and thus, lead to the development of new number categories.

## 5.2 *A Convergence from Multiple Model-languages*

The last part of this paper will summarise the respective contribution of the different language groups in this domain. And in fact, the similarities observed are the result of a convergence from multiple model-languages, synthesised in figure 3.

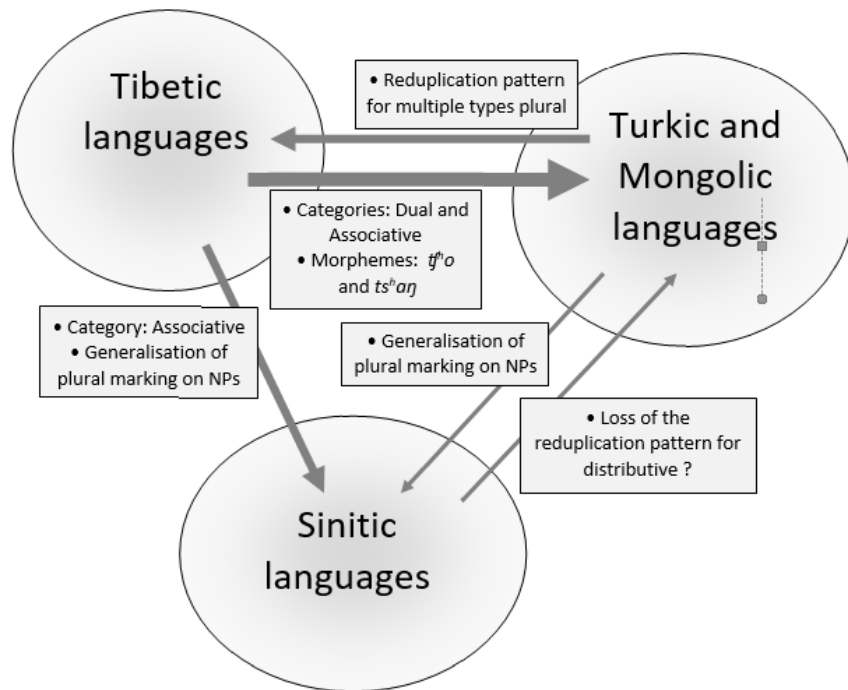


Figure 3. The dynamics of convergence in the domain of number

Arguably, the Tibetic languages are the model language for the development of associative plural in the neighbouring languages. There is little doubt for that in the case of Bonan, where the grammatical category has been copied together with the corresponding Tibetan morpheme  $-tsʰaŋ$ , and the secondary honorific function. The case of Wutun is less certain, given the specificities of the category in this language. A joint influence of Amdo Tibetan and Bonan (both languages being spoken in the Rebkong area), and/or an independent development could be hypothesized. Nevertheless, this category is shared by all the Tibetic languages,<sup>44</sup> whereas it is not attested in other Sinitic or Mongolic languages outside Amdo. Thus, this category ultimately comes from Tibetic.

Amdo Tibetan could also be the model language for the development of the dual category. Whereas it is uncommon in Turkic, Mongolic and Sinitic languages, it is attested in other Tibetic languages outside of Amdo: e.g. in Lhasa/Standard Tibetan (Simon 2016: 259-260) but also in Classical Tibetan. Hence, several examples of dual pronouns from Milaraspa's biography can be found in Hill (2007), and similar examples in Old Tibetan can also be found in Hill (2010). Thus, Amdo Tibetan could be the model language for the development of this category in the neighbouring languages. However, it should be noted that this category is also typologically common<sup>45</sup> and could also represent independent innovations in the respective languages, or result from a combination of language contact and language-internal and factors.

<sup>44</sup> Usually with the morpheme <tshang>, but not always. For instance, in Purik, a Tibetic language spoken in Northern India, the morpheme <pa> is used for this function (Zemp 2018: 112)

<sup>45</sup> Especially if languages have a paucal category, cf. Number Hierarchy (and its critique) in Corbett (2000: 38-50).

Typologically less common is the syncretism between paucal (or dual, in the case of Mongghul) and collective-exhaustive. There is no evidence of any model-language for this linguistic feature either.

It seems also reasonable to assume that the paucal marker *-ʃ<sup>h</sup>o* in Salar is a phonological copy<sup>46</sup> of the Tibetan main plural marker *-ʃ<sup>h</sup>o*, reanalysed as a paucal marker. The hypothesis that, like in Bonan, this morpheme might be the result of the grammaticalisation of the numeral three *u<sup>h</sup>ʃ(ə)*, seems less plausible, since it would require an explanation for the phonological changes, and especially the loss of the initial vowel (even when the preceding word ends with a closed syllable). A third, even less plausible hypothesis would be the grammaticalisation of the southwestern (Oghuz) Turkic quantifier *ʃok* ‘a lot’ into a paucal marker. Not only the contradictory semantics, but also the fact that this lexeme is otherwise unattested in Salar, and that one should explain the loss of the final consonant /k/ (otherwise well attested in the coda of several lexical and grammatical morphemes) are not in favour of this explanation. Assuming that the morphophonological form of the paucal marker in Salar originates from Amdo Tibetan, this is a case of partial copy: Salar speakers made use of Tibetan material to develop a functional category attested in the neighbouring Sinitic and Mongolic languages. Moreover, there are also morphosyntactic differences between the original and its copy, since it requires the possessive suffix *-sI* in Salar.

The paucal category is also attested in Wutun and in Bonan. It has developed in three genetically distinct languages, all of them spoken next to Rebkong. However, paucal is not typical of any of these language families. Hence, it is an innovation in the languages of Amdo, for which a model language could not be identified.

The extension of plural marking to noun phrases, and even noun phrases referring to inanimates, in Sinitic languages can be attributed to the combined influence of Tibetic and Turko-Mongolic languages.

Sinitic, in turn, might be responsible for the loss of the reduplication pattern for multiple types plural in several Mongolic languages spoken in the north-eastern part of the Tibetan plateau (even though the preservation of this pattern in Western Yugur should be noted). Conversely, this reduplication pattern diffused in all the varieties of Amdo Tibetan. The wide diffusion of this reduplication pattern in Amdo Tibetan tends to indicate an early diffusion, and makes this language family less likely than Sinitic to be the model-language for the loss of this pattern in some Mongolic languages of Amdo. This double process does not lead to a general convergence, but to the restructuration of the distribution of this linguistic feature across language families.

Hence, the analysis of plural categories in the languages of Amdo shows complex processes of linguistic copying and areal convergence. Even though the way this grammatical domain is structured is not identical throughout the languages analysed here, several similarities were brought out and the very fact that plurality is structured in a complex way could, itself, be considered to be an areal feature of the Amdo linguistic area.

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<sup>46</sup> This analysis follows the model of code-copying developed by Johanson (1992).

## ABBREVIATIONS

1	first person	INF	inferential
2	second person	INTENS	intensive
3	third person	IPV	imperfective
ABL	ablative	IRR	irrealis
ACC	accusative	LIGHTV	light verb
AG	agent	LOC	locative
APPL	applicative	NEG	negative
ASS	associative	NMLZ	nominalizer
CAUS	causative	NPST	non-past
CL	classifier	NUM	numeral
COLL	collective	OBJ	objective perspective
COND	conditional	PA	patient
CONV	converb	PAUC	paucal
COP	copula	PERF	perfect
DAT	dative	PHAT	phatic
DEF	definite	PL.STEM	plural stem
DEM	demonstrative	PL	plural
DIR	direct (evidential)	POSS	possessive
DU	dual	PROG	progressive
DUR	durative	PST	past
EGO	Egophoric	PTCL	discourse particle
EMPH	emphatic (discourse particle)	PV	perfective
EQU	equative	Q	question particle
ERG	ergative	REC	reciprocal-collective
EXCL	exclusive	REDUPL	reduplication
EXIST	existential	REFL	reflexive
FACT	factual (evidential)	RES	resultative
FUT	future	SENS	sensory (evidential)
GEN	genitive	SG	singular
GENER	generic (tense-aspect)	STAT	stative
H	honorific	SUBJ	subjective perspective
HET	heterophoric	TM	temporal marker
IMP	imperative	TOP	topicalizer
INDEF	indefinite	VBLZ	verbalizer
INDIR	indirect (evidential)		

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